Examining Distortions in Malawi's First Deliberative Poll: A Combined Qualitative and Quantitative Approach to Inequality Analysis

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Background

Deliberative Polling: An Overview

In general, deliberative settings posit that democratic decisions should be the outcome of a fair and inclusive process of public deliberation, where citizens engage in rational and informed discussions to shape collective choices (Fishkin & Mansbridge, 2017). Deliberative democracy as a potential method of discussion, governance, and polling emphasizes the importance of dialogue, argumentation, and the exchange of reasons, aiming to enhance the quality and legitimacy of democratic decision-making (Manin, 2017). Deliberative polling is a prominent method within the field of deliberative that offers a standardized and representative method to engage citizens in meaningful deliberation (Fishkin & Mansbridge, 2017). Pioneered by Professor James Fishkin, the process involves the random selection of a representative sample of individuals from a larger population. These participants then engage in deliberative sessions that last for several days, where they have the opportunity to interact with experts, policymakers, and fellow citizens (Fishkin & Luskin, 1999). Deliberative polls utilize a combination of small-group discussions, plenary sessions, and structured questionnaires to facilitate the exchange of ideas, the consideration of alternative viewpoints, and the development of informed opinions. The goal of deliberative polling is hence to bridge the gap between public opinion and informed judgment by providing citizens with an opportunity to deliberate in a thoughtful and structured manner (Fishkin, 2009). By engaging participants in a deliberative process that encourages

critical thinking and dialogue, deliberative polling aims to generate well-informed preferences that are more representative of the public's considered judgment.

The application of deliberative polling has generated significant scholarly interest, and a diverse range of studies has examined its effectiveness, limitations, and implications for democratic governance. The method's potential is immense, providing an opportunity to address the disconnect between citizens and policymakers, providing a mechanism for informed, citizen voices to be heard in decision-making processes (Fishkin, 2017). Currently, deliberative polling has been conducted in countries around the world, addressing a wide range of policy issues, including healthcare, education, and environmental concerns.

Inequality in the Room: Deliberative Distortions

The likelihood of real-world dynamics translating into the deliberative setting is undeniable. As in everyday life, social, economic, and cultural factors intertwine to shape individuals' capacity to participate fully and effectively in a small-group setting. Unequal access to resources, educational disparities, and limited opportunities for engagement can engender the exclusion of marginalized voices, thus perpetuating existing inequalities within the deliberative process (Siu, 2017). Critics have consequently raised concern about the limitations and potential distortions in the deliberative process, suggesting that deliberations may simply reinforce existing inequalities and exclude marginalized voices (Sanders, 1997; Young, 1997; Lupia & Norton, 2017).

In this process where inclusivity is exceptionally important, the existence of deliberative distortions poses challenges to the effectiveness and fairness of its

outcomes. Deliberative distortions are defined as changes in people's attitudes or beliefs that occur as a result of participating in a deliberative process— these changes can be positive or negative, intentional or unintentional. For the purposes of this analysis, the distortions that will be focused on are homogenization, polarization, and domination by various advantaged groups (Luskin et. al). The methodology section will divulge greater detail for each of these categories, as these three distortions serve as the primary focus for the upcoming quantitative analyses.

What causes such distortions to occur in small-group settings? Firstly, deliberative processes may be influenced by power imbalances and structural inequalities that hinder equal participation and representation. These imbalances can lead to distortions in the deliberative outcomes (Offe, 2017, p. 20). Dominant, advantaged groups or individuals with more resources and influence may also shape the discourse and limit the diversity of perspectives that are considered (Fraser, 1993, p. 15). Another major source is when participants lack access to accurate information or possess incomplete or biased knowledge (Fishkin & Mansbridge, 2017, p. 8). Unequal access to information can result in skewed deliberative outcomes as some participants may rely on misinformation or have limited understanding of the issues under discussion (Habermas, 2008, p. 106). Deliberative distortions can also stem from cognitive biases and psychological factors that influence decision-making processes. These biases may include confirmation bias, where individuals selectively seek information that confirms their pre-existing beliefs (Fishkin, 2018, p. 15). Such biases can hinder open-mindedness and the ability for participants to critically evaluate alternative viewpoints. Additionally, deliberative processes, as with all conversations,

can be subject to manipulation and strategic behavior by participants who seek to advance their own interests or agendas. This can involve rhetorical strategies, framing techniques, or dominance in discourse (Manin, 2017, p. 42). Lastly, deliberative distortions can also be influenced by socio-cultural and contextual factors. Cultural norms, values, and socialization processes can shape the way individuals perceive and engage in deliberation (Young, 1997, p. 68). These factors can contribute to the reinforcement of existing biases and hinder the exploration of alternative perspectives.

While the standardized design of deliberative polling addresses a great deal of inequalities that can stem from each of these five factors, such as providing accurate and standard briefing materials to address lack of access to information, these distortions may still emerge. Despite their potential to be present disproportionately and seeming inevitability across literature (Siu, 2017), analyses of deliberative polling data have consistently found very little evidence of significant distortions impacting participant attitudes throughout the process (Luskin et. al, 2021).

In this context, the country Malawi poses an especially interesting case study to analyze, as the deliberation outcomes did not present similarly to well-established patterns. For example, mean attitude change across group-issue pairs was quite low, implying very little change in opinion pre- and post- deliberation overall. Cultural context, the unique nuances of issues being debated, and other similar factors likely contributed to this outcome. Understanding these components is especially important to the replicability of successful deliberative polls as the method expands to wider cultural contexts and the distinct challenges that conducting deliberative polls in developing environments can pose. Identifying patterns that can contribute to these

various factors is subsequently the focus of the qualitative prong of this report, which is further outlined in the methodology section.

Malawi's First Deliberative Poll

The Nsanje district is located in the southern part of Malawi and is characterized as a lowland area within the country (Figure 1). Within the district, there is a subregion known as TA (Traditional Authority) Nyachikadza that faces recurrent flooding during the rainy season. The frequency of flooding has been increasing due to the high siltation of the Shire River and the cultivation practices in the Ndindi Marsh. The marsh, which

Figure 1: Map of Malawi

could have naturally absorbed water and reduced the occurrence of flooding, is no longer able to fulfill its ecological function.

Historically, serious flooding has occurred in TA Nyachikadza, specifically in 1989, 1997, and 2001, with the most devastating floods occurring in 2015. In response to the 1997 floods, the Malawian government declared TA Nyachikadza as a flood-prone area and prohibited individuals from residing there. The local communities have raised various arguments against relocating from the area. Initially, they claimed that the government did not consult them adequately before making the decision. Additionally, there is a belief that the flooded area is highly fertile, with alluvial soils that are conducive to agriculture without the need for inorganic fertilizers. The community also accuses the government of displaying double standards by denying them social services while politicians from various parties visit the area during elections, making campaign promises. The allocation of five voting centers in the area during general elections further underscores its importance despite being a disaster-prone zone.

The situation in TA Nyachikadza presents an ideal case for the implementation of Deliberative Polling due to the perceived lack of community involvement in current policy processes. Although the Malawian government has emphasized the importance of community engagement in its language, the practice has been inconsistent. Engagement often occurs at minimal levels, with short consultation processes that revolve around community submissions. While consultation processes allow some opportunity for the community to contribute to policy-making, their input is limited, and there is no avenue for two-way discussion, learning, and dialogue. Meaningful community input requires a more interactive and deliberative approach, surpassing

traditional consultation methods. Numerous policy options have been devised and implemented by the government and other development partners without incorporating input from community members, and some of these options have yielded unsatisfactory results.

The Nsanje District is divided into nine Traditional Authorities, two of which are TA Nyachikadza and TA Ndamera. TA Nyachikadza accommodates over 1,000 households distributed across nine group village heads (GVHs) and is prone to frequent flooding. During flood events, the residents of TA Nyachikadza seek refuge in the neighboring TA Ndamera. TA Ndamera comprises 28 GVHs, 14 of which are adjacent to TA Nyachikadza, characterized by lowland areas. In these 14 GVHs, approximately 80% of households engage in wetland agriculture in Nyachikadza. Half of these households own the wetland land, while the other half cultivate rented land. The remaining 14 GVHs, which are located farther away from Nyachikadza, have less reliance on the marsh. In these GVHs, around 30% of the population cultivates crops in the wetlands of TA Nyachikadza. Overall, the communities of TA Ndamera and TA Nyachikadza depend on each other due to the recurring floods and for food production. However, TA Ndamera community members are gradually reducing their dependence on rain-fed agriculture. For the sampling process, a household listing exercise was conducted in both TA Ndamera and TA Nyachikadza to create a sampling frame. Stratified random sampling was employed to select participants from the villages in both areas. In TA Nyachikadza, data collection was limited to Enumeration Areas (EAs) 1 and 7, as these areas were officially registered. The sampling procedure involved randomly selecting participants from a randomly chosen household and then proceeding to select every

eighth household. TA Ndamera had 230 interviewees, while TA Nyachikadza had 230 participants, comprising the sample for the DP.

Through consultative meetings with various stakeholders in the district, the DP project identified three thematic areas for deliberation: (a) the relocation and resettlement of the lowland community (TA Nyachikadza), (b) reducing vulnerability in existing communities, and (c) addressing population pressure, gender issues, and social services. The following issues were discussed, outlined below. Reported attitudes on the following issues will be utilized for all analyses going forward.

Question Number	Index
1	To begin with, all in all, on a 0 to 10 scale, where 0 is no value at all, 10 is as much value as can be, and 5 is exactly in the middle, how much economic value does the Shire river provide you?
2	And, on a 0 to 10 scale, where 0 is extremely risky, 10 is extremely safe, how much risk does the Shire river pose to you?
3a	On a scale from 0 to 10 where 0 is extremely unimportant, 10 is extremely important and 5 is exactly in the middle, how important or unimportant are the following for the government to do?" a. Facilitate the relocation of TA Nyachikadza community to suitable land in the high land area within the same district
3b	Facilitate the relocation of TA Nyachikadza community to the best suitable land anywhere in Malawi
3c	Should only proceed with resettlement after it has developed a plan that is approved by the TA Nyachikadza community
3d	Provide legal title to land for TA Nyachikadza community members before relocation
3e	Facilitate a complete relocation but allow communities to continue using their land for crop cultivation
3f	Prohibit provision of any social service (hospitals, schools, etc.) in TA Nyachikadza as a way of 'forcing' people to relocate
3g	Provide increased social services (e.g. schools, health centres) in TA Ndamera if people are relocated there
3h	Facilitate TA Ndamera's access to the low land for crop cultivation in exchange for hosting TA Nyachikadza's residence in the upland (TA Ndamera)
3i	Facilitate increased agricultural production in TA Ndamera

4a	How important or unimportant would you rate the following factors in considering whether you will be willing to relocate? Quality of land where I would be relocated
4b	Leadership legitimacy in the new TA
4c	Access to social services like health and education
4d	Available livelihood sources
4e	Whether or not the whole community move together to the new place
4f	Whether or not I will still have access to current ancestral land
4g	g. Potential for conflict with people in the new area of relocation
5a	And, on the same scale, the following are some questions about what the government should do regarding reducing vulnerability in the existing communities. a. Construct a dyke along the Shire River from Nsanje District Centre to TA Nyachikadza (a distance of around 40 Km)
5b	Construct a dyke along the Shire River from Nsanje District Centre to TA Nyachikadza with labour from the communities coordinated by the District Council as part of the Public Works Programme
5c	Allow TA Nyachikadza communities to 'access' land upland to temporarily relocate during floods and return afterwards.
5d	Allow communities to remain but develop an effective flood-early warning system.
5e	Sensitize TA Nyachikadza communities on flood early warning.
5f	Develop places of safety for children and vulnerable groups (elderly, sick) when flood warnings are administered.
5g	Put in place effective life-saving measures (such as petrol boats, life jackets, etc.) in all strategic places to be used to rescue people during floods
5h	Have the VCPC, ACPC and DCPC consider indigenous knowledge systems (IKS) in flood early warning.
5i	Have all the Area Civil Protection Committees (ACPCs) and Village Civil Protection Committees (VCPCs) along the Shire River form an alliance to share information about flood early warning.
6a	How important or unimportant would you rate the effectiveness of the following methods of communications for early warning flood information? a. Telephone voice
6b	Telephone SMS
6c	Beating drums
6d	Whistles
6e	Other Indigenous methods (e.g. animal migration)

7a	On the same scale, the following are some questions about what the government should do regarding population pressure, gender and social services. a. Provide wide access to free family planning services
7b	Construct a health centre in TA Nyachikadza so long as people live there
7c	Have families consider their land resources in deciding how many children to have
7d	Increase the use of temporary shelters for evacuation instead of classrooms
7e	Use community by-laws to restrict child marriages
7f	poor families with children of school-going age should only receive a cash transfer if they enroll their children to school
7g	adults with children of school-going age should only participate in the Public Works Program if they enroll their children in school
7h	Establish collective storage facilities for food in the uplands (by the people from the lowlands)
7i	Provide adequate security in evacuation centres to ensure that women and girls are protected from abuse and rape
7j	Allow families to be able to stay together during flood evacuations
7k	Allow households with persons who are vulnerable and sick be prioritized during flood evacuations
7l	Promote the capacity building of the VCPCs to know how to respond to emergencies
7m	Promote village savings and loans to provide alternative income sources for women
7n	Ensure a woman should not lose the family land if her husband dies
8a	On another 0 to 10 scale, where 0 strongly disagree and 10 is strongly agree, is how strongly would you disagree or agree with the following statements? a. Relocation is necessary for basic livelihood
8b	Current early warning notifications are ineffective
8c	Staying on one's traditional/ancestral land is worth the risk of being caught in a flood
8d	Majority of people in our village do not want to relocate
8e	I find it easy to move my family out to uplands even when the floods have started.
8f	In the event of a flood, I find government response is adequate.
9	How serious or not do you think the government will take into account your views and suggestions provided in this event?
10	And, where 0 is not at all confident, 10 is completely confident, and 5 is exactly in the middle, how confident are you the government will use the results from this event?
11	And, where 0 is not at all confident, 10 is completely confident, and 5 is exactly in the middle, how confident are you the community will use the results from this event?
18a	On a 0 to 10 scale, where 0 is extremely unimportant, 10 is extremely important and 5 is exactly in the middle, how important or unimportant would you say each of the following is to you? a. Making one's own choices

18b	Not having to worry about food or shelter
18c	Having a safe community
18d	Making sure everybody has clean air and water
18e	Earn as much money as possible
18f	Making sure that government does what the people want
18g	Promoting economic growth
18h	Having a well-educated society

Table 1: *Poll Issue Questions*

Polling in sub-Saharan Africa presents several challenges, rooted in cultural context, political dynamics, and developmental factors. These challenges require careful consideration when implementing deliberative polls in these settings. Limited resources, both financial and human, pose constraints on the scale and scope of polling efforts. Technological barriers, such as limited access to the internet and inadequate infrastructure, further complicate the data collection and dissemination process. Moreover, low literacy rates prevalent in many sub-Saharan African countries necessitate the adoption of appropriate communication strategies and tools to ensure meaningful participation of diverse populations. As a result, it's imperative to analyze factors that influence the outcomes of this poll in particular to better understand ways to address these challenges as deliberative polling continues to expand to more niche cultural, societal, and economic contexts.

Methodology

The analysis for this project is conducted in two prongs– quantitative and qualitative. The quantitative approach is well-established and regularly repeated for

nearly all deliberative polling projects thus far. Malawi's poll data presented a unique opportunity, as this quantitative inequality analysis had not yet been conducted. The most remarkable opportunity this poll provides, however, is the existence of well-documented transcripts of each of the deliberations throughout the poll. One-third of the 24 group transcripts also feature delineations for the gender of participants as they speak, which opened up an interesting avenue for a gender-based analysis. The qualitative approach here, it is worth mentioning, is rather experimental and an initial attempt at utilizing this type of data source to supplement our understanding of how distortions can be recorded and understood. These findings can hopefully provide an insight into how translated transcripts can be used for making deliberative polling equitable and replicable across a variety of cultures and development levels.

Quantitative

This quantitative analysis uses parameters outlined in"Deliberative Distortions? Homogenization, Polarization, and Domination in Small Group Deliberations" (Luskin, R. C., Sood, G., Fishkin, J. S., & Hahn, K. S., 2017), a much larger analysis where the concepts of homogenization, polarization, and domination are employed as variables to study group-level attitude change across several deliberative polls.

Homogenization refers to the decrease in variance among a group's attitudes, while variegation refers to the increase in variance. Polarization describes the movement of attitudes toward or away from the extremes, while moderation indicates movement away from the extremes. Domination represents the movement of attitudes toward or away from the attitudes of socially advantaged group members. To formalize

these variables, the mean attitude within a group at a particular time is denoted as A_{gjt}, the standard deviation as s_{gjt}, and the mean for the advantaged and disadvantaged members as A_{gjt}^{a} and A_{gjt}^{d}, respectively. While these variables can be treated as dichotomous, distinguishing between cases where they occur or not, they are more informatively treated as continuous variables centered at 0.

The homogenization of a group's attitudes on a specific issue, denoted as H_{gj}, is calculated as the difference between s_{gj1} and s_{gj2}. The homogenization of attitudes within the gth group on the jth issue is hence calculated using the following:

$$H_{gj} = s_{gj1} - s_{gj2}$$

A positive value indicates homogenization, a negative value indicates variegation, and a value of 0 indicates neither. H_{gj} is at its most positive (0.5) when participants hold polarized attitudes (half at 0 and half at 1) before deliberation but converge to the same attitude afterward, representing a shift from perfect dissensus (s_{gj1} = 0.5) to perfect consensus (s_{gj2} = 0). Conversely, it is at its most negative (-0.5) when there is a transition from perfect consensus to perfect dissensus.

The polarization P_{gj} of the gth group's attitudes on the jth issue is measured as:

$$P_{gj} = (\overline{A}_{gj2} - \overline{A}_{gj1})S_{gj}$$

where S_{gj} indicates the initial side of the group's attitude. $P_{gj} > 0$ indicates polarization, $P_{gj} < 0$ indicates moderation, and $P_{gj} = 0$ signifies no significant change in attitudes.

The domination D_{gj} of the gth group's attitudes on the jth issue (with respect to a given dimension of advantage) is:

$$D_{gj} = (\overline{A}_{gj2} - \overline{A}_{gj1})R_{gj}$$

where $R_{gj1} = 1$ for $\overline{A}{}^a_{gj1} > A_{gj1}$ and $= -1$ when $\overline{A}{}^a_{gj1} < A_{gj1}$. $D_{gj} > 0$ indicates domination, $D_{gj} < 0$ indicates opposition, and $D_{gj} = 0$ indicates no significant mean attitude change. The parameters for advantage were defined as being men, better-educated, owning more land, or all of the above. The only measure comparable to income provided in this poll data was the amount of land owned, which took place of the usual income analysis.

All three distortions and their relationships with the described variables are illustrated in the figure below.
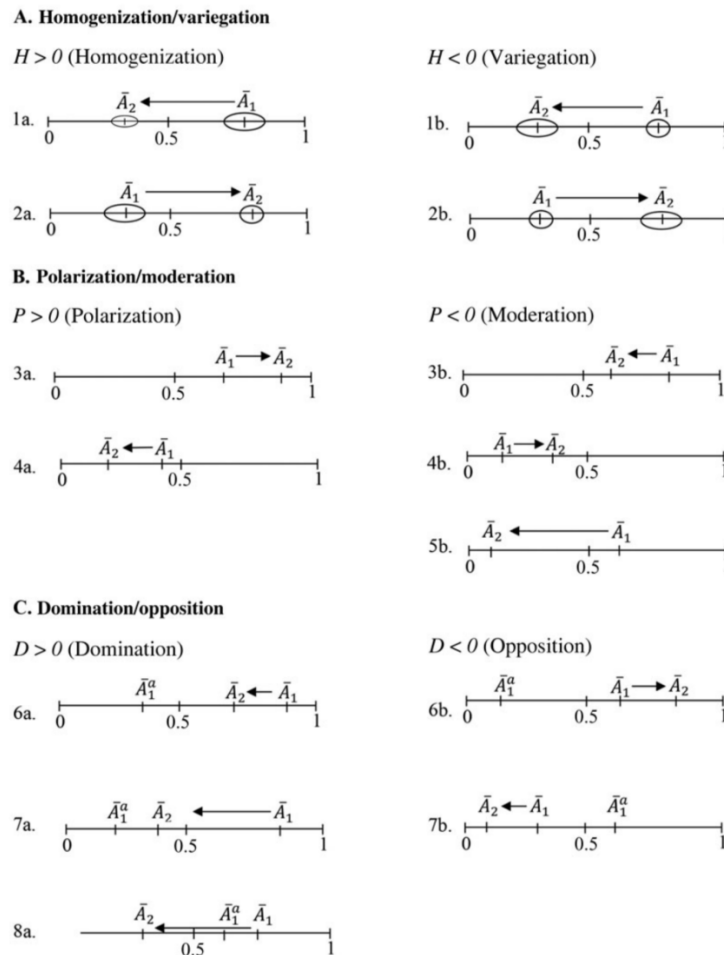

Figure 2: *Distortion definitions illustrated*

Qualitative

As mentioned previously, each of the deliberation sessions for each of the 24 groups in this study have transcripts of each of the deliberations throughout the poll. These transcripts had been translated ahead of this analysis, and the methodology outlined here is made up of experimental approaches extracting patterns from the data. These transcripts were analyzed utilizing manual thematic analysis, sentiment analysis with Python, and recorded participant contribution per group. The qualitative approach here has three major parts– the general identification of potentially disruptive trends, line distribution analysis, and sentiment analysis.

For the first portion of this qualitative transcript analysis, a methodology based on thematic analysis was employed to examine the rich and nuanced data gathered through in-depth interviews. Thematic analysis is a flexible and widely used approach that allows for the identification and exploration of patterns, themes, and meanings within the data (Braun & Clarke, 2006). The analysis began with a careful and thorough familiarization with the interview transcripts– each transcript was read multiple times to gain a solid understanding of the participants' narratives, experiences, and perspectives. During this initial reading, preliminary notes and initial impressions were recorded to informally capture thoughts and observations. These observations were then coded by group as patterns that emerged, and cross-checked with mean attitude difference, polarization, homogenization, and domination results when relevant, to make qualitative generalizations about the data that emerged.

The next portion taps into the unique opportunity for gender-based analysis that the 9 groups with gender-coded participation dialogue provided. To analyze potential

domination of conversation, line distribution analysis was utilized. Line distribution analysis is a method used more conventionally in narrative media fields to examine the distribution of spoken lines among different groups or characters (Press & Williams, 2019). The method involves comparing the actual amount of dialogue spoken by a particular group or character to the expected or proportionate amount based on their role or significance within the narrative. For the purpose of this study, the analysis was adjusted to compare the actual ratio of women to men in the room versus how much of the conversation they made up. For example, if women formed 40% of the small group, they were expected to speak for close to 40% of the discussion. This projected amount was then compared with the actual amount for each of the groups. The variability in word length was adjusted for when calculating this value, and moderator dialogue, along with words spoken in unison by all participants, were excluded from these proportion calculations.

Research suggests that the use of either positive or negative language can contribute to decreased or increased polarization respectively. By evoking strong emotional reactions and reinforcing existing biases, exposure to negative language may increase an individual and small group's polarization in several settings, with participants aligning more strongly with their preferred political group and displaying greater hostility towards those with opposing views (Petersen et. al 2019, Matthes & Schmuck 2017, Bail et al. (2018)). Conversely, positive language has the potential to reduce polarization by fostering consensus and bridging divides between individuals and groups (Druckman and Holmes (2004), Druckman, Peterson, and Slothuus (2013), Iyengar et al. (2019)).

To investigate this potential for sentiment to influence deliberation outcomes, the final aspect of this qualitative approach features a sentiment analysis, a methodology based on natural language processing (NLP) and machine learning techniques employed to analyze and classify the sentiment expressed in a textual body. Sentiment analysis, also known as opinion mining, aims to determine the subjective polarity of text, whether it is positive, negative, or neutral (Pang & Lee, 2008). For each group, the polarity of sentiment for every statement made by a participant throughout the deliberation process was recorded. These percentages of the makeup of neutral, positive, and negative sentiments per group deliberation were recorded. These results were then correlated with each group's polarization means.

Results

Quantitative Analysis

The extent of homogenization, polarization, and domination across all group-issue pairs appears to be minimal. Figure 3 illustrates the distributions of H_{gj}, P_{gj}, and D_{gj} at the group-issue level, all tightly packed around near-zero means. Every domination analysis has a widely symmetric distribution, while homogenization and polarization distributions have a slight negative skew towards variegation and moderation respectively.

When mean homogenization across issues was calculated per group, all groups experienced slight variegation on average, and none experienced homogenization. Despite this trend, however, the overall magnitude of H_{gj} is generally insignificant, but

consistent with the data's slight skew. The calculation of Hgj across all group-issue pairs was repeated separately for participants from TA Nyachikadza and TA Ndamera, and no significant differences from the combined homogenization values were found. The two groups did not experience an internal convergence of values independently of the overall group, which appears to be positive in a deliberative setting as the two groups engaged in effective discourse as individuals. In terms of polarization, approximately half of the instances involved groups shifting away from the midpoint as expected, while the other half exhibited movement towards it in the opposite direction. This indicates a lack of support for the notion of a law of group polarization influencing these deliberations, as there was no consistent pattern observed. For domination, findings suggest that there is no indication of the advantaged individuals imposing their perspectives on others. Not shown on the table below, an analysis was also conducted to determine whether participants from one TA dominated deliberative outcomes, which was not the case– findings were insignificant in either direction for both groups, producing a mean result of close to zero. In addition, domination values of advantaged groups did not correlate with the issues they would hold most obvious relationship to– men, for example, did not dominate gender-based issue discussions like family planning any more or less than issues like flood warning system preferences.
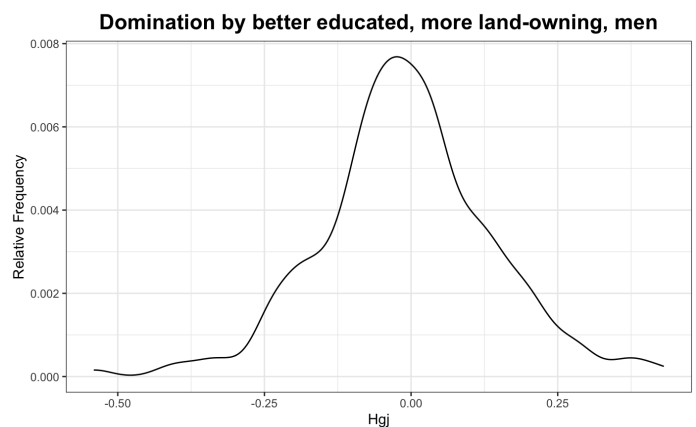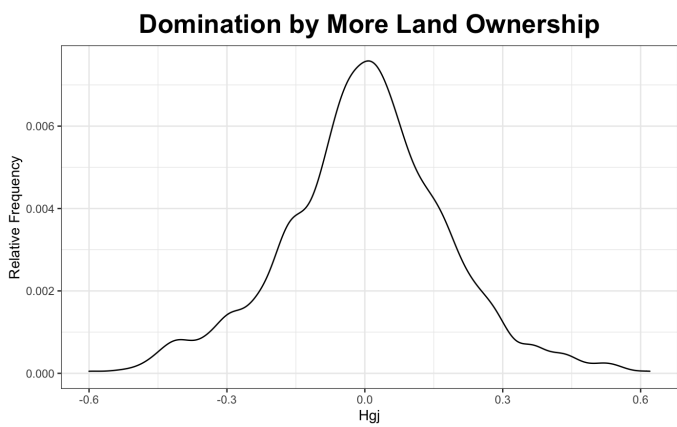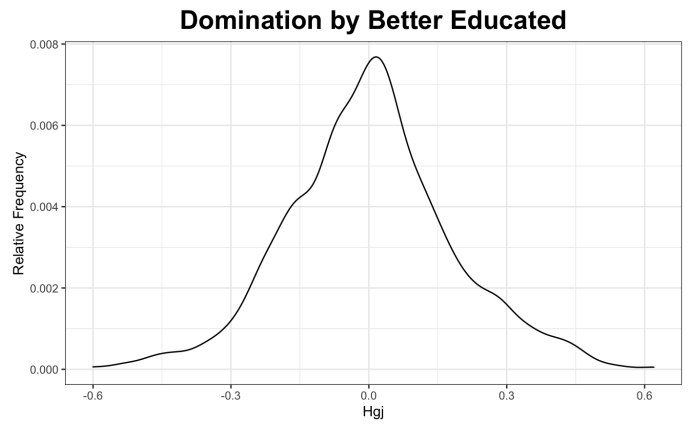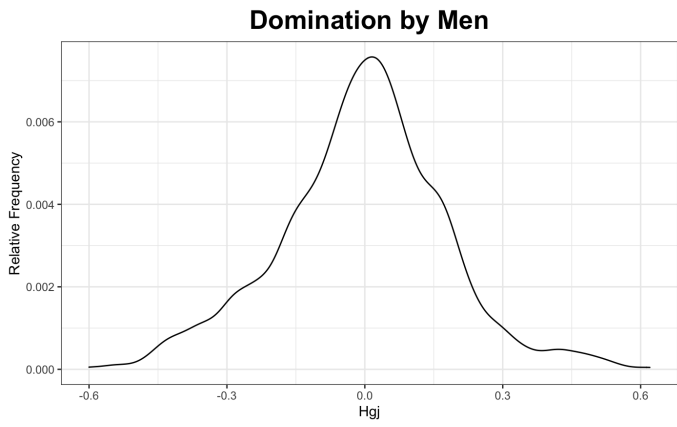
Homogenization

Polarization

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Domination by Men

Domination by Better Educated

Domination by More Land Ownership

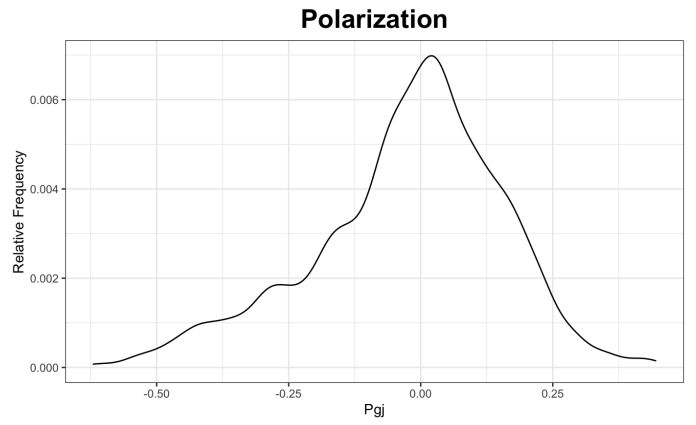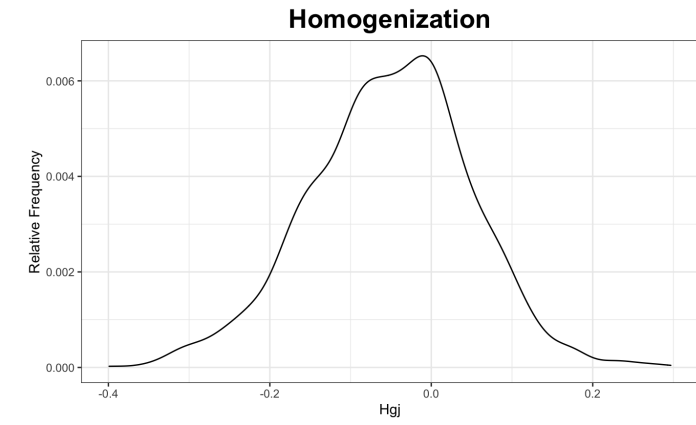## Domination by better educated, more land-owning, men

Figure 3*: Distributions of group-issue pairs*

Question	Percentage of the Group Issue Combinations that Polarize	Percentage of the Group Issue Combinations Dominated by Men	Percentage of the Group Issue Combinations Dominated by Better Educated
1	0.9166667	0.667	0.458
2	0.4583333	0.625	0.417
3a	0.375	0.333	0.500
3b	0.375	0.458	0.458
3c	0.3333333	0.417	0.333
3d	0.4583333	0.333	0.250
3e	0.5416667	0.333	0.417
3f	0.5	0.458	0.333
3g	0.3333333	0.667	0.333
3h	0.4583333	0.375	0.417
3i	0.3333333	0.292	0.375
4a	0.3333333	0.375	0.542
4b	0.2083333	0.542	0.458
4c	0.375	0.375	0.417
4d	0.4583333	0.375	0.375
4e	0.25	0.250	0.458
4f	0.4583333	0.375	0.417
4g	0.4583333	0.500	0.333
5a	0.625	0.583	0.542
5b	0.3333333	0.625	0.500
5c	0.625	0.583	0.375
5d	0.7916667	0.417	0.417
5e	0.7916667	0.458	0.625
5f	0.5	0.625	0.333
5g	0.625	0.542	0.417
5h	0.5	0.667	0.292
5i	0.625	0.583	0.333
6a	0.4166667	0.292	0.500
6b	0.625	0.542	0.417
6c	0.2916667	0.792	0.375
6d	0.625	0.667	0.542
6e	0.3333333	0.375	0.292

Table 2

Question	Percentage of the Group Issue Combinations that Polarize	Percentage of the Group Issue Combinations Dominated by Men	Percentage of the Group Issue Combinations Dominated by Better Educated
7a	0.75	0.500	0.417
7b	0.6666667	0.542	0.375
7c	0.7083333	0.333	0.458
7d	0.5	0.375	0.292
7e	0.7916667	0.542	0.375
7f	0.625	0.583	0.375
7g	0.625	0.583	0.458
7h	0.3333333	0.458	0.292
7i	0.4583333	0.625	0.583
7j	0.5833333	0.583	0.375
7k	0.625	0.583	0.250
7l	0.5416667	0.417	0.333
7m	0.625	0.500	0.458
7n	0.375	0.375	0.458
8a	0.4166667	0.375	0.375
8b	0.375	0.333	0.500
8c	0.5	0.458	0.375
8d	0.8333333	0.750	0.458
8e	0.375	0.625	0.375
8f	0.375	0.458	0.333
9	0.75	0.500	0.333
10	0.6666667	0.333	0.292
11	0.7083333	0.333	0.208
18a	0.5833333	0.500	0.333
18b	0.5	0.458	0.250
18c	0.4583333	0.583	0.333
18d	0.4166667	0.500	0.417
18e	0.6666667	0.542	0.500
18f	0.4166667	0.542	0.417
18g	0.6666667	0.542	0.583
18h	0.5	0.667	0.375
Average	0.5198412667	0.492	0.400

Table 2 (cont.)

Qualitative Analysis

General Trends

The process of identifying general trends from transcripts has the ability to provide significant insight into the patterns of lack of attitude change before and after deliberation present in this deliberative poll, as well as other common occurrences that could potentially influence and create deliberative distortions. Several key trends emerged from the analysis, shedding light on these phenomena.

Lack of faith in government

One identifiable trend that influenced discourse for almost all groups was the pervasive lack of faith in government among participants. While this distrust or apathy was not easily identifiable across quantitative measures, as questions asking about trust in government's ability polled steadfastly around 5/10 both before and after deliberation. Qualitatively, however, this pattern was quite apparent. This skepticism towards governmental institutions and their ability to address societal issues has been observed in numerous deliberative settings (Fishkin, 1991). This lack of trust can hinder participants' openness to changing their attitudes, as they may perceive deliberation as an exercise without practical outcomes– consequently, they may be less receptive to new ideas or arguments presented during deliberation, leading to minimal shifts in their attitudes. The most common outcome across groups after a participant made a statement about lacking trust in government was a stalling in conversation. Here is a representative excerpt of this pattern from Group 12 immediately after the moderator brought up the topic of increasing the construction of hospitals and schools in Ndamera:

> Participant: **I doubt if the government would really do this** and even if this happened we would not relocate.

Participant: It is better to construct these right in Nyachikadza, but the biggest solution is a dyke.

Participant: The inability of government to construct these in Nyachikadza is due to nepotism on the part of government leaders-they hate Nyachikadza people hence they marginalize us and sideline us from development projects.

As evidenced by this interaction, introduction of lack of trust in government tended to close avenues to reception of different ideas. This was especially influential for the large portion of questions regarding government incentives for relocation. The strong statements of nepotism and "hating" steered the conversation from a moderating group discourse back to an inactionable problem. This of course, is not to make a statement on the validity or effectiveness of the individual statements, simply the common sequences of events that occurred as a result of such statements being made, and their potential implications. Along these lines, the issue of lack of trust in government often created a chasm that prevented dialogue between individuals that trusted the government and those that didn't. In Group 17, a participant grew so frustrated with her perceived lack of discourse with those without faith in government (primarily individuals from TA Nyachikadza in this group) that she said:

Participant female: I am pleading with my friends from Nyachikadza that the government wants the best for them.

The exasperated statement resulted in laughter from the moderator and others, but the discourse-decaying nature of differences in trust in government is quite apparent. In addition to apathy towards government action, extremely negative sentiments towards government had a similar effect. An excerpt from Group 7 highlights an instance of this:

Participant: 'You cannot take a fish from water and keep it on sand, it will die'. We Nyachikadza people are used to our area as such we cannot relocate to other areas given

we will have to buy land in the new areas. **The 2015 floods should not be a reason for your NGOs and government to torture we Nyachikadza people.**

The unique issue of ancestral land and the residents' connection to the location often amplified these anti-government sentiments, and evidently impacted the very little attitude changes questions regarding relocation saw.

Feelings of Regional Superiority

A trend that was especially evident and potentially influential in preventing open-minded discourse was the presence of statements implying regional superiority over one's counterpart TA. These were defined as statements that cited a regional community's superiority as an absolute factor preventing their approval of relocations. Interestingly, in groups where the average attitudes of members moved in different directions depending on their TA, the frequency of statements of regional superiority were higher. This may be because participants may exhibit a tendency to prioritize the interests and perspectives of their own region over others without a second thought, which can impede the exploration of alternative viewpoints and compromise the potential for attitude change (Gastil & Dillard, 1999, p. 80). Sentiments of this sort occurred from residents of both traditional authorities, and presented in more absolute statements about the nature of the other residents. For example, in Group 11, a participant stated the following:

> Participant (Male): I am from Ndamera, but for these colleagues from Nyachikadza to relocate to the upland, it will not be good and we cannot accept it because **whenever these people come they spread some diseases in our land.** They don't even have health centers in their area, so their resettlement will not do us good…

The remainder of dialogue also featured similar statements about what other residents were bound to do "always," regardless of situation. Such perspectives can negatively influence the potential for compromise. Outside of inherent superiority, several residents of TA Nyachikadza

felt their land was the reason for their clear superiority to the other TA Ndamera residents
(Group 16):

> Participant: Im also coming from Nyachikadza. It's not possible that we can relocate
> because our land is the best and suitable for farming. **If you can compare our looks and
> health with people from Ndamera, you can notice a big difference. We are healthier
> because our area is food secure.** It was in 2014-2015 when we experienced floods which
> were extraordinary. We don't believe what the meteorological experts tell us, we only
> believe in God. When it's raining, we stay very attentive. When we see that water level in
> the shire river is increasing, it's a clear notice that there is a lot of rain in the upland. So
> we can judge with our own eyes that anytime the river will flood. That is the time we
> temporarily relocate ourselves to the upland area. We do relocate in schools or churches.
> After 2-3 months we return back to our forefathers land to start cultivating our crops.
> There is a lot that happens in the Nyachikadza area. We are always food secure. Imagine
> we give people mangos but when we come to the upland area, we find them selling those
> same free mangos we have given them.

Once again, the uncompromisable issue of a community's heritage and value being tied
to their land evidently made this realm of issues very difficult to debate and hence address
through a deliberative poll.

Persuasive vs. Defensive Stances

Another trend relates to the use of persuasive versus defensive language early on
during deliberations. Participants employing persuasive language are more likely to
engage in genuine dialogue and explore different perspectives, potentially leading to
attitude change (Fishkin & Luskin, 2005, p. 318). In contrast, defensive language,
characterized by rigidly defending pre-existing views or attempting to defend personal

resources, can impede the transformative potential of deliberation (Mutz, 2006, p. 898). Differences between these statement types can be found in various participants from TA Ndamera and their different framing and perspectives of whether TA Nyachikadza residents should relocate. An example of a defensive statement would be like this introductory line from a participant in Group 12:

> Participant: We don't want Nyachikadza people to settle in Ndamera because **there is already limited land in Ndamera.**

A more persuasive statement of the opposing perspective would be similar to this one from a participant in Group 22:

> Participant: The government should move people from Nyachikadza because they always suffer. Government should make sure that when they are here they are supported. Most of them have no clothes and food to eat.

And finally, a perspective in the middle from a TA Ndamera resident in Group 15:

> Participant: It would be so nice if they would relocate and turn that area for cultivating only.

By utilizing inherently compassionate language and viewpoints, the latter two are framed in a persuasive manner catering to the other side of the table, the TA Nyachikadza residents. The initial statement, however, is framed as a declaration of personal stakes rather than an attempt at discourse or compromise. Of course, the presence of both these statements is vital to a fair and thorough deliberation, but an imbalance of either type early on in a deliberation seems to influence the tone for the rest of the process. Groups like 15 and 22 that saw the greatest change in attitudes across issues, regardless of participant's TA, had a much larger frequency of persuasive

statements initially. Groups that saw very little change in mean attitudes overall, such as 12, had a greater frequency of defensive statements.

Hostile Language

Finally, and likely the most obvious, a type of occurrence with potential distortive implications is the presence of hostile language towards another individual in the room. Take for instance a heated remark from a participant in Group 2 responding to another participant's introductory opinion favoring relocation:

> Participant: **I would strangle the neck of the person that started this idea of relocation, and they should not even come near me.** It's not possible for us to relocate even though they say that we should build houses here in the upland. What we are asking for is for the government to construct a dyke for us…

Hostility, manifested through personal attacks, derogatory remarks, or disrespectful tone, creates an antagonistic atmosphere (Hibbing & Theiss-Morse, 2002, p. 534). Such negative discourse can inhibit constructive engagement or express discussion-defeating rigidity towards a perspective. While the deliberative polling process's ground rules of respect and no personal attacks applied to these deliberative settings, more subtle or unplanned instances of hostile language still occurred across groups.

Gender Analysis

A large distortion in this deliberative poll was overrepresentation of men overall and in each of the 24 groups with only one exception. This notable overrepresentation of men likely had a considerable impact on the outcomes and dynamics of the deliberative

process. The gender analysis highlighted a clear pattern: women tended to speak less than expected in the majority of groups, while men had higher proportions of participation in the discussions. In all groups except one, women spoke less than expected, with higher proportions of male participation in the conversation– Figure 4 shows these findings. On average, women also spoke less on average per turn compared to their male counterparts. This discrepancy in speaking time did not directly correlate with the overall domination by men values, likely due to the relatively low magnitude of domination value findings in the first place.

Several factors may contribute to these trends. Traditional societal expectations may perpetuate the notion that men are more authoritative and knowledgeable in public
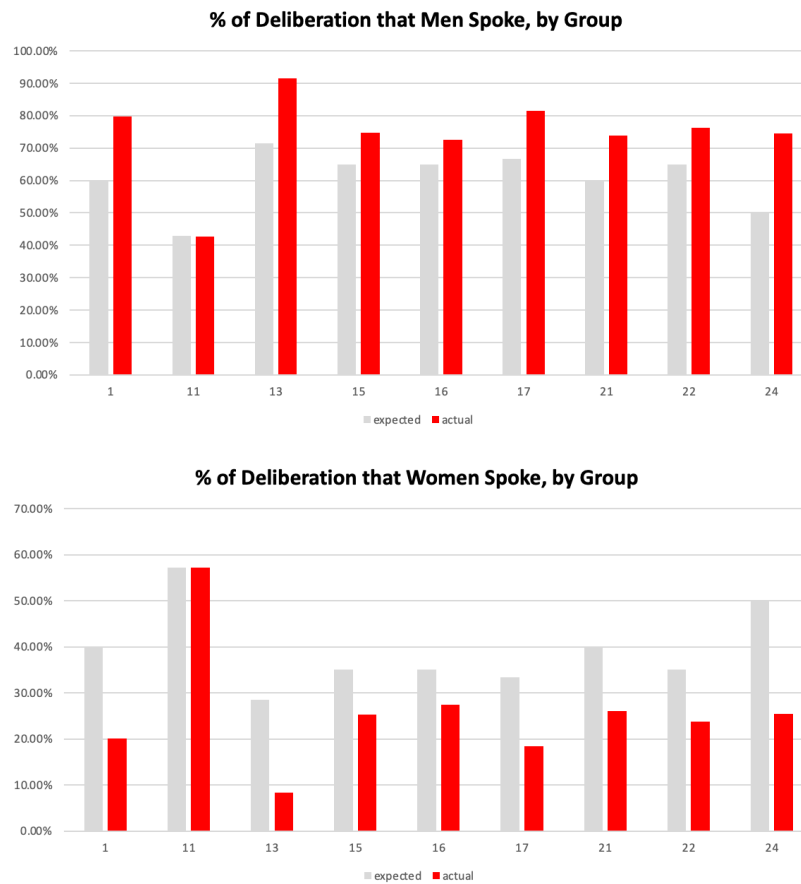
% of Deliberation that Men Spoke, by Group

% of Deliberation that Women Spoke, by Group

Figure 4: *Gendered Participation*

discussions, while women may face challenges in asserting their opinions confidently (Huang, 2019). This gendered dynamic can discourage women from actively participating and contribute to their diminished presence in deliberative settings. Power dynamics and social dominance within the groups may also play a role. Men, who often hold more positions of power and authority in society, may feel more entitled to speak and dominate the discussions, while women may experience additional barriers in asserting themselves and being heard (Phillips, 1995). These power imbalances can hinder equitable participation and amplify gender disparities. Furthermore, implicit biases and stereotype threat can contribute to women's reluctance to participate in deliberative processes. Implicit biases and societal stereotypes may cast doubt on women's knowledge and competence, undermining their confidence to engage in public discourse (Eagly & Carli, 2007; Stout & Dasgupta, 2011). The internalized perception of being undervalued or less capable can discourage women from actively contributing their perspectives, perpetuating the gender gap in participation.

Efforts were made by moderators to address the gender imbalance and encourage women to speak more during the deliberative sessions– these interventions demonstrate a conscious recognition of the need for diverse voices and inclusive participation (Luskin et al., 2002). The existence of these disparities with these initial measures in place hence further highlights the need for their continued implementation and assessment.

Sentiment Analysis

The results of the sentiment analysis conducted in this study did not yield any significant findings regarding the relationship between polarization and sentiment positivity or negativity.

The correlation coefficient between polarization and sentiment was found to be nearly zero, indicating a lack of substantial association between these variables. Therefore, no evidence suggests that the sentiment expressed in the deliberative discussions had a direct impact on the level of polarization among participants.

The correlation between mean attitude change across issues per group and sentiment distribution per group was found to be weak, with a correlation coefficient of only 0.2618. This indicates a faint association between the change in attitudes and the sentiment expressed during the deliberations. The lack of a strong correlation suggests that the sentiment of the discussions did not significantly influence the extent of attitude change among participants.

The faint correlations or lack thereof are clearly demonstrated in the accompanying graphs, which display scattered data points without any discernible pattern or strong relationship between sentiment and polarization, as well as sentiment and mean attitude change.
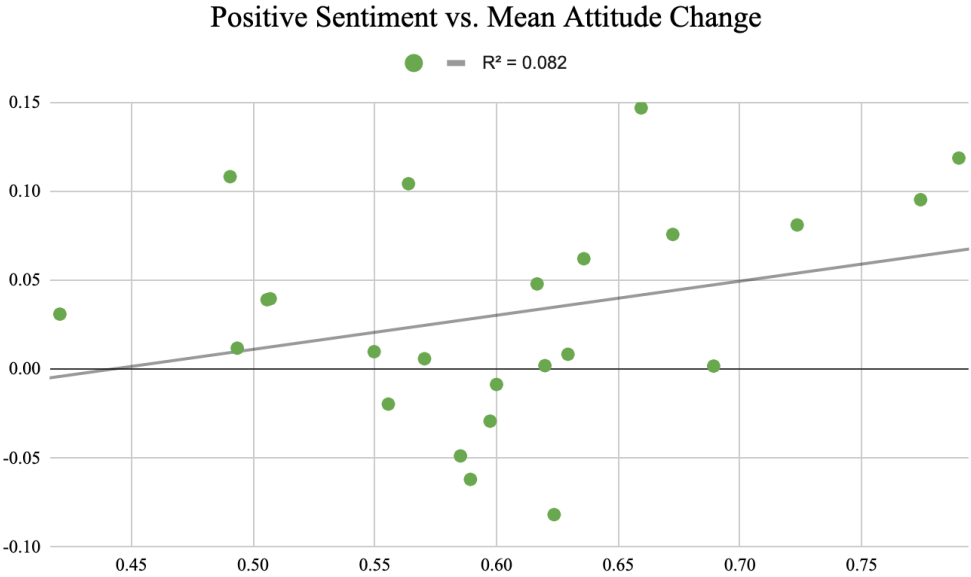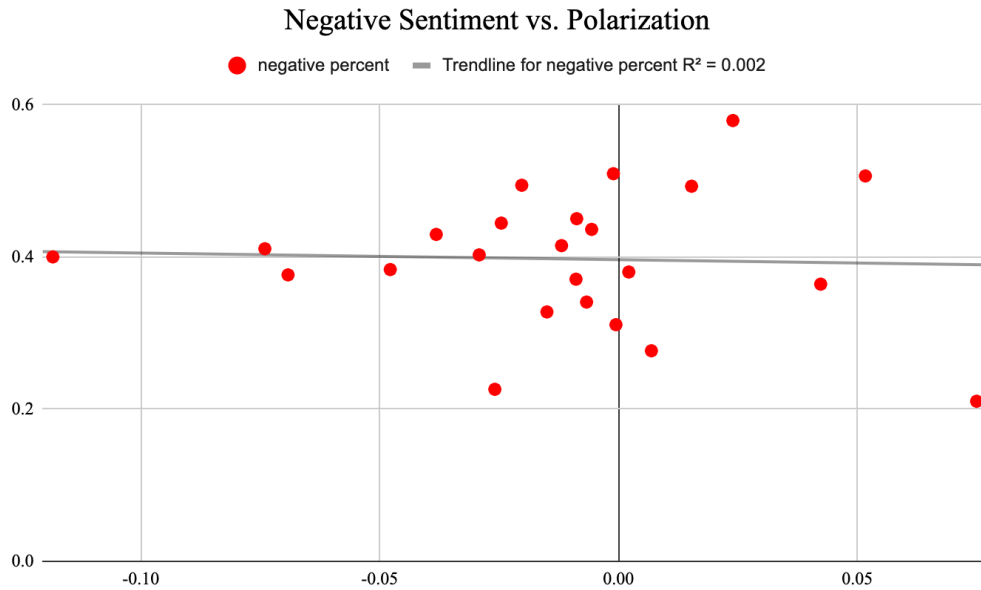

Figure 5

Negative Sentiment vs. Polarization

Figure 6

Concluding Thoughts

The unique, uncompromisable cultural context of ancestral land and a widespread distrust of the government set this deliberative poll of Malawi apart, and make it both a challenging and excellent case study for finding ways to implement deliberative polling across a variety of cultural contexts and levels of development. The findings underscore the critical importance of cultivating inclusive and equitable deliberative processes that address power dynamics, foster meaningful dialogue, and enhance the representation of marginalized communities (Fraser, 1990; Young, 2000). Through the quantitative analysis, this study revealed encouraging results, indicating minimal instances of homogenization, polarization, and domination among group-issue pairs within the deliberative environment. The qualitative analyses uncovered

potentially distorting trends and patterns, emphasizing the need for greater attention to gender representation and the potential for conversational dominance. These findings highlight the intricate dynamics at play and continuing to emphasize the necessity of addressing these challenges to ensure a truly inclusive and equitable deliberative process (Fishkin, 2009; Dryzek, 2010).

The incorporation of qualitative analysis in this research attempted to increase the understanding of the intricate nuances, complexities, and lived experiences within the deliberative setting. This approach has the potential to contribute a more nuanced understanding of the complexities and challenges involved in cultivating inclusive and equitable deliberative processes (Leighninger, 2012; Bächtiger et al., 2018).

The implications of this project extend beyond the borders of Malawi. By promoting dialogue, enhancing the representation of marginalized groups, and considering both quantitative and qualitative perspectives, deliberative democracy initiatives can become more effective instruments for inclusive and equitable decision-making. Future research endeavors should continue to explore and refine methodologies for assessing and mitigating distortions, thereby advancing the field of deliberative democracy and its potential to foster democratic governance (Warren, 2008; Nabatchi and Leighninger, 2015). Deliberative polling holds the potential to enhance democratic decision-making by fostering informed and inclusive public opinion. By understanding the underlying mechanisms of distortions through mixed methods of analysis and developing effective interventions, scholars and practitioners can continue refining the deliberative process, ensuring that it remains a valuable tool for democratic decision-making for a variety of communities.

References

Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. F., ... & Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. Proceedings of the National Academy of Sciences, 115(37), 9216-9221.

Bächtiger, A., Steenbergen, M. R., & Vliegenthart, R. (2018). Deliberative democracy in the 21st century: Challenges and prospects. Oxford University Press.

Cohen, J. (1997). Deliberation and democratic legitimacy. In J. Bohman & W. Rehg (Eds.), Deliberative Democracy: Essays on Reason and Politics (pp. 67-92). MIT Press.

Dryzek, J. S. (2000). Deliberative democracy and beyond: Liberals, critics, contestations. Oxford University Press.

Ellsworth, P. C. (1989). "Are Twelve Heads Better Than One?" Law and Contemporary Problems, 52(4), 205-224. Available at:

http://scholarship.law.duke.edu/lcp/vol52/iss4/7

Eagly, A. H., & Carli, L. L. (2007). Through the labyrinth: The truth about how women become leaders. Harvard Business School Press.

Fishkin, J., & Mansbridge, J. (2017). "Introduction." Daedalus, 146(3), 6-13.

Fishkin, J. (2009). When the people speak: Deliberative democracy and public consultation. Oxford University Press.

Fishkin, J. S. (1991). Deliberation and Democratic Legitimacy. Yale University Press.

Fraser, N. (1993). "Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy." The Phantom Public Sphere. Ed. Robbins, B. University of Minnesota Press, 1-32.

Gutmann, A., & Thompson, D. (2004). Why Deliberative Democracy? Princeton
University Press.

Habermas, J. (1996). Between Facts and Norms: Contributions to a Discourse Theory of
Law and Democracy. MIT Press.

Habermas, J. (2008). "Political Communication in Media Society: Does Democracy still
have an Epistemic Dimension? The Impact of Normative Theory on Empirical
Research" in Europe: The Faltering Project.

Hibbing, J. R., & Theiss-Morse, E. (2002). Stealth democracy: Americans' beliefs about
how government should work. Cambridge University Press.

Leighninger, M. (2012). The next form of democracy: How expert rule is giving way to
shared governance—and why politics will never be the same. Vanderbilt
University Press.

Lupia, A., & Norton, A. (2017). "Inequality is Always in the Room: Language & Power in
Deliberative Democracy." Daedalus, 146(3), 64-76.

Luskin, R., Fishkin, J., & Jowell, R. (2002). "Considered Opinions." British Journal of
Political Science, 32(3), 455-487.

Luskin, R. C., Sood, G., Fishkin, J. S., & Hahn, K. S. (2017). Deliberative distortions?

Homogenization, polarization, and domination in small group deliberations.

Unpublished manuscript from the Center for Deliberative Democracy.

Manin, B. (2017). "Political Deliberation and the Adversarial Principle." Daedalus, 146(3),
39-50.

Matthes, J., & Schmuck, D. (2017). Beyond hostility and prejudice: The effect of media

use on attitudes toward Muslims in Germany. Journal of Communication, 67(6), 895-917.

Mutz, D. C. (2006). Hearing the other side: Deliberative versus participatory democracy. Cambridge University Press.

Nabatchi, T., & Leighninger, M. (2015). Public participation for 21st century democracy. John Wiley & Sons.

Offe, C. (2017). "Referendum Versus Institutionalized Deliberation: What Democratic Theorists can Learn from the 2016 Brexit Decision." Daedalus, 146(3), 14-27.

Pang, B., & Lee, L. (2008). Opinion mining and sentiment analysis. Foundations and Trends in Information Retrieval, 2(1–2), 1-135.

Petersen, M. B., Aarøe, L., Slothuus, R., & Sønderskov, K. M. (2019). Exposure to ideologically diverse news and opinion content on Facebook. Science, 363(6425), 303-308.

Press, A., & Williams, S. J. (Eds.). (2019). The handbook of media audiences. Wiley Blackwell.

Resilient Africa Network. (2017). Gauging Citizens' Voice: Strengthening Resilience in Nsanje District, Southern Malawi.

Rosenberg, S. (2007). "Types of Discourse and the Democracy of Deliberation" in Deliberation, Participation and Democracy: Can the People Govern?, 130-158.

Sanders, Lynn (1997). "Against Deliberation." Political Theory, 25(3): 347-376. Available at: http://faculty.virginia.edu/lsanders/SB617_01.pdf

Smith, G., Wales, C., & MacKenzie, N. (2016). Deliberative democracy and the challenge

   of systemic bias: Evidence from deliberative engagements in the UK. Political

   Studies, 64(1_suppl), 20-40.

Stout, J. G., & Dasgupta, N. (2011). When he doesn't mean you: Gender-exclusive

   language as ostracism. Personality and Social Psychology Bulletin, 37(6), 757-769.

Warren, M. E. (2008). Citizens as deliberative beings. In The Oxford Handbook of

   Political Science (pp. 675-693). Oxford University Press.