Living in Fear? Political Violence and Authoritarian Attitudes Among Politicians in South Africa (Appendix)

Sarah Lockwood*
Cambridge University; University of Cape Town

Philip Martin†
George Mason University

June 9, 2025

*School of Sociology, Politics, and International Studies, University of Bristol, 11 Priory Road, Bristol, UK BS8 1TU; Institute for Democracy, Citizenship and Public Policy in Africa, University of Cape Town, Rondebosch, Cape Town, 7701. Email: sarah.lockwood@bristol.ac.uk

†Schar School of Policy and Government, George Mason University, 4400 University Drive, Fairfax, VA 22030; Email: pmarti5@gmu.edu

Contents

1 List of Municipalities **2**

2 Councillor Contacting Protocol **4**

3 Message Wording **6**

4 Notes on Language of Contact and Enumeration **6**

5 Information on Respondent Sample **7**

6 Potential Threats to Validity **7**
6.1 History 8
6.2 Disturbance from the survey instrument 8
6.3 Bundled Treatment 8
6.4 Mode of Survey Implementation 8

7 Ethical Concerns **9**
7.1 Treatment 9
7.2 Potential Retribution 10

8 Ethical Approval **10**

9 Post-Stratification by Party ID **10**

10 Power Analysis **11**

11 Mediation Analysis **12**

1 List of Municipalities

The 47 municipalities selected for inclusion in this study are comprised of the 8 Metropolitan Municipalities in South Africa, plus all of the surrounding local municipalities (33), and a further 6 municipalities added in to ensure we covered all of the top 15 municipalities in terms of population size. This population of urban and near-urban councillors was driven by the substantive motivation of the study. The councils enumerated are as follows (number of councillors following the most recent local elections in November 2021 in brackets); district for blocking in square brackets:

Eastern Cape Province

1. Buffalo City Metropolitan Municipality (100) [Buffalo City]
2. Nelson Mandela Bay Metropolitan Municipality (120) [Nelson Mandela Bay]
3. Amahlathi Local Municipality (30) [Amathole]
4. Great Kei (13) [Amathole]
5. Kou-Kamma Local Municipality (12)
6. Kouga Local Municipality (30) [Sarah Baartman]
7. Ngqushwa Local Municipality (23) [Amathole]
8. Raymond Mhlaba Local Municipality (45) [Amathole]
9. Sundays River Valley Local Municipality (16) [Sarah Baartman]

Free State Province

10. Mangaung Metropolitan Municipality (101) [Mangaung]
11. Kopanong Local Municipality (17) [Xhariep]
12. Letsemeng Local Municipality (13) [Xhariep]
13. Mantsopa Local Municipality (18) [Thabo Mofutsanyana]
14. Masilonyana Local Municipality (19) [Lejweleputswa]

15. Mohokare Local Municipality (13) [Xhariep]
16. Tokologo Local Municipality (13) [Lejweleputswa]

Gauteng Province

17. City of Ekurhuleni Metropolitan Municipality (224) [Ekurhuleni]
18. City of Tshwane Metropolitan Municipality (214) [Tshwane]
19. City of Johannesburg Metropolitan Municipality (270) [Johannesburg]
20. Emfuleni Local Municipality (90) [Sedibeng]
21. Lesedi Local Municipality (26) [Sedibeng]
22. Midvaal Local Municipality (30) [Sedibeng]
23. Mogale City Local Municipality (77) [West Rand]
24. Rand West City Local Municipality (69) [West Rand]

KwaZulu Natal Province

25. eThekwini Metropolitan Municipality (222) [eThekwini]
26. KwaDukuza Local Municipality (59) [iLembe]
27. Mkhambathini Local Municipality (14) [uMgungundlovu]
28. Msunduzi Local Municipality (81) [uMgungundlovu]
29. Ndwedwe Local Municipality (37) [iLembe]
30. Umdoni Local Municipality (37) [Ugu]
31. Umshwathi Local Municipality (27) [uMgungundlovu]

Limpopo Province

32. Bela-Bela Local Municipality (17) [Waterberg]
33. Polokwane Local Municipality (90) [Capricorn]
34. Thabazimbi Local Municipality (23) [Waterberg]

Mpumalanga Province

35. Bushbuckridge Local Municipality (76) [Ehlanzeni]
36. City of Mbombela Local Municipality (90) [Ehlanzeni]
37. Dr JS Moroka Local Municipality (62) [Nkangala]
38. Thembisile Hani Local Municipality (64) [Ehlanzeni]
39. Victor Khanye Local Municipality (17) [Nkangala]

North West Province

40. Madibeng Local Municipality (82) [Bonjala]
41. Rustenburg Local Municipality (90) [Bonjala]

Western Cape Province

42. City of Cape Town Metropolitan Municipality (231) [Cape Town]
43. Drakenstein Local Municipality (65) [Cape Winelands]
44. Overstrand Local Municipality (27) [Overberg]
45. Stellenbosch Local Municipality (45) [Cape Winelands]
46. Swartland Local Municipality (23) [West Coast]
47. Theewaterskloof Local Municipality (27) [Overberg]

2 Councillor Contacting Protocol

Our research assistants varied in terms of race, home language and gender. Each research assistant was responsible for contacting approximately 100 councillors. Initial councillor contacting lists included all contact information that had been found on council websites, party websites, and the website of the South African Parliamentary Monitoring Group, along with information on each councillor's municipality and party, information on which incentive the councillor was to receive, and a unique Qualtrics link for each councillor.

On April 19, 2022 (the survey's launch day) all 31 research assistants were instructed to send an intial email to everyone they had an email address for, using the appropriate message wording as indicated below. Following this, research assistants began to reach out via phone to anyone on their list they did not have an email address for.

Following initial contact, research assistants followed up with each councillor roughly every 7-10 days until either the councillor completed the survey, refused to do it, or they had been contacted 5 times. Research assistants were instructed to alternate contact approaches where possible – so if the first contact was an email, the second was over the phone and vice versa. This was to ensure that where possible we did not lose councillors from the sample simply because emails were going direct to spam folders or we had the wrong phone number. If contacts resulted in email bounce backs and/or we discovered we had the wrong number for a councillor, research assistants were instructed to search for new contact details. The bounce back or wrong number did not count as one of the five contacts. If there was no answer on a phone call, but the voicemail indicated we had the right councillor, a voicemail message was left where possible. This counted as one of the five contacts. Phone calls to a council switchboard did not count towards the limit of five contacts, but phone calls to a secretary or personal assistant did. Research assistants were instructed not to provide any information on incentives to anyone other than the named councillor.

Research assistants had some flexibility in how they contacted councillors as long as they employed varied contacting approaches. They were permitted to use phone calls, email, sms text messages, WhatsApp, and direct messages on social media. They were not permitted to travel to offices or engage in any face-to-face contact. They were also not permitted to publicly reference the survey (so they could use social media to try and obtain contact details for a councillor, but they could not invite the councillor to participate in the survey through a public post). Research assistants shared information on contacting approaches and details through a private WhatsApp group, monitored by one of the PI's.

Councillors were able to fill the survey in themselves using a unique Qualtrics link or they could elect to have it administered over the phone or in a video call. As soon as a councillor completed the survey, they were removed from the contacting list. The same was true for anyone who refused to participate. Research assistants kept detailed daily logs of all contacting attempts and outcomes.

3 Message Wording

Dear COUNCILLOR NAME,

My name is RESEARCH ASSISTANT NAME, and I am a student at XXX. I am working with faculty from XXX to conduct a survey of local councillors. This survey will focus on understanding your work as a local councillor, as well as the challenges you face and your opinions on issues pertaining to local democracy.

Local government is a critical aspect of democracy, but at present there have been relatively few academic studies focused at this level. We need better information on the activities and challenges of local councillors, in order to understand how local democracy is functioning, and the resources and support it needs to flourish. Your answers to these questions will therefore be of vital importance in helping us to understand local government and the work of elected local councillors in South Africa.

To complete the survey please click on this link: INDIVIDUAL SURVEY LINK HERE. The survey should take about 20 minutes to complete. [As a thank you for completing the survey you will receive a R100 Woolworths gift card / As a thank you for completing the survey, you will be entered into a lottery to win one of two R5,000 Woolworths gift cards.]

Please note: we are NOT affiliated with any political party or with government and our goal is academic research about local democracy.

Yours,

RESEARCH ASSISTANT NAME

4 Notes on Language of Contact and Enumeration

South Africa is a multilingual society, with eleven official languages in the constitution and a number of other languages spoken on a daily basis (Khokhlova 2015). According to the 2011 census, the most common first language spoken

by South Africans is isiZulu (22.7%), followed by isiXhosa (16%), Afrikaans (13.5%) and English (9.6%). While English is not widely spoken as a first language in South Africa, it is the dominant language of business, media, government, tourism, and education, especially in urban areas, and individuals have little prospect of working at any level of government without English proficiency (Plessis, Bekker, and Hickey 2019; Khokhlova 2015; Rudwick 2008). When the baseline survey was conducted in 2016-2017, less than 10% of councillors elected to complete the survey in a language other than English, and fieldwork by Lockwood (2022) similarly found that local councillors in urban and peri-urban areas across South Africa were comfortable speaking extensively in English. Given this, the survey was conducted in English as the default. We hired multilingual RAs who asked councillors during the consent process if they were happy to complete the survey in English. Although we were prepared to translate the survey as needed, in practice, this was not necessary. Clarifications were occasionally given in other languages during the enumeration and contacting process.

5 Information on Respondent Sample

We received 723 responses to our survey, but after removals owing to missing data, this paper relies on a total sample of 531 politician respondents, split evenly between randomized treated and control groups. Due to our sampling method, these councillors are all based in urban or near-urban municipalities, resulting in a strong urban bias relative to the general population of councillors. In terms of party, the ANC is underrepresented in our sample, while the DA is overrepresented. This is a standard finding in politician surveys in South Africa, although our use of incentives in respondent recruitment mediates the DA-bias to some extent (Lockwood and Lieberman 2024). Our sample skews slightly female (33%) compared to the national average for elected local councillors (26.9%).[1]

6 Potential Threats to Validity

In our pre-analysis plan, we anticipated a number of potential threats to validity, which we identify here, including with discussion of how we sought

1. Source: Electoral Commission of South Africa (IEC).

to address these:

6.1 History

The survey was enumerated over the course of several months in the spring and summer of 2022. It is possible that local or national events occurred during the course of the survey that influenced the outcome. To account for this possibility we estimate a specification including fixed effects for the month that the survey was administered.

6.2 Disturbance from the survey instrument

The survey in which our experiment is embedded also includes a separate survey experiment related to the quality of local government representation of civil society. While we do not think it is likely that the prime given in this experiment would influence the effect of the violence prime, we account for the possibility by re-estimating our main specification with a control for the treatment condition of the prior survey experiment.

6.3 Bundled Treatment

While our prime is intended to induce a (mild) emotional response of fear of politician-directed violence, it is possible that the prime also induces other emotional responses among politicians, such as anger or sadness (or perhaps even guilt). Indeed, past research suggests that affective emotional memory tasks (AEMT) that illicit fear in subjects commonly illicit other emotions as well (Young 2019). The conservative way of interpreting our findings, therefore, is in terms of the effects of a cluster of negative emotions linked to thinking about political violence. Nonetheless we attempt to distinguish between treatment mechanisms by analyzing the mediating effect of a post-treatment measure of fear.

6.4 Mode of Survey Implementation

Our survey was administered in two stages: one administered by research assistants, and one self-administered by respondents through a Qualtrics links distributed by SALGA. It is possible that the presence of a research assistant affected subject responses, for example by introducing social desirability bias

or affecting respondents' beliefs about the confidentiality of their responses. We took steps to minimize these biases through an informed consent protocol and by training research assistants to remind all respondents that their responses are confidential and no data will be published with identifying information. We also re-estimate our main specification with a control for the stage of survey implementation.

7 Ethical Concerns

7.1 Treatment

A primary ethical concern with the use of a "reflection treatment" on the topic of political violence is the risk of re-traumatization. In the context of our study, we judge this risk to be relatively low. Our prime is comparable to other AEMT treatments that have been administered by researchers in violence-affected contexts like Zimbabwe (Young 2019), Colombia (Bogliacino et al. 2017), and Bosnia (Hadzic and Tavits 2019). Indeed we view our prime as posing relatively less risk of re-traumatization than these comparable studies. First, we do not sample respondents on the basis of their past exposure to violence, making it less likely that our prime would induce the traumatic recollection of a specific personal experience. Second, our prime asks respondents to reflect on their feelings about the general issue of politician-directed violence, rather than asking them about violence against themselves, their families or ethnic group. Third, our prime reflects the kind of generic language regularly used in South African media outlets to describe political assassinations and murders.

We took further steps to minimize any risk of re-traumatization. Survey enumerators received in-person and online training regarding the possibility of re-traumatization, and respondents were informed multiple times that they could skip any question they found uncomfortable or did not want to answer, and that they could stop the survey at any time. They were also informed that they could stop the survey and re-start it at a later date if desired. Enumerators were also instructed to remind respondents that they could skip questions or end the survey during enumeration if necessary, and to offer to stop the survey immediately if it became clear the respondent was becoming distressed in any way.

Where respondents self-complete the survey using a link (that it, is it not

being enumerated by a research assistant) they are informed of their right to skip questions or stop the survey at any point during the initial contact and provision of the link, and a second time during the online consent process.

7.2 Potential Retribution

Another potential ethical concern is the risk that respondents, or research assistants working as enumerators, could experience retribution for their participation in the survey. We also view this risk as relatively low. South Africans are regularly asked to participate in opinion research and polling, and few of the questions on our survey were unusually politically sensitive. Nor did the survey ask respondents about the perpetrators of any alleged acts of political violence. Respondents were also repeatedly informed that they could skip or refuse to answer any question(s) they did not wish to answer, and/or stop the survey at any time. Informed consent was sought at the beginning of all surveys, and minimal personally identifiable data was involved or collected in this project. The surveys themselves were conducted using Qualtrics, which is GDPR and CCPA compliant. All personally identifiable information will be stripped from the data when it is downloaded for analysis, and no data will be published with identifying information.

8 Ethical Approval

This project received approval from XXX.

9 Post-Stratification by Party ID

Table 1: Main results with post-stratification by party ID

	Main Specification	Extra Controls
ATE	0.139	0.154
SE	0.095	0.096
p value	0.071	0.053
N	531	531

Notes: ATE represents the estimated average treatment effects of the violence prime treatment on the authoritarianism scale. Models include inverse probability sample weights for party calculated using the full list of 3092 South African municipal councillors in the initial sample frame.

10 Power Analysis

Our survey experiment relies on a total sample of 531 politician respondents, split evenly between randomized treated and control groups. To evaluate whether our study has a sufficiently large sample to detect a treatment effect of our experimental prime on authoritarian attitudes, we conducted a power analysis. The main challenge of such an analysis lies in estimating plausible treatment effects in a context where little prior survey research exists on the authoritarian attitudes of politicians. To estimate the treatment effect size (β) we rely on observational findings from a prior survey of South African councillors conducted in 2021, which measured the same index of authoritarian attitudes that we used in the 2022 survey. Comparing the difference in means between respondents who reported that they did/did not fear violence against themselves personally, we extrapolate an estimated β of 0.27 with standard deviation 1.03. As it turns out, this estimated effect is nearly identical to the treatment effect we actually found within the non-ANC sample. Conducting a two sample power analysis with Power = 0.8, Alpha = 0.05, and equal proportions of treated/control units, we recover a minimum sample size of 456. Thus, our study is sufficiently powered at the 0.8 level to detect treatment effects.

11 Mediation Analysis

In our pre-analysis plan we distinguished between two potential channels connecting the violence prime to political authoritarianism: fear, and in-group identification. Unfortunately, given our resource constraints and the significant challenges of obtaining complete survey responses from South African politicians, our study has an insufficiently large sample to reliably detect mediation effects. Using the simulation-based method of power analysis for causal mediation developed by Qin 2023, and assuming an estimated effect of treatment on the mediator (for example, fear of violence or ethnic identification) of 0.05, our study only has power of 0.24. Thus, even under generous estimates about the magnitudes of treatment effects on mediators and effects of mediators on the outcome, a significantly larger sample size (n=800 at minimum) would be required to reliably detect mediation effects. Nonetheless for transparency we show the results of a mediation analysis here.

To assess the fear mechanism we analyze a post-treatment measure of fear of violence, based on the question: "You fear violence against you personally because of your position as a councillor" (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). We code the variable *Fear* as a binary indicator of whether respondents select "agree" or "strongly agree". To test the mechanism of in-group identification, we included a post-treatment item to gauge the extent to which respondents identify with their race or ethnic group. Building on the approach of Eifert, Miguel, and Posner 2010, we asked the question: "People in South Africa describe themselves in different ways. Some people describe themselves in terms of their language, religion, race, and others describe themselves in economic terms, such as working class, middle class, or a farmer. Besides being a citizen of South Africa, which specific group do you feel you belong to first and foremost?" We coded responses to this question in terms of several categories: ethnicity, economic class, religion, partisanship/party, region, or other. We code the binary indicator *Ethnic Identification* if the respondent self-identifies in terms of either ethnicity or race.

To identify average causal mediation effects (ACME), we employ a linear structural equation models (LSEM) approach (see Imai, Keele, and Yamamoto 2010). We fit the following system of (linear) equations, where fear of violence acts as the mediator:

$$Fear_i = \alpha_1 + \beta_5 D_i + X'\gamma + Z'\zeta + \epsilon_{i1} \tag{1}$$

$$Authoritarianism_i = \alpha_2 + \beta_6 D_i + \tau Fear_i + X'\gamma + Z'\zeta + \epsilon_{i2} \quad (2)$$

These equations yield $\beta_5\tau$ as the mediation effect. We use the `mediation` package in R to estimate the ACME, the average causal direct effect (ADE), and the total effect (Tingley et al. 2014). To analyze the mediation effect of in-group identification, we employ the same set of steps as described above, but using *Ethnic Identification* as the mediator variable.

Table 2 displays the results of the mediation analysis. In contrast to our theoretical priors, we find no evidence that the effects of the violence prime are mediated by either increased personal fear of violence or by increased ethnic group identification. The average causal mediation effect of *Fear* is slightly negative, while the average causal mediation effect of *Ethnic Identification* accounts for only only five percent of the total effect of the violence prime (and the 95 percent confidence interval on the ACME does not exclude zero). Thus, we fail to reject the null hypothesis of no mediation effect for personal fear and ethnic identification. Once again, however, we note the limited power of our study to formally detect mediation effects.

Table 2: Fear and Ethnic Identification Do Not Mediate Effects of Violence Prime

Mediator	ACME	ADE	Total Effect	Proportion Mediated
Fear	-0.001	0.184	0.184	-0.002
Ethnic Identification	0.008	0.176	0.184	0.045

Notes: ACME refers to average causal mediation effect, ADE refers to average causal direct effect.

References

Bogliacino, Francesco, Gianluca Grimalda, Pietro Ortoleva, and Patrick Ring. 2017. "Exposure to and recall of violence reduce short-term memory and cognitive control." *Proceedings of the National Academy of Sciences* 114 (32): 8505–8510.

Eifert, Benn, Edward Miguel, and Daniel N Posner. 2010. "Political competition and ethnic identification in Africa." *American journal of political science* 54 (2): 494–510.

Hadzic, Dino, and Margit Tavits. 2019. "The gendered effects of violence on political engagement." *The Journal of Politics* 81 (2): 676–680.

Imai, Kosuke, Luke Keele, and Teppei Yamamoto. 2010. "Identification, inference and sensitivity analysis for causal mediation effects." *Statistical science* 25 (1): 51–71.

Khokhlova, Irina. 2015. "Lingua Franca English of South Africa." *Procedia: Social and and Behavioral Sciences* 214:983–991.

Lockwood, Sarah, and Evan Lieberman. 2024. "What Motivates Elite Participation in Research? Evidence from an Experimental Study of South African Councillors." *Research and Politics.*

Lockwood, Sarah J. 2022. "Protest Brokers and the Technology of Mobilization: Evidence from South Africa." *Comparative Political Studies* 55 (4): 628–656.

Plessis, Deon du, Ian Bekker, and Raymond Hickey. 2019. "Regionality in South African English." In *English in Multilingual South Africa: The Linguistics of Contact and Change,* edited by Raymond Hickey, 74–100. Cambridge England ; New York: Cambridge University Press.

Qin, Xu. 2023. "Sample size and power calculations for causal mediation analysis: A Tutorial and Shiny App." *Behavior Research Methods,* 1–32.

Rudwick, Stephanie. 2008. ""Coconuts" and "oreos": English-speaking Zulu people in a South African township." *World Englishes* 27 (1): 101–116.

Tingley, Dustin, Teppei Yamamoto, Kentaro Hirose, Luke Keele, and Kosuke Imai. 2014. "Mediation: R package for causal mediation analysis."

Young, Lauren E. 2019. "The psychology of state repression: Fear and dissent decisions in Zimbabwe." *American Political Science Review* 113 (1): 140–155.