

Propaganda by Proxy: How Autocrats Use Surrogates to Conceal Their Control of the Media

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Abstract

Autocrats use the media to generate popular support, yet individuals opposed to the regime tend to distrust and avoid state-owned sources. How do autocrats reach these skeptical actors? In this paper, I examine a strategy in which autocrats control private media outlets through proxies, thereby concealing these outlets' connections to the government and rendering them more credible to regime opponents. Fielding surveys in four Sub-Saharan African countries, I find that the vast majority of citizens living in autocracies are unable to identify which private outlets are owned by regime proxies. I then present evidence from a series of field experiments showing that concealed ownership works: it makes opponents more likely to consume regime-controlled news sources and more likely to be persuaded by their pro-regime coverage. These results challenge the notion that propaganda only influences an autocrat's loyal supporters, pointing to conditions under which it reaches and persuades more discerning audiences.

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1 Introduction

Modern autocrats use the media to disseminate pro-government news and information to the public with the goal of generating support for their rule (Guriev and Treisman 2022). One of the key audiences that autocrats seek to influence are regime opponents, or citizens who hold negative attitudes toward the ruling party. Opponents are the most likely to vote and protest against the regime (Laebens and Öztürk 2021), making them prime targets for persuasion (Liu and Ma 2018).

Yet autocrats face important constraints in their efforts to persuade opponents. Consistent with theories of selective exposure (Smith et al. 2008), a large body of work finds that opponents are averse to pro-government bias and consequently *avoid* government-controlled outlets in favor of private sources of news (Gehlbach and Sonin 2014; Moehler and Singh 2011; Durante and Knight 2012; Knight and Tribin 2019; Robertson 2017; Huang and Yeh 2019). When opponents do encounter government-controlled media, they tend to *discount* their messaging (Gehlbach and Sonin 2014; Adena et al. 2015; Peisakhin and Rozenas 2018).¹ In short, the very audiences that autocrats would most like to persuade are the least likely to receive and believe their messaging.

How do autocrats overcome avoidance and discounting of pro-government media? Perhaps the prevailing view among scholars is that they cannot (Shirikov 2024; Knight and Tribin 2019; Adena et al. 2015; Baysan 2022). In part, this perspective stems from the assumption that citizens can easily infer the biases of the outlets they consume (Gehlbach and Sonin 2014). Yet recent work has questioned this assumption. Citizens often struggle to evaluate outlets' biases, especially when they are not primed to do so or lack sufficient points of comparison (Syunyaev and Shirikov 2024). Given the difficulty of detecting bias in news content, citizens may rely upon ownership cues, reasoning that, if an outlet is owned by the state or ruling party, its coverage is likely to be biased in favor of the regime (Spirig 2018). This creates a potential opening for autocrats. Anecdotal evidence suggests that autocrats engage in a variety of strategies to conceal their control of the media with the goal of lending credibility to their messaging (Guriev and Treisman 2022).

In this paper, I explore the effects of one such strategy: capturing private media outlets through “proxies,” or individuals with informal or opaque ties to the regime. Proxies take different shapes in different contexts, from ruling party members in Tanzania (MOM 2022), to oligarchs in Hungary

¹For empirical evidence that individuals in democratic contexts discount information from sources with incentives to misrepresent such information, see Chiang and Knight (2011) and Alt et al. (2016).

and Turkey (Szeidl and Szucs 2021; Coşkun 2020), to intelligence operatives in Egypt (Bahgat 2017). Regardless of their form, their ostensible function is the same: to convey the impression that media outlets are owned by private individuals rather than the state.

Proxy-owned media has become an increasingly important source of pro-government news in recent years. In many autocracies, proxy-owned outlets are now more numerous and reach a wider audience than directly state-owned outlets. In Tanzania, for instance, 69 of the country's 221 radio stations are owned by regime proxies, while only 24 are state-owned. Similar patterns can be seen across Africa, where commercial broadcasters owned by regime-affiliated businessmen reach an audience numbering in the tens of millions – far larger than the audience for traditional state media.² Globally, proxy media ownership has been identified as a salient phenomenon in at least 30 countries, motivating research into its effects.

Yet despite the growing prevalence of proxy media ownership, scholars have largely overlooked this practice and empirical evidence on its effects remains scarce. Does this strategy succeed in misleading citizens as to the ownership of the media? If so, what are the downstream effects on the ability of opponents to avoid and discount government-controlled sources?

In this paper, I advance and test two claims about proxy media ownership. The first is that this strategy is indeed effective in concealing autocrats' media control, with citizens largely perceiving proxy owners to be private individuals operating independently of regime influence. The second claim is that these misperceptions about media ownership make avoidance and discounting of pro-government sources less likely. If citizens believe that proxy outlets are owned by private individuals with no links to the ruling party, they will infer that their coverage is likely to be unbiased. In turn, opposition-minded citizens will be more willing to consume these outlets and more likely to be persuaded by their messaging. Initial media choices might morph into persistent preferences over time if, as many have argued (Syunyaev and Shirikov 2024), audiences are slow to update about an outlet's bias once they start consuming it.

However, in theory, several factors could limit the effectiveness of proxy ownership as a concealment tactic. Citizens might be adept at detecting outlets' biases (Gehlbach and Sonin 2014); they might receive information about media ownership from actors with incentives to expose the government's messaging strategy (Letsa 2019); or they may assume that all private outlets are

²According to media market data from GeoPoll. Section 2 provides greater detail on audience share figures.

captured unless proven otherwise. Another possibility is that citizens pay little attention to media bias, implying that strategies aimed at concealing outlets' ownership neither hurt nor help their credibility. Section 3 discusses other possibilities, including that audiences take bias into account when deciding which outlets to consume but not when evaluating messages from these outlets (Peterson and Allamong 2022), or, conversely, that audiences willingly consume sources they know to be biased but evaluate their messaging critically (Simonov and Rao 2021).

This paper explores these possibilities in the context of Sub-Saharan Africa. The first part of this paper asks whether the use of proxies actually succeeds in concealing the regime's control of the media from the public. To answer this question, I combine two data sources. The first is a novel dataset of media outlets in four African countries – Tanzania, Uganda, Cameroon, and Nigeria – and the identities and political affiliations of their owners.³ I obtained information about media ownership through public records investigations and key informant interviews with media and government insiders. The second dataset comprises the results of six original surveys (N = 4,761) gauging public perceptions about the ownership and biases of media outlets in these four countries. By merging these datasets, I can explore whether citizens hold less accurate beliefs about the ownership and biases of proxy-owned versus state-owned outlets.

The results support the notion that control of private media via proxies is less noticeable than state-led media capture. Across all four countries, respondents exhibit lower levels of awareness about the ruling party's control of proxy-owned outlets than state-owned outlets. These differences are statistically significant and substantively large: on average, 73.8 percent of respondents were aware of the ruling party's control of state-owned outlets while only one-third (33.3 percent) were aware of its control of proxy-owned outlets. Respondents were also less likely to view proxy-owned outlets as biased in favor of the regime compared to their state-owned counterparts. These gaps in knowledge about ownership and bias cannot be explained by differences in outlets' coverage. As I show in Section 4, citizens perceive proxy-owned outlets to be less biased than state-owned outlets despite the two sets of outlets showing remarkably similar levels of actual bias.

Having established that citizens tend to hold uncertain or mistaken beliefs about the ownership

³These countries were selected due to the prevalence of both state- and proxy-led media capture. In Tanzania, Uganda, and Cameroon, authoritarian ruling parties directly control state media and exert indirect control over private media outlets via proxies. In Nigeria, the major political parties maintain a network of party-affiliated private outlets and alternate control of the state media depending on which party is in power.

of indirectly regime-captured outlets, the second part of this paper explores the consequences of these knowledge gaps. Do misperceptions about media outlets' ownership affect the extent to which citizens trust, consume, and update in response to their messaging?

To explore this question, I deploy a series of experiments in Tanzania. In Experiment 1, I offered 212 residents of Dar es Salaam a choice of subscription to one of two newspapers available on a mobile news app. While both newspapers are private, the first, *Tanzania Leo*, is covertly owned by a close ally of the President, while the second, *Demokrasia*, is genuinely independent. Before making their selection, half of the respondents were randomly treated with information about the outlets' ownership while half received no information. I estimate the effect of receiving this information on respondents' subscription choice – a costly measure of intended media consumption. In addition, I draw upon usage data provided by the app to unobtrusively track respondents' actual media consumption over the course of the following month.

The results provide strong evidence that citizens do pay attention to ownership cues when making decisions about which outlets to consume. In the control group, 83 percent of regime opponents chose to subscribe to *Tanzania Leo* – the covertly regime-controlled outlet – and 11 percent went on to consume the newspaper. However, treating regime opponents with revelatory information about the outlet's ownership reduced intentions to consume *Tanzania Leo* by 31 percentage points and reduced actual consumption by 11 percentage points. Consistent with the proposed causal mechanism, respondents treated with ownership information became more likely to describe *Tanzania Leo* as “pro-government” in its political orientation. The results indicate that lack of knowledge about the ownership and political affiliations of proxy-owned outlets causes regime opponents to consume sources they would otherwise avoid.

Experiments 2 and 3 replicate and extend these results in rural northeastern Tanzania. Unlike the previous sample, which was mostly regime-opposing, the respondents in Experiments 2 and 3 are split between regime supporters and opponents, allowing for an exploration of heterogeneous effects across ideological boundaries.

In Experiment 2, 1,314 villagers were randomly given varying information about the ownership of two private but covertly regime-captured radio stations, Radio Free Africa (RFA) and Tanga Kunani FM (TK). As expected, revealing a station's ties to the ruling party made respondents more likely to perceive the station as biased in favor of the government. This, in turn, caused the

preferences of regime opponents and supporters to diverge, with the former becoming significantly less interested in consuming the station and the latter becoming more interested. These results are consistent with theories of selective exposure and suggest that strategies that conceal autocratic control of the media are effective at targeting opponents, but not supporters.

Next, respondents were randomized to listen to a one-minute news clip written by the researcher and recorded and produced by TK in which the government’s development performance is described in favorable terms. On average, respondents who listened to the news clip became about seven percentage points more likely to assess the ruling party’s development performance as “very good.” The results suggest that, when citizens do tune into proxy-owned outlets, they accept their reporting credulously. That said, the persuasive effects of the message were similar regardless of whether respondents had previously been informed about TK’s links to the ruling party, suggesting that ownership information shaped citizens’ decisions about what to consume, but not necessarily their susceptibility to specific pro-government messages.⁴

Experiment 3 replicates the same design with one important difference: the persuasive news clip was conceived and produced by TK without any input from the researcher, and thus bears a closer resemblance to real-life propaganda segments. In this iteration of the experiment, revealing an outlet to be connected to the ruling party made both regime supporters and opponents more interested in consuming the outlet. However, treated respondents became significantly less likely to *update* in response the outlet’s news coverage. Among respondents who had not been informed about TK’s ownership, the news clip increased support for the ruling party by 22 percentage points. Among respondents who *had* been informed about TK’s ownership, the news clip scarcely exerted any persuasive effects. It appears that learning about an outlet’s ties to the regime caused respondents in this sample to engage in “conscientious consumption” of propaganda – that is, they sought out the pro-government source but filtered its bias (Simonov and Rao 2021).

Taken together, the three experiments suggest that citizens are indeed sensitive to information about media ownership, although the precise nature of their response varies across populations. When informed about media outlets’ ties to the regime, regime opponents sometimes respond by *avoiding* these sources (Experiments 1 and 2). Other times, they maintain or increase their consumption

⁴These results are line with Peterson and Allamong (2022), who find that the public is averse to consuming news from unknown and foreign media sources, but that conditional on exposure to these sources, individuals tend to update their beliefs as much as they do in response to known, mainstream news sources.

of these sources but *discount* their coverage (Experiment 3). Either way, providing information about media ownership makes opponents less susceptible to regime influence. Thus, to the extent that proxy ownership obscures information about the regime’s media control from the public, it appears to amplify the influence of government-controlled media upon opponents.

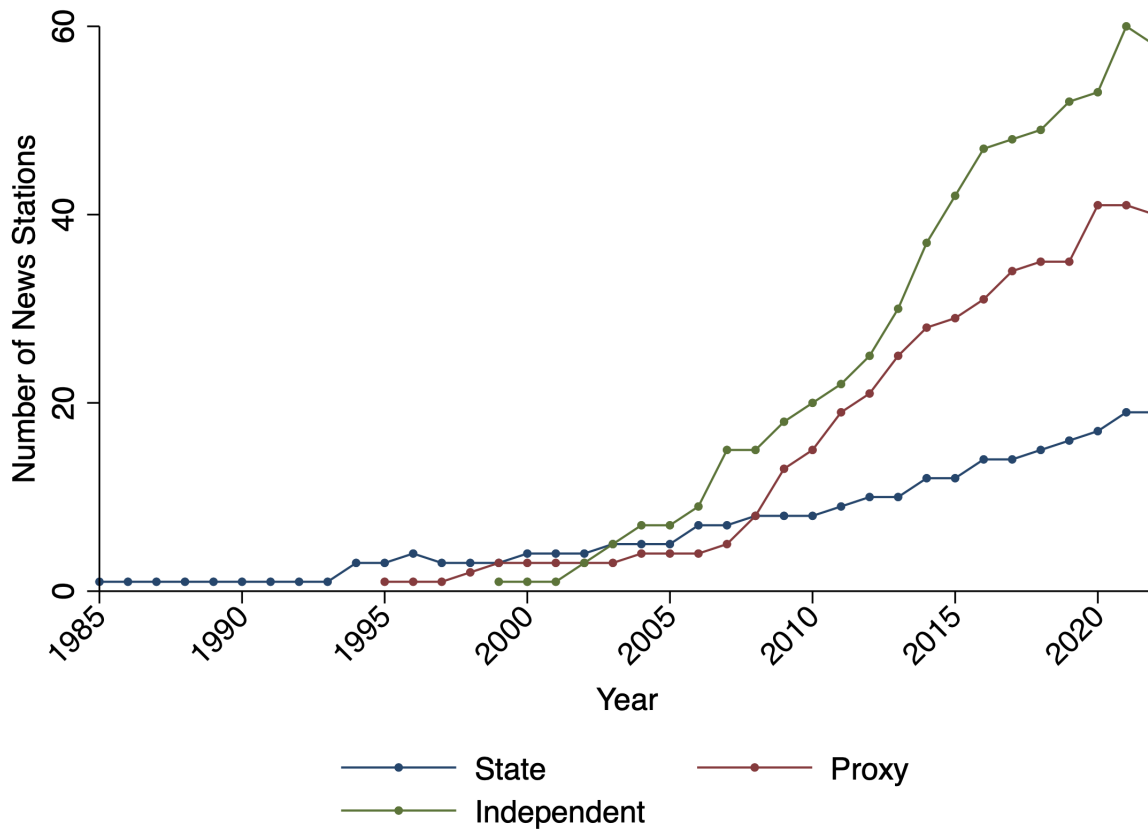
The findings presented here challenge two pieces of conventional wisdom. The first is that government-controlled media fails to reach, much less persuade, opponents, and that its primary function must be to rally supporters (Knight and Tribin 2019; Adena et al. 2015; Shirikov 2024; Baysan 2022). This paper shows that government-controlled outlets can attract and persuade regime-opposing audiences, so long as the outlets are perceived to be independent. The findings join a growing body of work exploring how autocrats lend credibility to propaganda by channeling it through non-state outlets (Dai and Luqiu 2020; Peterson and Allamong 2022) or by portraying government-controlled outlets as even-handed (Carter and Carter 2023). The results also speak to the broader field of political communication, which has increasingly concluded that mass media exerts “minimal effects” on audiences because of their tendency to selectively consume congenial sources (Bennett and Iyengar 2008). This paper suggests that when audiences are uncertain about media outlets’ political orientations – whether due to low media literacy or deliberate efforts by interested actors to withhold such information – selective exposure may fail to occur. Under such conditions, audiences may indeed receive and believe uncongenial information.

The second piece of conventional wisdom is that media liberalization necessarily generates a free and independent press. Autocrats have strong incentives to mitigate the effects of media liberalization by colluding with private media owners to manipulate news coverage. The evidence presented here suggests that doing so may confer advantages upon autocrats when it comes to targeting skeptical audiences. The findings fit into a strand of recent work examining how autocrats “borrow credibility” from private media (Guriev and Treisman 2022; Stockmann 2012). From a practical standpoint, they sound a note of caution for policymakers who might view media privatization as a panacea in informational autocracies.

2 Background

The present study mostly takes place in Tanzania, which has been governed uninterruptedly by the authoritarian ruling party *Chama Cha Mapinduzi*, or CCM, since 1977. For decades following

Figure 1: Media Outlets in Tanzania by Political Ownership Type, 1985-2022



the country's independence, CCM maintained tight restrictions on mass media. From 1962 until 1993, Tanzanian audiences could access just one radio station, the state-owned *Radio Tanzania Dar es Salaam*, and two newspapers, both of which were directly controlled by the government or ruling party. As in other so-called “fear dictatorships,” acquiescence was ensured primarily through targeted repression rather than persuasion (Guriev and Treisman 2022).

The end of the Cold War, and the attendant pressure from the international community to initiate political liberalization and introduce multi-party elections, changed this media landscape dramatically. A key element of international efforts to promote democracy abroad was media reform, with a particular emphasis being placed on breaking up state media monopolies by privatizing public broadcasters and lifting restrictions on commercial media (Price et al. 2003). In response to these pressures, Tanzania passed the Broadcast Reform Act, which led to a rapid rise in the number of private broadcasters in the country, from zero in 1993 to 11 in 2005 and 203 in 2022 (Figure 1). These commercial media outlets catered to a Tanzanian audience hungry not only for new entertainment options, but also for independent sources of political news after decades of

government monopolization of the media sector.

As in other “informational autocracies” (Gurie and Treisman 2019), Tanzania’s ruling party responded to these trends by stepping up their mass messaging efforts. The mid-1990s and early 2000s saw the creation of the government-owned TV and radio provider Tanzania Broadcasting Corporation (TBC) and its affiliate TBC Taifa, as well as directly CCM-owned publishing house Uhuru. These outlets maintained visible ties to the regime and sought to use the authority of the state as a source of credibility – at least, among regime-supporting audiences.

A concurrent but generally overlooked trend during this period was the ruling party’s growing practice of channeling pro-regime messages through private, ostensibly independent outlets. An early innovator of this technique was Jikaya Kikwete, who served as President of Tanzania and leader of CCM from 2005 to 2015. The 2005 election saw Kikwete come under intense scrutiny from *Mtanzania*, the country’s most popular independent political newspaper. Seeking to soften the outlet’s coverage of the regime while at the same time obtaining a reputable conduit for pro-regime messages, Kikwete directed his close friend and campaign manager Rostam Aziz, East Africa’s richest man, to purchase *Mtanzania*. As Figure 2 shows, Aziz’s acquisition of the outlet in 2007 led to substantial changes in coverage, with the newspaper becoming less critical of the regime on average.⁵

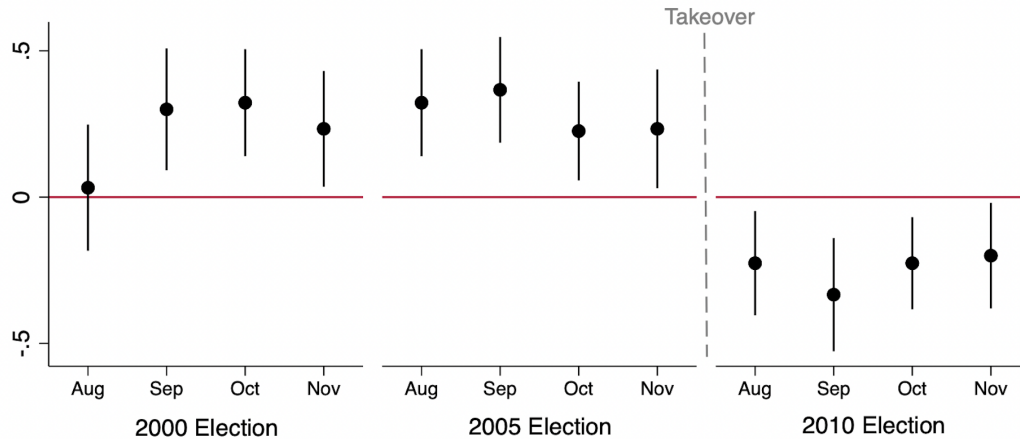
In addition to acquiring existing private outlets, Kikwete encouraged friends, family members, government officials, and other members of his inner circle to create private outlets of their own. In some cases, Kikwete’s allies exercised direct ownership of these media outlets. For example, the popular radio station Radio Free Africa is owned by Anthony Diallo, a member of CCM’s National Executive Committee who served in a variety of CCM ministerial positions. In other cases, the outlets were controlled through intermediaries with no formal affiliations to the regime. A prominent example is the radio station Tanga Kunani FM, which is owned by a private individual thought to operate on behalf of a member of the Kikwete family.

These tactics were carried on by successive administrations. During the presidency of John Magufuli (2015-2021), the media mogul Cyprian Musiba, owner of a constellation of popular private news outlets, served as an effective proxy of the CCM party and was sometimes referred to as “Magufuli’s attack dog.” Today, the sitting President Samia Suluhu Hassan exerts indirect control

⁵Section A in the Appendix provides further detail on this difference-in-differences analysis.

Figure 2: **How Media Ownership Shapes News Coverage**

This figure plots the difference in the proportion of articles with anti-government slant in *Mtanzania* vs. a comparable independent newspaper. Before the 2007 CCM takeover, *Mtanzania* was more likely to publish critical articles about the government than the comparison newspaper. After the takeover, *Mtanzania*'s coverage became significantly less critical of the regime.



over a range of outlets via “her close friends in media.”⁶

The use of proxies at least in part reflects strategic considerations on the part of the regime. As one newspaper editor notes,

“At the end of the day, [the regime] uses media as a tool to win public support. If people who distrust the government know that an outlet is owned by someone connected to the government or CCM, whatever it publishes is tainted. So they try to use someone else as cover to hide their ownership.”⁷

Interviews with regime officials largely corroborate this assertion. According to one state security official, the difficulty of proving that outlets are linked to the government via proxies is “the whole point of using proxies in the ownership of media.”⁸ The main target of such efforts at concealment appears to be opposition-minded individuals. As the managing editor of one CCM-linked newspaper puts it, “If supporters ignore our newspaper, CCM doesn’t care. But if only one opposition person reads it and thinks it’s independent, then it’s worth it for CCM to put it out there.”⁹

Far from representing a fringe tactic, proxy-led media capture has been at the heart of the ruling party’s efforts to control the information space. As Figure 1 illustrates, as many as one-third of

⁶Interview with Tanzanian media expert, November 2023.

⁷Interview with editor of Tanzanian newspaper, November 2023.

⁸Interview with Tanzanian Intelligence Officer, February 2023.

⁹Interview with managing editor of Tanzanian newspaper, February 2023.

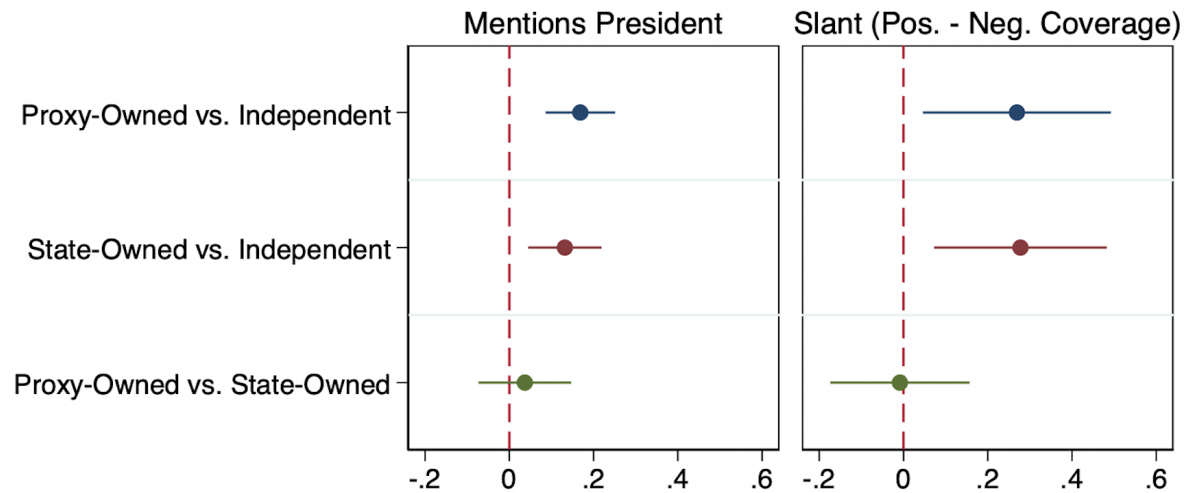
all private outlets created since 2000 have retained informal links to CCM. These outlets not only outnumber directly state-owned outlets by a factor of three to one, but also appear more effective at drawing an audience of opposition-minded listeners. In surveys in rural Tanzania, I find that self-described regime opponents are significantly less likely than regime supporters to report listening to state broadcasters, but no less likely to report listening to proxy-owned private stations (see Appendix Section B). These patterns provide *prima facie* evidence that proxy-owned private media has a unique ability to reach regime opponents – an intuition I seek to corroborate and explain empirically in the remainder of this paper.

Tanzania’s story reflects broader regional trends. Across Africa, autocrats have responded to external calls for media liberalization by lifting restrictions on private media only to purchase or create their own commercial outlets. In Cameroon, prominent commercial stations like Canal 2 and Spectrum TV are owned by senators with close ties to the president and reach over two million news consumers across the country. In Uganda, the ruling party has founded a host of commercial TV and radio stations under the auspices of the parastatal New Vision Group. The most prominent of these stations, Bukkede and Bukkede 2, command 27 percent of Uganda’s 13 million-strong television market – by far the largest audience share of any station in the country, including the main state broadcaster (seven percent audience share).

These tactics are by no means limited to autocratic countries. Nigeria often sees editorial control of its state broadcaster shift from election to election, incentivizing its two major parties, the PDP and APC, to maintain a stable network of party-affiliated private media outlets. The most prominent of these radio stations, the PDP-controlled Ray Power, commands a market share about three times that of the top state-owned radio station, FRCN.

Beyond Africa, established and aspiring autocrats have made private media capture a central strategy in the quest for information control. Since coming to power in 2010, Hungarian Prime Minister Viktor Orban has extended billions of dollars in public contracts to his childhood friend Lőrinc Mészáros and other government-linked businessmen, who have returned the favor by acquiring all eighteen of Hungary’s regional newspapers and a host of independent news outlets (RSF 2017). Almost all of Singapore’s daily newspapers are owned by the private company Singapore Press Holdings, whose board is largely made up of government loyalists appointed by the country’s “founding father” Lee Kuan Yew (Willnat and Lee 2009). In Russia, President Valdimir Putin not

Figure 3: Comparison of 30,000 Newspaper Headlines by Ownership Type (Aug. 2015 - Sept. 2023)



only exercises direct control over state broadcasters, but has also engineered the takeover of critical private media outlets by oligarchs linked to the regime, including the formerly independent station NTV (Lipman et al. 2018).

As one might expect, proxy-owned outlets – like their state-owned counterparts – tend to cover the ruling party more frequently and favorably than genuinely independent outlets. I verify this intuition by analyzing over 30,000 Tanzanian print newspaper headlines published in the period between 2015 and 2023.¹⁰ Figure 3 presents the results. Compared to independent private newspapers, proxy-owned private newspapers were significantly and substantially more likely to mention the president and more likely to cover the government’s performance in a positive rather than negative manner (Row 1). Their coverage is generally similar in tenor to that of directly state-run outlets (Row 3). On the whole, the data suggest that, like state media, proxy-owned private media serve as a conduit for pro-government news and information.

3 Theoretical Argument

Although proxy- and state-owned sources purvey similarly biased news, they retain important differences. Specifically, I argue that private outlets owned by regime proxies tend to send weaker signals about their ownership than do directly state-owned outlets. State radio and TV stations are often holdovers from a period of time in which the ruling party held a monopoly over the information

¹⁰Section A in the Appendix provides further detail on this analysis.

space. These stations may have actively positioned themselves as official, government-sanctioned sources of news and gained a reputation over the course of decades for toeing the ruling party line. The government's ownership of such outlets thus tends to be a matter of common knowledge, even amongst less politically sophisticated citizens. By contrast, private outlets are newer and less familiar to audiences. To the extent that these outlets have acquired a journalistic reputation, it is typically one of political neutrality, or at least less slavish devotion to the ruling party. Proxy owners often seek to leverage this reputation, presenting the private outlets under their control as politically independent in order to cater to the growing appetite for commercial media in the developing world.

For citizens, the task of distinguishing between captured and genuinely independent private outlets is complicated by a number of factors. First, in environments with weak or poorly enforced transparency laws, private media outlets often fail to make information about their ownership available to the public. Second, where private media outlets do make ownership information available, the individual who owns the outlet on paper may not be who controls the outlet in practice. Finally, even when ownership information is technically publicly available, the average citizen may be disinclined to pay the high search costs necessary to obtain such information. The time and effort required to identify both the owner of a media outlet and his or her political affiliation – especially when this individual is not a prominent public figure – can be especially high in developing countries, where official record-keeping is inconsistent and citizens have limited access to the internet.

A central argument of this paper is thus that citizens will be less likely to detect the ruling party's control over proxy-owned media than state-owned media. I test this argument in the first empirical section of this paper.

H_1 : On average, citizens will exhibit lower levels of knowledge about the ruling party's control of proxy-owned outlets than directly state-owned outlets.

I argue that lack of knowledge about the regime's control of private outlets in turn shapes perceptions about these outlets' bias. Individuals face considerable uncertainty about the biases of news sources available to them (Rozenas et al. 2018). While formal models often assume that citizens reliably detect bias in news content (Gehlbach and Sonin 2014), in practice, citizens may be slow to infer bias from news exposure alone or may fail to do so unless actively primed (Syunyaev

and Shirikov 2024).¹¹ To save time and effort, citizens may instead use the ownership of an outlet as a heuristic for its underlying bias. If an outlet is owned by a political actor with a well-known ideology or clear incentives to misrepresent the news – in this case, the ruling party or its affiliates – then citizens will conclude that the outlet’s coverage is likely to be biased in favor of the ruling party (Spirig 2018). Conversely, if an outlet is owned by an ostensibly neutral actor such as a private company or non-profit organization, citizens will conclude that its coverage is less likely to be pro-government biased. Importantly, in cases in which an outlet’s owner is unknown, citizens may extend the outlet the benefit of the doubt rather than assume bias on the part of its owner. Indeed, prior research finds that the public tends to be charitable in its evaluations of the credibility of unfamiliar media sources (Peterson and Allamong 2022).

H₂: Lack of knowledge about the ownership of proxy-owned outlets makes citizens less likely to perceive their coverage as pro-government biased.

How do perceptions of an outlet’s bias affect the propensity of citizens to consume said outlet? The answer to this question may depend in part on citizens’ background attributes. An extensive body of work on source credibility and selective exposure in the US finds that individuals are more likely to trust and consequently consume sources whose slant matches their own prior ideological commitments (Smith et al. 2008). This finding has been replicated in a number of authoritarian settings. For instance, Shirikov (2021) finds that pro-regime Russians are more likely to trust state media than their regime-opposing counterparts. Moehler and Singh (2011) document patterns of selective exposure in Africa whereby regime supporters select into consuming government-owned broadcasters while opponents avoid these sources in favor of private broadcasters. Drawing upon these insights, I expect that regime opponents will be more likely to trust and therefore consume regime-controlled sources if their ownership is hidden or unknown. Regime supporters, on the other hand, will be less likely to consume regime-controlled sources if their ownership is hidden since these individuals actually prefer known pro-government sources.

H₃: Lack of knowledge about the ownership of proxy-owned outlets makes regime opponents more likely to consume their news coverage; however, it has the opposite effect on

¹¹The analysis in Appendix Section 6 explores this question empirically, drawing upon evidence from two field experiments that randomly increase respondents’ exposure to captured media outlets. It finds that citizens are indeed slow to update their perceptions of an outlet’s biases from exposure to its content alone.

regime supporters.

The previous hypothesis considered how beliefs about an outlet's ownership and bias shape citizens' consumption choices. Yet even individuals who generally seek to avoid consuming a given outlet may find themselves encountering its news coverage incidentally. Common scenarios include overhearing a household member, neighbor, or community member playing the radio; seeing a newspaper on display at a newsstand; or reading an article that has been shared or promoted on one's social media news feed. Additionally, individuals frequently consume uncongenial sources for their entertainment value; in Tanzania, for instance, the main state broadcaster retains exclusive broadcast rights to the Tanzanian Premier League, drawing in a sizable audience of regime-opposing football fans, who may in turn receive incidental exposure to pro-government news coverage.¹² Given the prevalence of such scenarios, I consider how beliefs about an outlet's ownership affect the extent to which individuals update their attitudes in response to its messaging, regardless of whether they express an interest in consuming said outlet.

Research in Western democratic contexts finds that individuals tend to discount news from sources whose owner has clear incentives to selectively report or misrepresent such information (Alt et al. 2016; Chiang and Knight 2011). These predictions are in line with research in autocratic settings indicating that news consumers are more likely to trust propaganda messages emanating from commercial media outlets than official state sources (Stockmann 2012). We should therefore expect that individuals will be less likely to discount messages from regime-controlled sources if their ownership is hidden or unknown.

H_4 : Lack of knowledge about the ownership of proxy-owned outlets makes citizens more likely to update in response to their pro-regime news coverage.

Although avoidance and discounting are often thought of as complementary strategies for resisting the influence of propaganda, I consider the additional possibility that media ownership beliefs shape one set of behaviors but not the other. For instance, citizens might take media ownership cues into account when making conscious determinations about which outlets to consume, but fail

¹²Survey data from rural Tanzania shows that regime opponents tend to avoid state-owned radio stations on average, but that this pattern does not hold for football fans. Regime opponents who express an interest in football listen to state radio just as much as their regime-supporting counterparts.

to draw upon such information when evaluating the veracity of media messages “in the wild” (Peterson and Allamong 2022). Alternatively, citizens who learn of an outlet’s ties to the regime might maintain or even increase their consumption of the outlet while simultaneously discounting its messaging. The practice of sampling pro-government sources while filtering out their bias, sometimes dubbed “conscientious consumption” (Mullainathan and Shleifer 2005; Xiang and Sarvary 2013; Simonov and Rao 2021), is one tactic that citizens employ to retrieve reliable information in autocratic settings.

That said, conscientious news consumption tends to be concentrated among a minority of the population – about 40 percent in Russia according to Simonov and Rao (2021) – which is consistent with prior research suggesting that filtering tends to be the provenance of especially sophisticated citizens (Alt et al. 2016). These findings suggest a final possibility: that information about media ownership (or lack thereof) could have heterogeneous effects depending on the audience, with some individuals responding by shifting their consumption choices and others by engaging in discounting or filtering behaviors. To this end, I replicate the experimental portion of this study across a variety of settings and samples with the goal of exploring whether resistance to propaganda takes different shapes in different contexts.

4 Does Proxy Media Ownership Conceal the Regime’s Influence?

4.1 Survey Design

This section describes the design of a multi-country survey measuring Africans’ beliefs about media ownership. The survey explores whether citizens are more likely to hold mistaken or uncertain beliefs about the ownership of proxy-owned outlets than that of state-owned outlets (H_4). Data is drawn from two household surveys and one phone survey conducted in Tanzania and online surveys conducted with respondents in Cameroon, Uganda, and Nigeria. In all four countries, indirectly regime-controlled private media outlets compete with both independent and directly state-owned outlets for listeners, viewers, and readers. Tanzania, Cameroon, and Uganda are competitive autocracies in which the dominant party – CCM, RDPC, and NRM, respectively – has remained in power for decades, in part through concerted efforts to control the media. In Nigeria, a flawed democracy, both major parties seek to control private and (when in power) public media outlets. The Nigerian survey offers an opportunity to explore the scope conditions of the findings: do patterns of

media ownership beliefs observed in autocratic countries transport to democratic contexts as well?

The online survey was embedded in a larger English-language Qualtrics survey with 498 respondents from Cameroon, 507 from Uganda, and 503 from Nigeria. Respondents were told: “As you may know, some news outlets are owned by the government or by individuals connected to the government, while others are owned by private individuals with no connection to the government. We would like to get your sense of who owns some of the news outlets in your country.” Respondents were then asked about the ownership of a random selection of national radio, TV, and print media outlets. Some outlets were state-owned, others were private but regime-captured, and still others were private and independent. Outlet ownership was determined through a combination of open-source research and interviews with key informants. Section C in the Appendix provides a summary of how this investigation was conducted as well as the full list of media outlets included in the surveys and their political ownership type.

For each media outlet, the answer options included “The government or [ruling party],” “An individual connected to the government or [ruling party],” “A private individual with no connection to the government or [ruling party],”¹³ or “Don’t know.” Responses were coded 1 if the respondent selected either of the first two answer options, indicating that the respondent believed the outlet to be captured either directly or indirectly by the ruling party, and 0 if the respondent believed the outlet was independent or was unsure about its ownership. For each country, I calculate the mean response across outlets of each type.

In Tanzania, survey questions were embedded in various surveys conducted over a four-year period in Tanga Region and Dar es Salaam Region. Survey I was conducted with 569 inhabitants of urban Pangani District and 1,360 villagers of rural Korogwe, Lushoto, Mkinga, and Muheza Districts. Survey II was conducted with 1,082 villagers from Survey I, who were re-interviewed three to four months later. In Survey I, respondents were asked by Swahili-language enumerators, “To the best of your knowledge, who owns the following station: [station]?” Respondents received a random selection of three outlets from a list of the most widely consumed radio stations in the area; the list included state-owned outlets, proxy-controlled private outlets, and independent private outlets. Importantly, respondents were not given any answer options; instead, respondents gave open responses and enumerators coded the answer as 1 (“government or CCM”) if the respondent

¹³For Nigerian respondents, respondents were given the additional option of the major opposition party.

Table 1: Summary of Media Ownership Surveys

Country	N	Method	Question Wording [X = Outlet Name]
Tanzania I	1,929	Household	“Who owns X ?” (Gov’t or CCM = 1)
Tanzania II	1,082	Household	“Does X have a close relationship with CCM?” (Yes = 1)
Tanzania III	242	Phone	“Is X connected with the ruling party?” (Yes = 1)
Uganda	498	Online	“Who owns X ?” (Gov’t or Ruling Party = 1)
Cameroon	500	Online	“Who owns X ?” (Gov’t or Ruling Party = 1)
Nigeria	503	Online	“Who owns X ?” (Gov’t or Ruling Party = 1)

mentioned the government, the CCM party, or CCM official(s), whether by name or not. Responses were coded as 0 if respondents mentioned “private businessmen,” “non-governmental organization (NGO),” “local people,” or other actors and did not mention that these actors were affiliated with CCM (“independent”). Responses were also coded 0 if the respondent said they were unsure who the owner was and did not attempt to guess (“don’t know”).

In Tanzania Survey II, respondents were given closed-answer survey questions. Respondents were asked, “To the best of your knowledge, does [station] have a close relationship with CCM?” Again, outlets were randomized from a list of the most popular radio stations available in the study area. Responses were coded as 1 if the respondent said “Yes” and 0 if the respondent said “No” or “I don’t know.” For both Tanzania surveys, I calculate the mean response across outlets of each type.

Tanzania Survey III was a phone-based survey with urban residents of Dar es Salaam. All respondents were regular users of a news app that provides access to a range of Tanzania-based print media outlets. Respondents were contacted by Swahili-language enumerators and asked about the ownership of eight of the most popular political newspapers available on the app. For each newspaper, they were asked, “To the best of your knowledge, is [newspaper] connected with the ruling party?” Responses were coded as 1 if the respondent said “Yes” and 0 if the respondent said “No” or “I don’t know.” Again, I calculate the mean response across outlets of each type.

Table 2 summarizes the sample size, question wording, and response coding for each of the six surveys. A total of 4,761 surveys were conducted.

4.2 Survey Results

In this section, I present the results of a survey asking respondents whether they believe various outlets in their country to be controlled by the government or ruling party. Figure 4 depicts the proportion of respondents who thought a given outlet was government or ruling party-controlled,

averaged across outlets of each type. The red bars indicate the mean response and black lines the 95% confidence interval.

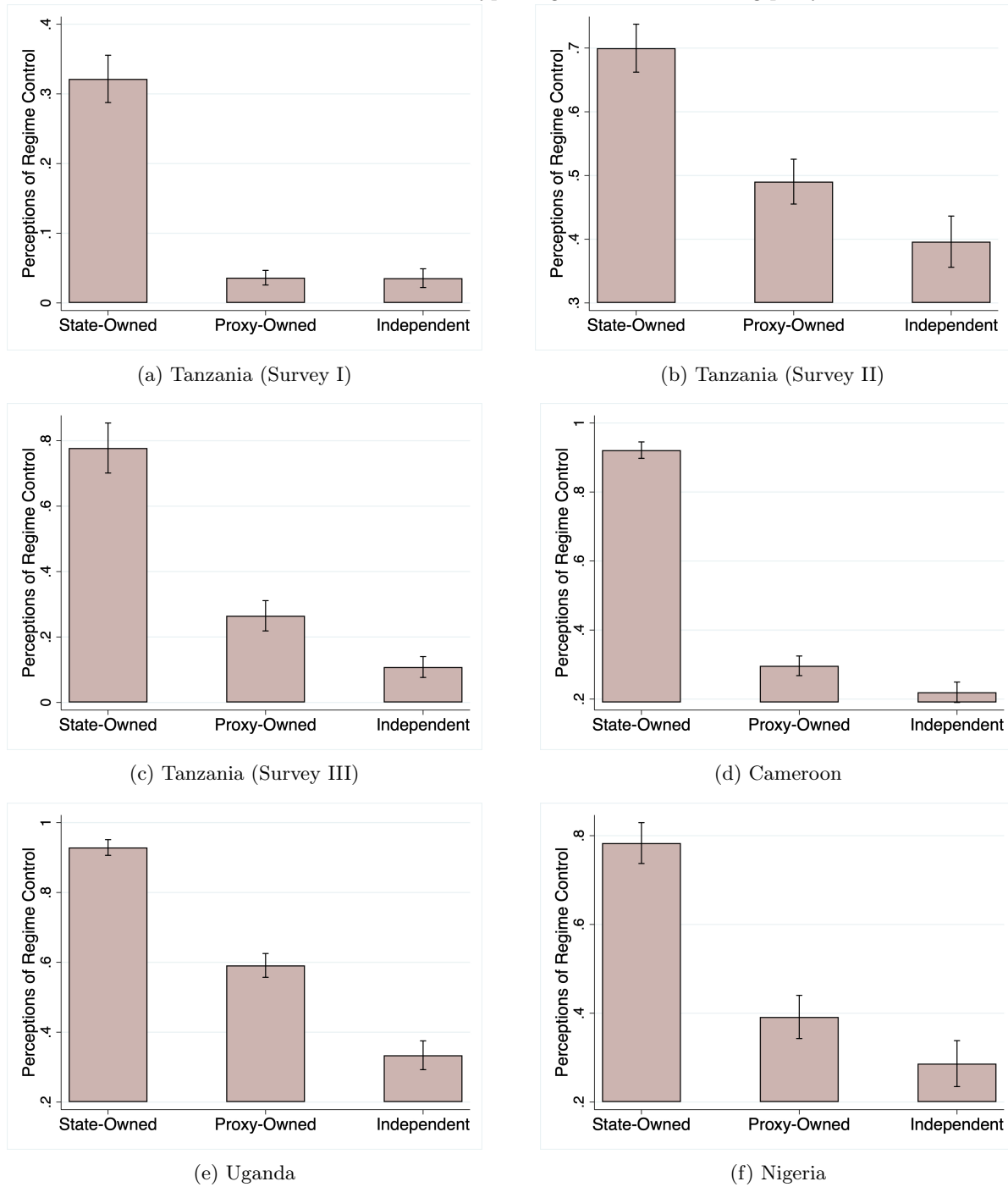
Across all six surveys, respondents were far more likely to be aware of the ruling party's control of state-owned outlets than proxy-owned outlets. In the first Tanzania survey (Figure 4a), which does not prompt respondents with answer options, 31 percent of respondents were aware that the state broadcasters TBC and TBC Taifa and party mouthpiece Uhuru FM were owned by the government or ruling party; by contrast, just four percent of respondents were aware of the ruling party's ownership of proxy-owned private radio stations like Radio Free Africa and Tanga Kunani FM. In the second Tanzania survey (Figure 4b), which does provide respondents with answer options, responses are generally more accurate but the same knowledge gaps remain: 72 percent of respondents were aware that the ruling party has a "close relationship" with the main state broadcasters, while only 49 percent of respondents were aware that the ruling party has a "close relationship" with the country's top captured private radio stations.

The third Tanzania survey asks highly educated and politically sophisticated urbanites¹⁴ about the political affiliations of a host of newspapers to which they receive verified daily exposure (Figure 4c). Even in this sample, we observe the same knowledge gaps: while almost 80 percent of respondents were aware that the directly CCM-owned newspaper *Uhuru* was "connected" to the ruling party, on average only 28 percent of respondents said the same about proxy-owned private newspapers like *Tanzania Leo*, *Majira*, *Taifa Tanzania*, and *Jamvi La Habari*. The results for this sample indicate that gaps in public knowledge about media ownership are not simply the result of lack of sophistication on the part of rural villagers; even citizens who pay close attention to political news appear to be misled by indirect strategies of media capture.

Similar empirical patterns emerge in other African countries. In Cameroon (Figure 4d), Uganda (Figure 4e), and Nigeria (Figure 4f), the vast majority of respondents were aware that the main state broadcasters and newspapers were owned by the government, the ruling party, or a ruling party affiliate – 92 percent, 93 percent, and 77 percent, respectively. Yet far fewer were aware that proxy-owned outlets were owned by the government, the ruling party, or a party affiliate: just 30 percent in Cameroon, 59 percent in Uganda, and 42 percent in Nigeria. The survey results

¹⁴Two-thirds of the respondents in this sample were university-educated compared to less than one percent in the rural samples. Respondents in this sample were also far more politically knowledgeable: 89 percent were able to name the country's vice president compared to just 18 percent in the rural sample.

Figure 4: **Beliefs about media ownership across Africa.** Bars represent the proportion of respondents who characterize media outlets of each type as government- or ruling party-controlled.



provide consistent evidence across a number of countries that indirect methods of capture succeed in concealing the ruling party's control of the media relative to more direct forms of capture.

Next, I compare beliefs about the ownership of proxy-controlled private outlets and genuinely independent private outlets. In the first Tanzania survey (Figure 4a) and in Cameroon (Figure 4d), respondents are roughly equally likely to believe that captured and independent outlets are ruling party-linked. In the other surveys, respondents are more likely to perceive captured private outlets as ruling party-controlled than independent outlets, but not by a substantial amount. These results suggest that most Africans have difficulty distinguishing proxy-owned private outlets from their independent counterparts.

Across countries, then, survey respondents from a wide variety of backgrounds tend to hold mistaken or uncertain beliefs about the ownership and political affiliations of proxy outlets. These results provide strong support for H_1 .

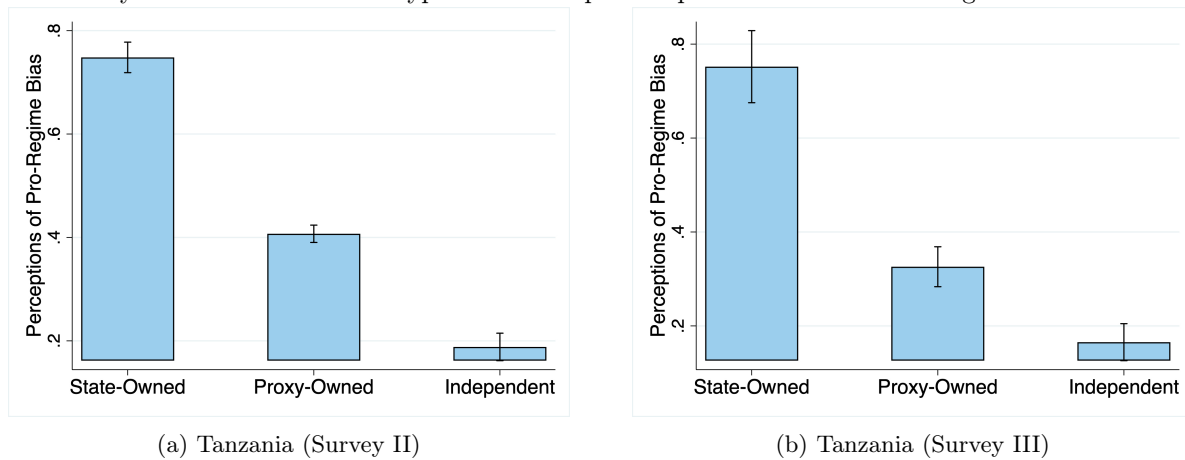
A potential objection to these findings is that respondents may be attuned to the biases of these outlets even if they remain uncertain about their ownership. Are respondents able to detect the biases of captured private outlets?

To explore this question, I present additional observational evidence from the second and third Tanzania surveys ($N = 787$ and 125 , respectively). In each of these surveys, respondents were probed not only about the ownership of the aforementioned media outlets, but also about their bias. In the second Tanzania survey, villagers were presented with a list of four randomly-selected radio stations, one of which is directly state-owned, two of which are proxy-owned, and one of which is independent. Respondents were then asked to choose the outlets they think are most likely and second most likely to emphasize positive news about the government.

Figure 5a presents the results. Over 70 percent of respondents picked the state-owned outlet as the most or second-most biased station. By contrast, 41 percent of respondents picked one of the two proxy-owned outlets as the most or second-most biased station. Independent outlets were the least likely to be seen as biased (20 percent). The results seem to suggest a greater recognition on the part of Tanzanians of the pro-government bias of state-owned stations than proxy-owned stations.

The third Tanzania survey asks respondents whether each of the eight newspapers tended to be “pro-government,” “neutral,” or “pro-opposition” in their slant. The results, which are depicted

Figure 5: **Perceptions of media bias in Tanzania.** Bars represent the proportion of respondents who say media outlets of each type tend to emphasize positive news about the government.



in Figure 5b, bear a close resemblance to patterns of perceived ownership depicted in Figure 4c. While 75 percent of respondents thought the state-owned newspapers were pro-government biased, only 33 percent of respondents said the same about the four proxy-owned newspapers.

Could these gaps in perceived bias arise from differences in outlets' coverage? Are proxy-owned outlets *actually* less biased than their state-owned counterparts? Figure 6 juxtaposes perceptions about the bias of eight newspapers (depicted in blue) with their actual levels of bias (depicted in red). To obtain the latter results, a team of Swahili-language research assistants hand-coded 11,117 articles for pro-government bias over a three-year period preceding the survey.¹⁵

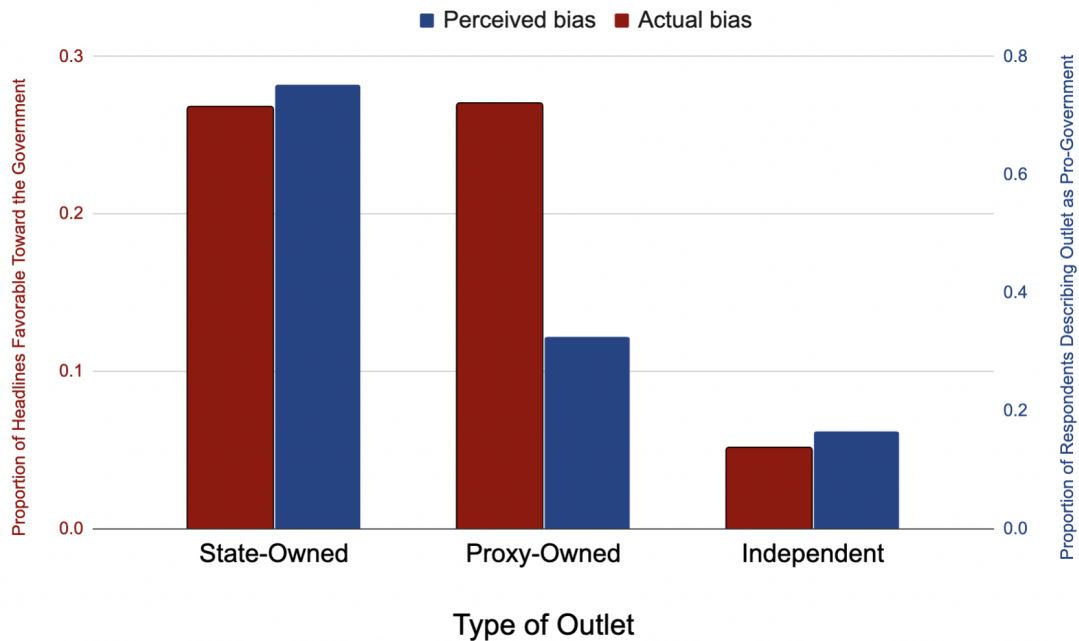
The results are striking: proxy-owned newspapers are just as likely as state-owned newspapers to cover the government in a favorable manner, yet respondents are half as likely to detect their bias. The results provide suggestive evidence in favor of H_2 , which posits that citizens determine bias not through careful reading of outlets' news coverage, but by making snap judgments based on perceived ownership.¹⁶

Yet one must be necessarily cautious about inferring causal relationships from observational data. To this end, the following section describes a series of experiments that seek to estimate the causal effects of ownership cues on perceptions of bias, media preferences, and media trust.

¹⁵Coding criteria can be found in Appendix Section A.

¹⁶Section 6 further explores whether respondents reliably infer bias from exposure.

Figure 6: **Actual vs. Perceived Bias of Media Outlets in Tanzania**



5 How Does Concealment Affect Media Preferences and Trust?

5.1 Experimental Design

What are the consequences of the widespread knowledge gaps documented in the previous section? To estimate the causal effects of uncertain or mistaken beliefs about the ownership of captured private outlets on citizens' trust in and preferences for these sources, I carried out a series of experiments in Tanzania. In each experiment, respondents were randomized to receive revelatory information about the ownership and political affiliations of actual proxy-controlled outlets available in their area. The experiments explore the consequences of the knowledge gaps observed in the multi-country survey, not by *withholding* information about ownership, but by *supplying* it to a population with low prior awareness of such information.

5.1.1 Experiment 1

Experiment 1 was conducted by phone with 212 residents of Dar es Salaam, Tanzania. One month before the experiment was conducted, the respondents were encouraged to download a mobile news app that provides users with access to daily editions of over 30 Swahili-language newspapers. Users can download standalone issues of each newspaper at a cost of around \$0.20 USD or they can subscribe to a given newspaper and receive unlimited access for \$6.00 USD per month.

To thank them for their participation in the survey described in the previous section, respondents were offered a free one-month subscription to a newspaper of their choosing. Swahili-language enumerators presented respondents with a choice of two privately-owned newspapers: *Tanzania Leo* and *Demokrasia*. Importantly, while all respondents received some basic information about the newspapers, half of the respondents were randomized to receive additional information about the ownership of the newspapers. Respondents in the treatment group were informed that *Tanzania Leo* is owned by a CCM member with close ties to the president, but that *Demokrasia* has no affiliation with the CCM party. Respondents in the control group did not receive any information about ownership. After administering this information, enumerators asked respondents to which newspaper they would like to subscribe. At the conclusion of the interview, respondents were given full access to their chosen newspaper for a period of one month.

The experiment estimates the causal effect of providing information about the ruling party's control of *Tanzania Leo* on preferences for the outlet. Preferences were measured in two ways. First, I record respondents' choice of subscription, assigning a value of 1 if they chose *Tanzania Leo* and 0 otherwise. This question constitutes a costly measure of intended media consumption. Second, drawing on usage data provided by the news app, I track and record the number of times respondents downloaded issues of *Tanzania Leo* over the course of the next month. The latter data allows me to measure actual media consumption behavior in an unobtrusive manner.

As discussed in the Theory section, we should expect regime opponents and supporters to respond differently to cues about media ownership. Per the pre-analysis plan, I analyze results separately for opponents and *non*-opponents, as only a handful of respondents in this sample were actively supportive of the regime. Opposition to the regime was measured prior to the administration of the experiment with the following question: "In general, do you prefer to get your news from government-owned newspapers or from independent, private newspapers?" Respondents were coded as regime opponents if they said that they trusted independent newspapers (about 43 percent of the sample) and non-opponents if they preferred government newspapers (only about 4 percent), were not sure (one percent), or said they trusted both equally (52 percent – the plurality of the sample).

5.1.2 Experiment 2

Experiment 2 was conducted through face-to-face interviews with 1,314 rural villagers in north-eastern Tanga province, a region with a greater baseline level of regime support than Dar es Salaam.

Respondents were presented with a laminated card featuring the logos and names of two covertly regime-controlled private radio stations, Radio Free Africa (RFA) and Tanga Kunani FM (TK).¹⁷ Respondents were randomized into one of four experimental groups in which enumerators introduced each of the outlets and provided varying degrees of information about their ownership. Respondents in the pure control group were given no information about the outlets' ownership; this experimental condition represents circumstances under which respondents have weak priors about media ownership. Respondents in the placebo control group were told that both stations are "privately owned"; this experimental condition represents circumstances under which respondents have strong but incorrect priors about media ownership. Respondents in Treatment Group 1 were told that RFA is owned by a ruling party official but that TK is "privately owned." Respondents in Treatment Group 2 were told that RFA is "privately owned" but that TK is owned by a ruling party official.

Immediately after receiving the information treatments, two outcomes were assessed: perceptions about bias and media preferences. Respondents were first asked, "Which of these stations do you think is more likely to emphasize positive news about the government?" Responses were coded 1 if the respondent said RFA and 0 if they said TK or refused to pick a station. Respondents were then asked, "Which of these stations would you be more interested in listening to for news?" Responses were coded 1 if the respondent said RFA and 0 if they said TK or did not have a preference. For the latter outcome, per the pre-analysis plan, I analyze results separately for regime supporters and regime opponents under the hypothesis that these subgroups will respond differently to the same information. Baseline regime support was measured in a pre-treatment survey by asking respondents to rate how "warm" their feelings toward CCM are on a 100-point thermometer scale. Respondents who gave a rating of 75 or above were categorized as regime supporters and those who gave a rating below 75 were categorized as regime opponents.¹⁸

Immediately after completing these outcome measures, respondents were randomized with equal probability to listen (or not) to a news segment attributed to TK. The news segment, which was written by the researcher to emulate a typical pro-government news segment, was recorded by a real-life TK radio host and features an introduction explicitly identifying the clip as TK-produced.

¹⁷See Appendix Section D for information about the ownership of these two outlets.

¹⁸To address concerns that the results are sensitive to this coding choice, I replicate the findings of Experiment 2 across a wide range of cutoffs (50, 60, 70, 80, 90 and 100) and present the results of this robustness check in Section G of the Appendix. Reassuringly, the results are broadly consistent regardless of the cutoff one selects.

While the researcher’s involvement in writing the segment has drawbacks in terms of naturalism, it allows us to be certain about the underlying bias and persuasive intent of the message. The two-minute segment summarizes the economic development accomplishments of President Samia Suluhu Hassan during her first year in office in favorable terms while omitting any negative information about the government’s performance.¹⁹

After listening to the news segment on the enumerator’s tablet, respondents were asked a series of questions gauging their support for the government. Respondents were asked, “How would you rate the government’s development performance in the last year: Bad, not good, OK, or very good?” Respondents were also presented with a laminated thermometer scale and asked to rate out of 100 how warmly they felt toward President Samia and toward the CCM party. The second part of the experiment thus allows for an estimation of the direct persuasive effect of exposure to a captured station, TK, as well as the potential moderating effect of having previously learned about TK’s ties to the ruling party.

5.1.3 Experiment 3

Experiment 3 sought to replicate and extend the results of Experiment 2. The experiment was conducted with a new sample of 372 respondents – the female partners of male respondents from Experiment 1 – approximately three to four months later. While this sample was obtained from the same villages, it differs in important ways from the previous sample. In addition to being all-female, the sample has less prior exposure to media on average. Perhaps reflecting limitations on media access facing women, respondents in the second sample were on average 50 percentage points less likely to have listened to the radio in the last three months. Nevertheless, the second sample had similar levels of political interest and CCM support compared to the first sample (see Section E for more information on sample characteristics).

The experiment proceeded as before, with two important changes. First, because a baseline survey was not conducted with partners of original respondents, prior support for CCM was measured by asking the CCM thermometer question immediately before the experiment was administered. As a result, I estimate the effects of the news clip on respondents’ assessments of CCM’s development performance but not on their thermometer rankings of the party or president. Second, the news clip describing CCM’s development performance over the last year was entirely conceived, written,

¹⁹A full transcript of all audio treatments can be found in Appendix Section D.

Table 2: Summary of Media Ownership Experiments

Study	Treatment(s)	N	Sample	Outcomes
Experiment 1	Ownership info	212	Urban	Perceived bias
			High media access	Intended consumption
			4% regime support	Actual consumption
Experiment 2	Ownership info	1,314	Rural	Perceived bias
	Radio segment		Moderate media access	Intended consumption
			80% regime support	Pro-regime attitudes
Experiment 3	Ownership info	372	Rural	Perceived bias
	Radio segment		Low media access	Intended consumption
			75% regime support	Pro-regime attitudes

and recorded by TK with no input from the researcher. The purpose of this change was to achieve a more naturalistic treatment resembling what radio listeners might actually encounter on TK.

5.2 Experimental Results

5.2.1 Experiment 1

How do citizens respond to revelations about media outlets' ownership? I begin by presenting the results of the mobile news app experiment in Dar es Salaam. Per the pre-analysis plan, I perform separate analyses for regime opponents and non-opponents.

In the control group, the vast majority of regime opponents – 82.6 percent – chose to subscribe to *Tanzania Leo* despite the outlet's ties to the government and their own stated preference for non-government outlets. Are these preferences a product of respondents' ignorance about *Tanzania Leo*'s ownership and political links? Table 3 suggests so. Compared to those in the control group, regime-opposing respondents who were treated with information about *Tanzania Leo*'s ownership were

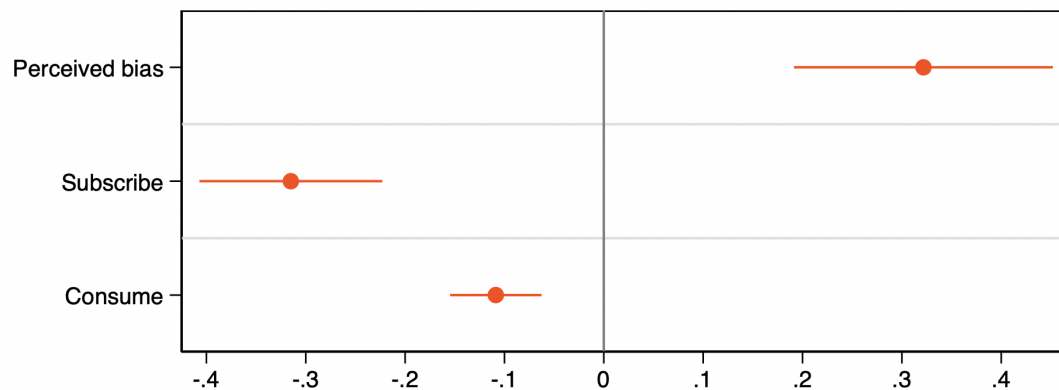
Table 3: Effect of Ownership Information on Preferences for *Tanzania Leo*

	Choice (1)	Consumption (2)	Choice (3)	Consumption (4)
Ownership Information Treatment	-0.315*** (0.093) [0.001]	-0.109** (0.047) [0.032]	-0.102 (0.067) [0.134]	0.050 (0.028) [0.134]
Control Group Mean	0.826	0.109	0.885	0.000
Subgroup	Regime Opponents	Regime Opponents	Non-Opponents	Non-Opponents
R-squared	0.112	0.057	0.019	0.026
N	91	91	121	121

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: All regressions present standard errors in parentheses and RI p-values in brackets.

Figure 7: How Revealing *Tanzania Leo*'s Ownership Affects Opponents' Beliefs and Behaviors



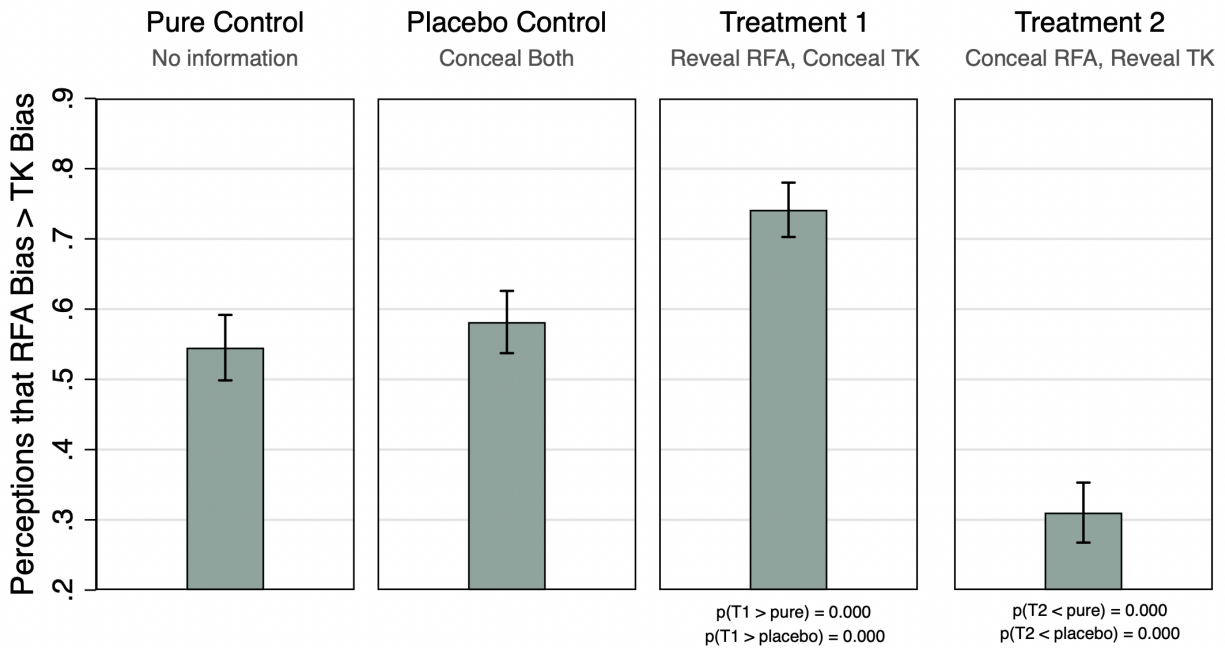
31.5 percentage points less likely to subscribe to the outlet, selecting the independent alternative instead ($p < 0.01$). These preferences translate into actual media consumption behavior. Tracking respondents' media consumption on the news app over the following month, I find that 11 percent of regime-opposing individuals assigned to the control group downloaded *Tanzania Leo* at least once, whereas *none* of the individuals in the treatment group downloaded *Tanzania Leo* ($p < 0.05$). This negative effect is much stronger than what we ordinarily think of as an 11-point effect, amounting to a 100 percent reduction in consumption of *Tanzania Leo*. Consistent with the causal mechanism proposed in the Theory section of this paper, treated respondents were 32 percentage points more likely on average to describe *Tanzania Leo*'s news coverage as biased in favor of the government than untreated respondents ($p < 0.01$). These results, which are summarized in Figure 7, provide support for H_2 and H_3 .

That said, we do not observe a significant negative effect of the ownership information treatment on the preferences of non-opponents – although, perhaps reflecting the fact that most individuals in this subsample said they trust government and independent sources equally, we do not observe a positive effect either. The results seem to suggest that strategies aimed at concealing the regime's control of the media increase the credibility and appeal of captured outlets in the eyes of skeptical audiences, but have mixed or null effects on more trusting audiences.

5.2.2 Experiment 2

Do these results extend to rural areas, where citizens are generally more supportive of the regime? Figure 8 shows the effect of revealing information about the ownership of two captured

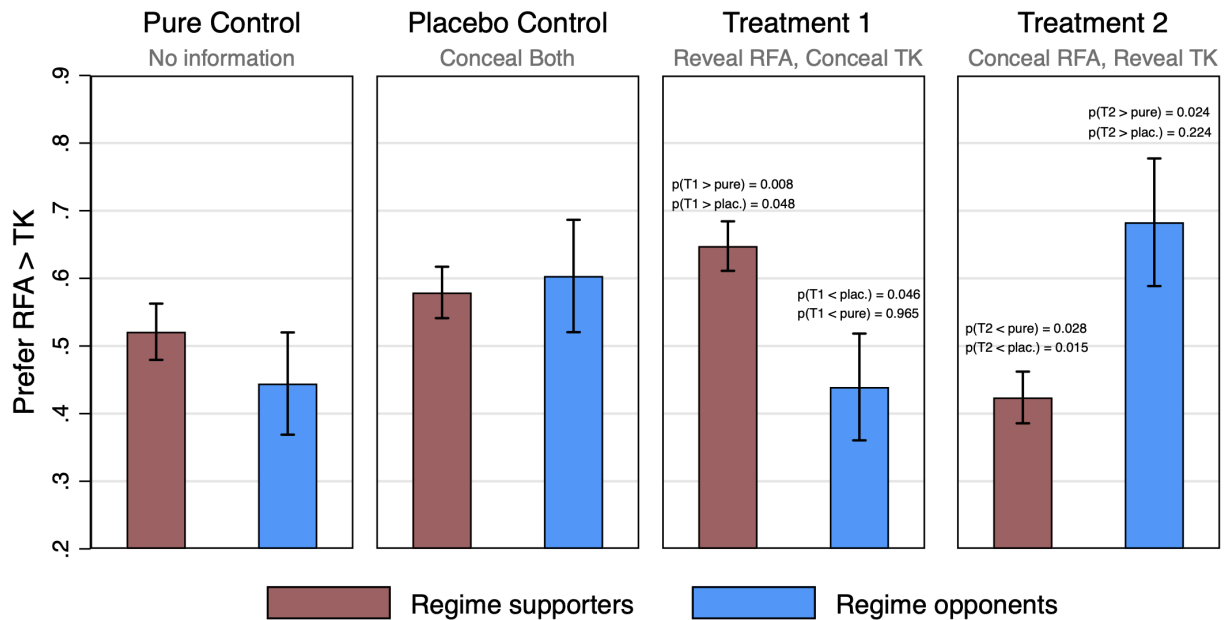
Figure 8: **Ownership Information and Perceived Bias (Experiment 2).** The figure depicts the proportion of respondents in each experimental condition who believe that RFA is more biased than TK.



radio stations, RFA and TK, on perceptions about the bias of the stations. The figure presents the proportion of respondents in each experimental condition who said that RFA was more likely to emphasize positive news about the government than TK.

A little over half of respondents in the no-information control group (54.5 percent) and placebo control group (58.2 percent) thought that RFA was the more biased of the two stations. This proportion is about what one would expect if respondents were uncertain about bias and picked a station more or less arbitrarily. Respondents who were told that RFA is owned by a ruling party official and that TK is privately owned were 19.6 percentage points more likely than those in the pure control group to perceive RFA as the more biased of the two stations ($p < .001$), and 16 percentage points more likely than those in the placebo control group ($p < .001$). By contrast, respondents who were told that RFA is privately owned and that TK is owned by a ruling party official were 23.5 percentage points less likely than those in the pure control group to perceive RFA as more biased station ($p < .001$) and 27.1 less likely than those in the placebo control group ($p < .001$). In sum, respondents went into the experiment largely uncertain about the biases of the stations. Consistent with H_2 , revealing information about one of the station's links to CCM made respondents significantly and substantially more likely to perceive it as biased in favor of the government.

Figure 9: **Ownership Information and Media Preferences (Experiment 2)**. The figure depicts the proportion of respondents in each experimental condition who said they would prefer to listen to the news on RFA rather than TK.



How did such revelations affect respondents' willingness to consume the stations? Figure 9 presents the the proportion of respondents' in each experimental condition who expressed greater interest in listening to the news on RFA than TK. Per the pre-analysis plan, I estimate treatment effects separately for regime supporters and regime opponents.

In the pure control group, about half of regime supporters (52.1 percent) and just under half of regime opponents (44.4) preferred RFA over TK. In the placebo control group, supporters and opponents were about equally likely to prefer RFA over TK – 60 percent and 58 percent, respectively. In both control groups, the preferences of supporters and opponents are statistically indistinguishable from one another.

How does providing asymmetric information about media ownership affect these preferences? Revealing RFA to be owned by a ruling party official and TK to be privately owned (Treatment 1) causes the preferences of regime supporters and opponents to diverge significantly and substantially. Regime supporters increase their interest in RFA by 6.9 percentage points compared to the placebo control group ($p < .05$) and 12.7 percentage points compared to the pure control group ($p < .01$). Meanwhile, regime opponents *decrease* their interest in RFA by 16.4 percentage points compared

to the placebo control group ($p < .05$), although we do not observe significant differences from the pure control group.

When respondents are instead told that TK is owned by a ruling party official and that RFA is privately owned (Treatment 2), preferences diverge in the opposite direction. Regime supporters decrease their interest in RFA by 9.7 percentage points compared to the pure control group ($p < .05$) and 15.5 percentage points compared to the placebo control group ($p < .05$). Conversely, regime opponents increase their interest in RFA by 23.8 percentage compared to the pure control group – the largest treatment effect of any observed in the experiment ($p < .05$). Treated respondents also become slightly more likely than those in the placebo control group to prefer RFA.

In summary, regime opponents express greater interest in listening to captured radio stations when their ownership is kept hidden, and less likely when their ownership is revealed. By contrast, regime supporters are *more* likely to listen to captured outlets when their ownership is revealed, reflecting their underlying preference for pro-regime news sources. These results, which are broadly consistent with H_3 , suggest that strategies aimed at concealing media outlets' connections to the ruling party are effective in attracting regime-opposing audiences, although they are less likely to appeal to regime supporters.

Next, respondents were randomized with equal probability to listen to a two-minute news segment from TK highlighting the government's development accomplishments. Respondents were then asked to give their assessment of the government's development performance over the preceding year and to rate their warmth toward the President and the ruling party on a 100-point scale.

Table 4 presents the results. Listening to the news segment made respondents 7.1 percentage points more likely on average to say CCM's performance was "very good" (Column 1) and increased thermometer ratings for the President by about 4 points on average (Column 4), although we do not observe a significant effect on thermometer ratings for CCM (Column 7). The positive effects of the news segment on pro-government attitudes were broadly consistent across regime supporters and opponents. The results suggest that, when citizens do tune into a proxy-owned radio station, they tend to be persuaded by the news they hear regardless of their party attachments.

Having shown that the TK message was persuasive on average, I explore whether having previously received information about TK's links to the ruling party moderated the persuasive effects of receiving pro-government news from the station. Columns 3, 6, and 9 present specifications in

Table 4: **Ownership Information and Discounting (Experiment 2).** The table shows the effect of the TK radio message, information about TK’s ownership, and their interaction on evaluations of CCM. The interaction term represents the extent to which providing respondents with ownership information moderates the persuasive effects of the radio message.

	CCM Performance (=Very Good)			President Thermometer			CCM Thermometer		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Message Treatment	0.071** (0.027)		0.054 (0.032)	4.203* (1.799)		3.214 (2.070)	-2.744 (1.427)		-3.650* (1.642)
Information Treatment		-0.000 (0.032)	-0.039 (0.046)		2.131 (2.100)	0.006 (3.009)		0.533 (1.665)	-1.258 (2.387)
Message × Information			0.071 (0.064)			3.873 (4.196)			3.664 (3.329)
Control Group Mean	0.438	0.473	0.447	69.535	71.108	69.534	81.164	79.671	81.455
Covariate Adjustment	NO	NO	NO	NO	NO	NO	NO	NO	NO
R-squared	0.004	-0.001	0.004	0.003	0.000	0.003	0.002	-0.001	0.002
N	1314	1314	1314	1306	1306	1306	1306	1306	1306

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: All regressions present standard errors in parentheses.

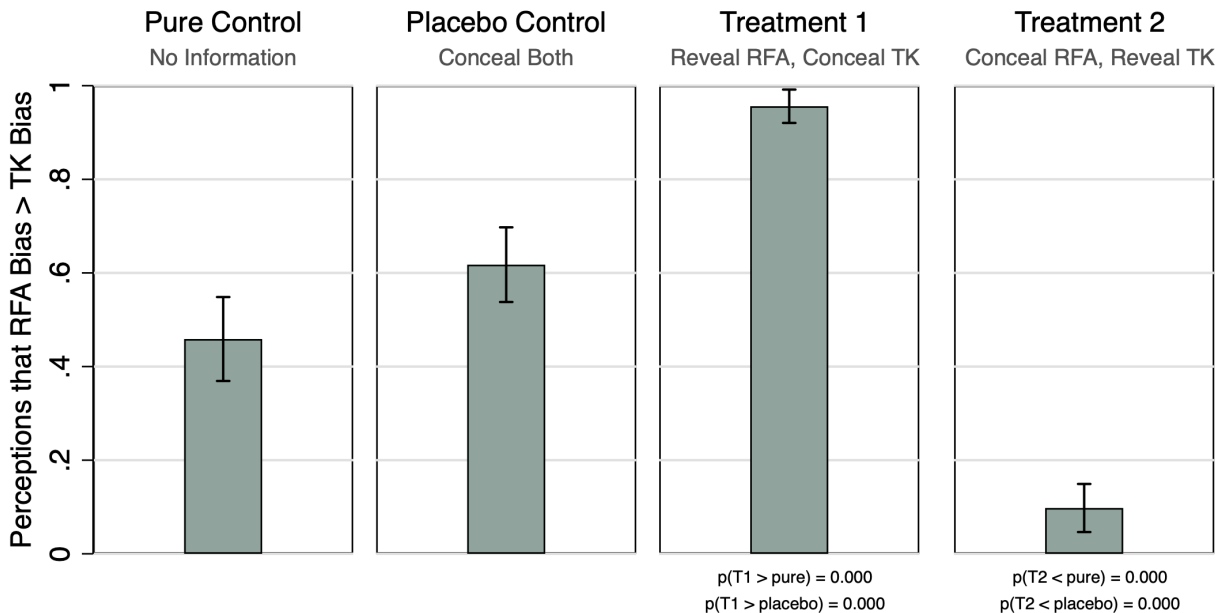
which attitudinal outcomes are regressed on an indicator for whether respondents received the TK news segment, an indicator for whether respondents were previously told that TK is owned by a ruling party official (Treatment 2), and the interaction of the two. The interaction term tells us the extent to which receiving information about TK’s ownership moderates the persuasive effect of its radio messaging. I find no evidence that learning of TK’s connections to the ruling party made respondents any less likely to update in response to pro-government news from the outlet (Row 3). The results suggest that, although respondents took ownership information into account when selecting what to listen to on the radio, they did not use this information to assess the credibility of specific messages they encountered on the radio.

5.2.3 Experiment 3

Finally, I present the results of Experiment 3, which replicated the previous experiment with a rural, all-female sample.

Figure 10 shows the effect of the information treatments on perceptions about the pro-government bias of the stations. The effects are even more pronounced compared to those presented in Experiment 2. In the pure control group, just under half of respondents (45.9 percent) thought that RFA was the more biased of the two stations. In the placebo control group, a little over half of respondents (61.8 percent) thought that RFA was the more biased of the stations. After being told that RFA is owned by a ruling party official and TK is privately owned, respondents became substantially more likely to perceive RFA as the more biased of the two stations – 49.7 percentage

Figure 10: **Ownership Information and Perceived Bias (Experiment 3).** The figure depicts the proportion of respondents in each experimental condition who believe that RFA is more biased than TK.



points more likely compared to the pure control group ($p < .001$) and 33.8 percentage points more likely compared to the placebo control group ($p < .001$). By contrast, respondents who were told that RFA is privately owned and that TK is owned by a ruling party official were 36.1 percentage points less likely than those in the pure control group to perceive RFA as the more biased of the stations ($p < .001$) and 52 percentage points less likely than those in the placebo control group ($p < .001$). The results provide further support for H_2 .

Having shown that respondents update their perceptions about outlets' biases in response to information about their ownership, I next explore how such information affects respondents' media preferences. Here, results depart considerably from those presented in Experiment 2. In this sample, both supporters *and* opponents become more interested in listening to stations revealed to be linked to the ruling party (Table A5). Telling respondents that RFA is CCM-linked and TK is privately owned makes supporters between 27.8 and 42.0 percentage points more likely to express interest in RFA and opponents 17.3 to 17.8 percentage points more likely, depending on whether one uses the pure or placebo control group as a comparison. Conversely, telling respondents that RFA is privately owned and TK is CCM-linked makes supporters 8.3 to 22.4 percentage points less likely to be interested in RFA and opponents 20.8 to 21.3 percentage points less likely.

Table 5: **Ownership Information and Discounting (Experiment 3).** The table shows the effect of the TK radio message, information about TK’s ownership, and their interaction on evaluations of CCM’s development performance. The interaction term represents the extent to which supplying respondents with ownership information moderates the persuasive effect of the radio message.

	(1)	(2)	(3)	(4)	(5)	(6)
Message Treatment	0.223*** (0.050) [0.000]		0.267*** (0.058) [0.000]	0.226*** (0.048) [0.000]		0.275 (0.055) [0.000]
Information Treatment		-0.035 (0.060) [0.626]	0.047 (0.080) [0.556]		-0.037 (0.058) [0.522]	0.054 (0.077) [0.487]
Message × Information			-0.176* (0.116) [0.067]			-0.195** (0.112) [0.042]
Control Group Mean	0.464	0.576	0.453	0.464	0.576	0.453
Covariate Adjustment (Prior CCM Support)	NO	NO	NO	YES	YES	YES
R-squared	0.051	0.001	0.058	0.114	0.064	0.003
N	372	372	372	372	372	372

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

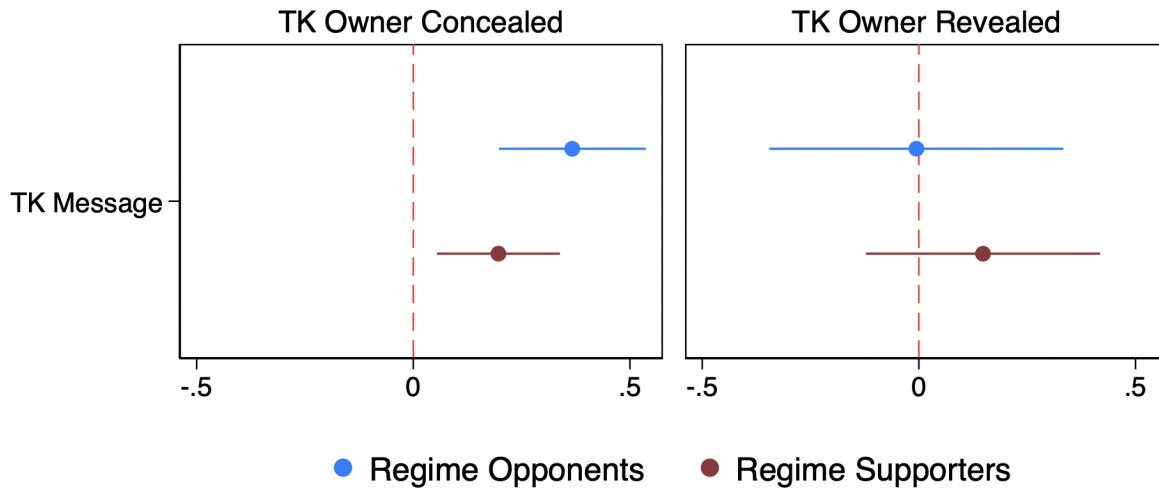
Note: All regressions present standard errors in parentheses and RI p-values in brackets. The outcome is respondents’ answer to the question “How would you rate the government’s development performance in the last year: Bad, not good, OK, or very good?” Responses were coded 1 if the respondent said “very good” and 0 otherwise.

Do these results imply that regime opponents in this sample trust biased news sources? Not necessarily. Qualitative interviews suggest that at least some Tanzanian villagers in this sample engage in conscientious consumption of government sources. According to one villager, “It is important to listen to government news to know what’s going on, but you should verify it on independent stations to see if it’s the truth.”²⁰ Such views are typical of remote rural villages, where information about the government – whether positively or negatively slanted – is especially difficult to come by. They also appear especially common among women due to their relative lack of access to media compared to men. It is thus possible that the villagers in this sample, all of whom are rural women, seek out government-captured stations because they are among the few sources of political news in the area, but that they carefully filter their bias.

To this end, I explore whether having learned about TK’s links to CCM moderates the persuasive effects of listening to pro-government news on TK. As before, the outcome – respondents’ subjective assessments of CCM’s development performance – is regressed on an indicator for whether respondents received the TK news clip, an indicator for whether they had been previously told that TK is CCM-linked, and the interaction of the two (Table 5). The interaction term tells us the extent to which providing citizens with information about TK’s ownership moderates the persuasive

²⁰Interview with Tangan villager, July 2023.

Figure 11: How the persuasive effects of TK vary depending on knowledge about TK's ownership (Experiment 3).



effect of the stations' pro-government radio programming. Columns 1-3 present the results without controls and Columns 4-6 present the results after controlling for respondents' prior thermometer rating of CCM; this latter specification was pre-registered ahead of time.

The results are striking. Respondents who remained unaware about TK's links to CCM became much more positive in their assessment of CCM's performance after listening to the TK news clip ($p < .01$). By contrast, respondents who had been informed about TK's links to CCM did *not* significantly update in response to the clip. As Row 3 shows, providing respondents with information about TK's true ownership made them between 17.6 and 19.5 percentage points less likely to update in response to the TK news clip ($p < .05$). In short, upon learning of a captured radio station's links to the ruling party, villagers in this sample became less likely to be persuaded by the station's pro-government messaging, even as they grew more interested in tuning into the station.

As Figure 11 illustrates, this discounting behavior is primarily concentrated among regime opponents. In the regime-opposing subsample, the TK news segment exerted much larger effects on individuals who had not been informed about the station's ownership (45.9 percentage points on average) than those who had (-0.02 percentage points) ($p < .05$). By contrast, in the regime-supporting subsample, the news segment exerted similar effects on uninformed and informed individuals: 21.3 percentage points and 11.3 percentage points, respectively. The results, which are consistent with H_4 , suggest that regime opponents filter bias from known regime-affiliated source.

6 Do Readers and Listeners Detect Bias on their Own?

A potential objection to these findings is that, even if individuals initially hold incorrect beliefs about the ownership and bias of a captured media outlet, they update these beliefs after receiving exposure to the outlet's news coverage. If citizens quickly deduce an outlet's bias from simple exposure to its content, then efforts to conceal outlets' ownership are unlikely to fool citizens for very long. In this supplemental analysis, I explore the speed with which citizens detect media bias from exposure. Experiments 1 and 3 are both embedded in larger field experiments in which respondents are randomly assigned to receive access to the captured outlets in question. This design allows me to benchmark the effects of providing information about a captured outlet's ownership against the effects of receiving prolonged exposure to the outlet for the same sample of respondents.

I begin with Experiment 1. Three weeks before Experiment 1 was conducted, respondents were assigned with equal probability to receive a free one-month subscription to Rifaly, a digital news app. The app provides users with access to a range of national print newspapers, including the regime-captured daily *Tanzania Leo*. Respondents treated with the free subscription were 13.8 percentage points more likely than untreated respondents to have read *Tanzania Leo* ($p < 0.01$). Yet despite receiving greater exposure to *Tanzania Leo*, treated respondents were no more likely to describe the newspaper as biased in favor of the government (Table 6), even though the newspaper is verifiably pro-government in its slant (Figure 6). At the end of the month, when regime-opposing respondents were given the choice to subscribe to *Tanzania Leo* or an independent alternative, they were no more likely to pick the latter. In fact, regime opponents who received a month of exposure to *Tanzania Leo* became *more* likely to consume the newspaper in the post-experiment period, perhaps because familiarity with its content had bred greater trust. By contrast, providing explicit information about *Tanzania Leo*'s ownership makes respondents in the very same sample more likely to perceive the newspaper as biased ($p < 0.05$) and less likely to subscribe to it ($p < 0.01$) or consume it ($p < 0.05$).

Experiment 3 generates similar findings. A year before the experiment took place, a subsample of non radio-owning respondents were randomized to receive a portable radio. On average, respondents treated with the radio became 13.8 percentage points more likely to listen to TK ($p < 0.01$). However, this exogenous increase in exposure to TK had no discernible effect on respondents' perceptions

Table 6: **Effects of Providing Ownership Information about *Tanzania Leo* vs. Increasing Exposure to *Tanzania Leo***

	Perceived Bias (1)	Perceived Bias (2)	Choice (3)	Consumption (4)
Exposure Treatment	-0.095 (0.080) [0.232]	0.099 (0.134) [0.462]	0.040 (0.094) [0.673]	.105** (0.045) [0.024]
Ownership Information Treatment	0.199** (0.080) [0.014]	0.330** (0.134) [0.018]	-0.315*** (0.094) [0.001]	-.110** (0.046) [0.019]
Constant	0.657	0.422	0.805	0.054
Subgroup	All Respondents	Regime Opponents	Regime Opponents	Regime Opponents
R-squared	0.063	0.123	0.114	0.110
N	125	45	91	91

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: All regressions present standard errors in parentheses and p-values in brackets.

about the station's bias (Table 7). When asked whether they think TK tends to emphasize positive news about the government compared to other outlets, respondents who had listened to TK for a year were no more likely to answer in the affirmative than those who had not listened to TK. These null effects stand in contrast to the effects of explicitly revealing TK's ownership: respondents who were told that TK is owned by a ruling party official were 17.7 percentage points more likely to say the station emphasizes positive news about the government.

Table 7: **The Effect of Providing Ownership Information about TK vs. Increasing Exposure to TK**

	Perceived Bias
Exposure Treatment	0.055 (0.071) [0.442]
Ownership Information Treatment	0.177** (0.082) [0.034]
Constant	0.549
Sample	All Respondents
R-squared	0.028
N	186

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: All regressions present standard errors in parentheses and p-values in brackets.

Taken together, these analyses provide support for the argument advanced in the Theory section of the paper: citizens generally struggle to infer outlets' biases through exposure to their content alone, and instead rely upon ownership cues. Efforts to manipulate such cues may indeed exert long-lasting effects, since citizens are slow to correct misapprehensions about outlets' biases on their own.

7 Discussion

Research on media effects in autocratic countries has increasingly concluded that pro-government media is unable to reach, much less persuade, opposition-minded citizens (Adena et al. 2015; Peisakhin and Rozenas 2018; Shirikov 2024; Baysan 2022). Pro-government media is thought to exert “minimal effects” because regime opponents tend to avoid exposure to government-controlled outlets, and, when they do encounter such outlets, filter their bias.

The experiments and surveys presented in this paper challenge this conventional wisdom. Instead, they point to the ability of autocrats to overcome avoidance and discounting through the strategic use of proxies. First, I present survey evidence from four countries showing that use of proxies is effective in concealing autocrats’ media ownership from the public. Second, I show experimentally that when citizens hold uncertain or misinformed beliefs about media ownership, they are less likely to perceive captured outlets as biased. Experiments 1 and 2 point to one set of consequences stemming from such misperceptions: regime opponents become more likely to unwittingly consume captured sources. Experiment 3 points to another: opponents become more likely to believe pro-government news stories emanating from these sources.

These findings have a number of important implications. From a theoretical standpoint, they contribute to an ongoing debate on the nature and purpose of political propaganda. An increasingly prominent strand of the literature holds that, because regime opponents avoid and discount pro-government media, the primary purpose of propaganda must be to affirm and rally regime supporters (Shirikov 2024). According to this perspective, investments in mass messaging serve only to maintain or harden existing levels of support for autocratic incumbents (Baysan 2022; Adena et al. 2015), not to win over opponents. This paper suggests that autocrats may be less constrained in their ability to persuade the other side than is typically presumed. Whether due to low levels of media literacy or deliberate efforts at concealment, citizens often struggle to detect propaganda sources, and thus fail to avoid or discount them. From the standpoint of practitioners seeking to mitigate the influence of propaganda, these findings point to the importance of efforts to promote media transparency and publicize media ownership.

Of course, proxy ownership is not the only strategy that autocrats employ to conceal their persuasive efforts. Recent research has pointed to the ways in which autocrats “camouflage” propa-

ganda messages as news stories in independent foreign newspapers (Dai and Luqiu 2020); channel them through unfamiliar sources on social media (Peterson and Allamong 2022); or embed them in entertaining films (Liu and Yao 2023). Autocrats also seek to portray government-controlled news sources as independent by allowing them to run negative stories about the government from time to time (Carter and Carter 2023). These strategies, which aim to lend credibility to pro-government media by disguising it as independent or apolitical, are an increasingly common feature of modern autocracies, yet receive less scholarly attention than overt, state-led forms of media control.

The findings also speak to a strand of research on how autocrats co-opt market forces to entrench their rule (Bruff and Tansel 2020). For decades, Western actors have viewed media privatization as a central pillar of democracy-promotion efforts, reasoning that, if media outlets are free of government ownership, they are free of government control (Galetić et al. 2016). Yet we should not necessarily expect media liberalization to generate a free and independent press when autocrats can simply collude with actors in the business world to retain control of the media. In fact, as this paper shows, informal modes of media capture may prove harder to detect, potentially amplifying autocrats' messaging capabilities – at least in the short term. Indeed, work in the Chinese context has highlighted the surprising ways in which media commercialization has been compatible with, and even bolstered, one-party rule (Stockmann 2012; Stockmann and Gallagher 2011). This paper builds upon such work in several ways. Theoretically, it demonstrates that autocrats can leverage media commercialization to sustain their rule not only in one-party states, where nation-wide censorship can be tightly enforced, but also in competitive authoritarian regimes, where autocrats engage in partial censorship (Kronick and Marshall 2024). Empirically, it provides a rare test of the hypothesis that propaganda sources are more credible and appealing to skeptics when they are privately-owned rather than directly state-controlled.

That said, I point out several limitations of the experiments presented in this paper. First, although Experiment 1 shows that information about media ownership exerts a causal effect on individuals' real-world media consumption choices, whether these results would obtain in a more naturalistic setting is an important question. Future research might replicate this experiment using a treatment more likely to arise in nature – for instance, receiving ownership information from a local journalist or political figure rather than a survey enumerator. Employing repeated outcome measures over time could also help establish whether ownership information “sticks” in respondents'

minds or whether it fades in the absence of continued reinforcement. Second, although experimental participants do appear to take ownership into account when deciding which sources to consume, it is unclear how salient ownership is compared to other considerations, like outlets' entertainment value, quality, and popularity. Adopting a conjoint design could help answer this question. Third, whether certain individuals are more likely than others to seek out and respond to ownership information is a critical question. One possibility is that individuals with high media literacy and political sophistication are more likely to be concerned about bias. Alternatively, individuals with low prior exposure to media might have more malleable media preferences, making them more responsive to ownership considerations. Future research might explore the potential existence of heterogeneous treatment effects.

Several nuances of the findings warrant additional consideration. As Experiments 2 and 3 indicate, revealing news sources to be government-controlled makes regime supporters *more* interested in consuming them. Consistent with prior work (Shirikov 2021; Moehler and Singh 2011), these findings suggest a strong taste for propaganda among a regime's loyal supporters. The results point to the potential logic of mixed methods of media control whereby autocrats maintain covertly captured outlets to appeal to opponents and overtly captured outlets to communicate to their supporters. Future research might test this intuition by exploring how methods of media capture vary as a function of an autocrat's popularity or across pro- and anti-regime areas.

Finally, while all three experiments indicate that citizens do respond to information about media ownership, the nature of the response appears to vary across samples: in Experiments 1 and 2, regime opponents avoid but do not necessarily discount government-controlled sources, while in Experiment 3, they discount these sources but do not avoid them. These findings invite questions about why citizens' skepticism takes the shape that it does. When and under what conditions do citizens either avoid or discount untrustworthy news? Are these behaviors complements or substitutes, and if the latter, why? These questions provide a fruitful direction for future research.

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Appendix

A Documenting Media Bias

This section presents the criteria by which Tanzanian newspaper headlines were coded for pro-government bias. This data was used to implement a difference-in-difference design to estimate the effect of media ownership changes on news coverage (see [Figure 2](#) in the Background section) and to compare coverage in state-owned, captured, and independent outlets (see [Figure 3](#) in the Background section and [Figure 6](#) in the Survey Results section).

For each newspaper headline, a team of three native Swahili speakers determined whether the slant was critical, positive, or neutral toward the government. If two out of three coders categorized a headline as critical (positive), then the headline was coded as critical (positive); all other headlines were coded as neutral. Coders used the following coding criteria to guide their decisions.

Critical:

- Mentions the President, CCM, public officials, the government, or a government ministry, body, or agency AND uses negative language indicating criticism, concern, failure, error, negligence, corruption, wrongdoing, etc.
- Mentions anything related to the national economy, household finances, development, or economic projects (i.e. how the country is doing generally) AND is negative in tone or conveys negative information.
- Mentions any sort of wrongdoing by the government or CCM politicians, especially corruption, repression, arrests, bans, confiscation of property, or violence against opposition.
- Mentions violence, protests, rioting, or unrest of any sort indicating people are unhappy with the government.
- Mentions criticism of Tanzania by experts or foreign actors.

Positive:

- Mentions the President, CCM, public officials, the government, or a government ministry, body, or agency AND uses positive language indicating success, victory,

progress, achievements, stability, etc.

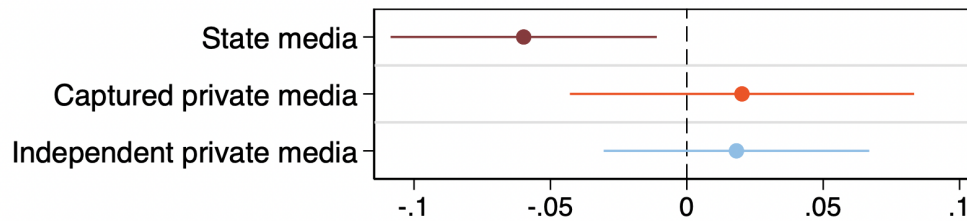
- Mentions anything related to the national economy, household finances, development, or economic projects (i.e. how the country is doing generally) AND is positive in tone or conveys positive information.
- Mentions praise of Tanzania by experts or foreign actors.

For the analysis presented in [Figure 2](#), I recorded the proportion of articles published each month in the newspaper *Mtanzania* that were coded as critical. I then selected a comparison newspaper that showed parallel trends in its coverage in the period before *Mtanzania* was acquired by a CCM affiliate. The comparison newspaper, *Nipashe*, has similar quality, reputation, and circulation numbers compared to *Mtanzania*.

For the analysis presented in [Figure 3](#), I considered two outcomes. The first was the proportion of headlines that mention the President either by name or title. The second is the proportion of headlines that were coded as positive as opposed to critical, excluding neutral headlines. This latter measure is designed to capture whether coverage is on balance favorable or unfavorable toward the regime.

B Media Consumption Patterns in Rural Tanzania

Figure 12: This figure plots the difference in the proportion of regime opponents and regime supporters who report listening to radio stations of each type. Opponents are less likely than supporters to report listening to the main state- and party-owned broadcasters TBC, TBC Taifa, and Uhuru. However, they are no less likely than supporters to consume private radio stations, whether captured or genuinely independent.



Note: Regime opponents were individuals who gave CCM a thermometer rating less than 75 and supporters were those who gave CCM a rating of 75 or higher.

C Investigating Media Ownership

This section outlines the protocol for determining the ownership of the media outlets featured in this study.

For each outlet, I first determined whether ownership was officially public or private. If an outlet was public – i.e. fully and directly owned by the government of the host country – it was categorized as “directly captured.” Examples include the Tanzania Broadcasting Corporation (TBC), Uganda Broadcasting Corporation, (UBC), Cameroon Radio Television (CRTV), and Nigerian Television Authority (NTA). In all the aforementioned cases, the state broadcaster was established by official government decree and this information was readily available online. If an outlet was fully and directly owned by the country’s ruling party, it was also categorized as “state-owned,” even if the holding entity was not technically a government body. For instance, Uhuru FM and *Uhuru* are subsidiaries of the media house Uhuru Communications Ltd, which is the official communications wing of Tanzania’s ruling party, CCM.

For the remaining private outlets, I next determined the name of the formal holding company. In some cases, the name of the holding company could be found on the outlet’s official website or on the masthead of print publications. In other cases, such information was obtained by calling the outlet’s office and inquiring directly. After obtaining the name of the formal holding company, I determined whether it was publicly traded or private. For publicly traded companies, I documented major shareholders using online sources. If the government was among the major shareholders of the holding company, I categorized the outlet as “proxy-owned.” Examples include the Ugandan broadcasters Bukedde FM and Radio West, which are owned by the public company New Vision Group. Although New Vision Group is traded on the Ugandan stock market and is at least partially owned by private institutional and individual investors, the majority of its shares are owned by the Ministry of Finance and other Ugandan government entities.

For private companies, I identified the major individual owners by either consulting online sources, including reports from the Media Ownership Monitor where available; contacting the offices of the media house; or consulting media experts in the host country. I then investigated the owner’s political affiliations. In some cases, such information was readily available. For instance, Radio Free Africa is owned by Sahara Media Group, which is in turn owned by Anthony Diallo. Mr.

Diallo is a member of CCM's National Executive Committee who has served as a CCM Regional Party Chairman and has held a variety of ministerial posts. In Nigeria, prominent party officials hold leadership positions in several media outlets, including Silverbird, AIT, and *Nation*. In cases such as these, where an outlet's formal owner is an official ruling party member, the outlet can be characterized as "proxy-owned" with a high degree of confidence.

For several outlets, the identity and political affiliations of the owner are more ambiguous. Identifying an outlet's ownership can be extremely difficult in cases where (1) the outlet does not make public any identifying information about its editors or management team, (2) the outlet is not responsive to phone or email queries, and (3) the holding company does not have a physical office. Even if an owner can be identified, documenting their informal connections to the ruling party can prove challenging. In such cases, I consulted insider sources with credible knowledge about an outlet's ownership. Although every effort was made to verify said information (see below), one must necessarily acknowledge the possibility that the sources were mistaken or that the ownership has changed over time. Given this uncertainty, I do not explicitly name the alleged owners here or anywhere else in the paper.²¹

I point to several examples to illustrate how ambiguous cases of ownership were handled:

1. Tanga Kunani FM, a radio station in Tanga in northeastern Tanzania, is officially owned by a private businessman named Saidi Othman. Mr. Othman has no formal connections to CCM – that is, he is not a registered party member nor has he ever run for or held political office. However, several sources have stated that Mr. Othman serves as a proxy for an individual with official ties to CCM. In this case, Tanga Kunani FM was characterized as proxy-owned because multiple sources independently identified the same individual as the ultimate owner and because these sources are credible media insiders with knowledge of the local context.
2. *Tanzania Leo* is a newspaper that covers national politics in Tanzania. Its holding company,

²¹I nevertheless incorporate the information obtained in this manner in the survey and experimental components of this paper, for several reasons. The first is the practical and ethical imperative to study private media capture, even if our measures are imperfect. The second is that ample opportunity was extended to the outlets in question to provide information of their own accord. The third is that, even if a specific outlet's ownership cannot be independently verified, the information treatments nevertheless allow us to explore how *beliefs* about media ownership shape respondents' behaviors. Where information about media ownership was shared with experimental participants, the survey team sought to communicate the appropriate level of uncertainty, either within the treatment itself (e.g. stating an outlet is "thought to be controlled" by a given individual rather than asserting that it is "owned" by said individual) or in the post-experiment debriefing.

Tanzania Leo Newsfeed Company, does not have a physical address, telephone number, or email address. A source with credible knowledge about the company due to his/her prior business dealings with a company representative claims that the outlet is owned by a CCM-affiliated individual with close ties to the sitting president. Although this information cannot be independently confirmed, I note patterns consistent with this claim. Because the newspaper provides the phone numbers (but no identifying information) of its editors, I was able to determine the identity of its editor-in-chief based on their WhatsApp picture. The editor is cross-employed at another newspaper that is formally owned by the CCM member in question, providing suggestive evidence that the source's information is correct.

3. The Tanzanian newspapers *Echo* and *LaJiji* are widely thought to be owned by a media mogul with connections to CCM; however, as above, little information about their staff or holding companies is available. In this case, I characterize these outlets as proxy-owned because a source from within Tanzania's security services provided credible information that the outlets are indeed owned by the aforementioned media mogul. Text analysis also confirms that their news content is similar in style to newspapers openly owned by the mogul.

In cases where no source identified a link between an outlet and the ruling party, or where no corroborating evidence could be found to back a claim, the outlet was characterized as "independent." For many outlets, we can be reasonably sure that their ownership is independent. For instance, NTV in Uganda and Mwananchi in Tanzania are owned by the Nation Media Group which is based in Kenya, and both outlets have been targeted with government sanctions over the years. Some outlets are owned by individuals who appear publicly supportive of the ruling party — e.g. Tanzania's Clouds FM, which is owned by CCM-supporting musician Diamond Platnumz. However, unless the owner retains formal connections to the party or is thought to serve primarily as a proxy for a regime official, the outlet is characterized as independent. This coding criteria is conservative in that it errs toward erroneously coding captured outlets as independent rather than vice-versa. This coding procedure should thus bias the analyses *against* finding differences in their coverage.

Below is a list of the 39 outlets featured in the surveys and experiments and their ownership. A full list of all 511 outlets in Tanzania and their ownership are available upon request.

Outlet Name	Owner	Political Links	Ownership Type
Tanzania			
TBC	Government of Tanzania	N/A	Directly captured
Uhuru FM	CCM Party	N/A	Directly captured
Uhuru	CCM Party	N/A	Directly captured
Radio Free Africa	Safari Media Group	Owned by Anthony Diallo, a CCM National Executive Council member who served as a Regional Party Chairman and held various ministerial posts	Indirectly captured
Tanga Kunani	Saidi Othman	Othman is widely thought to serve as a proxy for a CCM member who is a close relative of ex-President and CCM leader Jakaya Kikwete	Indirectly captured
Majira	Business Times Ltd	Owned by Richard Nyalulawa, a former CCM MP for Mbeya	Indirectly captured
Tanzania Leo	Tanzania Leo Newsfeed Co.	Owner is a close friend of President Samia Suluhu Hassan according to multiple sources	Indirectly captured
Jamvi La Habari	Ador Tanzania Ltd	Owned by Habibu Mchanga, a CCM member who sought the CCM nomination for MP of Kibaha	Indirectly captured
Taifa Tanzania	AGMA Publishers	Managed by Hubert Kiwale, who is cross-employed by Adora Tanzania Ltd, a company owned by CCM member Habibu Mchanga	Indirectly captured
Pangani FM	UZIKWASA	None	Independent
Radio One	IPP Media	None	Independent
Wasafi FM	Clouds Media	Owner Diamond Platnumz is a CCM supporter but does not have formal links to the party	Independent
Mwananchi	Nation Media Group	Owned by the Aga Khan, a non-Tanzania-based political figure	Independent
Nipashe	IPP Media	None	Independent
Demokrasia	Mtolero Group of Companies	None	Independent
Uganda			
UBC	Government of Uganda	N/A	Directly captured
Bukedde TV/FM	New Vision Group	Largest institutional investors are the Uganda Ministry of Finance, Uganda National Social Security Fund, and the central bank of Uganda	Indirectly captured
Star FM	Uganda Broadcasting Corporation	Commercial affiliate of state-owned UBC	Indirectly captured
Radio West	New Vision Group	Largest institutional investors are the Uganda Ministry of Finance, Uganda National Social Security Fund, and the central bank of Uganda	Indirectly captured
NTV-Uganda	Nation Media Group	Owned by the Aga Khan, a non-Uganda-based political figure	Independent
Cameroon			
CRTV	Government of Cameroon	N/A	Directly captured
Canal 2	Groupe TV+	Founder and director is Emmanuel Chatoue, who was appointed as an RDPC party senator by President Paul Biya	Indirectly captured
Spectrum TV	STV Group	Owned by Collins Mukete and Ekoko Mukete, the sons of RDPC senator and National Assembly member Victor Mukete	Indirectly captured
Equinoxe	Severin Tchounke	None	Independent
Radio Tiéméni Siantou	Lucien Wantou Siantou	None	Independent
Nigeria			
NTA	Government of Nigeria	N/A	Directly captured
FRCN	Government of Nigeria	N/A	Directly captured
NAN	Government of Nigeria	N/A	Directly captured
Daily Independent	Government of Nigeria	N/A	Directly captured
Silverbird	Silverbird Group	Founder and chairman is Ben Murray-Bruce, a PDP senator for Bayelsa East	Indirectly captured
AIT	DAAR Communications	Founded by Raymond Dokpesi (d. 2023), a PDP campaign manager who himself sought the PDP National Chairmanship	Indirectly captured
Ray Power	DAAR Communications	Founded by Raymond Dokpesi (d. 2023), a PDP campaign manager who himself sought the PDP National Chairmanship	Indirectly captured
Freedom Radio	Dalhatu Family	Vice Chairman Bashir Dalhatu was a founding member of PDP	Indirectly captured
Nigerian Tribune	African Newspapers of Nigeria Ltd	Founded by Nigerian premier Obafemi Awolowo; currently chaired by Olatokunbo Awolowo Dosumu, an ambassador under PDP governments	Indirectly captured
Nation	Vintage Press Limited	Owned by current Nigerian president and APC leader Bola Ahmed Tinubu	Indirectly captured
Vanguard	Vanguard Media	None	Independent
This Day	Leaders & Company Ltd.	Potential links to the Belt and Road News Network and the Chinese embassy	Independent
Galaxy	Steve Ojo	None	Independent
Channels	John Momoh	None	Independent

D Intervention Descriptions

D.1 Media Ownership Information Experiments

D.1.1 Experiment 1

Introduction:

“To thank you for your time, we would like to extend an offer to the following publications for the month of December: Mwananchi, The Citizen, Uhuru, Nipashe, and The Guardian. We would also like to add an additional newspaper of your choice to this package. I will tell you about two newspapers and then you can tell me which newspaper you would like to have added to your subscription offer.”

Control:

- “The first newspaper is Tanzania Leo. Tanzania Leo is a political newspaper that is published every day.”
- “The second newspaper is Demokrasia. Demokrasia is a political newspaper that is published once a week.”

Treatment:

- “The first newspaper is Tanzania Leo. Tanzania Leo is a political newspaper that is published every day. Tanzania Leo is a CCM-affiliated newspaper; it is owned by [NAME], a CCM member with close ties to the president.”
- “The second newspaper is Demokrasia. Demokrasia is a political newspaper that is published once a week. The newspaper is privately owned and has no affiliation with the CCM party.”

D.1.2 Experiments 2 and 3

Introduction:

“Now I’m going to tell you about two radio stations. Once I’m done describing the two radio stations, I want you to tell me which one you think is more likely to emphasize positive things about CCM.”

Pure Control:

- “Radio Free Africa, or RFA, is a news and entertainment station based in Mwanza.”
- “Tanga Kunani, or TK, is a news and entertainment station based in Tanga town.”

Treatment 1:

- “Radio Free Africa, or RFA, is a news and entertainment station based in Mwanza. RFA is controlled by a former CCM MP named Anthony Diallo. Mr. Diallo was a top CCM minister for eight years, and he is a strong supporter of the current CCM government. He plays a big role in deciding what news RFA airs.”
- “Tanga Kunani, or TK, is a news and entertainment station based in Tanga town. TK is a privately-owned station. It is owned by an independent businessman living in Tanga. TK’s private owner decides what news the station airs, not the government.”

Treatment 2:

- “Radio Free Africa, or RFA, is a news and entertainment station based in Tanga town. RFA is a privately-owned station. It is owned by an independent businessman who does not hold a position in CCM. RFA’s private owner decides what news the station airs, not the government.”
- “Tanga Kunani, or TK, is a news and entertainment station based in Tanga town. TK is a privately-owned station. It is owned by an independent businessman living in Tanga. TK’s private owner decides what news the station airs, not the government.”

Placebo Control:

- “Radio Free Africa, or RFA, is a news and entertainment station based in Tanga town. RFA is a privately-owned station. It is owned by an independent businessman who does not hold a position in CCM. RFA’s private owner decides what news the station airs, not the government.”
- “Tanga Kunani, or TK, is a news and entertainment station based in Tanga town. TK is a privately-owned station. It is owned by an independent businessman living in Tanga. TK’s private owner decides what news the station airs, not the government.”

D.2 Persuasive News Experiments

D.2.1 Experiment 2

Introduction:

“Now I would like to talk to you about development in Tanzania. Some people say that since Mama Samia took office, CCM has done a good job of providing development to Tanzanian people. Others say that CCM has not done enough to provide development to Tanzanians.”

Control: [No message]

Treatment:

“Now I will play you a report about CCM’s development performance from the radio station TK FM: *Hello listeners, and welcome to Tanga Kunani FM. It has been one year since Samia Suluhu Hassan took office as President of Tanzania. In that year, how well have the President and CCM performed in terms of providing economic development to Tanzania? We believe the President and CCM deserve praise for their rigorousness in implementing strategic development projects in line with the Tanzania Development Vision 2025. This year, the government inaugurated several projects, including the impressive Tanzanite Bridge in Dar es Salaam. The bridge has eased traffic congestion, as well as transforming the economic outlook of the country’s commercial capital. The government also launched 644 houses built at Magomeni Kota, in Kinondoni District, which residents say are high quality. Finally, the government has launched a major water initiative, which is expected to improve water supply and sanitation in many rural areas. As one can see from these accomplishments, CCM’s development policies over the last year are helping to drive Tanzania toward prosperity.*”

D.2.2 Experiment 3

Control: [No message]

Treatment:

“Now I will play you a report about CCM’s development performance from the radio station TK FM: *This is one of the big things done by the Government of the 6th Phase Within 12 Months of 2022. The Mwalimu Nyerere Dam Major Electricity Generation Project has been completed by more than 90 percent and in December 2022, President Samia Suluhu Hassan launched the filling of water in the dam. The construction of the S-G-R modern railway is increasingly inoculating the park connecting Tanzania with a high-speed train that uses electricity; Primary and secondary education is now completely free....with the government increasing more than 12,000 rooms and admitting all students who succeeded in entering the first form in 2022 and more than 100 billion being added to higher education students. Health services have been strengthened at all levels of the hospital, with the largest Muhimbili National Hospital being added with equipment and greater capacity to provide services including the purchase and installation of diagnostic machines including MRI, CT-Scan and Angio Suite without forgetting specialist medical services to be delivered to regional hospitals. The road infrastructure has been laid with a larger network of paved roads with the WAMI bridge being completed ahead of schedule and now Tanzanian youth have seen the vision of long-term success and have joined the Comprehensive Plan of Agriculture Aimed at Feeding the African Continent - BBT.*”

E Sample Characteristics and Balance

E.1 Information Provision Experiments

E.1.1 Experiment 1

Table A1: Balance for Pre-Treatment Covariates (Experiment 1)

Variables	Treatment Group		<i>p</i> -value	Observations
	Control	Treatment		
Female	0.110	0.093	0.881	242
Age	36.63	35.51	0.534	242
Completed university	0.634	0.663	0.752	242
Political knowledge: knows VP	0.890	0.907	0.107	242
Political knowledge: knows Kenyan President	0.841	0.895	0.292	242
Consumes political news daily	0.512	0.442	0.437	242
Gets news from smartphone app	0.232	0.186	0.537	242
Gets news from social media	0.805	0.860	0.234	242
Gets news from websites and/or blogs	0.122	0.140	0.384	242
Gets news from newspapers	0.390	0.349	0.581	242
Gets news from radio	0.159	0.151	0.611	242
Gets news from TV	0.207	0.174	0.780	242
Regime skeptic (prefers independent media)	0.415	0.442	0.984	242
N	122 (50.41%)	120 (49.59%)		242

Note: The treatment group columns report the mean of the covariate for each experimental group. The *p*-value column reports the *p*-value of the F-test of regressing the covariates on a treatment indicator. The observations column reports the count of variables.

E.1.2 Experiment 2

Table A2: Balance for Pre-Treatment Covariates (Experiment 2)

Variables	Treatment Group				<i>p</i> -value	Observations
	Pure Control	Treatment 1	Treatment 2	Placebo Control		
Female	0.526	0.491	0.522	0.486	0.501	1,314
Age	39.24	40.04	39.47	41.92	0.326	1,314
Muslim	0.786	0.773	0.762	0.779	0.806	1,314
Education (Standard 7)	0.792	0.738	0.791	0.728	0.165	1,314
Head of household	0.448	0.497	0.449	0.516	0.215	1,314
Number of children	3.526	2.377	2.437	2.376	0.683	1,314
Political Knowledge Index	1.455	1.404	1.313	1.379	0.714	1,314
Political Participation Index	1.938	2.032	1.994	2.047	0.715	1,314
Political Interest	2.081	2.087	2.079	2.045	0.112	1,314
Baseline CCM Thermometer	84.25	86.74	90.25	87.12	0.006	1,306
Baseline President Thermometer	83.31	82.57	85.66	80.09	0.665	1,307
Nation > Tribe	0.351	0.360	0.323	0.364	0.880	1,314
Supports women in politics	0.719	0.741	0.803	0.760	0.080	1,314
Disapproves of IPV	0.729	0.713	0.740	0.709	0.770	1,314
Radio listening (> 4 hrs. per day)	0.065	0.055	0.044	0.065	0.916	1,314
Radio listening (never)	0.536	0.566	0.623	0.5611	0.350	1,314
Listens to news on the radio	0.539	0.517	0.462	0.525	0.508	1,314
Listens to news on RFA	0.013	0.023	0.019	0.024	0.424	1,314
Listens to news on TK	0.026	0.032	0.022	0.014	0.244	1,314
Prefers independent media	0.237	0.148	0.212	0.079	0.657	1,314
N	310 (23.6%)	348 (26.5%)	319 (24.3%)	337 (25.6%)		1,314

Note: The treatment group columns report the mean of the covariate for each experimental group. The *p*-value column reports the *p*-value of the F-test of regressing the covariates on a treatment indicator. The observations column reports the count of variables.

E.1.3 Experiment 3

Table A3: Balance for Pre-Treatment Covariates

Variables	Treatment Group				<i>p</i> -value	Observations
	Pure Control	Treatment 1	Treatment 2	Placebo Control		
Age	40.76	39.43	39.71	39.27	0.660	372
Muslim	0.838	0.807	0.786	0.796	0.443	372
Number of children	0.738	0.614	0.536	0.704	0.296	372
Pol. knowledge (knows VP)	0.138	0.289	0.179	0.133	0.763	349
Pol. participation (contact gov't)	0.425	0.518	0.381	0.480	0.645	372
Political interest	2.250	2.458	3.357	2.23	0.934	349
Baseline CCM Thermometer	79.38	85.12	82.80	83.78	0.456	372
Baseline President Thermometer	86.38	87.22	80.23	80.40	0.684	368
Corruption perceptions (= high)	0.626	0.602	0.560	0.561	0.602	372
Nation > Tribe	0.350	0.313	0.393	0.388	0.733	372
Supports women in politics	0.175	0.217	0.179	0.194	0.765	372
Disapproves of IPV	0.750	0.735	0.750	0.714	0.439	372
Radio listening (> 4 hrs. per day)	0.000	0.048	0.000	0.010	0.418	1,314
Radio listening (never)	0.600	0.578	0.548	0.510	0.343	372
Controls radio listening in HH	0.063	0.036	0.048	0.000	0.020	372
Listens to news on the radio	0.038	0.084	0.143	0.071	0.296	372
Listens to RFA	0.038	0.024	0.036	0.041	0.705	372
Listens to TK	0.100	0.060	0.060	0.082	0.296	372
Has heard nat'l leader on radio	0.625	0.699	0.690	0.612	0.991	372
Trusts nat'l leaders	0.138	0.217	0.143	0.133	0.856	372
N	86 (23.1%)	91 (24.5%)	92 (24.7%)	103 (27.7%)		372

Note: The treatment group columns report the mean of the covariate for each experimental group. The *p*-value column reports the *p*-value of the F-test of regressing the covariates on a treatment indicator. The observations column reports the count of variables.

F Experimental Results

F.1 Experiment 2

Table A4: **Ownership Information and Perceived Bias (Experiment 2)**. The table shows the percent of respondents in each experimental condition who believe that RFA is more biased than TK.

	Pure Control (No info)	Placebo Control (Hide Both)	Treatment 1 (Reveal RFA, Hide TK)	Treatment 2 (Hide RFA, Reveal TK)
All Respondents	54.5	58.2	74.1*†	31.0*†

* Significant difference from pure control (two-sided RI $p < .05$)

† Significant difference from placebo control (one-sided RI $p < .05$)

Table A5: **Ownership Information and Media Preferences (Experiment 2)**. The table shows the percent of respondents in each experimental condition who would prefer listening to RFA for news over TK.

	Pure Control (No info)	Placebo Control (Hide Both)	Treatment 1 (Reveal RFA, Hide TK)	Treatment 2 (Hide RFA, Reveal TK)
Regime Supporters	52.1	57.9	64.7*†	42.4*†
Regime Opponents	44.4	60.3	43.9†	68.3*
Difference	-2.4	7.7	20.8*†	-25.9*†

* Significant difference from pure control (two-sided RI $p < .05$)

† Significant difference from placebo control (one-sided RI $p < .05$)

Note: Regime supporters are respondents who gave CCM a thermometer rating greater than or equal to 75 out of 100 at baseline and opponents are those who gave a lower rating.

F.2 Experiment 3

Table A6: **Ownership Information and Perceived Bias (Experiment 3)**. The table shows the percent of respondents in each experimental condition who believe that RFA is more biased than TK.

	Pure Control (No info)	Placebo Control (Reveal RFA, Hide TK)	Treatment 1 (Hide RFA, Reveal TK)	Treatment 2 (Hide Both)
All Respondents	45.9	61.8*	95.6* [†]	9.8* [†]

* Significant difference from pure control ($p < .05$)

[†] Significant difference from placebo control (one-sided RI $p < .05$)

Table A7: **Ownership Information and Media Preferences (Experiment 3)**. The table shows the percent of respondents in each experimental condition who would prefer listening to RFA for news over TK.

	Pure Control (No info)	Placebo Control (Hide Both)	Treatment 1 (Reveal RFA, Hide TK)	Treatment 2 (Hide RFA, Reveal TK)
Regime Supporters	38.3	52.4	80.3* [†]	30.0 [†]
Regime Opponents	57.7	57.1	75.0	36.4
Difference	-19.4	-4.7	5.3	-6.4

* Significant difference from pure control (two-sided RI $p < .05$)

[†] Significant difference from placebo control (one-sided RI $p < .05$)

Note: Regime supporters are respondents who gave CCM a thermometer rating greater than or equal to 75 out of 100 at baseline and opponents are those who gave a lower rating.

G Robustness Checks for Experiment 2

This section documents a minor departure from the pre-analysis plan for Experiment 2. It then performs a series of tests to address whether the results presented in [Table 4](#) are sensitive to this decision.

Experiment 2 explores the effects of the ownership information treatments separately for two different subgroups, regime opponents and regime supporters. The pre-analysis plan for Experiment 2 originally characterized respondents who gave CCM a baseline thermometer rating of 99 or below as regime opponents and those who gave a rating of 100 as supporters. This decision was made in order to maximize the size of the regime-opposing subsample given that the thermometer ratings are right-skewed with a median and mode of 100. Upon viewing pilot data, however, it became clear that this cutoff was causing many regime-supporting individuals (e.g. those giving CCM a high rating of 95) to be inappropriately classified as regime opponents. In general, as one raises the thermometer cutoff, the regime-opposing subsample grows in size (leading to more precise subgroup estimates) yet becomes more likely to encompass regime supporters. In order to strike a balance between statistical power and construct validity, the cutoff was thus revised to 75.

To address concerns that the results are sensitive to this coding choice, I replicate the findings of Experiment 2 across a range of cutoffs (50, 60, 70, 80, 90 and 100) and present the results of this robustness check in [Figure 13](#) and [Figure 14](#) below. Reassuringly, the results are generally consistent with those presented in [Table A5](#) in the main body of the paper regardless of the cutoff one selects. [Table A5](#) shows a significant negative effect of Treatment 2 on interest in RFA among regime supporters and a significant positive effect among regime opponents. These results hold for every cutoff in the range from 50 to 90 ([Figure 13](#)). Likewise, [Table A5](#) shows a significant positive effect of Treatment 1 on interest in RFA among regime supporters but a null effect for regime opponents. Again, these results hold for every cutoff in the range from 50 to 90 ([Figure 14](#)).

This robustness check was not performed for the other outcomes in Experiment 2, since these analyses are conducted with the entire sample. Nor was the check performed for Experiment 3 given that the pre-analysis plan for this experiment explicitly specifies that the cutoff of 75 be used.

Figure 13: The coefficient plot depicts how the effects of Treatment 2 presented in Table A5 vary as one adjusts the cutoff dividing regime opponents and supporters. The results are generally consistent across specifications: revealing RFA's connections to the regime while concealing TK's connections causes preferences to diverge, with supporters becoming less interested in RFA and opponents becoming more interested in RFA.

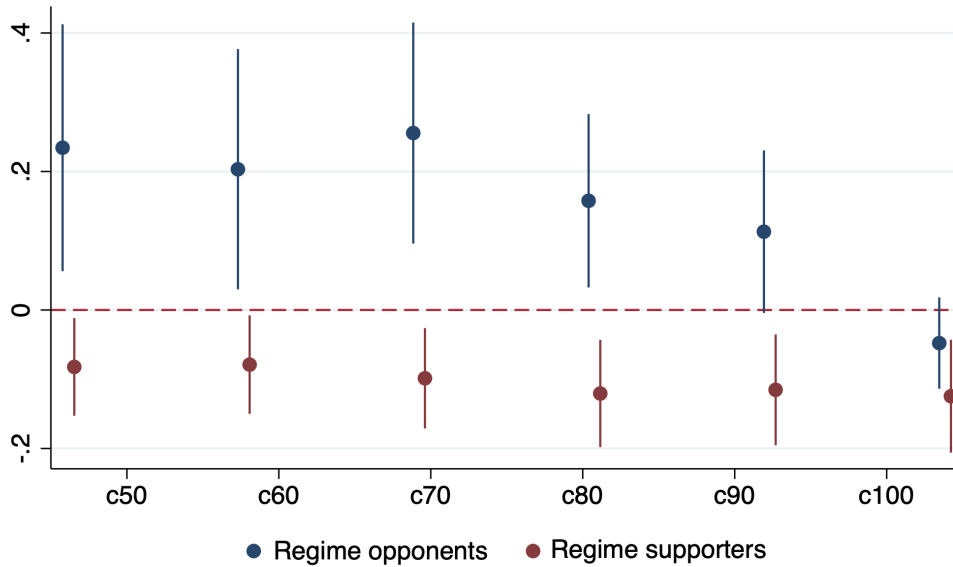


Figure 14: The coefficient plot depicts how the effects of Treatment 1 presented in Table A5 vary as one adjusts the cutoff dividing regime opponents and supporters. The results are generally consistent across specifications: concealing RFA's connections to the regime and revealing TK's connections causes preferences to diverge, with supporters becoming more interested in RFA and opponents not significantly updating their preferences.

