

Pre-analysis plan for: Citizen-focused strategic communication: Does UN radio persuade people to trust the peace operations in Mali?

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Summary

Peace missions of the United Nations (UN) use radio communication to reach out to the citizens of their host countries. Does listening to UN radio augment or reduce citizens' trust in the peacekeepers and, if it has an effect, through which mechanisms? What are the impact of UN radio on value orientation or attitudes regarding the host government and its allies? Research on global governance started to scrutinize the surge in citizen-focused communication by international organizations (IOs), but how this communication actually influences citizens' perceptions and attitudes has remained under-explored. Similarly, the peacekeeping literature provides in-depth evidence on the origins and practicalities of communication by UN peace missions, but it finds that an evaluation of its effects is too "difficult if not impossible." Building on research in social psychology and its insights on persuasive communication, which testify to the possibility of identifying mass media effects, I argue that listening to UN radio can strengthen trust in a UN peace mission through augmenting its perceived utility and compatible value orientations. However, persuasive effects are moderated by prior attitudes toward the UN. Moreover, by emphasizing international contributions to peace, UN communication may unintentionally lead citizens to perceive their government and non-liberal allies as less capable and trust-worthy. The project investigates these propositions with evidence from a randomized controlled trial embedded in a representative survey (N=700) of citizens in three large towns in Mali. Half of the respondents are randomly assigned to listen to information on UN radio (Micado FM), while the others listen to music on national radio (ORTM). The survey asks respondents to indicate their agreement with values propagated by the UN peace mission, their perception of its effectiveness and their trust in the peacekeepers as well as government authorities, agents, and allies. The analyses will estimate the average treatment effect on the treated (ATT) of listening to UN radio using linear regression. This pre-analysis plan describes the hypotheses, research design, planned data collection and analyses.

1 Background

When a UN peace operation arrives in a conflict-affected country, few ordinary people have the chance to directly interact with the peacekeepers. However, large UN peace missions usually establish their own radio station to reach out to ordinary citizens in their host country. The principal question of this project is: Does UN radio help or hamper the creation of popular legitimacy for a UN peace mission in a conflict-affected country?

Answering this questions is important. What host country citizens think of the peacekeepers is crucial for peacekeeping effectiveness. If citizens come to perceive the UN peace mission as illegitimate, their compliance or cooperation with peacekeepers' activities is unlikely. For instance, people may refuse peacekeepers as mediators in local conflict, boycott UN-assisted elections or withhold information necessary for effective civilian protection (Whalan, 2013; Smidt, 2020). By consequence, the UN peace mission likely fails to stabilize its host country.

Moreover, disinformation campaigns have increasingly targeted UN peace missions (Trithart, 2022). Therefore, strategic communication (formerly known as public information) is high up on the UN agenda (Sherman and Trithart, 2021).¹ Radio is an important means, because a majority of citizens in UN host countries use it to obtain information.²

Nevertheless, researchers have been largely silent on the individual-level consequences of UN radio communication. Existing research on citizen-focused communication in peacekeeping largely consist of descriptively rich case studies of its causes and evolution (Lehmann, 1999; Oksamytna, 2018). However, an evaluation of UN radio effects is considered too "difficult if not impossible" (Betz and Papper, 2015, 171). One notable exception is the work by Mvukiyehe (2017). However, his working paper does not focus on trust in the UN mission, but examines whether UN radio directly assists the peace-building process (i.e., by augmenting female participation in elections).³

More broadly, this project also speaks to the literature on public opinion on global governance institutions such as the UN (Ecker-Ehrhardt, 2018b; Dellmuth and Tallberg, 2015, 2021; Ghassim, 2022). This literature has started to systematically investigate how specific messages affect citizens' legitimacy beliefs (measured as trust attitudes) regarding global governance institutions. However, empirical works are scarce and findings are contradictory. For example, Dellmuth and Tallberg (2021) suggest that self-legitimation messages of global governance institutions themselves have little effect. Yet, Ghassim (2022) finds "that self-legitimation ... may help GGIs [global governance institutions] to deflect the otherwise potentially harmful delegitimation effects of citizen protests." Moreover, all existing studies focus on the effect of "elite cues" (short statements by elite actors) rather than mass media messages. Thus, there remain significant gaps in our understanding of the impacts of self-legitimation by international organizations in general and UN radio specifically.

Drawing on the large body of research on persuasive communication (for an overview, see Druckman, 2021), I argue that UN radio influences citizens' attitudes toward the UN peace mission in complex ways. First, the provision of information on peacekeepers' activities via UN radio may lead citizens to more positively evaluate mission performance and adopt UN-compatible value orientation, thereby helping foster trust in the UN mission. Second, persuasion by UN radio is likely moderated by prior exposures, pre-existing atti-

¹ See also Ecker-Ehrhardt (2018a) and von Billerbeck (2020) for the use of communication as self-legitimation strategy of international organizations more generally.

² According to Afrobarometer (2022), 67 per cent of citizens of African states use radio and 54 per cent use television to inform themselves about the latest news. In urban areas only, 70 per cent use radio and 76 per cent use television. In Mali, 73 per cent use radio (74 per cent in urban areas) and 49 per cent use television (74 per cent in urban areas).

³ There is a somewhat larger literature on radio as a tool for reducing prejudice and peace-conducive change in political cultural (Paluck and Green, 2009, e.g.). However, again, none of these works consider attitudes regarding an international organization as outcome of interest.

tudes and the information environment. Personal experience with the UN peace mission and less exposure to information that contradicts the UN radio message should augment the impact of UN radio on trust. If a person harbors a negative attitude toward the UN peace mission, information presented on UN radio may be counter-argued, negatively influencing trust. (Taber and Lodge, 2006; Taber et al., 2009). Third, since UN radio broadcasts peace missions' assistance to the government and thereby exposes state weakness, it may also lead listeners to lower their performance evaluation and trust regarding the government. Furthermore, UN radio information on collaboration between the UN and the government may also lower trust in non-liberal security allies and, specifically, Russia.

In order to test this argument, I conduct a survey-embedded experiment in three large towns in Mali (Bamako, Mopti and Ségou). Since 2013, Mali hosts one of the largest UN peacekeeping operations known by its acronym MINUSMA.⁴ However, despite its presence and the signing of a peace agreement in 2015, multiple forms of violent conflict are ongoing. There are mass protests against the UN peace mission presence, and government representatives repeatedly voice discontent with the UN.⁵ The prevalence of delegitimation campaigns likely make it harder to find support for attitudinal shifts as a result of information provided by UN radio (e.g. Druckman et al., 2013). The three towns are chosen to maximize variation in terms of the security situation: While Mopti has experienced large-scale violence, including between different armed groups, Bamako has remained relatively secure. The security situation in Ségou lies in between these extremes.⁶

In the survey, half of the surveyed respondents are randomly assigned to the treatment condition, which is a three minutes-long radio show on the activities of MINUSMA, i.e., (i) its collaboration with Malian army, (ii) its election assistance, and (iii) its projects for stabilization and social cohesion. The other half of the respondents that are randomly assigned to the control condition listen to popular music ("Moussolou" by Malian artist Oumou Sangaré) for three minutes. Afterwards, the respondents are asked to indicate their agreement or disagreement with certain values, the perceived performance of MINUSMA, the current government and other actors, their perceptions of the social acceptance of these actors and their personal trust in these actors. All respondents receive information necessary for informed consent before the start of the survey, and they are debriefed and compensated for their time with a small gift (tea or soap) after the survey. Ethics approval of the survey was received the Ethics Committee of the University of St. Gallen on 30 May 2023.

The survey draws on a stratified random sample of the populations in three towns. In each of the six city districts (commune) in Bamako as well as in Mopti and Ségou, randomly sampled GPS coordinates serve as starting points. From these starting points, after a random walk, enumerators interview randomly chosen adult women or men from four households. The total sample size is 720 with 320 in Bamako and 200 respondents in Mopti and Ségou. The latter towns are over-sampled to achieve greater balance on demographic characteristics. To estimate whether UN radio impacts people's perceptions, attitudes and value orientations, I will test for significant differences on the relevant outcome variables between the treatment and control group. To do so, I use simple linear regression analyses, excluding individuals (observations) that have not passed the manipulation check (i.e., that cannot record the content of the UN radio show). I will also control for whether a respondent suspects the UN as being the organizer of the survey.

The remainder of this pre-analysis plan will describe in more detail the research questions, theory and hypotheses and the context of the study. Afterwards, I will elaborate on the design of the data collection and

⁴In June 2023, MINUSMA deploys 12,000 soldiers, 1600 police forces, and 1800 civilians in Mali

⁵In 2022, a representative survey of Mali's urban centers found that a relative majority of 46% of the population is very dissatisfied with MINUSMA's work. 11% are rather dissatisfied, 17% are rather satisfied, 5% are very satisfied and 20% do not want to answer this questions (Mali, 2023).

⁶Due to security reasons, none of the Northern cities like Gao are included in the survey.

sampling, the design of the treatment and control conditions, the measurement of theoretical concepts and the planned analyses. The last section will conclude with some observations from the field.

2 Research questions

The project is mainly interested in understanding whether and in which ways UN radio may help or hamper the creation of greater legitimacy beliefs regarding the UN peace missions. To do so, it asks the following questions:

- Does UN radio change citizens' trust in a peace mission deployed in their country?
- Through which channels can UN radio influence trust? Does UN radio augment perceived performance or orient people more favorably toward particular UN-propagated values?
- How do preexisting experience with and attitudes regarding a UN peace missions moderate the effects of UN radio? Does the competitive information environment moderate the impact of UN radio?
- Does UN radio also affect trust in the host government, including its authorities, its bureaucratic and security agents and its non-liberal partner countries (i.e., Russia)?

3 Theory and hypotheses

All else equal, I argue that listening to UN radio on peacekeepers' activities positively impacts citizens' legitimacy beliefs or trust in a UN peace mission (see, subsection on main effects). Persuasion works via shaping perceptions of the mission's performance and the perceived appropriateness of mission-propagated norms (see, subsection on mechanisms). Yet, the direction and strength of the impact of UN radio on citizen's confidence in a UN peace mission depend on a variety of moderating factors, such as prior experience with the UN peace mission, the valence of existing predispositions toward the mission, and the competitive context (see, subsection on moderators). Finally, UN radio on peacekeepers' activities and, specifically, its activities with domestic government actors may not only shape trust in the UN peace mission, but affect perceived social acceptance of the mission and the agreement and trust in the host country government and its partners.

3.1 Main effects

Building on research in social psychology, I conceptualize trust as a specific attitude (i.e., belief or opinion) toward an object (i.e., UN peace mission). If an individual trusts an actor, then she voluntarily complies with this actors' orders. This is because orders by trusted actors are perceived as legitimate (i.e., appropriate). This is why political science research conceptualizes trust in an international organization such as a UN peace mission as empirical manifestation of individuals' legitimacy beliefs regarding that international organizations (Dellmuth and Schlipphak, 2020; Dellmuth and Tallberg, 2015).

An attitude toward an object of is composed of a series of "evaluative beliefs" (i.e., considerations) regarding that object. Thus, attitudes can be influenced by adding or modifying evaluative beliefs or changing their salience (Chong and Druckman, 2007, 107). This implies that UN radio may influence individuals' trust in a UN peace mission in two ways: First, UN radio messages may lead individuals to reweigh the salience of particular evaluative beliefs about the peace mission, e.g., by amplifying the salience of UN support to

the government. Second, UN radio messages may change trust in the peace mission through evoking new considerations, e.g., new knowledge on the peace mission's activities.

Political science research helps us understand which evaluative beliefs or considerations about the UN peace mission are particularly important in shaping trust in that actor. One fundamental evaluative belief that shapes trust or distrust in an international organization such as a UN peace mission is its performance or problem-solving capacity (Dellmuth and Tallberg, 2015; Scharpf, 1999). Another evaluative belief pertains to public perceptions of the moral qualities (i.e., values and norms) of an international organization. Evaluative belief related to moral qualities can temporarily safeguard trust in the organization in times of under-performance (Dellmuth and Schlipphak, 2020).⁷

Together, the two literatures suggest that UN radio messages about performance and support for particular values (i.e., moral qualities) may increase people's trust in the peace mission by making accessible relevant evaluative beliefs.

H1: Listening to UN radio broadcasts about mission activities and values lead to more trust in the UN peace mission (compared to listening to music radio broadcasts).

3.2 Mechanisms

As explained above, performance evaluations should matter for how UN radio can influence individuals' legitimacy beliefs. As such, an important test for this argument is whether UN radio broadcasts not only increases people's trust in the UN mission but also their evaluation of its performance, i.e., both its concrete actions and problem-solving capacity.

H2: Listening to UN radio broadcasts improves perceptions of the performance of the UN peace mission (compared to listening to music radio broadcasts).

Moreover, as already mentioned, trust depends on moral qualities. As Scholte (2011) put it, "[c]onstituents tend to rally to the support of a regime when they perceive it to pursue right causes" (see also Buchanan and Keohane, 2002; Dellmuth and Schlipphak, 2020). However, a short UN radio episode likely does not fundamentally alter people's values. Instead, UN radio messages on domestic and international support for specific moral causes (e.g., inter-ethnic tolerance and democracy) may persuade individuals to orient themselves more favorably toward these moral causes, because collaboration between the UN and the government for particular moral causes may act as a cue or heuristic to be supportive of these causes. For example, if listeners are exposed to UN-government collaboration on inter-ethnic reconciliation, then people may feel more favorably toward inter-ethnic tolerance. Compatible value orientations may then elicit greater trust in the UN mission

H3: Listening to UN radio broadcasts leads to a more favorable orientation toward UN propagated liberal values (compared to listening to music radio broadcasts).

3.3 Moderators and heterogeneous effects

Individuals are not blank slates or only "passive receivers." There are important individual-level moderating variables that affect the direction and strength of UN radio on attitudes and perceptions. Specifically, theories of persuasion specify three relevant types of moderators: availability, appropriateness and context.⁸

⁷Interestingly, Dellmuth and Tallberg (2015) find that find little support for the theory that citizen interest representation through democratic procedures augments confidence in international organizations.

⁸There are more types of moderators, of course. For example, accessibility also moderates the effect of communication on attitudes. There are chronically accessible considerations about an object, e.g., when a person is extremely certain about the UN peace mission

Availability: Research on communicative persuasion suggest that “a frame cannot impinge on an attitude unless it is available in memory” (Chong and Druckman, 2007, 110). Thus, UN radio messages more likely affect attitudes and perceptions, if a person had some prior exposure to the UN peace mission or its radio. When this exposure was positive, it likely reinforce the UN radio message effects in the intended direction. When this exposure was negative, it could turn around the intended effect of the UN radio message and decrease trust.

H4: UN radio is more likely to either decrease (increase) trust in a UN peace mission more strongly, if a person had some prior negative (positive) personal exposure with the UN mission.

Applicability: How applicable (i.e., relevant and appropriate) a message is can be fundamental for whether it affects evaluative beliefs about an object or the salience of these beliefs (Chong and Druckman, 2007). Applicability (i.e. relevance and appropriateness) depends on many factors.

Evidence shows that exposure to information that contradicts strongly held initial attitudes can lead individuals to deliberately counter-arguing the information, i.e. cause directional partisan motivated reasoning (Druckman et al., 2018) and an affective backlash (Brewer, 2001; Petty et al., 2004a; Zuwerink and Devine, 1996). Thus, a message that contradicts prior attitudes may not only be deemed as irrelevant, but also lead a person to be even more convinced of her prior attitudes by triggering internal argumentation and emotional outrage. Therefore, UN radio likely affects individuals with strongly negative attitudes toward the UN peace mission in ways that contradict the persuasive intention, i.e., reducing perceived performance and trust in the UN mission.

H5: UN radio is more likely to decrease trust in a UN peace mission, if a person has a strong negative attitude toward the UN peace mission.

Context: Persuasion does not take place in a vacuum. On the contrary, as Petty et al. (2004b) note, “almost every finding in social psychology [and thus on persuasion effects] depends on some contextual factors that moderate when the finding [persuasion effect] occurs.” There is a wealth of empirical studies that show that contexts with conflictual information motivate individuals to consciously engage with the appropriateness of the message (Chong and Druckman, 2007). While the effect of conflictual information or “frames” (i.e., different arguments or considerations that contribute to attitude formation) is itself conditional on several predisposition (e.g., capacity to engage with the arguments substantively), at the most general level, conflictual information should weaken the persuasive effect of the message Sniderman and Theriault (2004).

H6: UN radio is less likely to affect trust in a UN peace mission, if a person is habitually exposed to radio stations that diffuse competing frames.

3.4 Other outcomes

The final set of arguments relates to the possibility that UN radio affects citizens’ trust in actors other than the UN mission as well. UN radio shows usually highlights the performance and values of the UN peace mission. In so doing, it necessarily also reports on the mission’s activities to assist the government, including the electoral commission, the military and the government authorities. On the one hand, such information may strengthen citizens’ trust in government actors, as it shows that these actors are actively working

breaching moral values, and temporarily accessible attitudes, e.g., when a person is exposed to UN radio on peace mission’s good performance. Chronic accessibility overrides temporary accessibility of particular consideration, suggesting why prior attitudes are so important.

(together with their international partners) toward providing more and better public goods and services. On the other hand, however, information on UN peace mission' assistance to the government may also weaken the public image of the performance of government authorities and agents. This is because UN assistance may showcase these government actors' reliance on international help and their lack of capacity. As such, UN radio may equally weaken trust in government actors and agents.

Additionally, UN radio may also affect individuals' view of non-liberal allies of the UN host country government. One particular non-liberal ally is Russia, which currently tries to expand its influence on the African continent, offering services of the government-affiliated Wagner militia and selling weapons to conflict-affected host countries of UN peace missions. Russian influence operation against inter alia UN peace missions and its human rights activities tend to undermine the latter's work. Therefore, when UN radio showcases the governments' benefits from continued collaboration with the UN peace mission, then this may undermine individuals' trust in Russia as an alternative security partner as well as its perceived performance.

H7: Listening to UN radio broadcasts about mission activities decreases the perceived performance and trust in the UN host government and its non-liberal allies (e.g., Russia) (compared to listening to music radio broadcasts).

4 Setting of the study

The project is implemented in Mali. The country is a former French colony that gained independence in 1960. Since then, Mali has been a one-party state under Modibo Keita (1960-68), a military dictatorship (1968-1991), a transitional regime under Amadou Toumani Touré; a Lieutenant Colonel swept to power as a result of anti-regime mass protests (1991-1992) and an electoral democracy (1992-2020). After another (double) coup in 2020, led inter alia by current Interim President Assimi Goita, Mali is again led by a military government. Elections are scheduled for 2024, but whether this plan materializes is yet to be seen.

Fertile conditions for secessionist rebellion have always been present in post-independence Mali, including state weakness and structural discrimination of the Northern populations. A rebellion led by the ethnic group Tuareg broke out in the Northern part of Mali in January 2012. It was not the first time that the Tuareg groups fomented rebellion. Rebel leaders declared independence of the Northern territories and announced a new state, the internationally unrecognized state of Azawad.

In the same year (2012), citing the inability of the democratically elected government of Mali to quell the rebellion, a coalition of military officers led by Amadou Sanogo took power and an interim government was put in place. In 2013, on invitation of the interim government, French armed forces intervened to push back the advance of the Tuareg rebels, that had now been joined by radical Islamist groups including Al Qaeda in the Islamic Maghreb and Ansar Dine. At first the cooperation between French and Malian armed forces was successful. Insurgent violence decreased and could be contained in the North.

In 2013, the UN peace mission known by its acronym MINUSMA was deployed. Since 2014 (resolution 2164), its mandated priorities included (and still include at the time of writing) assisting the government in its responsibilities to protect civilians and stabilize the country. A peace agreement with the Tuareg factions was signed in 2015. Radical Islamist groups did not take part in the agreement. However, from that point onward, there has been a surge in violence by Islamist groups against government forces and civilians as well as among themselves (especially when the Islamic State in the Greater Sahara entered the conflict).

At the same time, state weakness, economic hardship and climate change have aggravated inter-communal tension (especially over land) in the Centre of Mali, leading to frequent outbreaks of violence.

Mopti has been affected by the violent inter-communal conflicts, too. While the Islamist groups have perpetrated a large number of terrorist attacks (including with improvised explosive devices), the last major terrorist attack in the capital of Bamako was in 2015.

A majority of the Malian population relies on radio to inform themselves about politics and public affairs. There are many hundreds of privately owned radio stations, community radio stations, and state-owned radio stations (including Radio national and Chaîne 2). Malians equally can listen to BBC World, RFI (until its suspension in 2022), Voice Of America, and other international radio stations from Morocco and Mauritania. Since 2014, the UN peace mission has established its own radio station Micado Fm. The UN radio continuously expanded its coverage over time. While there are radio antenna in Mopti and Bamako, residents of Ségou can not listen to UN radio.

5 Design of the data collection

The project started with a four-day long training session in Bamako at the office of the local partner organization GISSE. Afterward, the trained enumerators were sent out to Bamako (4 enumerators), Mopti (3 enumerators) and Ségou (3 enumerators). As a principal investigator, I co-organized the training and stayed until 7 June in Bamako through the end of the pilot phase. The dataset will be transferred to myself after the end of the data collection period. Ethics approval have been obtained for this study by the University of St. Gallen prior to the start of the project.

Sampling

The aim of the sampling strategy is to create a representative sample of the general adult populations of the three major towns in the South and Center of Mali: Bamako (the capital), Mopti and Ségou. Rural areas are excluded due to budget constraints. The Northern regions are excluded due to security concerns. The sample is stratified by town and, within Bamako, by its six districts (i.e., “communes”). Based on census data from 2018, it was decided to interview 300 people in Bamako. 200 people were interviewed in both Mopti and Ségou. As such, the population in these towns was deliberately is over-sampled.

Within each town, I have randomly selected GPS coordinates. In each district of Bamako, 13 GPS coordinates are randomly selected, while 50 GPS coordinates are randomly selected in both Mopti and Ségou. Each GPS point serves as a point of departure for a random walk to the households, from which interviewees are randomly selected. GPS coordinates that randomly fall into non-inhabited areas are excluded and replaced by another set of randomly drawn GPS coordinates. Moreover, if an interviewer feels unsafe in a location, she can request the starting point GPS coordinates to be replaced.

The random walk is defined by a code of the day (that is, the addition of the single digits of the day so that they sum to a single digit number). The interviewers are instructed to walk in one direction, skip as many households on the left side of the road as indicated by the code of the day, and then interview a person in the household that they end up at.⁹

Once an interviewer has arrived at the household, she needs to request permission for the interview from the household head (i.e., chef du ménage). When permission is obtained, then the household head should list all female or all male members of the household. While the names are mentioned to the interviewer, only

⁹Sometimes, there are several households within the same building. In that case, the interviewer will interview a member of the household, for which the head of the household was first encountered. Moreover, the interviewers are instructed to not count stores, offices and other non-household related buildings toward the number of household that they are supposed to skip according to the code of the day.

the number is recorded in the tablet. Interviewers are instructed to switch between requesting an all female or an all male list from one interview to the next. Finally, an interviewee number is drawn randomly from the list. If the selected person is present and gives her informed consent, then the interview is conducted. If the selected person is not present but will return to the household within the time frame of the study (i.e. until 30 June), then the interviewer will fix a date and time and interview the selected person and return the household for the interview later.

Sample size

Power is the probability that a truly significant treatment effect actually is shown to be significant in an experiment if it were to be repeated many times. Power depends on the size of the sample (i.e., respondents) and the variability of the outcome of interest (i.e., the confidence in the UN, the perceived performance of the UN, and the perceived social acceptance of its values). It also depends on the desired effect significance level, which is usually set to 0.05.

To do power analysis, we do need to estimate likely treatment effect and the standard deviation of the outcome variable. In my power analysis, I assume a treatment effect based on a study by Gordon and Young (2017). This study shows that exposure to peacekeepers' security activities augments citizens' intention to share information with peacekeepers by 22,62465 per cent of the standard deviation of this outcome. Since the UN radio also exposes citizens to information on UN peacekeepers' security activities and willingness to share information relates to trust in the UN peace mission, I think this assumption is justified. I also assume that trust in the UN peace mission is normally distributed with mean equal to 0 and standard deviation equal to 1.

The convention is to only recruit as some many subjects that are needed to identify a treatment effect (that is actually there) 80% of the time. That is, the sample size guarantees that if the experiment if repeated would rightly detect the treatment effect in 80 out of 100 repetitions. My power analyses suggest that at least 700 respondents should be recruited. Specifically, the power of a random sample of 700 respondents is at 84.4 percent.

The power of the experiment only allows me to test unconditional causal effects of UN radio. Thus, the results for the conditional effect analyses, i.e., the interaction effects of UN radio treatment and different moderating variables, should be viewed as suggestive.

6 Experimental conditions

The design of the experiment is aimed at being a realistic as possible by (i) administering the UN radio treatment in a location where individuals usually would listen to radio and (ii) designing the radio shows based on existing radio materials in the local language. Regarding its real-world character, the project's experiment sits in-between a survey experiment on the one hand and a field experiment on the other.

In Mali, there are essentially four modes of listening to radio: At home or in the households' courtyard, at informal meetings with acquaintances and friends ("grin" in the national language Bambara), at the office, and with headphones via cell phones during commuting and waiting times. The survey takes place in respondents' home and that is where the enumerators play the UN radio show.

Moreover, the radio show takes materials from actual radio broadcasts in Mali, including music and jingles. As such, the respondents should be familiar with the style. Moreover, the UN radio broadcasts is recorded in the local language Bambara, which is Mali's lingua franca, by a former journalist.

7 Treatment

The treatment condition is a three minutes-long recording of a UN radio show in the local lingua franca Bambara. It showcases the performance of MINUSMA and its support for particular values. Specifically, it reports (i) conjoint patrols with the Malian military forces FAMA, (ii) support to election preparation, including the referendum in June 2023, and (iii) assistance with the government-initiated strategy for the stabilisation of the central regions (Stratégie de la stabilisation des régions du centre du Mali, 2022-2024), especially regarding inter-ethnic reconciliation and social cohesion. The UN radio show starts and ends with the music of the UN radio in Mali, Micado Fm, and uses jingles to separate the three topics.

7.1 Control

The control condition is a three minutes-long recording of a music radio show, which is broadcasted by the national radio station ORTM. The music piece is a very popular song by Malian artist Oumou Sangaré. The music piece is introduced by the voice of an ORTM radio moderator and a jingle. The recording ends with the same jingle.

7.2 Assignment

The treatment and control radio shows are randomly assigned. The random assignment was programmed in CSOPro (a data entry freeware), so that 50 percent of the respondents are exposed to the UN radio show and the other 50 percent are exposed to the music radio show.

8 Measurement

This section describes the measurement of the main outcome variables, mediator variables and moderator variables of interest.

8.1 Main outcome

The main outcome of interest is individuals' level of trust in the mission. In order to measure trust, the survey questionnaire includes the following question: "To which degree do you have confidence in the following institutions or actors, the peace mission MINUSMA".¹⁰

Respondents are asked to indicate their confidence on a scale from "no confidence at all", "no confidence", "partial confidence", to "a lot of confidence". The options "I don't know" and "Refuse to answer" are also offered. The scale and question format correspond to the one used in the Afrobarometer.

8.2 Mediators

UN radio may affect citizens' trust in the UN peace mission through augmenting the perceived performance of the mission as well as value orientations.

¹⁰The French translation reads: À quel point faites-vous confiance à chacune des institutions ou acteurs suivantes? MINUSMA.

- Perceived performance of the UN peace mission: In order to measure perceived performance of the UN peace mission (and other actors), the survey asked the following question: Do you agree or disagree with the performance of the following institutions and actors in the past 12 months?¹¹ The interviewers are instructed to emphasize that this question is about the work and the results of the UN peace mission MINUSMA rather than more diffuse moral support and legitimacy. The response items are “Fully disagree”, “Disagree”, “Agree” and “Fully agree”.
- Orientation toward UN propagated norms: The study measure whether people become more oriented toward two UN-propagated norms, that are also mentioned by the UN radio program. These are a preference for democracy in general and elections in particular and a preference for inter-ethnic tolerance. The questions to draw out these value orientations by asking respondents to decide which of two or three affirmations is closest to their opinion.
 - Democracy: For someone like me, it does not matter which form of government we have (1). In some circumstances, a non-democratic form of government is preferable (2). Democracy is always preferable to all other forms of government (3).
 - Elections: We have to choose the leaders of our country in regular, free and transparent elections (1). Since elections sometimes produce bad results, we must adopt other methods for choosing the leaders of our country (2).
 - Inter-ethnic tolerance: It is important to always practice tolerance toward all ethnic groups (1). Too much tolerance toward different ethnic groups can aggravate the security problems of the country (2).

8.3 Moderators

There are three moderators of the relationship between listening to UN radio and people’s trust in the UN peace missions, which are specified in hypothesis 4 to 6. All these moderators are measured prior to the respondents’ exposure to the experimental condition (i.e., the radio show).

- Experience with MINUSMA: Prior experience with the UN peace mission MINUSMA is measured by asking respondents about just that and also let them evaluate this experience. The response items are the following: “I had no personal experience with MINUSMA”, “I had a rather positive experience”, or “I had a rather negative experience”. The options “I don’t know” and “Refuse to answer” are also offered.
- Attitude valence toward the UN peace mission: I operationalize the valence of the attitude toward the UN peace mission using the following question: When it comes to the different institutions and actors in your country, could you please tell me to which degree you agree with their activities in Mali? Then, the interviewer specifies that the respondent should indicate this for the peace mission MINUSMA. The response items are “Fully disagree”, “Disagree”, “Agree” and “Fully agree”.
- Conflictual information: The amount of conflictual information, that a person is exposed to, may moderate the effect of UN radio. Since the present government in Mali has repeatedly criticized the UN peace mission and even demanded the departure of some of its employees, I assume that if a respondent usually listens to government-owned radio stations, she is more exposed to conflictual information. In the survey, respondents are asked to indicate which radio station they normally listen to.

¹¹In French, the question reads: Etes-vous d’accord ou en désaccord avec la performance des institutions et des acteurs suivant au cours des 12 derniers mois?

8.4 Additional outcomes

There are ten additional outcome variables of interest that relate to people's trust in their government and its new ally Russia.

- Trust in government and Russia: The project also wants to test whether UN radio decreases trust in the host governments and in Russia as its new ally. To do so, respondents are demanded to indicate to which degree they trust the following institutions or actors: The president Assimi Goita, the Malian government, the electoral commission, and the military as well as Russia. The wordings of the question and response items are the same as for measuring confidence in the UN peace mission.
- Perceived performance of the government and Russia: In order to measure perceived performance, the survey asked the following question: Do you agree or disagree with the performance of the following institutions and actors in the past 12 months? This question is again posed for president Assimi Goita, the Malian government, the electoral commission, and the military as well as Russia. As mentioned in the subsection on mediators, responses are recorded on a four-point scale from complete disagreement to complete agreement.

9 Empirical analyses

I estimate the short-term effect of the UN radio treatment (i.e., the three minutes-long experience of listening to a UN radio show) on outcomes variables (i.e., trust in the UN mission, perceived performance of the UN mission, agreement with UN-propagated liberal values related to democracy and tolerance, and trust in the government and Russia) directly after the administration of the treatment or control.

The main advantage of this within-survey analysis is that it is statistically highly powered and does not suffer from attrition or spillover effects as two-wave field experiments often do. The main downside is its short-term horizon. Thus, if there is a positive effect of UN radio on trust in the UN peace mission, then this is just indicative of the practical real-world effect.

The analyses exclude observations of individuals that have not understood the treatment correctly. The survey includes two questions to detect those individuals by asking about the content of the radio show recording and the radio station that produced it, respectively.

The survey also asks respondents to indicate who has sent the interviewers. Of course, the interviewers are instructed to explain who organized the survey, its purpose, and its risks and benefits for the respondent as well as how their data will be handled. However, as previous Afrobarometer surveys in Mali suggest, many respondents tend to forget or discard this information. Thus, I run analysis with and without a variable that records whether a respondent thinks the UN sent the interviewer.

Although some variables are binary or categorical, I use linear regression. In alternative specifications, the functional form will be changed to logit and multinomial logit models.

9.1 Main effects

The main hypothesis suggests that the UN radio positively affects trust in the UN peace mission. To test this hypothesis, I run a linear regression of the main outcome variable for trust in the UN mission. The treatment assignment status is the main independent variable.

9.2 Mediator effects

Assuming I find a treatment effect on trust in the UN peace mission, how can these effects be explained? Hypotheses 2 and 3 propose that the treatment effect operates via two separate mechanisms: perceived effectiveness and value orientations. To assess these hypotheses, I again run linear regressions of these mediator variables on the treatment assignment status.

I am aware of current methodologies (e.g., causal mediation analyses) to estimate the direct and mediator effects of the treatment on outcomes, but refrain from that in my analyses given the criticism of strong assumption, e.g., regarding sequential ignorability, that could potential bias mediation estimates.

9.3 Conditional effects

In hypotheses 4 to 6, I suggest that the effect of our treatments varies with several pre-treatment conditions. To assess this heterogeneity, I employ linear regression analysis of trust in the UN mission. The binary variable for treatment assignment status is interacted with the moderator variables, i.e., previous experience with MINUSMA, prior attitude toward the UN mission, and exposure to conflictual information, in separate models. Importantly, these analyses should be seen as exploratory because they are under-powered. The sample size of the experiment does not suffice to discover the presence of a conditional effect with an 80 percent probability.

9.4 Other outcomes

Finally, hypothesis 7 suggests that UN radio could also affect auxiliary outcomes. In order to test the effects on individuals' trust in and perceived performance of government authorities and agents as well as Russia, I run linear regression models on the above described outcome variables for trust and perceived performance of five actors: the president, the government, the electoral commission, the military and Russia. The treatment assignment status is the main independent variable.

9.5 Multiple comparisons

Multiple hypothesis tests imply that, the project may reject a null or no effect-hypothesis by mere chance (and not because it is actually false). Thus, the p-values of the estimated coefficient on the treatment assignment status, i.e., the probability of rejecting the null hypothesis although it is true, must be adjusted.

To do so, the project employs the method proposed by Romano and Wolf (2005). It is advantageous because it maximizes the power of the experiment to reject false null hypotheses and to not reject true null hypotheses. In contrast, the traditional Bonferroni method has lower power because it assumes that for all hypothesis, there is an equal probability that they are false (and that the null hypothesis is true).

The families used to compute the adjusted p-values correspond are the following:

- Trust in the UN mission (1 variable / test)
- Performance of the UN mission (1 variable / test)
- Agreement with UN-propagated values (3 variables / tests)
- Trust in the government and its partner Russia (5 variables)
- Performance of the government and its partner Russia (5 variables)

10 Conclusion

During my stay in Bamako at the beginning of June 2023, I fortunately received dozens of impressions of how residents in Bamako perceive and feel about the UN radio Micado FM and the UN peace missions MINUSMA as well as political situations more generally. People were generally happy to talk with me and did not hold back with critique against the UN presence. However, some individuals were cautious in talking about the government, mentioning upticks in arbitrary arrests and other forms of repression.

Major complaints against MINUSMA are that it is not doing enough to support the government in counterinsurgency operations or even hampers counter-insurgency effectiveness (e.g., by criticizing human rights violations) and that peacekeepers are failing at protecting the host population. Other complaints include the close association with France (the pen-holder of the resolutions on MINUSMA's mandate), the corrupt behavior of some members of the mission and the over-emphasize on human rights. Unfortunately, a large number of people that I talked to viewed the perceived under-performance of the UN peace mission as intentional to hold the country in a backward state or to reap private benefits. Government propaganda and influence operations by Russia likely contributed to this perception.

In this environment, does the relatively short one-time experience of a UN radio (i.e., my treatment) augment people's trust in the UN peace mission in their country? If I find such an effect, then this result signals the great potential of strategic mass communication for strengthening UN mission's legitimacy and, potentially, effectiveness.

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