Pre-colonial centralization and political participation in Africa
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Introduction

It is no secret that Africa has a complicated relationship with democracy. The Economist Intelligence Index (Democracy index 2022, 2022) gives Sub-Saharan Africa on average a democracy score of 4.14 out of 10 while the average worldwide score is 5.29. The process of democratization in Africa has been one with ups and downs (Hyden, 2016, p. 169). Because democratic governance in Africa has not always been successful it is important to look for ways in which democratic governance can fit the African context. An important part of democracy is political participation. Participating politically, no matter if it is through voting, running in elections, protesting, or sending a letter to a politician is inherently democratic. When participating politically one contributes to "rule by the people" which is the exact definition of democracy (Deneulin, S, 2009, pp. 186-187). Fuchs (2006) explains why political participation is so important for democratic governance. He states that political participation legitimizes democracy and creates a normative understanding of what democracy is and why it exists. Ake (1993, p. 240) finally states the importance of political participation and states: "There cannot be democratization without widespread political participation".

To find out how democratic governance and political participation fit in the African context it is important to do more research on African cultural values and how these values influence African politics. There is no denying that the colonial period has had a huge influence on Africa's current social, political, and economic state, but Africa is more than just its colonial chapter. Pre-colonial African history, and the cultural values, norms, and political institutions created in this period still play an important role in modern African politics. Researching the influence of pre-colonial Africa might help to find out why some countries, ethnic groups, or individuals have not been able to implement successful democratic governance or participate in politics. Can processes of democratization in Africa only be explained by developments coming from the West? Or can democratization in Africa also be explained by historical democratic processes? For example, the committee group systems in Somali clans which were aimed to foster compromise (Bradley, 2005, p. 415)

One of the factors which has contributed to political and cultural diversity within Africa is the level of pre-colonial centralization. We know that the form of pre-colonial centralization can influence state capacity and effective rule (Bandyopadhyay & Green, 2013, p.116).

Additionally, Chlouba, Smith, and Wagner (2022) show that pre-colonial centralization influences views on democracy. Africans of ethnic groups who used to live under some form of centralized government in pre-colonial times are more likely to support an autocrat. The cultural importance of a "big man" as a political leader is more important here. Finally, they suggest that there is still uncertainty about how pre-colonial centralization influences political actions and not just the thoughts of Africans. Are these political actions also more or less democratic? There is a wide selection of literature on the influence of pre-colonial centralization on modern-day Africa but there is yet to be any evidence on if these processes also influence the democratic practices of African citizens. To find out if people act more or less democratically it is thus important to research if they participate in politics. This brings me to the research question: *What is the influence of pre-colonial centralization on modern-day political participation in Africa?*

The coming part will analyze the literature on pre-colonial centralization and political participation in Africa. Furthermore, several phenomena which are part of the relationship between pre-colonial centralization and political participation will be discussed. This includes historical norm transitions, the influence of colonialism on state formation, and differences in resource accessibility and political incentives for different ethnic groups. Firstly, pre-colonial centralization and political participation will be conceptualized. Secondly, the relationship between these two variables will be discussed. And lastly, the hypothesis for the analysis will be introduced.

Pre-colonial centralization in Africa

Pre-colonial centralization is used interchangeably with the term pre-colonial statehood in most of the literature on this phenomenon (Chlouba et all, 2022; Paine, 2019). Mathys (2021, pp. 493-496) explains how pre-colonial African statehood was very different from the typical European nation-state of the Westphalian model. He states that relationships between territory, identity, and authority were different in pre-colonial Africa than in Europe. Continuously he states that Culture and political power in most regions did not correspond perfectly. Limits of "states" were often seen as the areas that authorities could use for human and natural resources. These limits were often unofficial and might have had very different meanings for local communities. According to Dunn and Englebert (2019, p.21), authority was exercised more over groups of people than over a specific territory. The complex

situation in pre-colonial Africa with many different systems of authority and governance makes it difficult to define pre-colonial statehood or centralization in the African context.

There er several authors who define important parts of pre-colonial centralization. Chlouba et all (2022, pp. 693-694) state that in any case, eliminating competing institutions and authorities was part of early state formation in Africa. Gennaioli and Rainer (2007, p. 186) see chiefly hierarchy with higher chiefs having control over local chiefs as one of the most important factors of pre-colonial political centralization. Paine (2019, p.647) has a more clear definition of pre-colonial centralization. According to Paine, there is pre-colonial centralization when: "co-ethnics governed a substantial percentage of members of the EPR ethnic group through a single or small number of political organizations that exhibited some degree of centralized rule on the eve of colonization". Pre-colonial centralization or statehood in Africa thus does not include territorial boundaries.

Pre-colonial centralized groups often were groups that already had created a strong shared identity. Non-centralized groups on the other hand often did not have this feeling of belonging to a certain ethnicity or state at all (Paine, 2019, p. 655). Just like with centralized states, there were several ways of non-centralized pre-colonial settings. There were groups of people who still lived as hunter-gatherers like the San in the Kalahari desert. Additionally, there were many smaller and bigger agricultural communities all over Africa (Duignan & Gann, 1975, pp. 35-39).

Political participation in Africa

Political participation is a concept that has been conceptualized in different ways. Teorell (2006, pp. 788-791). identifies three different conceptions of political participation. The first conception is participating as an attempt to influence politics. This first conception has been dominant in studies about political participation. The second conception is participation as direct decision-making. Authors in this subfield argue for very local and communal political participation. The third conception is participation as a discussion. In this conception, the collective discussion about politics and voicing opinions is seen as the main form of political participation. Participation as an attempt to influence politics includes the most different forms of participation. This is thus the easiest form of participation to quantify.

Participation as an attempt to influence politics also includes two methods of participation. These methods as identified by Oser (2016, p. 235) are electoral and non-institutional political participation. The first method of participation includes voting and within-party activities. The second includes most other activities, for example, protesting. Lehman Schlozman and Brady (2022, p.25) also define political participation within the framework of participation as a way to influence politics. They list what acts should most importantly be included within political participation as "voting, contacting a public official, signing a petition, attending a protest, joining a political party or an organization that takes stands in politics, working in a campaign, attending a rally, or donating money to a campaign or political cause." This research will thus follow the dominant line of political participation research, I assume political participation to be human acts that have the goal to influence political decisions.

Political participation in Africa specifically is complicated to define, many African countries struggle with high levels of corruption, clientelism, and vote buying (Ugaz, 2015). Because of the widespread presence of vote buying, the later analysis will not take voting into account as political participation. Different levels of political participation in Africa have been explained in many ways. Demographic attributes like age, gender, and ethnic identity are regularly used and common in the literature, Isaksson (2010, p.17) argues that several other attributes like relative wealth and resource availability, are also important. Political participation can thus be influenced in several different ways. Teorell (2006, pp. 797-801) adds to this and identifies two general causes of political participation: resources and incentives. As resources, he identifies physical capital (all material assets), social capital (the benefits from relationships (Claridge, 2014)), and human capital (skills and knowledge). When it comes to incentives, he identifies three different kinds which can cause political participation: Selective incentives (advantages will only happen when a person contributes to the outcome), process incentives (people participating out of excitement), and expressive incentives (participating to express or reaffirm their identity).

Historical state formation in Africa
To explore the effect that different levels of pre-colonial centralization could have on modern-day political participation it is primarily important to explain the differences in democratic norms and political participation in pre-colonial Africa. Certainly, neither centralized nor non-centralized forms of government in pre-colonial Africa were purely democratic. Many African leaders in the pre-colonial era stayed in power through non-democratic practices. An example

is, selling slaves to traders on both the Atlantic and Saharan slave routes (Igboin, 2016, p. 155). Dunn and Englebert (2019, p.21) add to this and state that it were patron-client relations and corruption which strengthened unity in pre-colonial African states. Authority in local communities would often be based on hereditary succession. On the other hand, there are also plenty of cases where leaders of villages and communities were elected in a somewhat democratic manner (Greenbaum, 1977, p.46). It is certainly possible that democratic institutions were important in pre-colonial communal lives, many forms of self-governance and constitutionalism originate from communal systems of governance (Sabetti, 2004, p.77). Consequently, local democratic practices like community assemblies were important to indigenous groups, especially when these indigenous groups had to deal with more centralized or state-like powers (Bentzen, Hariri, Robinson, 2017, p. 682).

Chlouba et all (2022, p. 689) notice that semi-democratic and deliberative traditions were common in smaller African communities while the more centralized and state-like institutions lost these democratic characteristics and became more autocratic. Pre-colonial centralization generally thus led to a more autocratic government. For example, in the kingdom of Hueda in modern-day Benin. Monroe (2014, p. 48) explains how the kingdom of Hueda had a clear authoritarian system where rulers of smaller villages were subordinate and loyal to the higher kings. It makes sense that subordination to higher powers creates less space for local leaders to deliberate policies within the community. This means that there are historical differences in Africa on how used members of certain ethnic groups are to democratic or autocratic rule.

Pre-colonial centralization, norms, and political participation.
The literature discusses several ways in which pre-colonial centralization can affect political participation or other aspects of politics. All of these ways stem from the differences in governance between the different pre-colonial systems. Different pre-colonial systems in Africa have been able to influence norms and attitudes toward democracy as well as differences in the availability of resources for people from certain ethnic groups. The next part will first discuss how pre-colonial (non-)centralization has influenced norms and attitudes, and how these norms influence modern-day political participation. Secondly, it will discuss how there are differences in the availability of resources between ethnic groups because of differences in pre-colonial governance and how the availability of resources influences political participation.

Englebert and Dunn (2019, p.18) state that many pre-colonial institutions persisted through colonial times in some way. When it comes to creating a positive attitude towards democracy, local governance is very important. Tocqueville already mentioned this in 1830 when he stated that participatory local governance is like a primary school for democracy (Bentzen et all, 2017, p.682). Local factors are thus important when it comes to persisting pre-colonial institutions and norms. Chlouba et all (2022, p.670) also find that there are several authors who state that cultural and local factors are important when creating individual attitudes towards democracy. Giuliano and Nunn (2013, p. 11) find that there is a positive correlation between early local governance and positive attitudes toward democracy. It is thus not uncommon for these democratic norms and teachings to be transmitted over a long period of time (Becker, Boekh, Hainz, & Woessmann, 2016, p. 40). An example of how pre-colonial cultural values are still being taught is given by Ngozwana (2021, p.25). He tells a story about a traditional learning system in Lesotho where knowledge and skills were taught collectively. Additionally, he states that this taught people to live collectively and civilly, creating democratic values among them. All of this means that both democratic and autocratic institutions and norms persisted through the colonial period and are able to influence postcolonial political relations.

Not just norms, but also institutions can persist over time, Neupert-Wentz and Müller-Crepon (2021, pp. 3-4) describe how colonialism disrupted the gradual development of many African institutions but that many were also able to sustain over this period of time. These institutions can also have clear political influences. persisting pre-colonial centralized institutions are, for example, associated with increased rule of law and less corruption (Gennaioli & Rainer, 2005, p.23). De Juan (2017) gives an example of how norms created through pre-colonial institutions can persist over a long time. He states that conflict resolution in Burundi's countryside is often still done through Bashingantahe (local notables who have to task to preserve unity). The Bashingantahe are not always accepted as legitimate. De Juan (p. 1861) finds that pre-colonial political differences were much better at explaining the acceptance or non-acceptance of the Bashingantahe than any modern-day predictors. Not only do norms persist, but they are also reinvented: Igboin (2016, p.158) brings up that many contemporary African leaders reinvent their traditions to stay in power, this is particularly common with ethnic political leaders.

Persisting and reinvented norms and institutions are thus able to influence modern-day norms and political attitudes. These norms and political attitudes play an important role in explaining political participation. According to Verba, Lehman Schlozman, and Brady (1995, pp. 163-185), political participation is strongly influenced by support for democratic values. Specifically, they see democratic values such as equality, representation, and the right to participate in decision-making as important factors for individuals to engage in political activities. The authors argue that the connection between support for democracy and political participation explains how democratic values shape citizens' motivations to take part in activities that influence politics. Teorell's (2006) Framework on political participation also helps to explain how democratic attitudes influence political participation. Important selective incentives that cause political participation are shared participatory norms within the community or feeling like one has a duty to the community (Teorell, 2006, p.800). I established before that deliberative and participatory political behavior were specifically important in non-centralized pre-colonial societies. Social and political norms thus persist over time through institutions and socialization. These norms may be able to influence modern-day political participation through selective incentives and because the norms shape motivations. This would mean that ethnicities which were non-centralized pre-colonial societies are more likely to participate politically.

Pre-colonial centralization, resources, and political participation
Pre-colonial centralization can also influence political participation because it has contributed to different levels of accessibility in resources between different ethnic groups. Specifically, the development of ruling methods in Africa during the colonial era contributed to differences in resource availability between ethnic groups. There is the general assumption that British colonialists used indirect rule and that French colonialists used direct rule (Paine, 2019, p. 646). Yet there is evidence that states that both British and French colonialist systems in Africa used indirect rule (Wucherpfennning, Hunziker, & Cederman, 2016, p. 885). As part of indirect rule, the British were specifically known to use pre-colonial institutions and to keep the pre-colonial leaders in power in their colonial institutions (Lange, 2004, p.906). This means that the ethnic groups which were powerful before colonialism were still relatively powerful during colonialism.

Bernhard, Reenock, and Nordstrom (2004, p.229) also add that cooperation with the ruling powers generally left traditional ruling classes in power when independence was achieved.

The post-colonial era thus often saw previously powerful ethnic groups get back to power. McNamee (2019, p. 154) argues that these institutions have created ethnic cleavages. These cleavages mean that there are differences in the availability of resources for different ethnic groups. Pre-colonial centralized ethnic groups are likely to have more power and thus more resources (Paine, 2019). Returning to Teorell's (2006) framework of political participation: All resources (physical, human, and social) play an important part in causing political participation. Pre-colonial state formation can thus influence political participation because it has been created through political cleavages and differences in resource availability. Pre-colonial centralization seems to sometimes influence political participation negatively through democratic attitudes. At the same time, pre-colonial centralization seems to sometimes influence political participation positively because of increased access to resources.

There are some other authors who state that pre-colonial centralization might create more political participation. De Juan and Koos (2019, p.110) argue that pre-colonial centralized societies have had a longer period of nation-building. This means that there is on average more social capital and a stronger national identity which could lead to more political participation. Additionally, Bandyopadhyay and Green (2013, p.116) argue that pre-colonial centralized societies have created more public goods through better institutional infrastructures. This could lead to more physical capital. This argument by Bandyopadhyay and Green is contested. Lowes, Nunn, Robinson, and Wiegel (2017, p. 1066) argue that institutions might not create more political participation. Instead, they argue that centralized authoritarian institutions create a culture wherein there is no reason for citizens to take part in the system because the system does not listen to them. This would lead to less motivation to participate.

Oser (2016, pp. 249-252) does not use incentives and resources as main causes, instead, she argues that people who are more politically "engaged", are more likely to participate in general but specifically in non-institutional ways. People who participate because they see it as their duty are then more likely to participate in an institutional way. Oser and Hooghe (2018, pp. 725-726) add to this that specifically people who find importance in political rights (like voting and participating) are more likely to participate than those who prioritize social rights (like economic equality). This again shows the importance of democratic norms to political participation. Although there are some reasons to believe that pre-colonial centralization has a positive impact on political participation, I believe that it has a negative

impact on political participation. Norms influence the ways in which people act, and many of the normative ethnic cleavages in Africa stem from pre-colonial times.

This brings me to the Hypothesis:

H1: In Africa, members of ethnic groups which had non-centralized political institutions in pre-colonial times are more likely to participate politically than members of ethnic groups which had centralized political institutions in pre-colonial times.

Description of the data

This analysis will be conducted with a dataset that will consist of merged data from three different datasets. First I will describe the three separate datasets, then I will describe the overall dataset which will be used in the analysis. The first dataset is the Afrobarometer merged dataset round 6 (Afrobarometer, 2016). The Afrobarometer consists of survey data. Afrobarometer is a non-profit company and the surveys they conduct are non-partisan. All of the data is collected through random sampling of all citizens who are older than 18 in a country except for those who are living in inaccessible areas because of conflict. The Afrobarometer conducts surveys on many social and political aspects of life. Specifically useful for this research project are the questions about the demographics and ethnicity of the respondents, and the questions about political participation and view on democracy of the respondents. There are eight Afrobarometer survey rounds from 1999 until 2022. Each survey round produces country-specific datasets and a merged dataset. I will be using a merged dataset to have the highest quantity of respondents and different ethnic groups available for my analysis. Furthermore, I will be using the data from round six because this is the round in which surveys have been held in the most different countries.

The second dataset which I used is the dataset that measures pre-colonial statehood. This dataset was created by Paine (2019), to measure the influence of pre-colonial statehood on ethnic violence. This dataset is necessary to be included in this research because pre-colonial statehood is the main independent variable of this research. The dataset used by Paine is built on the Murdock dataset of pre-colonial ethnic groups and merged with the EPR (Ethnic Power Relations) data on African ethnic groups. Continuously Paine added a code for pre-colonial statehood to this dataset. All of this data was created based on already existing literature from scholars on this subject.

The third dataset which is included in this analysis is the V-Dem (Variations of democracy) dataset of 2019 (V-Dem, 2023). Just like the Afrobarometer, V-Dem reproduces its datasets. The main goal of V-Dem is to calculate an aggregated democracy score per country per year. For this research, it is important to have a democracy score per country in the year 2016 because this is the year of the Afrobarometer round 6 data. I have thus selected version 9 of the V-Dem data and filtered out the democracy scores of 2016. The data used by V-Dem to assess democracy scores is expert data. Generally speaking, every country-year combination score is based on data from five experts on a said country (Marquardt, K. 2023).The combination of these datasets has created a new dataset, this new dataset includes information about 11242 Africans who have participated in an Afrobarometer survey. These people come from thirteen different countries and 32 ethnic groups. Initially, there were 34 ethnic groups but I removed the Somali and Mijikenda ethnic groups because there was only one respondent per ethnic group.

Dependent, independent, and control variables

The next paragraph will give some clarity about the different variables which have been used in this analysis. I will include legitimization for the use of these variables as well as a description of the variables. The dependent variable in this research is "political participation". The variable which has been used for this comes from the Afrobarometer round 6 dataset (Afrobarometer, 2016, p.17). This variable is based on the question if a respondent has ever attended a community meeting and if they would do so if they had not. The answers to this question are then categorically ranked from zero to four with zero being "No, I would never do this" and four being "Yes, often". Because I will be using a multilevel model I have recoded this variable into a binary variable with the outcomes 0 and 1. 0 in this case will be: I have not joined a community meeting. 1 will be: I have joined a community meeting. The Afrobarometer has several variables which could be used as a measure of political participation. There are variables about, voting, joining protests, or raising an issue. I believe that attending a community meeting in this case is best to measure political participation. Joining a community meeting is a typical traditional African democratic practice (Ngozwana, 2021, p.31). The main argument for this hypothesis is that norms are preserved over time. It would thus make sense that the same norms lead to the same sort of political participation.

The main independent variable which I will be using for this analysis is PCS (Pre-Colonial Statehood) group from Paine's (2019) ethnic violence dataset. He initially coded three different options: The first was PCS (an ethnic group that had pre-colonial statehood). The second was SL (an ethnic group that did not have pre-colonial statehood). The third option was SLPCS (an ethnic group that was not a pre-colonial state, while being in the same country as a PCS group). In this research there is no important difference between SLPCS and SL, I thus recoded this variable to PCS as 1 and non-PCS as 0. Paine explains the exact coding of the PCS groups by stating that a group is coded as a PCS group if "co-ethnics governed a substantial percentage of members of the EPR ethnic group through a single or small number of political organizations that exhibited some degree of centralized rule on the eve of colonization" (Paine, 2019, p. 647).

The first control variables that will be used in this analysis are variables on the demographics of the respondents. Specifically a respondent's gender and age. Firstly, age, Bisong Tambe and Kopacheva (2023, pp. 15-16) argue that people between 45 and 68 are the most active group when it comes to political participation in Africa. They state that younger people are specifically less likely to participate in collective action. The dependent variable in this analysis, "joining a community meeting", can be seen as a form of collective action. It is likely that age influences political participation in Africa and it is thus useful to include age in this analysis. The age variable in this analysis is a continuous variable that ranges from 18 to 96, as can be seen in Table 1.

The second demographic control variable is gender. Robinson and Gottlieb (2021, p. 68) state that women are generally speaking more disempowered than men and are thus less likely to participate politically Coffe and Bozendahl (2011, pp. 259-260) additionally present several findings from their research on the role of gender on political participation. They argue that there are different kinds of gender gaps within political participation worldwide. Some Western countries have higher levels of female political participation whereas most African countries have more male political participation. They also find that women in Africa are more likely to participate when the mode of participation is more institutionalized or when the women have a stronger socio-economic position. Gender is also an Afrobarometer variable and is categorical. This variable can have a value of one (male) or two (female), other genders are not taken into account by the Afrobarometer and are thus not included in this analysis either.

Table 1: Descriptive statistics

Variable	Minimum	1st Quartile	Median	Mean	3rd Quartile	Maximum
Gender	1	1	1	1.488	2	2
Age	18	26	35	38.18	48	96
Political participation	0	0	1	0.5253	1	1
Democracy support	1	3	3	2.691	3	3
pcs	0	0	0	0.2028	0	1
Democracy score	0.1750	0.3080	0.5210	0.5068	0.6690	0.7470

The third demographic control variable will be ethnic group. The main independent variable, pcs group, is measured on the ethnic group level. To find out more about the influence of pre-colonial centralization on political participation it is important to take into account that other ethnic differences will not be the main cause of this relationship. The relationship between different ethnic groups and political participation will thus be included in this analysis to check if ethnic groups do not cause the potential relationship between pre-colonial centralization and political participation. Furthermore, McCauly (2014, p. 801) argues that politicians, specifically in Africa, mobilize supporters by ethnicity. Consequently, the created ethnic identity cleavages might create different incentives to participate for different ethnic groups. This is another reason to include ethnicity in this analysis. The descriptive statistics in Tables 2.1, 2.2, 2.3, and 2.4 show that ethnic groups across Africa have varying characteristics. The ethnic groups which are used in this analysis are the ethnic groups from Paine's (2019) dataset. I have chosen the names of Paine's ethnic groups instead of the Afrobarometer language groups because ethnic groups are more commonly mentioned in the literature than language groups. Table 3 shows the 32 ethnic groups and the number of observations that are used per ethnic group.

Table 2.1: Mean scores per ethnic group

Variable	Arabs	Bamileke	Bassa/Duala	Beti (and related peoples)	Birwa	Ewe	Fang
gender	1,480402	1,513043	1,571429	1,477612	1,6	1,40942	1,501661
age	38,16985	34,50435	34,52381	29,29104	31,1	38,21739	35,89037
political_participation	0,258291	0,591304	0,571429	0,626866	0,5	0,485507	0,362126
democracy_support	2,275377	2,626087	2,642857	2,492537	2,8	2,67029	2,574751
pcs	0	0	0	0	0	0	0
democracy_score	0,308	0,34	0,34	0,34	0,747	0,669	0,438

Table 2.2 Mean scores per ethnic group

Fulani (and other northern Muslim peoples)	Ga-Adangbe	Herero/Mbanderu	Hutu	Kalanga	Kalenjin-Masai-Turkana-Samburu	Kamba	Kgalagadi
1,25	1,476684	1,428571	1,487911	1,467391	1,333333	1,571429	1,5625
32,58333	40,22798	36,35714	38,08377	39,16304	34	33	40,8125
0,583333	0,310881	0,857143	0,620898	0,641304	0,833333	0,285714	0,604167
2,75	2,61658	2,714286	2,790155	2,76087	2,666667	3	2,895833
0	0	0	0	0	0	0	0
0,34	0,669	0,747	0,175	0,747	0,504	0,504	0,747

Table 2.3 Mean scores per ethnic group

Kikuyu-Meru-Emb	Kisii	Kru	Luhya	Luo	Malinke	Mbukushu	Northern Groups (Mole-Dagbani, Gurma, Grusi)
1,4788732	1,478261	1,485714	1,448529	1,436242	1,488095	1,307692	1,4
35,544601	37,22609	40,72857	38,82353	41,58389	42,76488	34,15385	37,65455
0,5117371	0,730435	0,585714	0,536765	0,778523	0,699405	0,923077	0,630303
2,7276995	2,165217	2,914286	2,794118	2,442953	2,755952	2,846154	2,648485
0	0	0	0	0	1	0	0
0,504	0,504	0,521	0,504	0,504	0,461	0,747	0,669

Table 2.4: Mean scores per ethnic group

Northerners (Mande and Voltaic/Gur)	Other Akans	Peul	San	South/Central (Fon)	Southeastern (Yoruba/Nagot and Goun)	Susu	Tswana	Yeyi
1,5777778	1,497373	1,496386	1,625	1,489754	1,483221	1,5	1,495516	1,47619
29,977778	37,66637	44,94217	48,04167	35,17213	35,95302	40,28	38,30605	41,57143
0,4444444	0,386165	0,677108	0,666667	0,473361	0,496644	0,692	0,632287	0,809524
2,8222222	2,752189	2,768675	2,916667	2,684426	2,536913	2,772	2,754484	2,952381
0	0	1	0	1	1	0	0,5	0
0,521	0,666538	0,461	0,747	0,708	0,708	0,461	0,747	0,747

Table 3. Respondents per ethnic group

Ethnic Group	Respondent
Arabs	995

Bamileke	115
Bassa/Duala	42
Beti (and related peoples)	134
Birwa	10
Ewe	276
Fang	301
Fulani (and other northern Muslim peoples)	12
Ga-Adangbe	193
Herero/Mbanderu	14
Hutu	2316
Kalanga	92
Kalenjin-Masai-Turkana-Samburu	6
Kamba	7
Kgalagadi	48
Kikuyu-Meru-Emb	213
Kisii	115
Kru	70
Luhya	136
Luo	149
Malinke	336
Mbukushu	13
Northern Groups (Mole-Dagbani, Gurma, Grusi)	165
Northerners (Mande and Voltaic/Gur)	45
Other Akans	2284
Peul	415
San	48
South/Central (Fon)	488
Southeastern (Yoruba/Nagot and Goun)	149
Susu	250
Tswana	1784
Yeyi	21

A fourth control variable will be the country of the respondent, just like with ethnic groups, different countries have many unique and different characteristics which influence this analysis. The different country scores per variable in this analysis can be seen in Tables 4.1 and 4.2. Cultural differences (Mayer, 2022, p. 32), socio-economic differences (Lehman Schlozman & Brady, 2022, p. 26), and political differences (Kuenzi & Lambright, 2010, p. 790) can all create differences in political participation on the national level. A specific national-level variable that is important in this analysis is the democracy score of the country a respondent is residing in. It makes sense that those who live in less democratic countries are less likely to participate in politics. This can be the case simply because people do not get the chance to participate or because they are socialized not to. For example, in some authoritarian regimes, those with better education are less likely to participate politically because they are taught not to (Croke, Grossman, Larreguy, Marshall, 2016, p. 599).

To measure the democracy levels of the countries I have used the v-dem electoral democracy index. According to V-Dem institute (2019, p. 39), this democracy index is essential for any other conceptualization of democracy. It thus seemed to be the most fitting index. The index ranges from zero to one with zero being a completely imperfect electoral democracy and with one being a completely perfect electoral democracy. Just like with the ethnic group level data, this analysis does not have the same amount of observations per country. Table 5 shows all the countries and the amount of observations per country.

Table 4.1: Mean scores per country

Variable	Benin	Botswana	Burundi	Cameroon	Chad	Cote d'Ivoire
gender	1,488226	1,493578	1,48791	1,49505	1,480402	1,499602
age	35,35479	38,41101	38,08377	32,12541	38,169815	37,56165
political_participation	0,478807	0,640367	0,620898	0,60396	0,258291	0,399364
democracy_support	2,649922	2,766055	2,790155	2,574257	2,275377	2,763723
pcs	1	0,818349	0	0	0	0
democracy_score	0,708	0,747	0,175	0,34	0,308	0,653223

Table 4.2: Mean scores per country

Gabon	Ghana	Guinea	Kenya	Namibia	Rwanda	South Africa
1,501661	1,47241	1,494505	1,461661	1,625	1,48791	1,498908
35,89037	38,02928	43,04695	37,96006	48,04167	38,08377	38,56114
0,362126	0,416104	0,688312	0,621406	0,666667	0,620898	0,633188
2,574751	2,71509	2,765235	2,573482	2,916667	2,790155	2,758734
0	0	0,75025	0	0	0	0
0,438	0,667417	0,461	0,504	0,747	0,175	0,747

Table 5: Respondents per country

Country	Observations
Benin	637
Botswana	1090
Burundi	1158
Cameroon	303
Chad	995
Cote d'Ivoire	1257
Gabon	301
Ghana	1776
Guinea	1001
Kenya	626
Namibia	24
Rwanda	1158
South Africa	916

The last control variable which I have used in this analysis is the support for democracy of the respondent. If a person has a more positive attitude towards democracy, it would be logical to assume that this person is more likely to work for this democracy and thus participate politically. Verba, Lehman Schlozman, and Brady (1995, p. 510) state that attitudes matter when explaining political participation, for example when people become enthusiastic about an issue. If attitudes matter, levels of support for democracy also matter. Support for democracy is also measured through the Afrobarometer questionnaire (2016, p.23). The respondents were asked if they supported democracy and could choose between the answers: I

always support democracy (3), sometimes I prefer other sorts of governance (2), the political system does not matter for me(1), this is thus a categorical variable. This means that the variable can be seen as ordinal with 1 meaning the weakest support for democracy and 3 meaning the strongest support for democracy.

Analysis

For this statistical analysis I will be using a multilevel logistic model, there are several reasons for this choice of model. Firstly, The used dataset includes data with three different measures of analysis (respondent, ethnic group, country). These measures of analysis have a hierarchical relationship. Respondents are nested within ethnic groups and countries, and the ethnic groups are nested within countries. The respondents are expected to be more likely to participate politically within specific ethnic groups and countries than in others, this model will be able to account for that. Furthermore, this model will be able to say something about the fixed effects. In this case, the fixed effect is the general relationship between pre-colonial centralization and political participation and the role of the control variables. Continuously, it will also be able to say something about the random effects. In this case, the random effects are the variations across ethnic groups and countries. This is especially interesting because it will give me more specific information about the ethnic groups which did have pre-colonial centralization. The dependent variable, political participation, was recoded into a binary variable to simplify the interpretation of this model. Because the model now has a binary outcome variable, the multilevel model most suited to research the effect of the independent variable on this outcome variable is a binary logistic model. The R software 4.2.2 is used for this regression.

The regression includes seven models. Model 1 includes only the main dependent and independent variables and ethnic group as a random effect. This model is included to see if there is a relationship between pre-colonial centralization and political participation if no control variables are included. Model 7 includes all control variables to check for the effect of these variables on the relationship between pre-colonial centralization and political participation. Models 2 to 6 all see certain variables excluded to check the mediating effect of these specific variables on the relationship between the dependent and independent variables.

Model fit:

All the model fit statistics can be found in Table 6. The R-Squared scores tell me more about the explanatory value of these models and the used variables. In Model 1 the marginal $R2$ is 0.000. This means that the only fixed effect in Model 1, pre-colonial centralization, explains no part of the variance. This model is thus not able to explain the variance of political participation. The best $R2$ scores are found in Model 3 when ethnic groups as a random effect are excluded. In Model 3 the marginal $R2$ is 0.083 and the conditional $R2$ is 0.191. Although these $R2$ scores are more than 0, they are still relatively low scores. All of these models thus explain only a small part of the variance in political participation.

Table 6. Multilevel binary logistic regression on political participation

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Political participation	0.327**	-0.042	0.620	0.016	-0.087	0.057	-0.042
	(0.116)	(0.405)	(0.508)	(0.143)	(0.167)	(0.397)	(0.407)
Pre-colonial centralization	0.007	0.004	-0.103	0.003	0.003	0.004	0.004
	(0.094)	(0.096)	(0.115)	(0.096)	(0.096)	(0.096)	(0.096)
Age		0.026***	0.025***	0.026***	0.026***	0.026***	0.026***
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Gender		-0.428***	-0.435***	-0.431***	-0.428***	-0.431***	-0.428***
		(0.041)	(0.040)	(0.040)	(0.041)	(0.040)	(0.041)
Democracy score		-0.083	-1.600			-0.075	-0.082
		(0.675)	(0.887)			(0.676)	(0.678)
Support for democracy		0.038	0.021		0.038		0.038
		(0.032)	(0.032)		(0.032)		(0.032)
Ethnic group	0.582	0.584		0.584	0.583	0.585	0.584
Country			0.661	0.000	0.000	0.000	0.000
Observations	11242	11242	11242	11242	11242	11242	11242
R2 Marginal	0.000	0.055	0.083	0.060	0.060	0.055	0.060
R2 Conditional	0.093	0.144	0.191			0.144	
AIC	14727.1	14239.3	14303.1	14238.7	14239.3	14240.7	14241.3
BIC	14749.1	14290.6	14354.4	13282.7	14290.6	14292.0	14299.9
ICC	0.1	0.1	0.1			0.1	
RMSE	0.48	0.47	0.47	0.47	0.47	0.47	0.47

AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion) are two different tools that analyze model fit. AIC takes a higher number of parameters into account better than that BIC does. For both variables, a lower score means that there is a better model fit. These variables are used to compare models. Model 4 has the lowest AIC and BIC. A model which excludes political participation and support for democracy as control variables is thus the model which fits this data the best. Despite their differences, all models have relatively close AIC and BIC values. Models 1, 2, 3, and 6 have an ICC (Intra-Class Correlation) score of 10%. This means that about 10% of the variation in political participation can be accounted for by explanations on the group level (in this case ethnic group or country). Models 4,5 and 7 did not report an ICC score, meaning that explanations on the group level make no notable contributions to the variance in political participation. Lastly, the RMSE (Root Mean Square Error) of all models is consistently around 0.47. The fact that these are all nearly equal means that all the models have comparable explanatory power.

Regression results

The results of all the models which are used for this analysis are presented in Table 6. There is no statistically significant relationship between pre-colonial centralization and political participation. Model 1 is the only model in which the intercept score for political participation is statistically significant. This means that only in Model 1 there is evidence to support that the odds that a person participates in politics are significantly higher than that a person does not participate in politics if all predictors are zero or kept at their reference category. Although it is significant, this result is still relatively meaningless without significant predictor variables. This is specifically the case because, the reference category for ethnic group is not numerical but an ethnic group, namely "Arabs".

The results for pre-colonial centralization as a predictor are always very low except for when the random effect of ethnic groups is removed as a control variable. This means that the variables are correlated. This correlation does make sense because pre-colonial centralization is measured on the ethnic group level. Even in Model 3 where the random effect of ethnic groups is not taken into account, pre-colonial centralization does not have a statistically significant effect on political participation. It is interesting to see that the predictor value of pre-colonial centralization is negative when the ethnic group random effect is not taken into

account. This means that the relationship between pre-colonial centralization and political participation might be a negative one.

Furthermore, the random effects of ethnic group and country never have a statistically significant effect. Still, the random effect scores are interesting. In Model 7 ethnic group has a random effect score of 0.584, this means that a random specific ethnic group on average has a deviation in the log odds of 0.584 from the general intercept, while all other effects in the model are kept constant. There thus seems to be a relatively big difference between the level of political participation of different ethnic groups. The random effect score for country is 0.000 when the ethnic group score is included. This score turns into 0.661 when the ethnic group score is taken out of the regression. At the same time, the score for ethnic group hardly changes when the country random effect is excluded like in Models 1 and 2. This probably means that the two random effects are intertwined. It does make sense that both random effects are intertwined because most countries include few ethnic groups in this regression, while some only include one ethnic group.

The only statistically significant variables are the demographic control variables age and gender, they are statistically significant in all models. There is a statistically significant positive relationship between how likely a respondent is to participate in politics and this respondent's age ($\beta = 0.026$, $p < 0.001$). This means that on average when an African is one year older, the odds of this person participating in politics are 0.026 higher. There is also a statistically significant negative relationship between how likely a respondent is to participate in politics and this respondent's gender ($\beta = -0.428$, $p < 0.001$). This means that on average an African male has 0.428 higher odds than an African female to participate in politics. Gender and Age are also the two variables that change the least when the ethnic group random effect variable is taken out of the regression. This means that the effect of these variables is consistent over different ethnic groups.

A higher democracy score has a negative effect on political participation in all models. At the same time, a stronger feeling of support for democracy does have a positive effect on political participation. Neither of these control variables is statistically significant in any of the used models. Continuously, both models, especially the democracy score, change dramatically when the ethnic group random effect is taken out of the regression. Again, this means that the variables are probably correlated with the ethnic group random effect. All of this means that it is difficult to say anything meaningful about the effect that these two variables have on

political participation. One thing which is interesting to notice is that it seems like the support a person has for democracy and the actual presence of democracy have completely different influences on a person's decision to participate in politics.

Overall the several models in this analysis have weak explanatory power and there are few significant relationships. Most notably there is no statistically significant relationship between pre-colonial centralization and political participation, I can thus not reject my null hypothesis.

Still, there are some ways in which this research contributes to the literature on political participation and the influence of pre-colonial centralization in Africa: It is specifically interesting to notice that the specific demographic variables have a clearly bigger influence on political participation than a country's democracy score and a person's support for democracy. This means that norms might be less important for Africans when deciding if they will participate in politics than other factors.

Conclusion

African democracy is behind most of the world and the waves of democratization are uneven processes that are not going as fast as many hope. Political participation is at the basis of democracy and understanding changes in political participation is thus important to find potential for democratic growth in Africa. Pre-colonial African history is often not taken into account when explaining democratic growth or stagnation. The same is the case when research is done to find out more about the opportunities that Africa has to democratize. Pre-colonial centralization has been proven to influence several political factors in modern-day Africa but there is no clear image of the role it has on political participation yet. This situation has been the motivation for this study, which has aimed to answer the following research question: What is the influence of pre-colonial centralization on modern-day political participation in Africa?

To find the answer to this research question I conducted a multilevel binary logistic regression. The results of the regression analysis done in this study show that there is no statistically significant relationship between pre-colonial political centralization and political participation. It is thus not possible to prove or disprove important aspects of this relationship. It is not possible to say if norms created in pre-colonial times influence political participation in Africa. It is not possible either to say if disproportionally divided resources because of pre-colonial centralization influence political participation.

The reason for the limited findings is that there are several limitations to this study. Firstly, the dataset used in this analysis only included 32 different ethnic groups while Paine (2019) coded PCS groups for 169 ethnic groups. The low amount of ethnic groups might account for the lack of significant results in this analysis. Furthermore, the low amount of ethnic groups makes it difficult to make general conclusions about the influence of ethnic groups in Africa. Secondly, political participation is a relatively wide concept that can be operationalized in several different ways. There is no available measure to find out how "participatory" a person is, instead the Afrobarometer offers several different ways of political participation. For any future research on participation in Africa, it would be useful to measure the effect on not one but several of these different measures of political participation to get a more complete view.

A third limit to this research is the fact that the coding for pre-colonial centralized states is arbitrary and based on historical literature on which it can be hard to trace back the truth. This means that even if the relationship had been perfectly significant, it would still be important to look well into most of the specific cases to see exactly which historical institutions and norms were created and how these influence modern political trends.

Further research in general on the relationship between pre-colonial centralization would be valuable because this study has not been able to clearly answer the research question. If this research can include the differences between normative influences and the influence of incentives created through resources, that would be very valuable. Historical state formation in Africa has undoubtedly influenced modern-day normative understandings of the world as well as the spread of resources amongst African ethnic groups. How exactly this historical development has influenced political participation through these factors is still unclear. More widespread survey data and improvements in the linking between Afrobarometer and EPR African data could provide a stronger dataset to study this relationship in the future.

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Syntax

```
library (haven)
dt <- "~/DataTables/"
df <- read_dta(paste(dt, "io_ethnicdata.dta", sep = "" ))
View (df)


dfs <- read_sav(paste(dt, "afrobarometer.sav", sep = ""), encoding = "latin1")
View (dfs)


library (writexl)
write_xlsx(df,"~/DataTables/dfpaine.xlsx")


library (dplyr)
df2 <- dfs %>%
  select(2, 39, 44, 45, 79, 117)


write_xlsx(df2,"~/DataTables/df2afrobaromth.xlsx")


library (readr)


setwd("~/DataTables/")
dfvdem <- readRDS("V-Dem-CY-Core-v9.rds")
dfvdem1 <- dfvdem %>%
  select(country_name, country_text_id, country_id, v2x_polyarchy, year) %>%
  filter(!is.na(v2x_polyarchy)) %>%
  filter(year == "2016")


write_xlsx(dfvdem1,"~/DataTables/dfvdem1.xlsx")


rm (df, dfs, df2, dfvdem, dfvdem1)


library(devtools)
```

```
install_github(repo = "carl-mc/LEDA")


library(LEDA)
leda <- LEDA$new()


setlink <- leda$link_set(lists.a = list(type = c("Afrobarometer"),
                            round = 6, marker = "language"),
                lists.b = list(type = c("EPR")),
                link.level = "dialect",
                by.country = T,
                drop.a.threshold = 0,
                drop.b.threshold = 0,
                drop.ethno.id = T,
                add_listmetadata = TRUE)



library (readxl)


dfresp <- read_excel(paste (dt, "Respondentleveldata.xls", sep = ""))
dfethnic <- read_excel(paste (dt, "Ethnicgrouplevel.xls", sep = ""))
dfcountry <- read_excel(paste (dt, "National level data.xls", sep = ""))
dflanguage <- read_excel(paste(dt, "ABLanguages.xls", sep = ""))


dfresp$Language <- dfresp$`Q2. Language`


ABgood <- inner_join(dfresp, dflanguage, by = "Language")


setlink$LanguageName <- setlink$a.group


any(duplicated(setlink$LanguageName))


setlink2 <- distinct(setlink, LanguageName, .keep_all = TRUE)


ABset <- inner_join(ABgood, setlink2, by = "LanguageName")
```

```
setlink2$groupname <- setlink2$b.group

Ethnicdf2 <- inner_join (dfethnic, setlink2, by = "groupname", relationship = "many-to-
many")
Ethnicdf3 <- inner_join (Ethnicdf2, dflanguage, by = "LanguageName", relationship =
"many-to-many")

ABethnicdf <- inner_join(ABset, Ethnicdf3, by = "LanguageName", relationship = "many-to-
many")

dfcountry$COUNTRY <- dfcountry$Afrobarometer_code
Fulldata <- inner_join (ABethnicdf, dfcountry, by = "COUNTRY")

rm (ABethnicdf, ABgood, ABset, dfcountry, dfethnic, dflanguage, dfresp, Ethnicdf2,
Ethnicdf3, setlink, setlink2)

Analysis <- Fulldata %>%
  select (gender = 2, age = 3, political_participation = 5, democracy_support = 6, ethnic_group
= 28, country = 39, pcs = 40, democracy_score = 72 )
Analysis1 <- Analysis %>%
  filter (age >= 18 & age <= 97) %>%
  filter (political_participation >= 0 & political_participation <= 4 ) %>%
  filter (democracy_support >= 1 & democracy_support <= 3) %>%
  filter (!is.na(ethnic_group))%>%
  filter (!is.na (country))

unique (Analysis1$political_participation)
Analysis1 <- Analysis1 %>%
  mutate(political_participation = if_else(political_participation %in% c(0, 1), 0, 1))
unique (Analysis1$political_participation)

Analysis1 <- Analysis1 %>%
  filter(!ethnic_group %in% c("Mijikenda", "Somali")) %>%
```

```
Analysis1 %>%
  group_by(ethnic_group) %>%
  summarise(mean_pcs = mean(pcs)) %>%
  print(n=34) %>%
  ungroup ()


# This was just to check how many ethnic groups have pcs score 1.


library(tidyr)


table1 <- Analysis1 %>%
  group_by(ethnic_group) %>%
  summarise(across(where(is.numeric), mean)) %>%
  pivot_longer(-ethnic_group, names_to = "variable") %>%
  pivot_wider(names_from = ethnic_group, values_from = value)
write_xlsx(table1,"~/Bachelor Project 2023/Tables/table1_thesis.xlsx")


table2 <- Analysis1 %>%
  group_by(country) %>%
  summarise(across(where(is.numeric), mean)) %>%
  pivot_longer(-country, names_to = "variable") %>%
  pivot_wider(names_from = country, values_from = value)
write_xlsx(table2,"~/Bachelor Project 2023/Tables/table2_thesis.xlsx")


table3 <-Analysis1 %>%
  ungroup () %>%
  select_if(is.numeric) %>%
  summary () %>%
  as.data.frame ()
write_xlsx(list(table3),"~/Bachelor Project 2023/Tables/table3_thesis.xlsx")


table4 <- table(Analysis1$ethnic_group) %>%
  as.data.frame()
```

```
write_xlsx(table4,"~/Bachelor Project 2023/Tables/table4_thesis.xlsx")

table5 <- table (Analysis1$country) %>%
  as.data.frame()
write_xlsx(table5,"~/Bachelor Project 2023/Tables/table5_thesis.xlsx")

rm (table1, table2, table3, table4, table5)

library(lme4)
library (modelsummary)

model1 <- glmer(political_participation ~ pcs + (1 | ethnic_group),
        data = Analysis1,
        family = binomial)

modelsummary(model1, stars = TRUE,
        title = 'Multilevel regression model results for
political participation by pcs.')

model2 <- glmer(political_participation ~ pcs + age + gender + democracy_score +
democracy_support + (1 | ethnic_group),
        data = Analysis1,
        family = binomial)

modelsummary(model2, stars = TRUE,
                title = 'Multilevel regression model results for
political participation without country.')

model3 <- glmer(political_participation ~ pcs + age + gender + democracy_score +
democracy_support + (1 | country),
        data = Analysis1,
        family = binomial)

modelsummary(model3, stars = TRUE,
```

```
                    title = 'Multilevel regression model results for
political participation without ethnic groups.')


model4 <- glmer(political_participation ~ pcs + age + gender + (1 | ethnic_group) + (1 |
country),
                    data = Analysis1,
                    family = binomial)


modelsummary(model4, stars = TRUE,
                    title = 'Multilevel regression model results for
political participation without democracy score or support.')


model5 <- glmer(political_participation ~ pcs + age + gender + democracy_support + (1 |
ethnic_group) + (1 | country),
                data = Analysis1,
                family = binomial)


modelsummary(model5, stars = TRUE,
                    title = 'Multilevel regression model results for
political participation without democracy score')


model6 <- glmer(political_participation ~ pcs + age + gender + democracy_score + (1 |
ethnic_group) + (1 | country),
                    data = Analysis1,
                    family = binomial)


modelsummary(model6, stars = TRUE,
                    title = 'Multilevel regression model results for
political participation without democracy score')


model7 <- glmer(political_participation ~ pcs + age + gender + democracy_score +
democracy_support + (1 | ethnic_group) + (1 | country),
                data = Analysis1,
                family = binomial)
```

```
modelsummary(model7, stars = TRUE,
              title = 'Full multilevel regression model results for
political participation.')


write_xlsx (Analysis1, "~/Final Thesis/FinalDatasetThesis.xlsx" )
```