Abstract

This study examines the effects of ethnic fractionalization, ethnic polarization and cultural fractionalization on countries' respect for physical integrity rights by performing comprehensive statistical analyses on cross-section time series data covering the period 1991 to 2016. To measure ethnic fractionalization and ethnic polarization I use data from the Composition of Religious and Ethnic Groups (CREG) project, which varies over time as opposed to other commonly used measures of ethnic fractionalization. I also use a measure of cultural fractionalization based on linguistic differences between ethnic groups. How ethnic diversity affects countries economic and social outcomes is one central question in the debate on why some states are economically and politically successful while others are not. My results provide no support for ethnic fractionalization, ethnic polarization or cultural fractionalization having a negative effect on countries' respect for physical integrity rights. My results also show that ethnic fractionalization and ethnic polarization has a curvilinear effect on countries' respect for physical integrity rights. This shows that ethnic and cultural diversity does not necessarily lead to negative outcomes.

Sammendrag

Denne oppgaven undersøker effekten av etnisk fraksjonering, etnisk polarisering og kulturell fraksjonering på lands respekt for retten til fysisk integritet ved å gjennomføre omfattende statistiske analyser på paneldata som dekker perioden 1991 til 2016. For å måle etnisk fraksjonering og etnisk polarisering bruker jeg data fra the Composition of Religious and Ethnic Groups (CREG) project, som er basert på tidsseriedata i motsetning til andre ofte brukte mål for etnisk fraksjonering. Jeg bruker også et mål for kulturell fraksjonering basert på lingvistiske forskjeller mellom etniske grupper. Hvordan etnisk mangfold påvirker lands økonomiske og politiske utfall er et sentralt spørsmål i debatten om hvorfor noen land oppnår økonomisk og politisk suksess mens andre ikke gjør det. Mine resultater gir ingen støtte for at etnisk fraksjonering, etnisk polarisering eller kulturell fraksjonering har negative konsekvenser for lands respekt for retten til fysisk integritet. Resultatene mine viser også at etnisk fraksjonering og polarisering har en kurvelineær effekt på lands respekt for retten til fysisk integritet. Dette viser at etnisk og kulturelt mangfold ikke nødvendigvis fører til negative utfall.

Contents

Introduction

The gap between rich and poor states keep growing (Passé-Smith, 2014). In the past decades, it was thought that poor countries would catch up with the rich because capital would flow from rich to poor areas. This has not happened. Much literature has been devoted to the question of why some states are economically and socially successful, while other states are not. One central question in this debate is how ethnic diversity affects countries economic and social outcomes. Several authors argue that ethnic diversity has negative consequences both economically and politically (Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003; Alesina, Easterly, & Matuszeski, 2011; Dahl, 1971; Easterly, 2006; Easterly & Levine, 1997; Lind, 1994; Mill, 2011). The argument is often that this is a result of ethnic diversity leading to coordination failure and the lack of a common identity and common interests. Those who disagree with this view often argue that ethnic diversity could lead to positive outcomes through people organizing in groups that serves as a check for no single group to gain power and thus to serve only the interests of its own group (Acton, 1909; Collier, 2001; Etzioni, 1992; Park, 1987).

Much attention is often given to Africa when it comes to investigating the different outcomes of development. A continent often characterized by mass poverty and conflict. However, despite the widespread view of African failure, there are some stories of success. One of these stories is the one of Botswana. A country that used to be one of the poorest countries in the world, but later become one of the fastest growing countries in the world and today has one of the highest per capita incomes in sub-Saharan Africa (World Bank, 2018).

What is the reason behind Botswana's success despite the failure of so many other states in the region? In their book, *Why Nations Fail*, Acemoglu and Robinson (2012, pp. 409-410) argue that Botswana managed to succeed by "quickly developing inclusive economic and political

institutions after independence" at the critical juncture of independence. These institutions enforced property rights, ensured macroeconomic stability, and encouraged the development of an inclusive market economy. According to Acemoglu and Robinson, these institutions were building on pre-colonial institutions "enshrining limited chieftaincy and some degree of accountability of chiefs to the people" (p. 411).

However, Botswana is not unique in Africa for having this kind of pre-colonial institutions, but they were unique in the extent to which these institutions survived the colonial period unscathed (Acemoglu & Robinson, 2012, p. 411). Why did so few other of the African states manage to implement inclusive economic and political institutions after independence? Easterly and Levine (1997), and Alesina et al. (2011) argue that cross-country differences in development can be explained by the level of ethnic diversity. Easterly and Levine (1997) state that "the borders of African nations were determined through a tragicomic series of negotiations between European powers in the nineteenth century that split up ethnic groups and exacerbated preexisting high levels of ethnic and linguistic diversity." States with borders created by outsiders fall in to the category of states that Alesina et al. (2011) define as artificial states which are states "in which political borders do not coincide with a division of nationalities desired by the people on the ground." According to Easterly and Levine (1997), and Alesina et al. (2011), artificial borders created by outsiders have resulted in unnaturally high levels of ethnic diversity which has resulted in difficulties for many states to reach positive outcomes of development. They argue that one of the main advantages of Botswana is that the borders of Botswana is quite natural, and the population is relatively homogenous compared to many other African states.

Botswana is a long-standing African democracy that in contrast to many other states in sub-Saharan Africa has experienced positive economic and social outcomes. As mentioned, several authors dedicate Botswana's success to the fact that Botswana has a relatively homogenous

population compared to other sub-Saharan African states. A country with a much more ethnically diverse population is Ghana, which is a country that has experienced decades of autocracy and bad economic and social outcomes. However, Ghana is now a democracy (with a democracy score of 8 out of 10 measured by Polity IV (CSP, 2016)) and has for the last decades experienced economic growth (World Bank, 2018). This provides hope for that even ethnically diverse societies can produce positive outcomes. Thus, while theory is being debated, a lot more empirical evidence in support of propositions either way is needed.

There are several studies addressing ethnic exclusion, discrimination and similar issues. Some examples are the Minorities at Risk data established by Gurr and his colleagues (Gurr, 1993; Gurr & Christie, 2000), and the Ethnic Power Relations data by Cederman, Wimmer, and Min (2010). However, even though there is literature addressing these issues, I am interested in demographic and cultural differences and what effect different ethnic and cultural compositions of a state has on the states' respect for physical integrity rights. This because of the arguments about development failure occurring because of artificial borders and the arguments related to ethnic frictions. If these frictions exist, then do they cause failure by necessitating repression?

This study examines the effects of ethnic fractionalization, ethnic polarization and cultural fractionalization on respect for physical integrity rights. Physical integrity is understood as freedom from political killings and torture by the government. In earlier studies, regime type, population size, national wealth, and civil conflict has been found to affect the level of government respect for physical integrity rights (Poe & Tate, 1994; Richards, Webb, & Clay, 2015). In order to measure countries' respect for physical integrity rights I am using the Physical Violence Index from the Varieties of Democracy Project (Coppedge, Gerring, Lindberg, Skaaning, Teorell, Altman, Bernhard, Fish, Glynn, Hicken, Knutsen, Krusell, et al., 2017; Coppedge, Gerring, Lindberg, Skaaning, Teorell, Altman, Bernhard, Fish, Glynn, Hicken, Knutsen, Marquardt, et al., 2017). This variable measures to what extent physical

integrity is respected in each country. For robustness, I am also going to use the Political Terror Scale (Gibney et al., 2017) which is a commonly used measure for physical integrity rights violations.

To measure ethnic fractionalization and ethnic polarization I use data from the Composition of Religious and Ethnic Groups (CREG) project, which is part of the Cline Center for Democracy's Societal Infrastructures and Development (SID) project (Cline Center for Democracy, 2014; Nardilli, Wong, Singh, Peyton, & Bajjalieh, 2012). This data shows different ethnic groups' share of the total population in a country, and I use this data to calculate the level of ethnic fractionalization and ethnic polarization for each country.

Other commonly used measures for ethnic fractionalization are those constructed by Alesina et al. (2003) and Fearon (2003). However, these measures are based on cross-sectional data and do not vary over time. The measures I construct based on data from the CREG project is based on time series data and does therefore vary over time. This gives my measures an advantage over the measures constructed by Alesina et al. and Fearon.

If the assumption is that cultural differences make it harder for people to cooperate and coordinate, one could expect that societies with greater cultural differences should be facing more challenges regarding coordination failure than those with smaller cultural differences. While measures of fractionalization measure demographic differences, they do not capture differences in culture. I will therefore be testing the effect of cultural fractionalization on countries' respect for physical integrity rights. In order to measure cultural fractionalization, I am using data presented by James D. Fearon (2003). The measure for cultural fractionalization is a modification of the ethnic fractionalization measure that take some account of cultural distance between groups by using linguistic distance between the languages spoken as mother tongue by the groups as a measure for cultural distance.

By performing comprehensive statistical analyses on cross-section time series data covering the period 1991 to 2016 I will investigate what effect cultural diversity and ethnic fractionalization have on a country's respect for physical integrity rights. My results show that ethnic fractionalization and ethnic polarization has a curvilinear effect on countries' respect for physical integrity rights. As the level of fractionalization or polarization increases, the respect for physical integrity rights initially decreases before it turns and starts increasing. My results also show that cultural fractionalization (based on linguistic distance) has no significant effect on countries' respect for physical integrity rights when using the Physical Violence Index as the dependent variable. In other words, there is support in my data that propositions based on the idea that ethnic and cultural diversity are not at the core of development failure. More research is needed to understand why exactly some states are able to manage ethnic and cultural diversity while others fail.

Theory

In this section, I will first discuss the main issues around the concept of physical integrity rights and then discuss theory linking ethnic diversity to countries' respect for physical integrity rights. I choose to focus on state violations of physical integrity because it captures the degree to which some level of social dissent challenging a state, or the rulers of a state exist.

Physical Integrity Rights

In this study, I am going to focus on the subset of human rights referred to as physical integrity rights. I have chosen to define physical integrity rights as freedom from political killings and torture by the government. As stated by Poe and Tate (1994), physical integrity rights abuse is "a category of coercive activities on the part of the government designed to induce compliance in others." Examples of physical integrity rights abuse include murder, torture, forced disappearance, and imprisonment of persons for their political views. Clearly, violations by governments of this nature suggest a presence of social dissent in a society when governments find it necessary to harm their own population physically. The threat of sanctions imposed by the rest of the world increases the cost of harming your own population so much that the level of social dissent must be reasonably high before a government is willing to risk this cost.

Poe and Tate (1994) sought to explain cross-national differences in respect for physical integrity rights on a dataset covering the years 1980 to 1987. They found that higher levels of democracy and economic development was associated with higher levels of respect for physical integrity rights. A larger population size, occurrence of international or civil war and past repression was found to be associated with lower levels of respect for physical integrity rights.

Richards et al. (2015) revisited the model created by Poe and Tate to see if they could replicate the results twenty years after the creation of the original model. By expanding the time period

to cover the years 1981 to 2011 they found that the results of Poe and Tate are still largely valid. Regime type, population size, national wealth, and civil conflict remained robust correlates of the level of government respect for physical integrity rights.

Considering the effect of regime type on the respect of physical integrity rights, it has been argued that "the democratic process, with its emphasis on bargaining, and compromise, offers a meaningful alternative for handling conflict if leaders choose to use it. Democracy should not be viewed as an idealistic process, but as a realistic way to accommodate demands with a minimum of conflict […] With a large measure of democracy, conflict should not grow so sharp as to incite repression" (Henderson, 1991). "Effective democracy also provides citizens (at least those with political resources) the tools to oust potentially abusive leaders from office before they are able to become a serious threat. In addition, the freedoms that are essential to procedural democracy may make it easier for citizens and opposition leaders to publicize attempts at repression, thereby bringing down on would-be abusive leaders the weight of majority or world opinion" (Poe & Tate, 1994).

It has also been argued that "the poorest countries, with substantial social and political tensions created by economic scarcity, could be most unstable and thus most apt to use repression in order to maintain control" (Mitchell & McCormick, 1988). "It is only logical to think that, with a higher level of development, people will be more satisfied, and hence, less repression will be needed by the elites" (Henderson, 1991).

"Growth in numbers of people can create scarcity – a short-fall between what people need and want and what they have. Under this pressure governments may be pushed in an authoritarian direction […] What is worse, a government may resort to repression as a coping mechanism" (Henderson, 1993)

In my analysis, I am going to use a model similar to those used by Poe and Tate (1994) and Richards et al. (2015), and add measures of ethnic fractionalization, ethnic polarization and cultural fractionalization as independent variables in the model.

Ethnic and Cultural Diversity

The debate on the consequences of ethnic and cultural diversity is an old debate that has been going on for centuries and remains relevant today. With ongoing cases of ethnic violence and mass immigration, it is important to investigate the question of the consequences of diversity.

Before investigation this question more closely, we should clarify what we define as ethnicity and ethnic groups. Fearon and Laitin (2000) state that in common speech, "ethnic group" refers to "a group larger than a family for which membership is reckoned primarily by descent, is conceptually autonomous, and has a conventionally recognized "natural history" as a group." This is perhaps one of the simplest and most accurate definitions of ethnic groups, and I will be using this definition as the basis for my discussion on and analysis of the consequences of ethnic diversity.

The nineteenth century debate between John Stuart Mill and Lord Acton is one of the best documented early exchanges on the question of the consequences of ethnic and cultural diversity. Mill was convinced that a common ethnicity, and particularly a single language, was necessary for a functioning democracy that would guarantee citizens' freedoms:

> Free institutions are next to impossible in a country made up of different nationalities. Among a people without fellow-feeling, especially if they read and speak different languages, the united public opinion necessary to the working of representative government cannot exist. (Mill, 2011, p. 221)

Lord Acton argued in response to Mill in favor of the multicultural state. Acton argued that the presence of different nations under the same sovereignty "provides against the servility which

flourishes under the shadow of a single authority, by balancing interests, multiplying associations, and giving to the subject the restraint and support of a combined opinion" (Acton, 1909, p. 289). As summed up by Will Kymlicka (2010, p. 258): "Lord Acton argued, against Mill, that the divisions between national groups and their desire for an internal life of their own serves as a check against the aggrandizement and abuse of state power."

In his book, *Polyarchy*, Robert Dahl addresses the difficulties that present themselves when several ethnic groups or subcultures exist in one society. Dahl agrees with Mill that diversity leads to conflict, stating:

> Because conflicts among ethnic and religious subcultures are so easily seen as threats to one's most fundamental self, opponents are readily transformed into a malign inhuman "they," whose menace stimulates and justifies the violence and savagery that have been the common response of in-group to out-group among all of mankind. (Dahl, 1971, p. 108)

Dahl goes on to conclude that "polyarchy" (his term for the class of regimes that rank high on both the level of public contestation of political issues and the level of inclusiveness of persons in the political process) is found more frequently in culturally homogenous societies than in countries with a great amount of subcultural pluralism. However, he still provides hope for the multicultural state by stating "it would be going too far to say that […] subcultural pluralism necessarily rules out an inclusive polyarchy" (Dahl, 1971, p. 111).

During the 1990s, as a result of the end of the Cold War and calls for self-determination by once dominated peoples, leading foreign policy journals gave attention to the old issue of whether multicultural states can achieve enduring freedoms. In his article from 1992, Amitai Etzioni argues against unlimited national self-determination and high levels of cultural homogeneity, claiming that undesirable consequences would result if every subgroup were to successfully press for self-determination. According to Etzioni (1992), "excessive self-

determination works against democratization and threatens democracy in countries that have already attained it." He argues that ethnically based "breakaway states" generally result in more ethnic homogeneity and less pluralism, and that these states tend to display great intolerance toward minority ethnic groups. Democracy and free institutions require a certain degree of tolerance that often would not be present in the newly independent nations. Etzioni states that "pluralism can exist, even flourish, within a unified state; ethnic groups and other sub-groups need not be suppressed or dissolved to maintain community."

In contrast to the arguments made by Etzioni, Michael Lind (1994) advocates the "liberal nationalist" perspective, which holds that "nationalism – the correspondence of cultural nation and state – is a necessary, though not sufficient, condition for democracy in most places today." Lind claims there is overwhelming evidence supporting that "democracy almost never works in societies that are highly divided along linguistic and cultural lines." He also argues that there will be less conflict, both in regards of interstate conflict and intrastate conflict, with more homogenous states by claiming "there are powerful incentives against engaging in cross-border war, whereas the penalties against a dominant ethnic group crushing others in the state it controls are very weak indeed." In other words, according to Lind, there will be more democracy and less conflict with more homogenous states.

Even though Etzioni and Lind disagree on whether diversity is good or bad, they both agree that one should seek to avoid circumstances of ethnic dominance where one ethnic group is repressing other groups in its society. They do however provide two different solutions. Lind supports homogeneous states with correspondence of cultural nation and state, whereas Etzioni argues that larger multicultural states are more efficient and could serve as a check against ethnic dominance. If there is a lack of correspondence of cultural nation and state, one could expect the state will have low legitimacy among people who will primarily identify with their ethnicity instead of the state. This could also lead to more internal conflict within the state

because of the lack of a common identity. However, while homogenous states could result in fewer ethnic conflicts, they do not necessarily guarantee that the dominant group will not repress minority groups.

By studying countries in Sub-Saharan Africa, Easterly and Levine (1997) argue that higher levels of ethnic diversity lead to lower levels of economic growth. They state that "the borders of African nations were determined through a tragicomic series of negotiations between European powers in the nineteenth century that split up ethnic groups and exacerbated preexisting high levels of ethnic and linguistic diversity" (Easterly & Levine, 1997). According to Easterly and Levine, these high levels of ethnic diversity have encouraged growth-impeding policies. Their results support theories that "interest group polarization leads to rent-seeking behavior and reduces the consensus for public goods, reducing economic growth in the long run" (Easterly & Levine, 1997). In other words, in diverse societies, it is more difficult to reach co-operative solutions, and it is more likely to waste resources in distributional struggles.

The high level of ethnic diversity in Sub-Saharan African countries is a result of what Alesina et al. (2011) refers to as artificial states with artificial borders. They define artificial states as "those in which political borders do not coincide with a division of nationalities desired by the people on the ground" (Alesina et al., 2011). The borders of these countries are often as earlier mentioned a result of negotiations between colonizers and other major powers without any regard of ethnic, religious or linguistic groups living in the area. Alesina et al. (2011) states that:

> Not only in Africa, but around the globe, including Iraq and the Middle East, failed states, conflict and economic misery are often very visible near borders left over by former colonizers, borders which bore little resemblance to the natural division of peoples.

Alesina et al. (2011) goes on stating:

> When states represent people put together by outsiders, these peoples may find it more difficult to reach consensus on public goods delivery and the creation of institutions that facilitate economic development, compared to states that emerged in a homegrown way.

Easterly and Levine, and Alesina et al. claim that when artificial borders result in diverse societies, there will be difficulties reaching consensus and creating good institutions. This could be because of conflicting interests and the lack of a common identity. However, they do also point out that borders created by outsiders is the reason why these societies are so diverse, and this results in the different groups finding it more difficult to reach consensus compared to states that emerged in a homegrown way. Difficulties faced by diverse populations living in artificial states are not necessarily a result of diversity in itself but could be a result of the fact that the state is created by outsiders and therefore lack legitimacy among the people living in the state. Even though Easterly and Levine, and Alesina et al. point out that diversity result in difficulties for a society, these difficulties are not necessarily a result of diversity in itself. If the main challenge is that the borders of a state are artificial, one could imagine that a state with homegrown or natural borders would face fewer challenges even with high levels of diversity. Borders and institutions created by outsiders could lead to challenges regarding legitimacy and other issues that are not necessarily a result of ethnic diversity.

Alesina et al. (2003) examine the effects of ethnic, linguistic, and religious heterogeneity on the quality of institutions and economic growth. They concluded that "ethnic and linguistic fractionalization variables, more so than religious ones, are likely to be important determinants of economic success […] other measures of welfare and policy quality […] and the quality of institutions." Their analysis shows that ethnic fractionalization has a negative effect on economic success; something they say could be a result of higher fractionalization leading to lower quality of government.

Alesina et al. (2003) show that ethnic fractionalization has a negative effect on the level of democracy and state that "in more fragmented societies a group imposes restrictions on political liberty to impose control on the other groups." In other words, it will be more difficult to achieve democracy in heterogeneous societies than in homogeneous societies according to Alesina et al.

Ethnic diversity could also lead to social frictions because of ethnic discrimination. As Easterly (2006) states: "In many ethnically divided countries today, politicians often exploit ethnic animosities to build a coalition that seeks to redistribute income to *us* from *them*" (p. 128). Easterly also claims that even though there is no overt discrimination, voters might not trust a leader from a different ethnicity than themselves to act in their interest. This could lead to a coordination failure that could result lower levels of public services.

> Different ethnic groups may have conflicting interests in public services: group A wants a road in their region, while group B wants a road in *their* region; the more segregated ethnic groups are, the less likely group B voters are to use, or care about, the road in group A's region. This may cause voters to choose a lower level of public services overall. (Easterly, 2006, p. 128)

On the contrary, Collier (2001) argues that multiethnic societies can be socially and economically fully viable. Even though one might expect that ethnic diversity makes co-operation more difficult, Collier argues this is not the case. He distinguishes between two different circumstances of ethnic diversity: dominance and fragmentation. Dominance is characterized by when one or more minorities face a majority, while fragmentation is when there are many groups and none of them is with a majority. One might expect that victimization arise in societies characterized by dominance, while an inability to co-operate arises in fragmented societies. However, Collier argues that diversity is damaging only when characterized by ethnic dominance.

> In societies characterized by ethnic dominance the government has both the power and the incentive to trade off redistribution at the expense of growth. […] Outside the context of dictatorship, ethnic fragmentation does not appear likely to produce markedly worse politics than ethnic homogeneity, and indeed the political system might work better. (Collier, 2001)

Ethnic dominance could be a result of what Acemoglu and Robinson (2012) describe as extractive institutions. In their book, *Why Nations Fail*, Acemoglu and Robinson discuss how different kinds of institutions result in some states becoming prosperous while others become poor. They distinguish between what they refer to as inclusive and extractive economic and political institutions.

> Inclusive economic institutions […] are those that allow and encourage participation by the great mass of people in economic activities that make best use of their talents and skills and that enable individuals to make the choices they wish. To be inclusive, economic institutions must feature secure private property, an unbiased system of law, and a provision of public services that provides a level playing field in which people can exchange and contract; it also must permit the entry of new businesses and allow people to choose their careers. (Acemoglu & Robinson, 2012, pp. 74-75)

Extractive economic institutions are the opposite of inclusive institutions: "extractive because such institutions are designed to extract incomes and wealth from one subset of society to benefit a different subset" (Acemoglu & Robinson, 2012, p. 76). If a society is characterized by ethnic dominance, there is reason to believe this society also will have extractive economic institutions designed to extract resources from the rest of society to the dominant ethnic group.

Acemoglu and Robinson argue that there is strong synergy between economic and political institutions. They classify extractive political institutions as absolutist political institutions where the distribution of power is narrow and unconstrained. Inclusive political institutions are pluralistic institutions that distribute power broadly and subject it to constraints. With inclusive

political institutions, political power rests with a broad coalition or a plurality of groups instead of being vested in a single individual or a narrow group.

> Extractive political institutions concentrate power in the hands of a narrow elite and place few constraints on the exercise of this power. Economic institutions are then often structured by the elite to extract resources from the rest of the society. Extractive economic institutions thus naturally accompany extractive political institutions. In fact, they must inherently depend on extractive political institutions for their survival. Inclusive political institutions, vesting power broadly, would tend to uproot economic institutions that expropriate the resources of the many, erect entry barriers, and suppress the functioning of markets so that only a few benefit. (Acemoglu & Robinson, 2012, p. 81)

If political power is distributed among different ethnic groups and there are no extractive institutions benefitting certain groups, one could imagine that ethnic diversity will not necessarily have negative consequences. If one follows Collier's argument that diversity is damaging only when society is characterized by ethnic dominance, one could argue that the negative outcomes are not a result of ethnic diversity but rather a result of extractive institutions.

Diversity does not necessarily lead to coordination failure. It could on the contrary be an efficient basis for collective action. Collier (2001) states that "in much of the developing world the most powerful levels of social identity are neither the nation nor the region, but the kin group and the tribe." He goes on claiming "kin groups are efficient responses to the information and contract enforcement problems of market economies" (Collier, 2001). According to Collier, a society composed by kin groups is more efficient than a homogenous, but atomized society. This because kin groups organize a society into groups large enough to reap the gains from collective action. A fragmented society could in other words have more positive than negative effects on different social outcomes.

When stating that ethnic diversity lead to coordination failure and difficulties reaching consensus, there is an assumption that there are differences in identity and interests between the different groups that make cooperation difficult. Following this notion, one could assume that the greater the differences between the different groups, the greater challenges the society will meet with cooperation and coordination. Two groups that are culturally very similar (for example Norwegians and Swedes) might find it easier to cooperate than two groups with greater cultural differences. James D. Fearon (2003) argue that one should investigate cultural distance between groups by stating:

> If one has a theory that says that ethnic diversity matters because ethnic differences make it harder for people to cooperate and coordinate, then one might be interested in some notion of the cultural distance between ethnic groups rather than just fractionalization (Fearon, 2003)

If the assumption is that cultural differences make it harder for people to cooperate and coordinate, one could expect that societies with greater cultural differences should be facing more challenges regarding coordination failure than those with smaller cultural differences. In order to measure cultural distance Fearon (2003) has created a measure using the tree diagram used by linguists to classify and represent the structural relationships between languages. Fearon uses the distance between the "tree branches" as a measure of the cultural distance between groups that speak them as a first language. He states that "the idea is that he number of common classifications in the language tree can be used as a measure of cultural proximity" (Fearon, 2003). By using his measure of cultural distance, Fearon has created a measure for cultural fractionalization analogous to the measure of ethnic fractionalization. In my analysis, I will be using Fearon's measure of cultural fractionalization in order to test the effect of cultural differences.

In my analyses I will be focusing on the effect ethnic and cultural diversity has on physical integrity rights. The threat of sanctions imposed by the rest of the world increases the cost of

harming your own population so much that the level of social dissent must be reasonably high before a government is willing to risk this cost. Countries' level of respect for physical integrity rights is therefore a good measure of the level of social dissent in a society because states will not bear the cost of violating human rights unless there is a reasonable amount of dissent in a society.

When it comes to the relationship between diversity and human rights, there are few empirical studies. Based on a cross-national study performed in the time period from the late 1970s to the early 1980s, Han S. Park (1987) finds a positive relationship between ethnic diversity and human rights. He states the following:

> Ethnic diversity, a factor generally regarded as counter-productive for stability and development, does not show any degree of adverse effect on social well-being. It may suggest that the presence of competition among different ethnic groups might work as a stimulus to a social and economic development. (Park, 1987)

A study conducted by Steven Walker and Steven C. Poe (2002) addresses the question of the relationship between cultural diversity and human rights. Their findings indicate that "there may be a very weak, negative relationship between the level of social heterogeneity and respect for personal integrity rights for the world as a whole." However, they also address that that this relationship "appears to be driven by the developed world, which tends to be more homogeneous than the for the most part less developed countries."

Walker and Poe (2002) does however only do a bivariate analysis on the relationship between cultural diversity and human rights. They propose that further research should conduct multivariate analyses designed to isolate the effects of cultural heterogeneity. They also recommend pursuing the question of what dimension of diversity, language or ethnicity, is most important in determining human rights performance.

In a study on the relationship between ethnic diversity and corruption, Dincer (2008) found a positive relationship between ethnic polarization and corruption and that ethnic fractionalization has a curvilinear effect on the level of corruption. Dincer found that as the level of fractionalization increases, the amount of corruption in a country first increase before it starts to decrease. It would therefore be interesting to test for a curvilinear relationship between ethnic fractionalization and ethnic polarization on a country's respect for physical integrity rights.

The 19th century debate between Mill and Acton is very similar to the current debate on the consequences of ethnic diversity. On the one hand, you have those who argue that ethnic diversity has negative consequences, both politically and economically (Alesina et al., 2003; Alesina et al., 2011; Dahl, 1971; Easterly, 2006; Easterly & Levine, 1997; Lind, 1994; Mill, 2011). The argument is often that ethnic diversity leads to coordination failure because of the lack of a common identity and common interests. Those who disagree with this view often argue that ethnic diversity could lead to positive outcomes through people organizing in groups that serves as a check for no single group to gain power to serve only the interests of its own group (Acton, 1909; Collier, 2001; Etzioni, 1992; Park, 1987). Diversity could also facilitate for different groups to work efficiently together for the common good through the groups being of a large enough size to reap the gains of collective action (Collier, 2001).

To sum up, pessimists on ethnic diversity argue that ethnic diversity have negative economic and social consequences through coordination failure because of the lack of a common identity and common interests. On the other hand, optimists on ethnic diversity argue that ethnic diversity could lead to positive outcomes through people organizing in groups that serves as a check for no single group to gain power to serve only the interests of its own group.

In my analysis, I am going to investigate the effect of ethnic fractionalization, ethnic polarization and cultural fractionalization on countries' respect for physical integrity rights. Given the arguments linking ethnic and cultural diversity with social failure, I propose the following hypotheses:

H1: Ethnic fractionalization has a negative effect on respect for physical integrity rights

H2: Ethnic fractionalization has a curvilinear effect on respect for physical integrity rights

H3: Ethnic polarization has a negative effect on respect for physical integrity rights

H4: Ethnic polarization has a curvilinear effect on respect for physical integrity rights

H5: Cultural fractionalization has a negative effect on respect for physical integrity rights

H6: Cultural fractionalization has a curvilinear effect on physical integrity rights

Method

This study uses a cross-sectional time series dataset (TSCS), where data measure variables at each year for each country in the sample. My dataset covers the period of 1991 to 2016. I use the period after the Cold War to avoid issues that are Cold War related that might bias my results. The Cold War period witnessed many countries that were repressive for factors other than internal dissent.

TSCS data are complicated and one needs to control for autocorrelation. My data are first order serially correlated which is confirmed by the Wooldridge test. In order to account for autocorrelation and heteroscedasticity, I will use the Newey-West method of computing robust standard errors in my analysis. The Newey-West method is robust to first order serial correlation and heteroscedasticity.

My dependent variable is the Physical Violence Index from the Varieties of Democracy Project (Coppedge, Gerring, Lindberg, Skaaning, Teorell, Altman, Bernhard, Fish, Glynn, Hicken, Knutsen, Krusell, et al., 2017; Coppedge, Gerring, Lindberg, Skaaning, Teorell, Altman, Bernhard, Fish, Glynn, Hicken, Knutsen, Marquardt, et al., 2017). This variable measures to what extent physical integrity is respected by a government. The following clarification is presented in the dataset's codebook:

> Physical integrity is understood as freedom from political killings and torture by the government. Among the set of civil liberties, these liberal rights are the most relevant for political competition and accountability. The index is based on indicators that reflect violence committed by government agents and that are not directly referring to elections. (Coppedge, Gerring, Lindberg, Skaaning, Teorell, Altman, Bernhard, Fish, Glynn, Hicken, Knutsen, Marquardt, et al., 2017)

By using data from The Composition of Religious and Ethnic Groups (CREG) project, which is part of the Cline Center for Democracy's Societal Infrastructures and Development (SID) project (Cline Center for Democracy, 2014; Nardilli et al., 2012), I have constructed variables measuring ethnic fractionalization and polarization. The most recent data from this dataset is from 2013, so my models using ethnic composition from the CREG project will be covering the period of 1991 to 2013.

Ethnic fractionalization can be defined as the probability that two individuals selected at random from a country will be from different ethnic groups.

Other commonly used measures for ethnic fractionalization are those constructed by Alesina et al. (2003) and Fearon (2003). However, these measures are based on cross-sectional data and do not vary over time. The CREG project data are time series data that do vary over time, which gives this data an advantage over the data used by Alesina et al. and Fearon. The ethnic fractionalization measure I construct based on the CREG data is however highly correlated with the measures by Alesina et al. and Fearon. The correlation coefficient when testing the correlation between my ethnic fractionalization measure based on the CREG data and the measure constructed by Alesina et al. is 0.832. When testing the correlation between my measure and the measure constructed by Fearon, the correlation coefficient is 0.8258. This correlation is high enough to argue that these measures correspond with each other very well.

Ethnic fractionalization can be defined as the probability that two individuals selected at random from a country will be from different ethnic groups. I use the following formula to calculate ethnic fractionalization (Taylor & Hudson, 1972, pp. 214-217):

$$EF = 1 - \sum_{j=1}^{J} n_{ij}^2$$

n_{ij} is the share of group j in society i. This indicator can be interpreted as measuring the probability that two randomly selected individuals will belong to two different groups. The ethnic fractionalization indicator reaches a maximum when every individual in a society belong to a different ethnic group.

My measure for ethnic polarization measures the normalized distance of a country's distribution of ethnic groups from a bimodal distribution. Higher values of ethnic polarization mean that the ethnic distribution is closer to a bimodal distribution. In contrast to ethnic fractionalization, ethnic polarization reaches a maximum when there are two ethnic groups of equal size in a country. This means that when ethnic polarization reaches maximum the level of ethnic fractionalization will be at 0.5 because when a society consists of two equally sized groups there will be 50 percent chance that two individuals selected at random from this society will be from different ethnic groups.

I calculate ethnic polarization using the following formula (Montalvo & Reynal-Querol, 2005):

$$EP = 1 - \sum_{j=1}^{J} \left(\frac{0.5 - n_{ij}}{0.5} \right)^2 n_{ij}$$

As noted by Fearon (2003), if one thinks that ethnic diversity matters because differences between different ethnic groups make it harder for people to cooperate and coordinate, then one might be interested in some notion of the cultural distance between ethnic groups rather than just fractionalization or polarization. Fearon has created a measure for cultural fractionalization that I will use in my analyses.

The cultural fractionalization measure is a modification of the ethnic fractionalization measure that take some account of cultural distance between groups (Fearon, 2003). In order to measure cultural distance, Fearon (2003) uses the distance between ethnic groups' first language on the tree diagrams used by linguists to classify and represent the structural relationships between

languages. Fearon defines the cultural fractionalization measure as the "expected cultural resemblance" of two people drawn at random from a country. The cultural fractionalization measure is constructed to be analogous to ethnic fractionalization. This means that countries with one language group or a set of ethnic groups that speak highly similar languages will have a value on the measure close to zero, while countries with many groups that speak structurally unrelated languages will be closer to 1.

To model the effect of the variables measuring ethnic fractionalization, ethnic polarization and cultural fractionalization, I also control for important control variables that are related to demographics and may directly influence the dependent variable.

For my control variables, I use variables similar to those used in the models that Poe and Tate (1994) and Richards et al. (2015) used to explain cross-national differences in respect for physical integrity rights. I use GDP per capita, population size, civil war, years since last civil war, and democracy. There is reason to believe that a country's economy will influence human rights performance as richer and more developed countries probably also will have less human rights violations, despite being ethnically diverse because of strong institutions. There is also reason to believe population size could have some effect on human rights performance. Population size may also indicate greater fractionalization because larger populations are more likely to have a larger number of demographic groups. The measures for civil war and years since last civil war are included to control for stability in a country, since a country that has been at peace for a longer period probably is more stable and less prone to human rights violations. The polity score is included as a measure for regime type since authoritarian regimes are much more likely to have human rights violations than democracies.

The data for GDP per capita and population size are from the World Bank's World Development Indicators (World Bank, 2018). The variables for civil war and years of peace

are based on data from the UCDP/PRIO Armed Conflict Dataset (Gleditsch, Wallensteen, Eriksson, Sollenberg, & Strand, 2002; Melander, Pettersson, & Themnér, 2016). The polity-score is from the Polity IV project by the Center for Systemic Peace (CSP, 2016). I also control for year fixed effects to avoid biased results.

I log transform the variables for GDP per capita and population. I do this because these variables are highly skewed. Log transforming ensures that the results will be independent of extreme values.

The variable for civil war measures if a country is involved in an internal armed conflict, or civil war. UCDP defines conflict as: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a calendar year" (UCDP & PRIO, 2016). The civil war variable has been coded so it measures both what UCDP defines as an internal armed conflict (between the government of a state and one or more internal opposition group(s) without intervention from other states) and an internationalized internal armed conflict (internal armed conflict with intervention from other states (secondary parties) on one or both sides). If a country is involved in an internal armed conflict, it will get the value 1 on the civil war variable and the value 0 if not.

The measure for years since last civil war counts how many years a country has been at peace (not involved in an armed conflict). This measure starts at the year 1946 and does therefore count how many years a country has been at peace since 1946 or since the previous war.

The polity score measures regime type on a scale that ranges from +10 (strongly democratic) to -10 (strongly autocratic) (CSP, 2017). I have chosen to recode this variable into a dummy-set where I have coded the values from +6 to +10 as democracies, -6 to -10 as autocracies, and -5 to +5 as anocracies. In my analyses, I will be using anocracies as the reference category.

For robustness, I change my dependent variable to the Political Terror Scale (Gibney et al., 2017) which is a commonly used alternative measure for physical integrity rights violations. The Political Terror Scale seeks to measure political terror, which is defined as "violations of basic human rights to the physical integrity of the person by of the state within the territorial boundaries of the state in question" (Gibney, Wood, Cornett, Arnon, & Pisanò, 2018). This is very similar to what the Physical Violence Index by the Varieties of Democracy Project seek to measure, and it will therefore suit well as a measure used to test the robustness of my models.

The Political Terror Scale is a 5-point ordinal scale where higher values on the scale indicate higher levels of political terror or physical integrity rights violations.

There are three separate indicators of political terror based on annual human rights reports published by Amnesty International, Human Rights Watch, and the US Department of State. In my analyses, I use the measure based on reports by Amnesty International. This indicator is correlated with the Physical Violence Index with a coefficient of -0.624. The coefficient is negative because while Political Terror Scale measures the amount of physical integrity rights violations, the Physical Violence Index measures the respect for physical integrity rights. The two measures are in other words inverted to each other, as a higher amount of physical integrity rights violations will result in higher values on the Political Terror Scale and lower values on the Physical Violence Index. This correlation is reasonably high enough to say that they correspond well, but there are also some differences between them.

Figure 1 shows the development for the mean value of the Physical Violence Index and the Political Terror Scale for the period from 1991 to 2016. As you can see, the Physical Violence Index has had an increasing trend since 1990, meaning the average level of countries' respect for physical integrity rights has increased the last decades. The Political Terror Scale is much more sensitive to major events than the Physical Violence Index and it does therefore spike

more than the Physical Violence Index. However, similar to the Physical Violence Index, the trend is that the amount of political terror measured by the Political Terror Scale is reducing. Since these two variables show similar trends, particularly after the Cold War, this justifies my use of the years 1990 onwards.

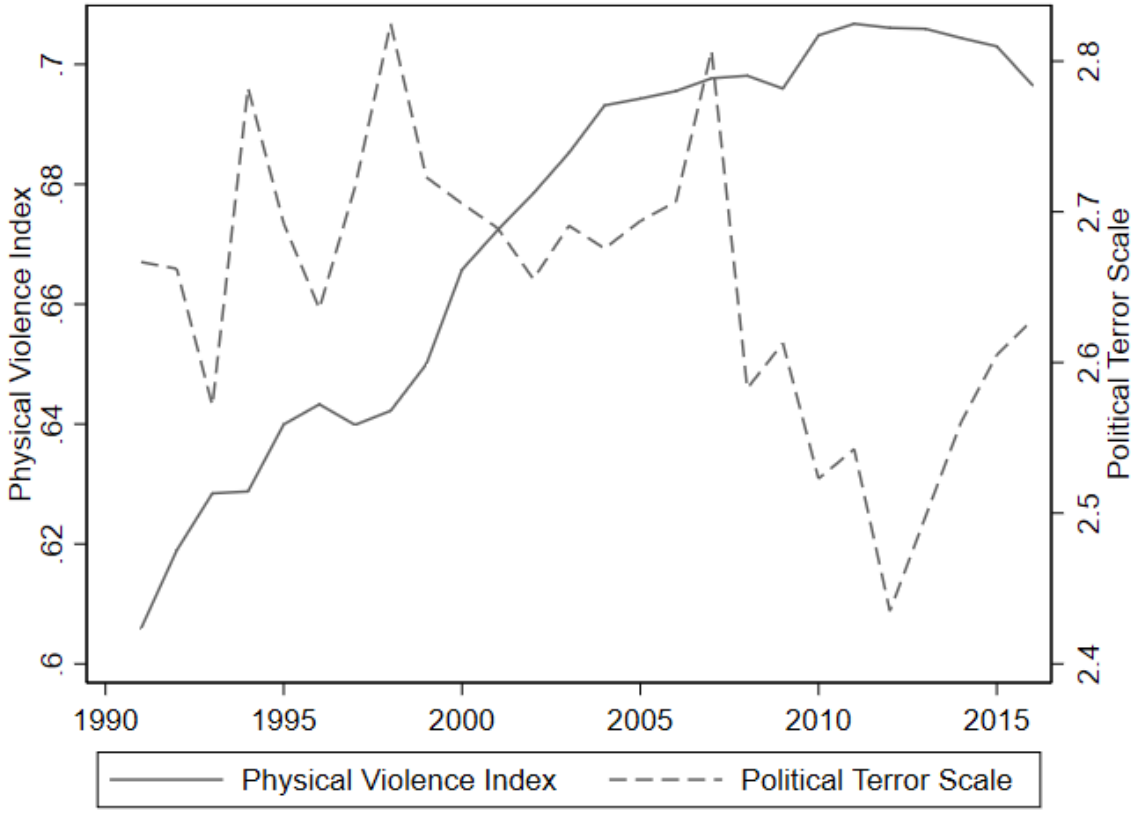

Figure 1 Mean values of the Physical Violence Index and the Political Terror Scale for the period 1991-2016

Analysis

Ethnic Fractionalization

Table 1 shows the results from my analyses on the effect of ethnic fractionalization on countries' respect for physical integrity rights. Higher values on the dependent variable mean greater respect for physical integrity rights. Model 1 shows the analysis of the linear effect of ethnic fractionalization and Model 2 shows the analysis of the curvilinear effect of ethnic fractionalization.

As you can see in Table 1, my analyses show that the linear effect of ethnic fractionalization on countries' respect for physical integrity right is not statistically significant (Model 1), while there is a significant effect when testing for the curvilinear effect (Model 2). We see from Model 2 that there is a U-shaped relationship between ethnic fractionalization and respect for physical integrity rights, meaning that initially increased fractionalization has a slight negative effect before it turns and becomes highly positive (see Figure 2). These effects are statistically significant. This supports the hypothesis that ethnic fractionalization has a curvilinear effect on countries' respect for physical integrity rigths, where higher diversity increases state respect for physical integrity. There is however no support for the hypothesis that ethnic fractionalization has a negative effect on physical integrity rights, which does not suggest support for arguments about ethnic diversity leading to negative outcomes.

The results of the control variables are essentially as hypothesized and support the results of Poe and Tate (1994), and Richards et al. (2015). GDP per capita has a significant positive effect, civil war has a significant negative effect, and democracy has a significant positive effect while autocracy has a significant negative effect on countries' respect for physical integrity rights. However, contrary to the results of Poe and Tate (1994), and Richards et al. (2015), my results show that population has a significant positive effect. This is probably because I am

controlling for country fixed effects in order to control for characteristics of countries that remain constant over time while Poe and Tate (1994), and Richards et al. (2015) are not controlling for country fixed effects in their models. When not conrolling for country fixed effect, my models get the same results as Poe and Tate (1994), and Richards et al. (2015).

Table 1 Newey-West OLS regression on the effect of ethnic fractionalization on countries' respect for physical integrity rights

	Model 1	Model 2
Ethnic Fractionalization	0.116	-0.486**
	(0.0878)	(0.168)
(squared) Ethnic Fractionalization		0.860***
		(0.229)
(log) GDP per capita	0.0484***	0.0462***
	(0.00892)	(0.00893)
(log) Population	0.0821***	0.0769**
	(0.0249)	(0.0248)
Civil War	-0.0579***	-0.0582***
	(0.0114)	(0.0114)
Years since last civil war	0.000555	0.000660*
	(0.000328)	(0.000331)
Polity		
(Dummy-set with "Anocracy" as reference category)		
Autocracy	-0.119***	-0.116***
	(0.0150)	(0.0151)
Democracy	0.125***	0.125***
	(0.0128)	(0.0128)
Constant	-1.362**	-1.150*
	(0.501)	(0.504)
Observations	3212	3212

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
All models are controlled for year fixed and country fixed effects

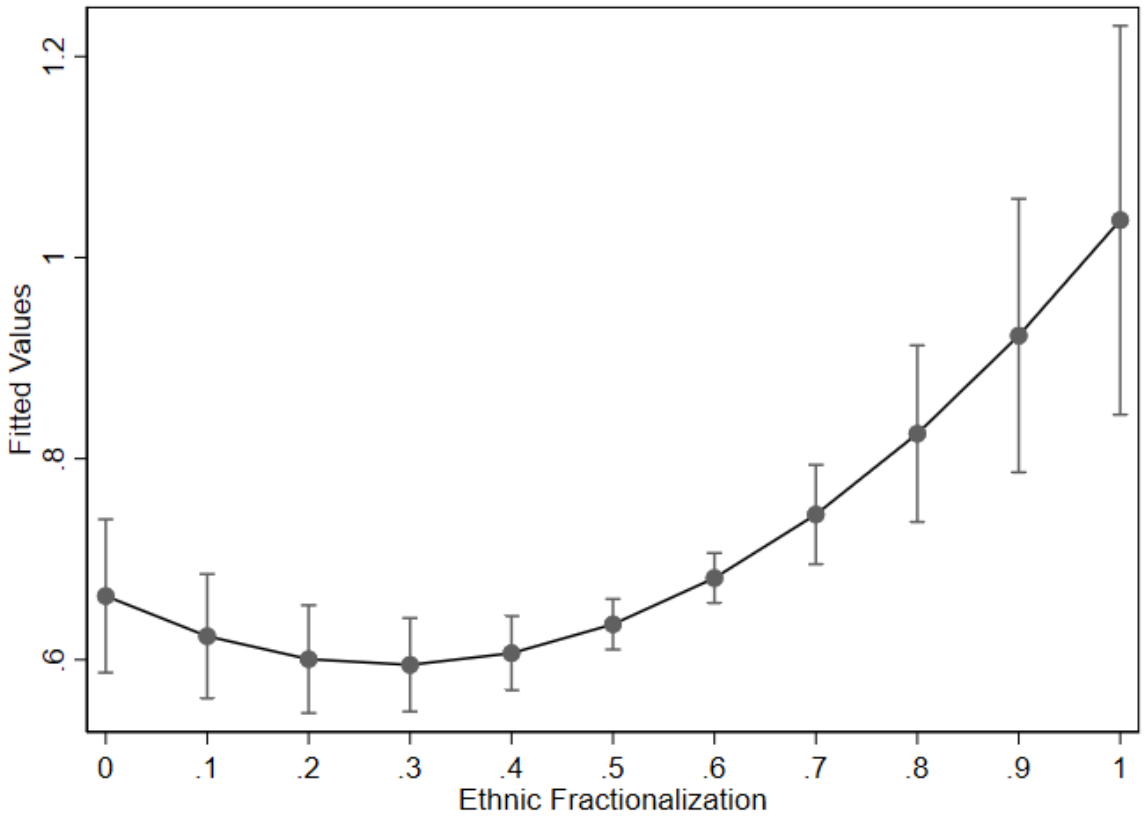

Figure 2 Fitted values for the curvilinear effect of ethnic fractionalization on countries' respect for physical integrity rights

Ethnic Polarization

Table 2 shows the results from my analyses on the effect of ethnic polarization on countries' respect for physical integrity rights. Model 3 shows the analysis of the linear effect of ethnic polarization, and Model 4 shows the analysis of the curvilinear effect of ethnic polarization.

The results from my analyses show that ethnic polarization show no significant linear relationship on the respect for physical integrity rights (Model 3). The results from Model 4 do however show a significant curvilinear relationship between ethnic polarization and respect for physical integrity rights when I introduce the squared term of polarization (see Figure 3). These results are similar to those from the analysis on the effect of ethnic fractionalization. This provides support for my hypothesis that ethnic polarization has a curvilinear effect on countries' respect for physical integrity rights. There is however no support for the hypothesis that ethnic polarization has a negative effect on physical integrity rights.

The results of the control variables are similar to those for the models with ethnic fractionalization. This shows that there are no large differences between the models with ethnic fractionalization and those with ethnic polarization.

Table 2 Newey-West OLS regression on the effect of ethnic polarization on countries' respect for physical integrity rights

	Model 3	Model 4
Ethnic Polarization	0.0272	-0.772***
	(0.0617)	(0.135)
(squared) Ethnic Polarization		0.985***
		(0.170)
(log) GDP per capita	0.0471***	0.0458***
	(0.00892)	(0.00880)
(log) Population	0.0814**	0.0587*
	(0.0248)	(0.0246)
Civil War	-0.0571***	-0.0581***
	(0.0114)	(0.0114)
Years since last civil war	0.000572	0.000745*
	(0.000331)	(0.000325)
Polity (Dummy-set with "Anocracy" as reference category)		
Autocracy	-0.119***	-0.120***
	(0.0151)	(0.0151)
Democracy	0.124***	0.125***
	(0.0127)	(0.0127)
Constant	-1.301**	-0.770
	(0.501)	(0.497)
Observations	3212	3212

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
All models are controlled for year fixed and country fixed effects

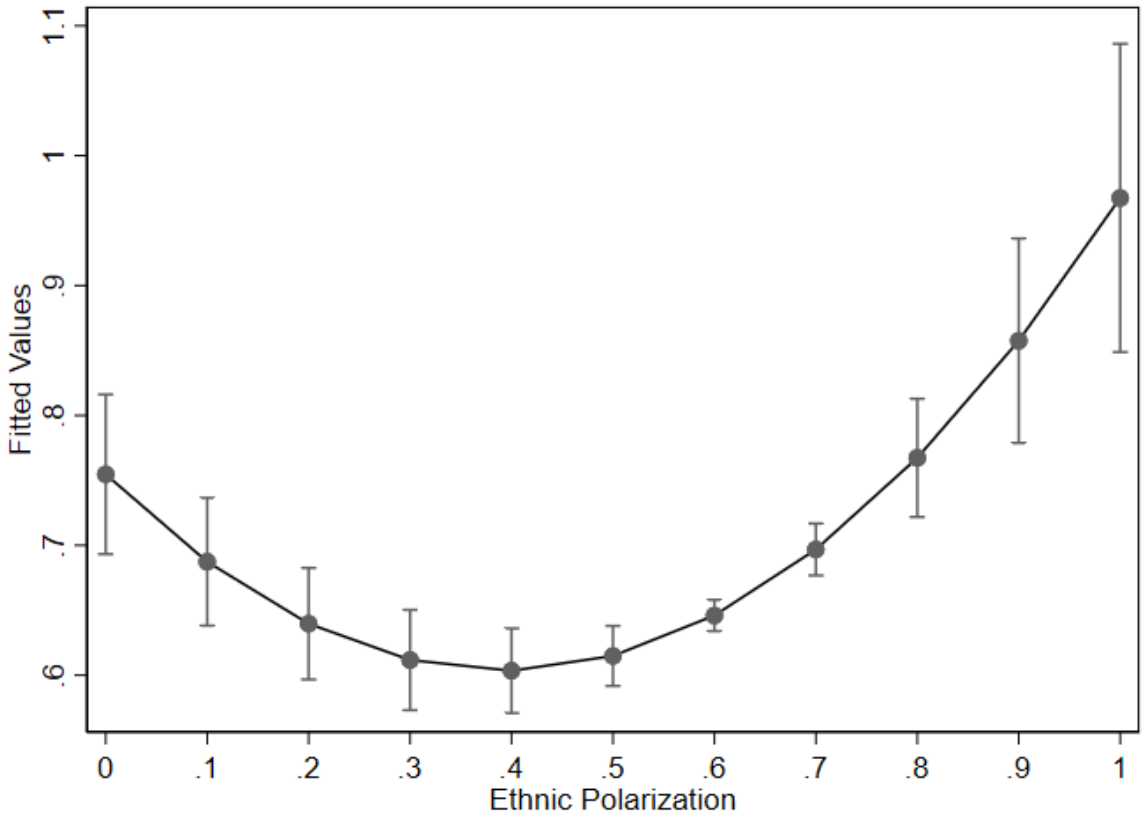

Figure 3 Fitted values for the curvilinear effect of ethnic polarization on countries' respect for physical integrity rights

Cultural Fractionalization

Table 3 shows the results from my analysis on the effect of cultural fractionalization on countries respect for physical integrity rights. The previous measures I have used so far (ethnic fractionalization and ethnic polarization) only capture demographic differences. The cultural fractionalization measure is a measure that in addition to demographic differences capture differences in cultural distance based on linguistic difference between ethnic groups in a society. Model 5 shows the results from my analysis of the linear effect of cultural fractionalization while Model 6 shows the results from my analysis of the curvilinear effect. The results show that cultural fractionalization has no significant effect on respect for physical integrity rights. This provides no support for the hypotheses that cultural fractionalization has either a negative effect or a curvilinear effect on countries' respect for physical integrity rights.

The results of the control variables are similar to those from the models with ethnic fractionalization and ethnic polarization except from the results of population. Contrary to the other models, the results from Model 5 and Model 6 show that population has a negative effect on countries' respect for physical integrity rights. However, this is probably because the models with cultural fractionalization do not control for country fixed effects. Since the measure for cultural fractionalization does not vary over time, models including this variable cannot be controlled for country fixed effects.

Table 3 Newey-West OLS regression on the effect of cultural fractionalization on countries' respect for physical integrity rights

	Model 5	Model 6
Cultural Fractionalization	0.0304	0.0358
	(0.0209)	(0.0691)
(squared) Cultural Fractionalization		-0.00850
		(0.103)
(log) GDP per capita	0.0567***	0.0567***
	(0.00283)	(0.00289)
(log) Population	-0.0164***	-0.0163***
	(0.00260)	(0.00266)
Civil War	-0.0839***	-0.0839***
	(0.0124)	(0.0124)
Years since last civil war	0.00214***	0.00214***
	(0.000246)	(0.000251)
Polity (Dummy-set with "Anocracy" as reference category)		
Autocracy	-0.181***	-0.181***
	(0.0146)	(0.0147)
Democracy	0.180***	0.180***
	(0.0110)	(0.0109)
Constant	0.392***	0.392***
	(0.0476)	(0.0489)
Observations	3619	3619

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
All models are controlled for year fixed effects

Robustness

I conduct several tests of robustness to see if the basic results hold when testing with the Political Terror Scale. The following tables show my robustness tests where the dependent variable is the Political Terror Scale instead of the Physical Violence Index.

Table 4 shows the results from my analysis on the effect of ethnic fractionalization on the Political Terror Scale. The results from Model 7 show that ethnic fractionalization has a significant negative effect on the Political Terror Scale. This means that with higher levels of ethnic fractionalization there is less physical integrity rights violations. Model 8 shows that ethnic fractionalization has no significant effect when testing for curvilinearity. In other words, Table 4 shows that ethnic fractionalization has a linear negative effect on the Political Terror Scale, but no significant curvilinear effect.

Table 4 Newey-West OLS regression on the effect of ethnic fractionalization on the Political Terror Scale

	Model 7	Model 8
Ethnic Fractionalization	-1.595*	0.205
	(0.784)	(1.473)
(squared) Ethnic Fractionalization		-2.587
		(2.096)
(log) GDP per capita	-0.187**	-0.181**
	(0.0637)	(0.0639)
(log) Population	-0.504**	-0.474**
	(0.167)	(0.169)
Civil War	0.683***	0.685***
	(0.0627)	(0.0629)
Years since last civil war	-0.0114***	-0.0117***
	(0.00229)	(0.00234)
Polity		
(Dummy-set with "Anocracy" as reference category)		
Autocracy	0.0932	0.0889
	(0.0813)	(0.0817)
Democracy	-0.354***	-0.353***
	(0.0651)	(0.0651)
Constant	14.46***	13.54***
	(3.578)	(3.642)
Observations	2718	2718

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
All models are controlled for year fixed and country fixed effects

Table 5 shows the results from my analysis on the effect of ethnic polarization on the Political Terror Scale. Model 9 shows that ethnic polarization has no significant effect when testing for the linear term. However, Model 10 shows a significant effect when testing for curvilinearity. The results show that ethnic polarization initially has a positive effect on the Political Terror Scale before it eventually turns and becomes negative (see Figure 4). This means that while there initially will be more physical integrity rights violations as level of ethnic polarization increases, the effect eventually turns and increased ethnic polarization eventually reduces the amount of physical integrity rights violations.

Table 5 Newey-West OLS regression on the effect of ethnic polarization on the Political Terror Scale

	Model 9	Model 10
Ethnic Polarization	-1.012	2.646*
	(0.535)	(1.172)
(squared) Ethnic Polarization		-4.511**
		(1.466)
(log) GDP per capita	-0.184**	-0.179**
	(0.0635)	(0.0635)
(log) Population	-0.503**	-0.379*
	(0.166)	(0.169)
Civil War	0.677***	0.683***
	(0.0626)	(0.0627)
Years since last civil war	-0.0114***	-0.0121***
	(0.00230)	(0.00235)
Polity		
(Dummy-set with "Anocracy" as reference category)		
Autocracy	0.0985	0.102
	(0.0811)	(0.0811)
Democracy	-0.353***	-0.356***
	(0.0650)	(0.0651)
Constant	14.38***	11.57**
	(3.570)	(3.605)
Observations	2718	2718

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
All models are controlled for year fixed and country fixed effects

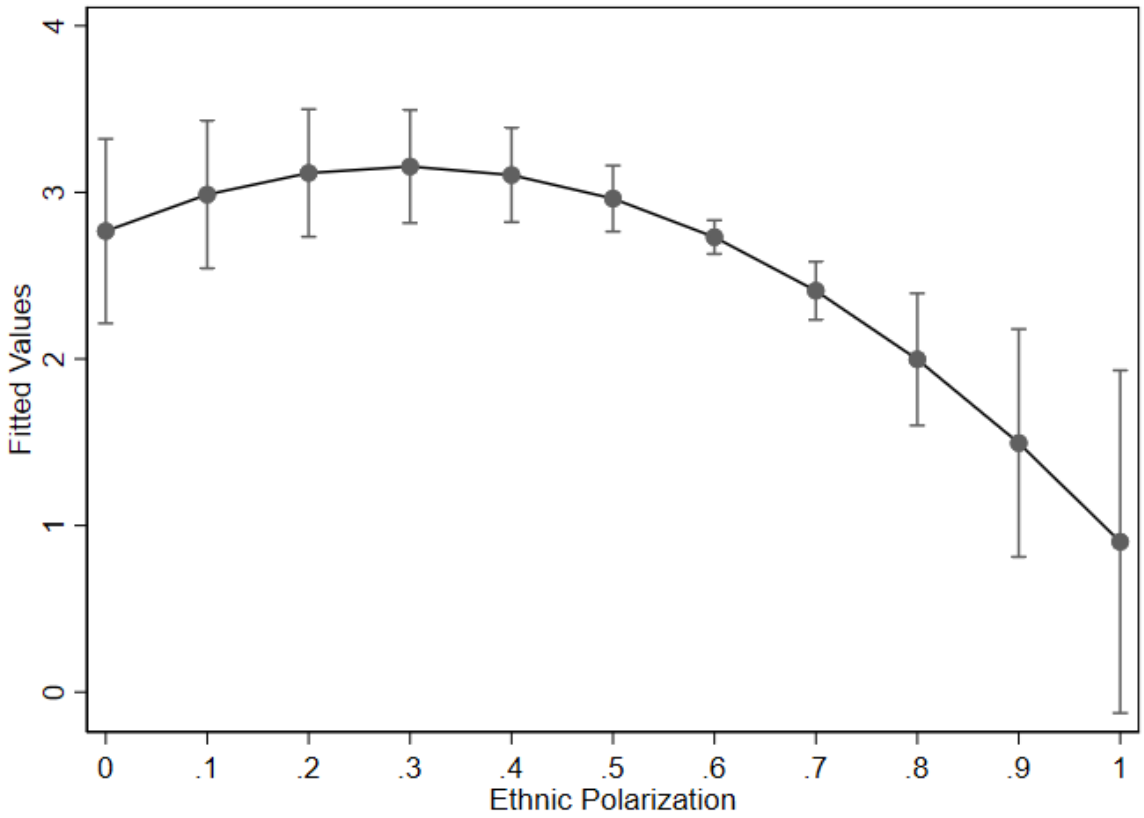

Figure 4 Fitted values for the curvilinear effect of ethnic polarization on the Political Terror Scale

Table 6 shows the results from my analysis on the effect of cultural fractionalization on the Political Terror Scale. Model 11 shows that cultural fractionalization has a significant negative effect on the Political Terror Scale. Model 12 shows a significant curvilinear effect where cultural fractionalization initially has a negative effect on the Political Terror Scale before it turns and eventually has a positive effect (see Figure 5).

Table 6 Newey-West OLS regression on the effect of cultural fractionalization on the Political Terror Scale

	Model 11	Model 12
Cultural Fractionalization	-0.220*	-1.469***
	(0.0894)	(0.311)
(squared) Cultural Fractionalization		1.936***
		(0.444)
(log) GDP per capita	-0.176***	-0.166***
	(0.0138)	(0.0136)
(log) Population	0.159***	0.152***
	(0.0138)	(0.0139)
Civil War	0.866***	0.858***
	(0.0571)	(0.0568)
Years since last civil war	-0.0109***	-0.0115***
	(0.00125)	(0.00124)
Polity		
(Dummy-set with "Anocracy" as reference category)		
Autocracy	0.141**	0.163**
	(0.0515)	(0.0509)
Democracy	-0.327***	-0.311***
	(0.0424)	(0.0426)
Constant	1.592***	1.746***
	(0.251)	(0.255)
Observations	3158	3158

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
All models are controlled for year fixed effects

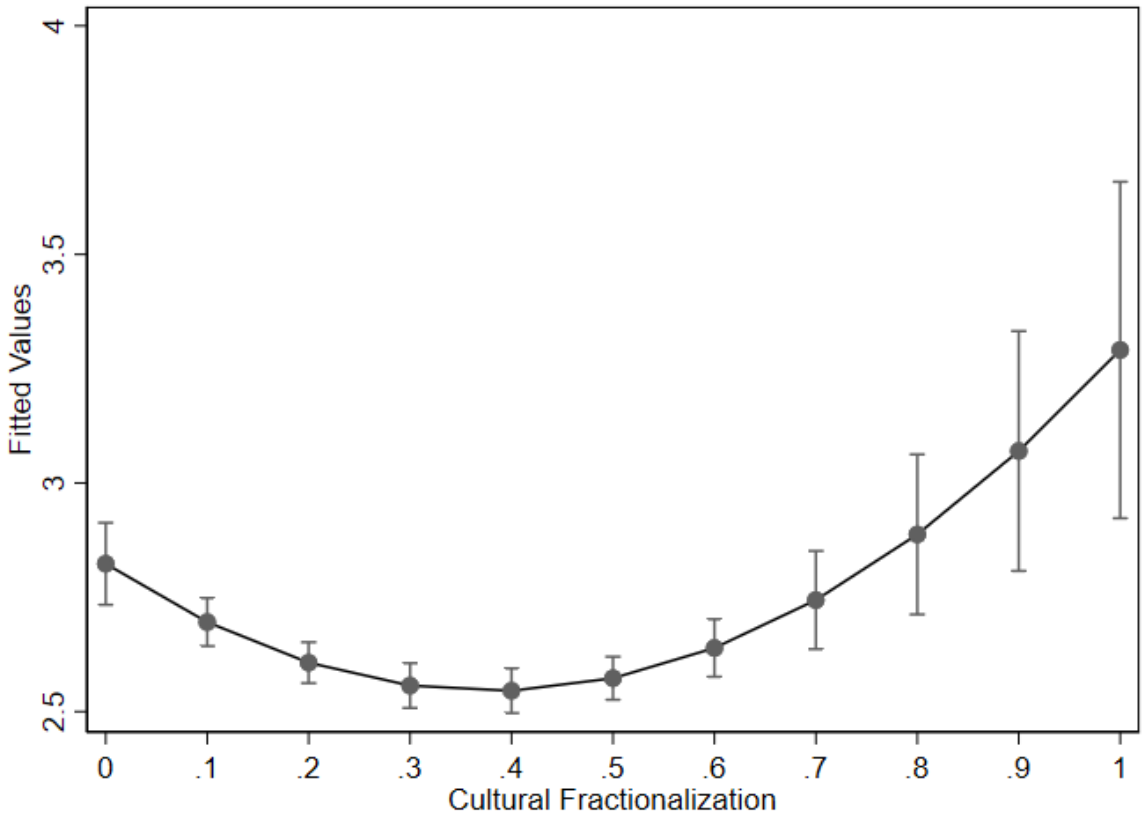

Figure 5 Fitted values for the curvilinear effect of cultural fractionalization on the Political Terror Scale

Discussion

Many scholars have recently highlighted the issue of ethnic diversity, arguing that high levels of diversity lead to negative economic and political outcomes. However, a simple glance at the world suggest several anomalies. In the introduction to this thesis, I mentioned the cases of Botswana and Ghana. Botswana is a long-standing African democracy that in contrast to many other states in sub-Saharan Africa has experienced positive economic and social outcomes. Several authors, such as Easterly and Levine (1997), and Alesina et al. (2011) dedicate Botswana's success to the fact that Botswana has a relatively homogenous population compared to other sub-Saharan African states. However, Ghana is a country with a much more ethnically diverse population. Ghana has experienced decades of autocracy and bad economic and social outcomes but is now a democracy and has for the last decades experienced economic growth, something which raises the question if ethnic diversity necessarily produces bad outcomes.

When it comes to the level of respect for physical integrity rights in these two countries, you can clearly see that there is hope for ethnically diverse societies. As you can see in Figure 6, Botswana has had a stable high level of respect for physical integrity rights for the last decades, while Ghana experienced a significant increase in the level of respect for physical integrity rights during the 1990s before it remained stably high. This shows that even though Ghana is a highly ethnically diverse society, they have managed to reach good social outcomes.

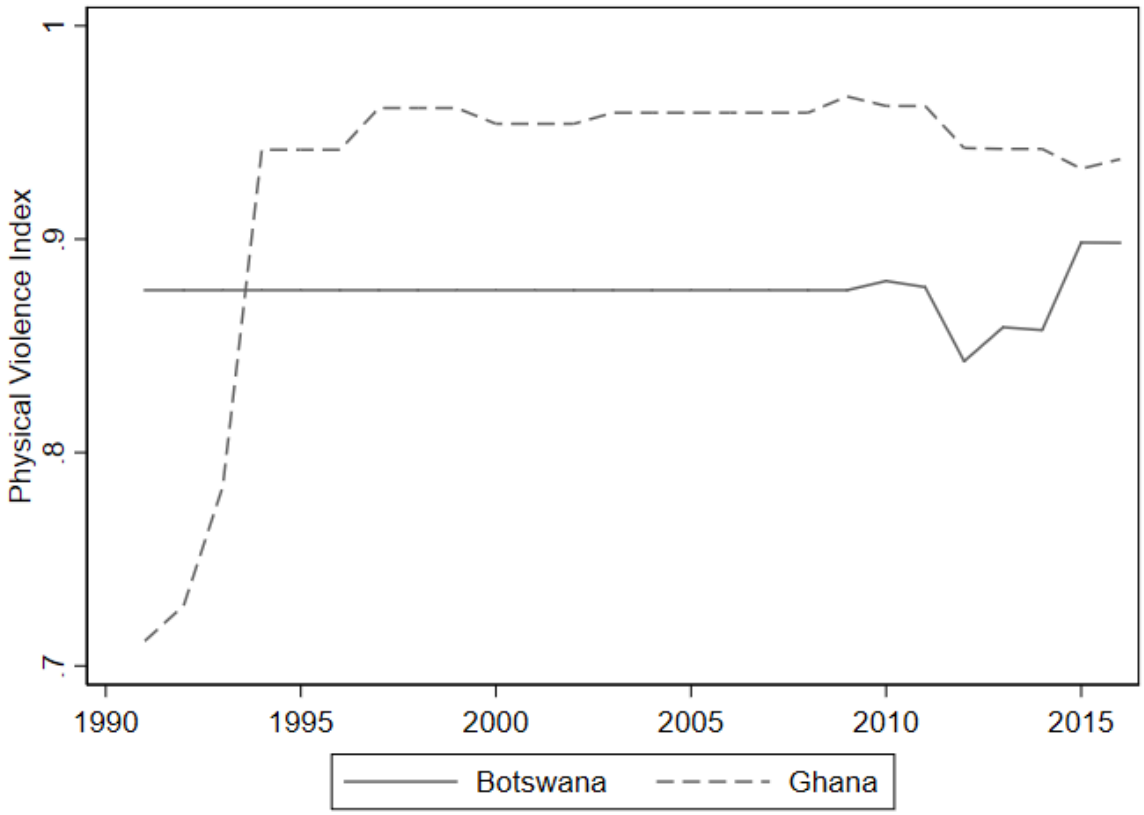

Figure 6 The level of respect for physical integrity rights in Botswana and Ghana for the period 1991-2016

In my analyses, I have tested the effect of ethnic fractionalization, ethnic polarization, and cultural fractionalization on countries' respect for physical integrity rights. My results show that ethnic fractionalization and ethnic polarization has a curvilinear effect on countries' respect for physical integrity rights. As the level of fractionalization or polarization increases, the respect for physical integrity rights initially decreases before it turns and starts increasing. My results also show that cultural fractionalization (based on linguistic distance) has no significant effect on countries' respect for physical integrity rights.

For robustness, I have also tested the models using the Political Terror Scale as the dependent variable. The results from my robustness tests show that ethnic fractionalization has a significant linear negative effect on the Political Terror Scale, indicating that higher levels of fractionalization lead to lower levels of physical integrity rights violations. Contrary to my initial analyses, my robustness tests show no significance of the curvilinear effect of ethnic

fractionalization. However, the robustness tests show that ethnic polarization has a significant curvilinear effect on the Political Terror Scale similar to my initial analyses. As the level of ethnic polarization increases, the level of physical integrity rights violations initially increases before it eventually decreases. When it comes to cultural fractionalization, the results from the robustness tests show a significant negative effect on the Political Terror scale, meaning as the level of cultural fractionalization increases the level of physical integrity rights violations decreases. The results also show that cultural fractionalization has a significant curvilinear effect on the Political Terror Scale. However, this effect is opposite of the effect of ethnic polarization. As the level of cultural fractionalization increases, the level of physical integrity rights violations initially decreases before it eventually turns and starts increasing.

The results from my analyses provide no support for the hypothesis that ethnic fractionalization has a linear negative effect on countries' respect for physical integrity rights. However, my results indicate that ethnic fractionalization har a curvilinear effect where higher levels of fractionalization lead to higher levels of respect for physical integrity rights. This provides support for the hypothesis that ethnic fractionalization has a curvilinear effect on countries' respect for physical integrity rights. These results are however not very robust as the results from the analysis using the Political Terror Scale as dependent variable show no significant curvilinear effect. However, the results from the robustness test show a significant linear effect indicating that higher levels of ethnic fractionalization lead to lower levels of physical integrity rights violations. This indicates that higher levels of ethnic fractionalization lead to higher levels of respect for physical integrity rights.

The results from my analyses on ethnic polarization are very similar to the results on the analyses on ethnic fractionalization. There is no support for the hypothesis that ethnic polarization has a significant linear negative effect on countries' respect for physical integrity rights. However, the results do provide support for the hypothesis that ethnic polarization has

a curvilinear effect on respect for physical integrity rights. These results are robust as we get similar results from the robustness test with the Political Terror Scale as dependent variable.

When it comes to cultural fractionalization, my analyses provide little support for my hypotheses on cultural fractionalization influencing countries' respect for physical integrity rights. However, when using the Political Terror Scale as dependent variable, the results show that cultural fractionalization has a curvilinear effect with an opposite shape of the curvilinear effect found for ethnic fractionalization and polarization. This result is very interesting as it indicates that adding a measure for cultural distance makes a difference from just measuring ethnicity without any consideration of cultural differences.

My results are very similar to those of Dincer (2008) who found a curvilinear relationship between ethnic fractionalization and corruption. Like my results on the effect of ethnic fractionalization on the respect for physical integrity rights, Dincer's results show that as the level of fractionalization increases, the amount of corruption in a country first increases before it starts to decrease.

Many authors have argued that ethnic diversity have negative consequences for society. It has been argued that ethnic diversity lead to difficulties reaching consensus and creating good institutions because of coordination failure because of conflicting interests and the lack of a common identity. Following this argument, one would expect that there will be more physical integrity rights violations in diverse societies. However, my results indicate the opposite by showing there is no negative relationship between ethnic fractionalization or polarization and respect for physical integrity rights

As argued by Acton (1909), Etzioni (1992), and Collier (2001), diversity does not necessarily lead to coordination failure and the failure to create good institutions. My results provide support for their argument that diversity could even have positive consequences for a society.

Diversity could serve as a check for no single group to gain power to serve only the interests of its own group. Diversity could also facilitate for different groups to work efficiently together for the common good through the groups being of a large enough size to reap the gains of collective action.

The fact that my results do not show any significant negative relationship between ethnic fractionalization or polarization and countries' respect for physical integrity rights indicate that there are other reasons behind higher levels of physical integrity rights violations. My results show that the variables identified by Poe and Tate (1994) to have an effect on countries' respect for physical integrity rights still have a significant effect when including ethnic fractionalization and polarization, and cultural fractionalization. Regime type, population size, national wealth, and civil conflict seem to remain reliable associates of the level of countries' respect for physical integrity rights.

In their discussion on the effect of ethnic diversity, Easterly and Levine (1997), and Alesina et al. (2011) point out that higher levels of ethnic diversity often is caused by people from different ethnicities being put together as a result of artificial borders created by outsiders. They argue that states that has emerged in a homegrown way find it easier reaching consensus than those with borders created by outsider. Even though these authors argue that this could be a result of diverse societies lacking a common identity and having conflicting interests, my results indicate that diversity in itself does not necessarily lead to coordination failure. The main reason behind coordination failure could be states not emerging in a homegrown way. Borders and institutions created by outsiders could lead to challenges regarding legitimacy and other issues that are not necessarily a result of ethnic diversity.

To sum it up, my results provide no support for the hypotheses that ethnic fractionalization, ethnic polarization or cultural fractionalization has a negative effect on countries' respect for

physical integrity rights. My results also show that ethnic fractionalization and ethnic polarization has a curvilinear effect on countries' respect for physical integrity rights. This shows that ethnic and cultural diversity does not necessarily lead to negative outcomes. It seems from these analyses at least that the prominent place given in some theories of development to demographic factors resulting from colonial map-making might be exaggerated.

Conclusion

In this study, I have addressed the issue of whether ethnic and cultural diversity have positive or negative social outcomes for a society. Several major arguments suggest that higher levels of ethnic and cultural diversity have negative consequences both economically and politically (Alesina et al., 2003; Alesina et al., 2011; Dahl, 1971; Easterly, 2006; Easterly & Levine, 1997; Lind, 1994; Mill, 2011). The argument is often that this is a result of ethnic diversity leading to coordination failure and the lack of a common identity and common interests. Those who disagree with this view often argue that ethnic diversity could lead to positive outcomes through people organizing in groups that serves as a check for no single group to gain power and thus to serve only the interests of its own group (Acton, 1909; Collier, 2001; Etzioni, 1992; Park, 1987).

To test my hypotheses regarding the effect of ethnic and cultural diversity, I have analyzed the effect of ethnic fractionalization, ethnic polarization and cultural fractionalization on countries' respect for physical integrity rights.

My variables measuring ethnic fractionalization and polarization have been constructed by using data from The Composition of Religious and Ethnic Groups (CREG) project, which is part of the Cline Center for Democracy's Societal Infrastructures and Development (SID) project (Cline Center for Democracy, 2014; Nardilli et al., 2012). Other commonly used measures for ethnic fractionalization are those constructed by Alesina et al. (2003) and Fearon (2003). However, these measures are based on cross-sectional data and do not vary over time. The CREG project data are time series data that do vary over time, which gives this data an advantage over the data used by Alesina et al. and Fearon.

In order to measure cultural fractionalization, I have used the variable for cultural fractionalization created by Fearon (2003). The variable is a measure of cultural distance based

on linguistic differences between different ethnic groups in a society. As noted by Fearon (2003), if one thinks that ethnic diversity matters because differences between different ethnic groups make it harder for people to cooperate and coordinate, then one might be interested in some notion of the cultural distance between ethnic groups rather than just fractionalization or polarization.

My results show that ethnic fractionalization and ethnic polarization has a curvilinear effect on countries' respect for physical integrity rights. As the level of fractionalization or polarization increases, the respect for physical integrity rights initially decreases before it turns and starts increasing. My results also show that cultural fractionalization (based on linguistic distance) has no significant effect on countries' respect for physical integrity rights when using the Physical Violence Index as the dependent variable.

This indicates that ethnic diversity does not necessarily lead to coordination failure. My results indicate that diversity could even have positive consequences for a society. This provides support for the argument that diversity could facilitate for different groups to work efficiently together for the common good through the groups being of a large enough size to reap the gains of collective action and serve as a check for no single group to gain power to serve only the interests of its own group.

In other words, there is support in my data that propositions based on the idea that ethnic and cultural diversity are not at the core of development failure. More research is needed to understand why exactly some states are able to manage ethnic and cultural diversity while others fail.

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Appendix

Table 7 Descriptive statistics

	Mean	Std. Dev.	Min	Max	Observations
Physical violence index	0.673	0.277	0.0218	0.993	4,382
Political Terror Scale	2.653	1.149	1	5	3,695
Ethnic Fractionalization	0.450	0.256	0.00358	0.890	3,573
Ethnic Polarization	0.546	0.227	0.00715	0.948	3,573
Cultural Fractionalization	0.307	0.207	0	0.733	4,082
Civil War	0.131	0.338	0	1	5,646
Years since last civil war	29.26	18.92	0	56	5,646
(log) GDP per capita	8.158	1.658	4.175	12.17	5,113
(log) Population	15.02	2.415	9.111	21.04	5,627
Polity (Dummy-set)					
Autocracy	0.179	0.384	0	1	4,219
Anocracy	0.290	0.454	0	1	4,219
Democracy	0.530	0.499	0	1	4,219