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Who Deserves To Be Supported? Analysing Attitudes Towards Horizontal Redistribution in Nigeria

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Abstract

Despite the widespread recognition of the risk that group-based inequalities, or so-called horizontal inequalities (HIs), pose for the political stability and social cohesion of multi-ethnic societies, extremely little research has been conducted on how people perceive these inequalities and how these perceptions, in turn, are associated with people's attitudes towards group-based or horizontal redistribution. In this article, we systematically analyse how people's perceptions of prevailing socio-economic HIs shape their attitudes towards horizontal redistribution in Nigeria, a country confronted with sharp and persistent inequalities between different ethnic groups. We develop a set of hypotheses for explaining differences in support for horizontal redistribution policies and test these hypotheses empirically with the help of a unique survey panel of about 2300 Nigerians.

1. Introduction

The sharp rise in income and wealth inequalities in many countries around the world has rekindled academic interest in understanding people's redistribution preferences (Pellicer et al., 2019). However, while there is an extensive and growing literature concerning the demand for alleviating inequality between the "poor" and "wealthy" (i.e., vertical inequality), so far, less research has been conducted on attitudes towards redistribution aimed at reducing inequalities between culturally defined groups, or so-called horizontal inequalities (HIs). The notable exception is the literature on attitudes towards affirmative action in the

United States (Harrison et al., 2006). This is surprising because HIs are pervasive and can have serious impacts on multi-ethnic societies, not only because they are fundamentally unjust but also because the presence of severe HIs has been shown to increase the risk of political instability and violent conflict and often leads to considerable economic inefficiencies (Stewart, 2008). In addition, HIs have been shown to be extremely persistent, and they may trap certain groups in positions of inferiority and relative disadvantage for long periods (Stewart & Langer, 2008). Thus, in contexts with sharp and persistent socio-economic HIs, there may be a strong case for introducing redistributive policies to correct these inequalities—or what we term here "horizontal redistribution." Importantly, the introduction and continuation of horizontal redistribution measures is crucially dependent on public support for these policies. Unfortunately, little is known about the determinants of people's attitudes towards horizontal redistribution, especially in countries in the Global South. However, many of the countries in this geographical space are highly diverse and often confronted with persistent HIs between different ethnic, religious, or racial groups.

The current article aims to address this important academic and policy void by analysing attitudes towards horizontal redistribution in Nigeria, a country confronted with sharp and persistent inequalities between different ethnic groups and regions (see, e.g., Archibong, 2018). Nigeria is a highly ethnically diverse country, with three dominant ethnic groups forming a "tripodal" ethnic structure, i.e., the Hausa and the Fulani of the North, the Yoruba of the Southwest, and the Igbo of the Southeast (Langer et al., 2009; Mustapha, 2009). Yet, the eight largest ethnic groups comprise around 75% of the country's population. Moreover, Nigeria is characterised by a pervasive politicisation of ethnicity. The introduction of multiparty elections in 1999 has done little to mitigate this (Kendhammer, 2015). However, Nigeria has implemented a range of initiatives to address its diversity challenges and keep its political and socio-economic HIs in check. Most notable in this respect was the establishment of the Federal Character Commission in 1996, which was aimed at ensuring "fairness and equity in the distribution of public posts and socio-economic infrastructures" across Nigeria (Federal Character Commission, 2023). Despite such efforts, socio-economic HIs remain very severe, especially between the more economically developed South and the relatively disadvantaged North of the country. Given Nigeria's severe socio-economic HIs and its efforts to keep these inequalities in check, we think it constitutes a highly instructive case for studying and investigating our hypotheses concerning the determinants of people's preferences for horizontal redistribution.

Drawing on the literature that focuses on the determinants of the demand for vertical redistribution (i.e., redistribution between the "poor" and the "wealthy" in society) as well as the literature that focuses on explaining attitudes towards affirmative action, we will develop a set of original hypotheses aimed at explaining differences in support for horizontal redistribution in Nigeria. We theorise that support for horizontal redistribution can be explained by differences in the perceived causes of the prevailing HIs, the perceived severity of these inequalities, fairness concerns, and self-interest considerations. To test our hypotheses, we utilized data from a unique survey panel of about 2300 Nigerians.

The article is structured as follows: In the next section, we will review the most important theoretical approaches to explaining people's attitudes towards (horizontal) redistribution. Drawing on this literature review, we will then formulate several hypotheses regarding people's support for horizontal redistribution in Section 3. We test these hypotheses in our empirical analysis of Nigeria. Our empirical strategy is explained in Section 4, and we discuss the results of our analysis in Section 5. Section 6 concludes the article.

2. Demand for (Horizontal) Redistribution: Insights From Previous Research

Before theorising about the determinants of people's attitudes towards horizontal redistribution, it is worthwhile reviewing the extensive literature on people's attitudes towards redistribution between the "poor" and the "wealthy" (i.e., vertical redistribution). We argue that some of the theories developed to explain attitudes towards vertical redistribution may also be relevant for understanding attitudes towards horizontal redistribution. In particular, economists and sociologists have proposed and empirically tested a range of different factors and theoretical mechanisms to explain differences in support for redistributive policies across the world. While drawing on Jaime-Castillo and Sáez-Lozano (2016), Pittau et al. (2016) argue that there are essentially two main approaches in this literature: The first approach "is based on the material utility individuals can obtain from redistributive policies," while the "second approach, not necessarily mutually exclusive, evokes the adherence to ideological principles and beliefs in supporting public welfare" (Pittau et al., 2016, p. 714).

The first approach is theoretically underpinned by Meltzer and Richard's (1981) "median voter model," which argues that political support for redistribution will be higher among individuals whose income is below a country's median income level (Pittau et al., 2016). Hence, according to this theory, there will be more demand and support for economic redistribution in countries with more severe levels of vertical inequality because more voters will fall below the median income level in these countries (see also Schmidt-Catran, 2016). The main assumption underlying this theory is that people are essentially motivated by economic self-interest. Yet, it is worth noting that the empirical evidence supporting the median voter hypothesis is inconclusive (see, e.g., Iversen & Soskice, 2006).

The second approach argues that differences in attitudes towards vertical redistribution are essentially the result of differences in "beliefs in regard to the causes of inequality, concerns for fairness, religious convictions, forms of altruism, as well as social norms about what is acceptable or not in terms of inequality and poverty" (Pittau et al., 2016, p. 715). Importantly, sometimes, these principles, beliefs, and other sociotropic considerations may supersede individuals' narrow economic self-interest and motivate them to accept and support redistribution policies that may hurt them materially (Pittau et al., 2016, p. 715). In what follows, we will zoom in on four factors that largely fall within this second approach and appear particularly relevant, not only for explaining attitudes towards vertical redistribution but may also potentially be important for understanding differences in support for horizontal redistribution.

A first factor focuses on the perceived causes of inequality. Both experimental (e.g., Cappelen et al., 2007) and survey research (Fong, 2001) have yielded that support for vertical redistribution is stronger among people who believe that the prevailing economic inequalities and the precarious economic situation of disadvantaged individuals and groups are the result of "circumstances beyond individual control (such as luck) rather than within individual control (such as work)" (Valero, 2022, p. 876). Similarly, the literature studying attitudes towards affirmative action in the United States has used concepts such as "responsibility stereotypes" (Reyna et al., 2006) or "beliefs in a just world" (Wilkins & Wenger, 2014) to tap into beliefs about whether the causes of HIs are within or beyond a group's control. Given the overwhelming empirical support provided by these studies, we argue that the same logic is also relevant for explaining differences in support for horizontal redistribution in Nigeria.

A second factor that is crucial for shaping redistributive preferences focuses on the extent of perceived HIs. It is worth noting that a large body of research has shown that perceptions of vertical inequalities often differ substantially from objective assessments of these inequalities (see, e.g., Hauser & Norton, 2017). As it turns out, the limited amount of research conducted on subjective HIs also shows that perceptions of HIs may differ markedly from more objective assessments of these HIs (see, e.g., Kraus et al., 2017). Illustratively, Langer and Smedts (2013) find notable mismatches between objective and subjective HIs in 19 African countries. Hence, they conclude that "the assumption that objective and subjective HIs are largely the same...needs to be revisited and challenged" (p. 2). Drawing on Gimpelson and Treisman (2018) and Kuhn (2019), Marandola and Xu (2021) further pointedly argue that people's perceptions of inequalities are more important for understanding attitudes towards redistribution than objective or actual levels of income or wealth inequalities. In other words, how HIs are perceived is arguably a more important driver of people's attitudes towards horizontal redistribution than the actual levels of HIs.

A third factor that is important for explaining redistribution preferences focuses on differences in fairness concerns and social justice orientations. Importantly, the kind and level of inequality that may be considered "fair" may differ across individuals, groups, and countries. Regarding differences in fairness beliefs between different countries, Almås et al. (2020) have shown, for instance, that Americans and Norwegians have very different fairness views related to inequality. This, in turn, helps to explain differences in inequality acceptance between these two countries. Conversely, differences in fairness concerns between individuals from the same country may result from a range of factors, experiences, and circumstances, including, for example, personal experiences of high inequality during one's youth (Roth & Wohlfart, 2018) and exposure to severe inequality in everyday life (Sands, 2017).

While there are additional factors, circumstances, and mechanisms put forward in the extensive literature concerning attitudes towards vertical redistribution, including, for example, differences in perceived social mobility, background characteristics of potential beneficiaries, and individuals' past exposure to inequality (for a detailed review of these and other determinants of people's perceptions of inequality and redistribution preferences see Marandola & Xu, 2021), in this short review, we have focused exclusively on those factors and mechanisms which we think will also be relevant for explaining attitudes towards horizontal redistribution.

3. Theorising Support for Horizontal Redistribution: Some Hypotheses

Drawing on the theoretical insights gained from the literature review above, we now formulate a set of hypotheses to explain differences in support for horizontal redistribution. We subsequently test these hypotheses against survey data from Nigerian respondents.

Our first hypothesis to explain horizontal redistribution preferences directly relates to self-interest considerations. Building on Meltzer and Richard's (1981) research, we hypothesise that economic self-interest considerations will likely affect people's preferences towards horizontal redistribution. In particular, we hypothesise that individuals who consider themselves part of a relatively advantaged group are more likely to oppose horizontal redistribution policies because they may worry that these policies will negatively affect themselves and their group. Conversely, individuals who perceive themselves to belong to a relatively disadvantaged group are likely to support horizontal redistribution because they may believe that

they themselves and their group may benefit materially from these policies. Our first hypothesis, therefore, reads as follows:

> Hypothesis 1: Individuals who consider themselves to belong to a relatively disadvantaged group are likely to be more supportive of horizontal redistribution policies than individuals who consider themselves to belong to a relatively advantaged group.

Our second hypothesis is related to people's perceptions of the causes of the prevailing HIs. We hypothesise that people who consider disadvantaged groups themselves to be responsible for their relatively deprived position are less likely to support horizontal redistribution policies. Conversely, people who believe that the prevailing HIs are mainly caused by factors and circumstances that are largely outside the control of disadvantaged groups are likely to be more supportive of policies aimed at reducing HIs. Our second hypothesis, therefore, reads as follows:

> Hypothesis 2: People are likely to be more supportive of horizontal redistribution when the relatively disadvantaged groups that stand to benefit from these policies are perceived to be less responsible for their disadvantaged position.

Our third hypothesis for explaining horizontal redistribution preferences focuses on the perceived severity of the prevailing HIs. As discussed above, people act and react on the basis of their perceptions of reality. Hence, in order to understand horizontal redistribution preferences, it is crucial to assess how people perceive the prevailing HIs. Moreover, we argue that people's assessment of the severity of the prevailing HIs will likely affect the extent to which they think something needs to be done about them. In line with this reasoning, we propose the following hypothesis:

> Hypothesis 3: The more severe people perceive the prevailing economic HIs to be, the more they will support horizontal redistribution towards disadvantaged groups.

Our fourth hypothesis relates to people's fairness considerations. As discussed above, fairness concerns matter a great deal when it comes to understanding vertical redistributive preferences. We hypothesise that people's beliefs and attitudes towards fairness are also likely to affect their horizontal redistribution preferences, and we argue that it is crucial to assess how people assess the fairness of the prevailing HIs. More specifically, we put forward the following hypothesis in this regard:

> Hypothesis 4: The more unfair people consider the prevailing HIs to be, the more likely they are to support horizontal redistribution policies.

In addition to the four hypotheses about direct effects, we expect the variable fairness to—at least partially—mediate the effects of the three other independent variables. First, we would expect to see that the effects of perceived relative group position are mediated by fairness, because members of disadvantaged groups, due to their living experiences, are more likely to see the consequences of inequality and are thus more likely to believe that the existing HIs are unfair. Second, we expect that the effect of group responsibility perceptions will likewise be mediated by fairness concerns. Respondents who attribute existing economic HIs more strongly to factors that are within the control of disadvantaged groups should

be more likely to consider the prevailing HIs as fair. In contrast, we argue that those who do not think that less well-off groups are themselves to blame are more likely to think that the existing inequalities are unfair. Third, in line with previous research (e.g., Becker, 2020), we expect that the perceived severity of economic HIs has an impact on perceptions of fairness and, therefore, on redistributive preferences. More precisely, we expect that—all else being equal—respondents who perceive HIs as more severe are more likely to think that the status quo violates norms of distributive justice, to which redistribution could be seen as a possible remedy.

Finally, we also expect that the perceived relative position of one's group impacts perceptions of group responsibility. In line with Pettigrew (1979), group members may engage in self-serving biases when trying to make sense of the differences in outcomes between their in-group and other out-groups. Members of relatively advantaged groups may, therefore, engage in self-enhancing attributions, viewing their own success as a result of their own abilities or agency. Conversely, members of relatively disadvantaged groups may engage in self-protective effects, explaining their situation as being the result of factors beyond their control (Hewstone, 1990). Even if studies have shown that the direction of causal attributions can depend on the specific context, especially social stereotypes, testing this hypothesis can serve as a point of departure for further research in the case of Nigeria, where a large number of groups is competing for their piece of the "national cake" (Kendhammer, 2015). Figure 1 summarises the full theoretical model.
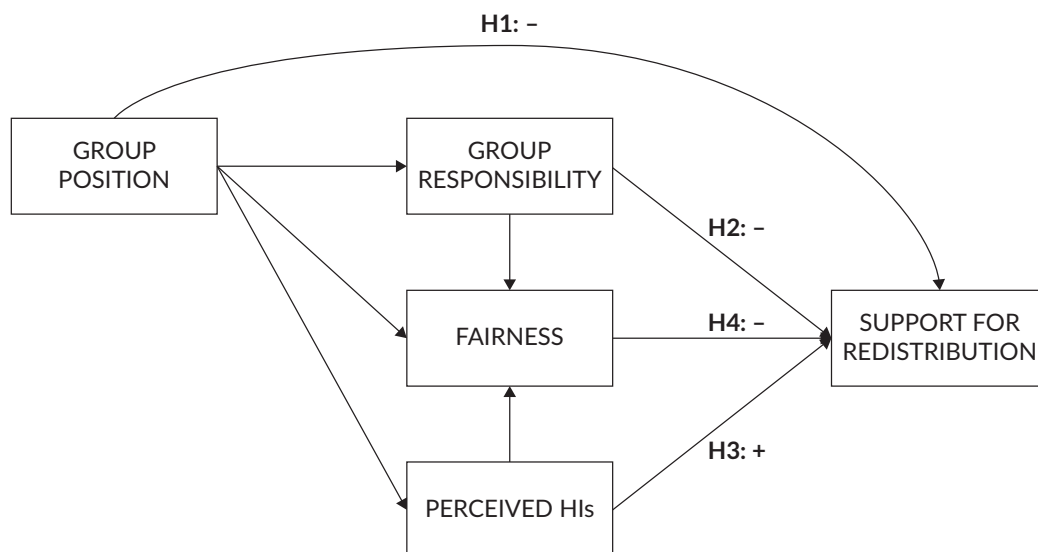
Figure 1. Hypothesised theoretical model.

4. Empirical Methodology

4.1. Study Design and Data Collection

To empirically investigate the main drivers of people's redistribution preferences in Nigeria, we conducted a unique online panel survey, i.e., the Perceptions of Inequalities and Redistribution Survey (PIRS), among Nigerian citizens of 18 years and above. To recruit respondents from different strata of society, we used targeted advertisements on the social media platform Facebook. Moreover, we used Facebook's options to

target potential participants based on their self-reported gender, age, and level of education, as well as their location data. Potential participants were shown an advertisement banner inviting them to participate in the survey. Users who clicked on this banner were redirected to our survey registration page. People who registered their mobile phone number on that page and indicated that they used the messaging service WhatsApp (i.e., 2711 people, or 73% of the 3715 people who registered for our survey) were then sent a survey link to participate in the first round of our survey. In total, we conducted four online survey rounds from March to April 2023. The surveys were relatively short and generally took less than 10 minutes to complete. Respondents received a small quasi-cash incentive in the form of mobile phone credit of 500 Nigerian Naira (i.e., approximately equivalent to 1 EUR at the time of recruitment) after completing each survey round.

Table 1 below provides summary statistics for the four survey rounds of Nigeria's PIRS. The attrition rate between the different survey rounds was very low. This, in turn, meant that the survey completion rate was very high, given that only respondents who had successfully completed a particular survey round were subsequently invited to participate in the next survey round. Importantly, our empirical analysis below is only based on respondents who completed all four survey rounds.

4.2. Selection Bias and Limitations

Our sample is clearly not nationally representative because of our recruitment strategy (i.e., the use of Facebook-targeting as a recruitment strategy for prospective respondents) and survey mode (i.e., online self-completion English questionnaire). Moreover, our sample is especially skewed regarding respondents' educational attainment levels. Illustratively, while most respondents in our sample (i.e., 80%) had attended postsecondary education, in the general population of Nigeria, this proportion is much smaller. As shown in the Afrobarometer survey (last column in Table 1), only 23% of this nationally representative sample attended postsecondary education. Similarly, while in the Afrobarometer survey about 34% of respondents had no formal education or only primary education, in our sample, all respondents had obtained at least secondary education. The fact that our sample is seriously skewed regarding educational attainment levels may have an important impact on our empirical findings. Thus, for instance, higher education often translates into higher income, which, in turn, may be associated with lower levels of support for redistribution because relatively advantaged individuals may be more concerned that they will have to pay for redistribution interventions. Similarly, higher education may be associated with more urban living environments, which may be associated with more inter-ethnic contact and possibly more positive attitudes towards other ethnic groups. This, in turn, could be associated with higher levels of support for redistribution towards more disadvantaged groups. Further, while our sample had a good representation of the three major ethnic groups (i.e., Yoruba, Igbo, and Hausa-Fulani) as well as from the six different geopolitical zones, these proportions were not fully in line with the demographic proportions in the general population of Nigeria. Yet, given that we do not plan to aggregate our results to the Nigerian population as a whole, this distortion appears to be less relevant. Thus, while we recognise the limited generalizability of our empirical findings, it is important to emphasise here that we see the current study as a first step towards testing the original hypotheses we developed in the previous section.

Table 1. Descriptive statistics of Nigeria's PIRS (rounds 1–4).

	Round 1	Round 2	Round 3	Round 4	Reference[1]
Surveys					
# invitations	2712	2333	2171	2107	
# completed surveys	2332	2171	2107	2008	
Completion rate (%)	86.0%	93.1%	97.1%	95.3%	
Gender				Not asked	
Male (%)	62.0%	62.5%	62.1%	—	51.9%
Female (%)	37.9%	37.5%	37.8%	—	48.1%
Age		Not asked[2]			
Median (# years)	27	—	27	27	32[3]
Average (# years)	29	—	29	29	36[3]
Ethnic groups				Not asked	
Yoruba (%)	36.4%	37.2%	37.4%	—	18.5%
Igbo (%)	16.2%	16.1%	15.7%	—	15.6%
Hausa-Fulani (%)	14.2%	15.1%	15.1%	—	29.8%
Other ethnicities (%)	33.2%	31.6%	31.8%	—	36.1%
Education		Not asked	Not asked	Not asked	
No formal education (%)	0.00%	—	—	—	15.8%
Primary education (%)	0.00%	—	—	—	17.7%
Secondary education (%)[4]	20.1%	—	—	—	43.3%
Postsecondary education (%)[5]	79.9%	—	—	—	23.1%
Residence (geopol. zone)		Not asked		Not asked	
North Central (%)	25.4%	—	24.55%	—	14.2%
North East (%)	10.0%	—	10.21%	—	12.7%
North West (%)	13.8%	—	14.24%	—	24.2%
South East (%)	7.5%	—	7.87%	—	11.8%
South South (%)	11.6%	—	11.75%	—	15.4%
South West (%)	31.7%	—	31.37%	—	21.3%

Notes: [1]Weighted data from Afrobarometer round 9 except where noted; [2]in this round, we asked for the respondents' year of birth, instead (mean year of birth was 1993, median was 1996, which aligns with the data from the other three rounds); [3]2023 data for the Nigerian population of 18 years and above taken from the US Census Bureau International Database; [4]includes "lower secondary completed" and "upper secondary completed"; [5]includes "post-secondary qualifications (other than university)," "bachelor's or equivalent completed," "master's or equivalent completed," and "doctoral degree."

4.3. Operationalisation

Our empirical analysis revolves around two dependent variables that capture the respondents' support for ethnic-based redistribution policies. The first survey item, labelled CTCHUP, asked the respondents to indicate whether or not they agreed with the statement: "The Nigerian government should implement redistribution policies because these policies are necessary for disadvantaged ethnic groups to catch up with more advantaged ethnic groups." The response scale ranged from one (*strongly disagree*) to seven (*strongly agree*).

The second survey item, which we label GOVSPEND, is based on the extensive literature on affirmative action attitudes in the United States (see, e.g, Byrd & Ray, 2015; Tuch & Hughes, 2011) and reads as follows:

"In your opinion, is the Nigerian government spending too much, about right, or too little on reducing the prevailing economic inequalities between different ethnic groups and states in Nigeria?" Participants were asked to indicate their opinion on a three-point scale with options *too much* (1), *about right* (2), and *too little* (3). Scores on both variables are positively correlated (Spearman's $r(1537) = .128$; $p < .001$).

Figure 2 visualises the distributions of both dependent variables. Clearly, the support for horizontal redistribution is exceptionally high among the respondents in our sample. Approximately 78% of the respondents at least *somewhat agree* with the statement that the Nigerian government should implement horizontal redistribution policies. Similarly, around 75% of the respondents in our sample think that the government spends too little on reducing ethnic inequalities in Nigeria.
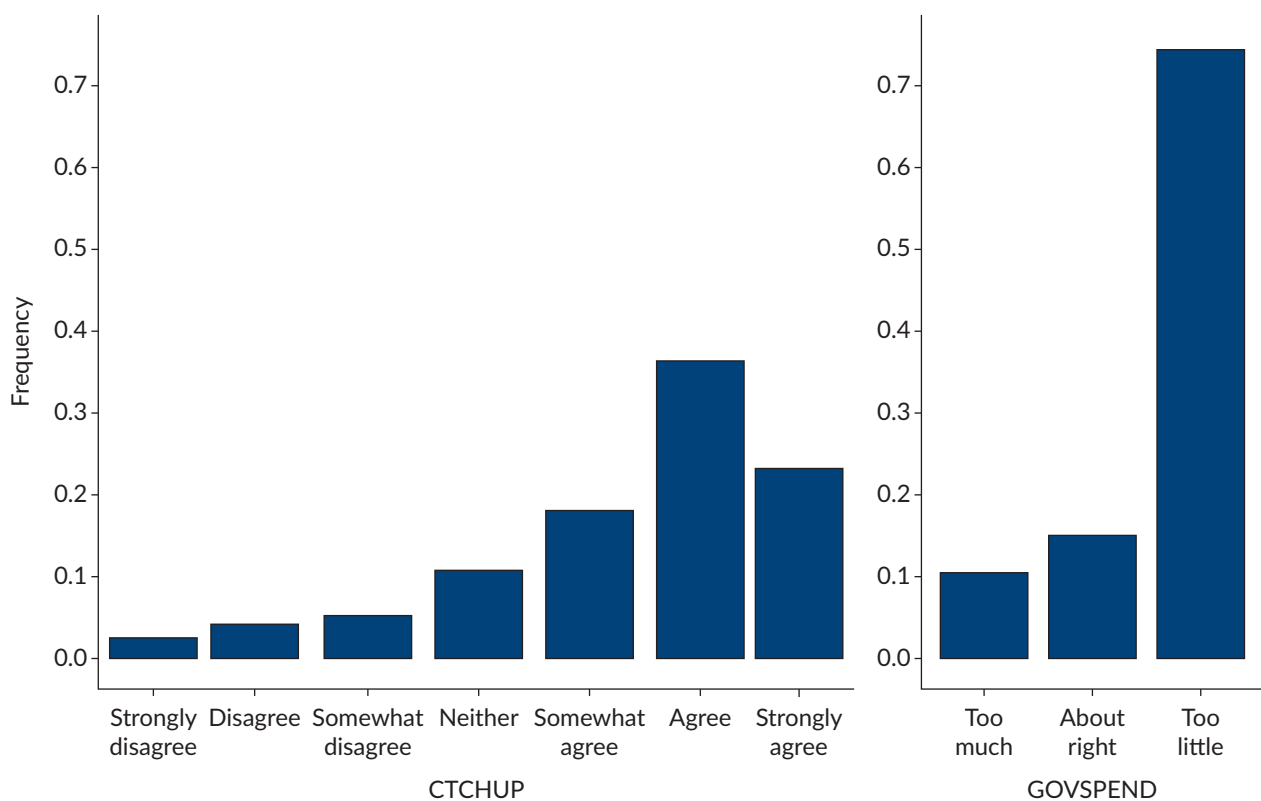

Figure 2. Histograms of dependent variables.

Let us now turn to the operationalisation of our key independent variables. Our first independent variable of interest, which is labelled RELATIVE POSITION, aims to operationalise respondents' economic self-interest considerations. In this regard, we hypothesised above that individuals who perceive themselves as belonging to a relatively disadvantaged group are more likely to support horizontal redistribution policies. In contrast, members of relatively advantaged groups are likely to be less supportive of such policies. In order to determine where respondents situate their own ethnic group compared to other ethnic groups, we asked them the following question: "How does the poverty level of [your ethnic group] compare to that of other ethnic groups in Nigeria?" Respondents had to answer this question on a 5-point Likert scale ranging from *much better* (1) to *much worse* (5). We reversed the coding of this variable so that higher values correspond to better perceived group position. We include the variable RELATIVE POSITION as a continuous variable in our empirical analysis and expect it to be negatively correlated with our dependent variables, meaning that

individuals who think their group is relatively worse off should show higher support for redistribution (see Hypothesis 1).

Second, in order to determine to what extent respondents considered disadvantaged groups themselves responsible for their precarious situation (see Hypothesis 2), respondents were asked to rate on an 11-point scale ranging from *not important at all* (0) to *very important* (10) how important they thought the following factors were for explaining why some groups were doing worse economically than others in Nigeria:

1. Those ethnic groups are doing worse economically because they have been discriminated against by past Nigerian governments.
2. Those ethnic groups are doing worse economically because they have fewer in-born abilities than other ethnic groups.
3. Those ethnic groups are doing worse economically because they value education less than other ethnic groups.
4. Those ethnic groups are doing worse economically because they are not hardworking enough to escape poverty.
5. Those ethnic groups are doing worse economically because their economic development was more severely affected or harmed by the colonial period than other ethnic groups.
6. Those ethnic groups are doing worse economically because they have less access to (quality) education than other ethnic groups.
7. Those ethnic groups are doing worse economically because they tend to live in regions with fewer economic resources and opportunities.
8. Those ethnic groups are doing worse economically because they do not support their own group sufficiently.
9. Those ethnic groups are doing worse economically because they are usually not very good businessmen/-women.
10. Those ethnic groups are doing worse economically because they have backward cultural traditions and practices.
11. Those ethnic groups are doing worse economically because they have less access to political power than other ethnic groups.

While we expected agreement with items 2, 3, 4, 8, 9, and 10 to capture sentiments stressing the responsibility of disadvantaged groups themselves, agreement with items 1, 5, 6, 7, and 11 points to the importance of contextual, historical, and/or structural factors for explaining why some groups are doing worse, i.e., factors largely outside disadvantaged groups' control. In the subsequent section, we will conduct an exploratory factor analysis on the items listed above in order to determine the underlying factor structure.

Our third independent variable, labelled PERCEIVED HIs, assesses people's perceptions of the prevailing HIs. Respondents were asked to indicate on an 11-point Likert scale ranging from *not severe at all* (0) to *very severe* (10) how severe they considered the prevailing economic inequalities between different ethnic groups in Nigeria to be. PERCEIVED HIs is included as a continuous variable in our empirical analysis and is expected to be positively correlated with our dependent variables (see Hypothesis 3).

Our fourth key variable is labelled FAIRNESS. In order to determine how fair or unfair respondents considered the prevailing economic HIs to be, they were asked the following question: "How fair or unfair are the existing

economic inequalities between different ethnic groups in Nigeria?" The question's rating scale ranged from *very fair* (0) to *very unfair* (10). FAIRNESS is included as a continuous variable in our empirical analysis, and we expect this variable to be negatively correlated with our dependent variables; the fairer respondents consider the prevailing economic HIs to be, the less supportive they are likely to be of horizontal redistribution policies (see Hypothesis 4). Table 2 presents the summary statistics of the independent variables included in our model.

Table 2. Descriptive statistics of key independent variables.

Variable name	Mean	p25	median	p75	min	max	Obs.
RELATIVE POSITION	3.13	3	3	4	1	5	1884
PERCEIVED HIs	7.06	5	7	9	0	10	1923
FAIRNESS	6.19	5	6	8	0	10	1937

In addition to these key variables, the following control variables are included in our statistical analysis: age, gender, ethnic background, and level of education. Age is included as a continuous variable. Gender is a dichotomous variable (female = 1). The ethnic background of respondents is included as a categorical variable with eight categories: Hausa-Fulani, Yoruba, Igbo, Kanuri, Ijaw, Tiv, northern ethnic minorities, and southern ethnic minorities. Respondents' level of education is included as a continuous variable with eight categories, ranging from *no formal education* (1) to *doctoral degree* (8).

5. Empirical Analysis and Findings

5.1. Perceived Causes of Inequality

Figure 3 visualises the importance that the respondents in our sample attached to each of the factors raised in the previous section in explaining existing ethnic inequality. It appears that respondents were more likely to support structural explanations, as the approval of most items ranged between 30% and 40%, while most items that emphasised the responsibility of the disadvantaged groups themselves scored between 20% and 30%. Notable exceptions were perceptions that inequality was due to members of poorer groups usually being bad businesspersons and having backward traditions, with about 40% of respondents agreeing with both statements. The statements that received the highest level of support were the views that members of some groups have less access to (quality) education and that members of some groups have less access to political power. The least support was expressed for (only around 18%) the idea that members of some ethnic groups had fewer in-born abilities.

In order to unveil a potential underlying factor structure, we scrutinised all eleven survey items using exploratory factor analysis based on principal axis factoring. As a point of departure, we used several different statistical criteria to determine the appropriate number of factors to extract from the data at hand, namely parallel analysis, MAP, and a visual examination of the scree plot. It must be noted that parallel analysis has been found to have a tendency to overestimate the number of factors in some cases, while MAP may tend to underestimate (Watkins, 2021, pp. 75–76). The MAP criterion hinted towards retaining one single factor, while parallel analysis and the scree plot indicated that the optimal factor solution would consist of two and three factors, respectively. Thus, after performing oblique oblimin rotation, we evaluated different factor solutions with one, two, and three factors regarding model fit and interpretability. Upon
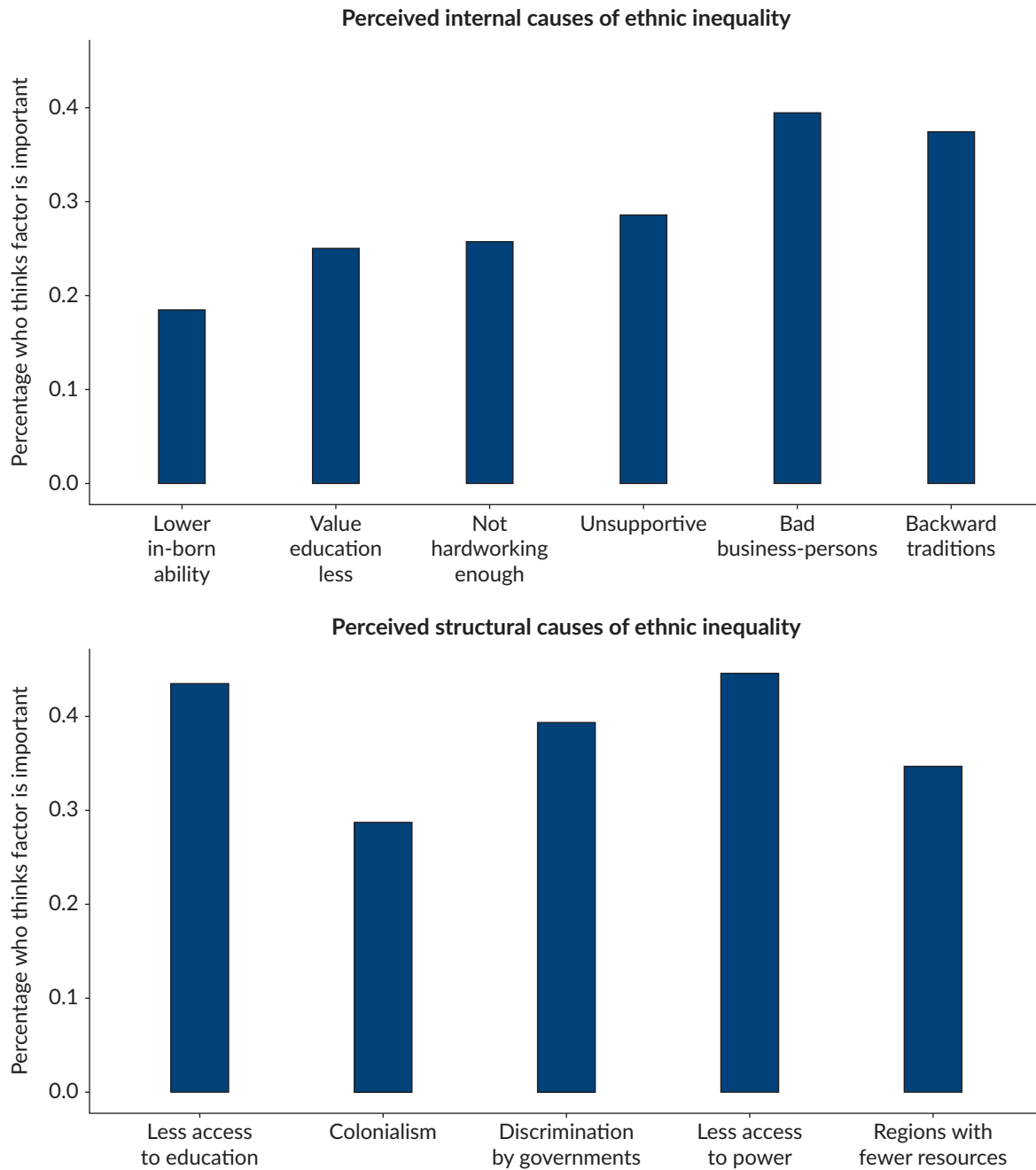
Perceived internal causes of ethnic inequality

Perceived structural causes of ethnic inequality

Figure 3. Perceived importance of different potential causes for ethnic inequality (calculated by the proportion of respondents in the sample who rated each item higher than 6).

evaluating these initial models, we decided to drop items 5 ("harmed by colonial period"), 7 ("live in regions with fewer resources and opportunities"), and 8 ("insufficient support within group") from the analysis due to their failure to load systematically on one single factor across different solutions, thus approaching a simple structure.

Table 3 summarises the different factor solutions after removing the three variables mentioned above and re-fitting the models. We regard pattern coefficients ≥.40 as salient, as they signify both a correlation with the underlying factor that is statistically significant and also a significant contribution to explained variance.

The solution of the 1-factor model produces a factor that is positively correlated with all indicators, even though the coefficients for items 1 and 11 do not reach our threshold for salience. While all items that we expected to capture internal attributions for horizontal inequality load positively and saliently onto this factor, it is also confounded by a salient relationship with item 6 ("less access to education"), which we expected to capture a contextual cause of inequality. Nevertheless, a scale produced from these six indicators reaches an acceptable alpha level of .74. However, the fit of this model is subpar at best. The RMSR is above the conventional threshold of .08 (Brown, 2015). Further, when comparing the model-implied correlation matrix with the actual correlations, 16 out of 28 residual coefficients surpass the conventional threshold of .05 (5 coefficients >.10), thus indicating poor model fit.

Turning to the model with two factors, model fit indices improve substantially. The explained variance increases by twelve percentage points, and both BIC and RMSR are reduced significantly. What is more, the relationship of factor one with indicator six is alleviated, falling below our threshold for salience. Therefore, factor one only retains its association with the items that we expected to probe into the internal attributions of economic HIs. The internal consistency, as signified by Cronbach's α decreases only marginally to .73, which is still acceptable. It is thus plausible that factor one captures the respondents' ideas about some ethnic groups having a disadvantage due to their perceived shortcomings and lack of agency. The second factor in this model is associated with beliefs that economic HIs are due to some ethnic groups being discriminated against by past Nigerian governments and having less access to power. Interestingly, the belief that inequalities are due to some groups having less access to quality education is more strongly correlated with the first factor. It thus seems that the second factor captures not contextual obstacles for some groups in general but rather political marginalisation.

Table 3. Pattern coefficients after oblique oblimin rotation.

		1-factor model	2-factor model		3-factor model		
		F1	F1	F2	F1	F2	F3
1	Discrimination by governments	.33	.08	**.63**	.05	**.58**	.08
2	Lower in-born ability	**.56**	**.54**	.05	**.65**	.07	−.09
3	Value education less	**.55**	**.53**	.06	.03	−.03	**.71**
4	Not hardworking enough	**.60**	**.70**	−.10	**.65**	−.10	.07
6	Less access to education	**.49**	.37	.25	.01	.21	**.48**
9	Bad businessmen/women	**.60**	**.60**	.03	**.63**	.05	.00
10	Backward traditions	**.57**	**.58**	.00	**.40**	−.02	.23
11	Less access to power	.27	−.04	**.78**	−.01	**.82**	−.02
Cronbach's α		.74	.73	.65	.70	.65	.54
Variance explained (%)		26	38			43	
BIC		586.02	64.85			−12.29	
RMSR		0.1	0.04			0.02	
Factor correlations							
F2		—	.23	—	.19	—	.21
F3		—	—	—	.62	.21	—

This view is supported when inspecting the pattern coefficients produced by the three-factor model. While items 2, 4, 9, and 10 still load onto the first factor and items 1 and 11 on the second, the two indicators that capture aspects of education load onto a third factor. While the overall fit of this model is higher in comparison to the two-factor model, the internal consistency of factor one drops further to a value of .70. Furthermore, this factor solution shows more serious signs of overfitting, having two undetermined factors with only two salient loadings.

In our eyes, the two-factor solution provided the best balance between model fit, parsimony, internal consistency, and interpretability. Thus, we constructed a scale from the five indicators that saliently load on the first factor in this model, as it is the only determined factor in the model (≥ 3 salient loadings). We label this scale GROUP RESPONSIBILITY, as each of its indicators stresses causes of economic HIs that are perceived or stereotyped characteristics of disadvantaged groups. The resulting scale has a median of 4.8 and significant zero-order correlations with both dependent variables CTCHUP ($r(1823) = -.068$; $p < .01$) and GOVSPEND ($r(1508) = -.192$; $p < .001$).

5.2. Structural Equation Models

In this section, we discuss the results from two structural equation models (SEM) in which we incorporated the dependent variables CTCHUP and GOVSPEND separately (see Table 4). The fit indices for both models are good, implying that the models give an adequate description of the observed data structure (CTCHUP model: CFI = 0.993, RMSEA = 0.032, SRMR = 0.006; GOVSPEND model: CFI = 0.993, RMSEA = 0.032, SRMR = 0.006). We estimated the coefficients using full information maximum likelihood (FIML) to account for the high item non-response on one of the dependent variables.

Starting with the direct effects of how one perceives their group's relative position, we find mixed evidence related to Hypothesis 1. While the coefficient in both models is negative, indicating higher support for redistribution among individuals who perceive their own ethnic group to be relatively poorer, this coefficient is only statistically significant (at the 5% level) in the model predicting CTCHUP.

Furthermore, the perceived poverty levels of one's group is a highly significant predictor of both GROUP RESPONSIBILITY and FAIRNESS. According to the structural models, respondents who perceive their ethnic group to be comparatively poorer are less likely to think that economic HIs are mainly the result of individual characteristics of their members and, therefore, less likely to think that poorer groups are themselves to blame for their relative disadvantage. This aligns with much of the literature around attribution theory and hints towards self-serving biases in how members of disadvantaged groups make sense of their situation. Also, individuals of groups with a lower (perceived) economic position are significantly more likely to deem the status quo as unfair.

With regard to the perceived causes of horizontal inequality, we again find mixed evidence for our hypothesis. In the model predicting attitudes towards increased government spending (GOVSPEND), a stronger adherence to explanations that "blame" relatively disadvantaged groups themselves for their situation is strongly and significantly associated with lower support for redistribution. In the model predicting CTCHUP, however, the coefficient is substantially smaller and not statistically significant by conventional standards.

Table 4. Structural equation models explaining attitudes towards redistribution across ethnic groups (CTCHUP; $N = 1953$) and increasing government spending aimed at reducing interethnic inequality (GOVSPEND; $N = 1952$).

	FAIRNESS			CTCHUP (direct effect)			Indirect effect via FAIRNESS			Total indirect effect		
	St. Est.	p	SE	St. Est.	P	SE	St. Est.	p	SE	St. Est.	p	SE
RELATIVE POSITION	−.092	**	0.028	−.059	*	0.029	−.008	*	0.004	−.012	**	0.005
GROUP RESPONSIBILITY	.061	*	0.029	−.045		0.026	.005		0.003	.005		0.003
PERCEIVED HIs	.224	***	0.027	.128	***	0.027	.019	**	0.006	.019	**	0.006
FAIRNESS				.086	**	0.027						

	FAIRNESS			GOVSPEND (direct effect)			Indirect effect via FAIRNESS			Total indirect effect		
	St. Est.	p	SE	St. Est	P	SE	St. Est.	p	SE	St. Est.	p	SE
RELATIVE POSITION	−.092	***	0.027	−.054		0.037	−.008		0.004	−.031	***	0.008
GROUP RESPONSIBILITY	.061	*	0.028	−.214	***	0.033	.005		0.003	.005		0.003
PERCEIVED HIs	.217	***	0.026	.005		0.036	.018	*	0.008	.018	*	0.008
FAIRNESS				.085	*	0.036						

Notes: *** $p < .001$; ** $p < .01$; * $p < .05$; estimation using FIML estimator; standard errors for indirect effects obtained from 5000 bootstrap iterations.

Concerning the third hypothesis, the variable PERCEIVED HIs shows a highly statistically significant main effect ($p < .001$) in the first model and runs in the direction we expected. Thus, higher levels of perceived horizontal economic inequality are associated with greater support for redistribution measures.

As mentioned above, the coefficients for FAIRNESS are positive and statistically significant across both models, which signifies that the less fair one perceives the existing HIs to be, the more one is in favour of redistribution policies. We interpret this finding as support for Hypothesis 4.

Finally, the model points towards several indirect effects. While the perceived poverty levels of one's ethnic group showed a negative direct effect in the first model, this variable also has a significant indirect effect, which runs in the same direction and is mediated by individual perceptions of fairness. Thus, individuals who perceive their own group as poorer are more likely to judge the status quo as less fair and, therefore, support higher levels of redistribution. This finding gives additional support to Hypothesis 1. Likewise, we found a significant indirect effect of perceived poverty of one's group in the GOVSPEND model; however, this effect is mediated by perceptions of group responsibility. This means that individuals who think that they are members of a relatively poorer group are more likely to show in-group serving biases and, therefore, support more horizontal redistribution.

Also, the perceived levels of horizontal inequality have significant indirect effects in both models, which are mediated by perceptions of fairness. Therefore, individuals who perceive the existing inequalities as more severe are more likely to think that the status quo is unfair and, for this reason, support higher levels of redistribution. This lends additional support to Hypothesis 3. This is in line with similar research conducted in the United States, which yielded that the effects of perceived inequality on redistributive attitudes might be mediated by lower perceived distributive justice, which may be mitigated by introducing redistribution policies (Becker, 2020).

6. Conclusion

Our article brings important new data and original theoretical insights to bear concerning the determinants of people's attitudes towards horizontal redistribution in Nigeria. In our empirical analysis, we find support for our hypotheses. First, respondents who thought of their ethnic groups as being relatively poorer were more likely to support horizontal redistribution. Second, as hypothesised, perceptions of the origins of the existing HIs matter in shaping attitudes towards redistribution. As shown in our empirical analysis, respondents who attached more weight to contextual causes of horizontal inequality were much more likely to support redistribution. Third, the perceived severity of the prevailing HIs was also important for explaining support for horizontal redistribution policies. Again, in line with our hypothesis, we found that people who perceived the prevailing economic HIs to be more severe were more supportive of horizontal redistribution. Lastly, people's perceptions of fairness also strongly impacted their attitudes towards redistribution. As expected, the more people considered the prevailing HIs to be unfair, the more they supported horizontal redistribution. Overall, based on our empirical research, we can conclude that if one wants to understand—and possibly increase—popular support towards horizontal redistribution policies, it is clearly not sufficient to look only at the objective socio-economic situation of different individuals and groups. People's attitudes towards horizontal redistribution are in no small manner driven by people's perceptions of the origins and severity of the prevailing HIs and existing norms and perceptions of fairness.

While this is an important conclusion, there are several important caveats and reflections which need to be highlighted and which point towards interesting avenues for future research. First, while perceptions of the origins and severity of the prevailing HIs matter greatly for shaping attitudes towards horizontal redistribution, these perceptions may be distorted, biased, and objectively inaccurate. Future research should zoom in on these perceptions and try to understand how these perceptions are formed and to what extent these perceptions remain stable over time—or whether they can be changed by, for instance, providing certain informational cues about the severity of the prevailing socio-economic HIs or about the complex origins of the prevailing HIs.

Another interesting avenue for future research is to expand the current research and analyse how other factors and variables that were not included in our study affect and shape people's attitudes towards horizontal redistribution, such as, for example, perceptions of social mobility, background characteristics of potential beneficiaries, and people's exposure to HIs. Further, as noted above, it could be very interesting to unpack the relationship between individuals' and groups' objective and perceived (relative) position in society and their attitudes towards horizontal redistribution. The findings of the current study suggest that this relationship appears to be more complex than originally hypothesised.

Lastly, our analysis was conducted on a sample that was not nationally representative and which contained a number of biases due to the fact that we decided to exclude Nigerians younger than 18 years old, to conduct an online self-completion questionnaire, to use Facebook-targeting as a recruitment strategy for prospective respondents, to restrict our survey to people who use the messaging service WhatsApp, and to conduct our survey solely in English rather than other Nigerian languages. We, therefore, cannot generalise our findings to the wider population of Nigeria. Moreover, a very interesting avenue of future research would not only be to replicate this study in other countries in the Global South but also to try to collect a nationally representative sample in Nigeria. Our current sample is clearly biased regarding respondents' educational attainment levels, technological literacy rates, and socio-economic welfare. These are factors that may have an important impact on people's views about the prevailing HIs and policies aimed at correcting them.

Conflict of Interests

The authors declare no conflict of interest.

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