Echoes of the Malagasy Uprising:
Estimating Long-Term Effects of Political Repression
on Political Attitudes in Madagascar

Leonard WANTCHEKON*         Denis Alexandre LAHINIRIKO**         Omar GARCIA-PONCE***

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Abstract

This paper examines the long-term effects of the repression of the Malagasy Uprising (1947-1948) upon current political attitudes and behavior in Madagascar. Drawing data from the most recent wave of the Afrobarometer (2008), we prove that the legacy of violent political repression negatively affects Malagasy’s freedom of speech, freedom of association, and freedom to vote. Likewise, exposure to this legacy of repression positively influences self-censorship, and fear of political hostility (intimidation, violence, and punishment). According to the regression analysis, these traumatic consequences are strongly linked to the geography of the repression. At a broader level, the results suggest that the scope and/or the intensity of the repression matter. A comparison with the repression of the rebellion of Kaba in Benin (1916-1917) suggests that both the geographic extension and the degree of violence play a crucial role in determining the long-term effects of the repression.

1. Introduction

Political repression in its different manifestations has given rise to a large body of research. A number of studies have examined state repression from a descriptive or

* Professor of Politics, New York University.
** Professor of History, Université d'Antananarivo.
*** Ph.D. Student, Department of Politics, New York University.
historical perspective. This literature is too vast to cite, and includes mainly state-focused analyses. A more empirical line of research has explored the links between political repression and economic development (eg., Mitchell and McCormick 1988, Poe and Tate 1994, Davenport 1995), regime type (eg., King 2000, Regan and Henderson 2002), and demographic conditions (Henderson 1993). Grosso modo, these studies shed light on why men rebel and why states repress.

However, very few scholars have analyzed the effects of repression on political attitudes and behavior (eg., Booth and Richard 1996). For instance, little research has been done on how political intimidation, coercion, or violence, influence individuals’ attitudes towards democracy, freedom of expression, interpersonal trust, or social capital. Even more rare, if not to say non-existent, are such studies that attempt to empirically estimate how current people’s attitudes might be affected by a legacy of political subjugation.

This paper seeks to contribute to the literature by inquiring into the traumatic consequences of violent political repression. Specifically, we examine the long-term effects of French colonial repression upon citizens' political attitudes in Madagascar. We prove that the violent repression of the Malagasy uprising in 1947 has traumatized some locations of the country more than others. Our results reveal that current levels of freedom of expression, as well as levels of perceived political hostility, are strongly linked to the geography of the repression.

The Malagasy uprising, or Madagascar revolt, is one of the bloodiest episodes in the history of the red island. Due to the scope and brutality of the repression, this traumatic experience has taken roots firmly and deeply in Madagascar’s collective
memory. Yet it is reasonable to assume that the degree of *traumatism* varies from one individual to another. In fact, recent anthropological studies reveal that the 1947 revolt lives on a multiplicity of different ways in people's minds (Cole 2003). Variations among these different ways of remembering the rebellion seem to be dependent on age and location.

What matters for the purposes of this paper is to determine how and to what extent the legacy of repression affects Malagasies’ current political attitudes. Although the rebellion had a nationwide impact, some areas of the island were significantly more affected than others. This is the only available metric we have to detect a differentiated impact. Hence, using survey data from the Afrobarometer (2008), we test whether individuals from the locations that were heavily repressed are less confident to express themselves, and more likely to fear becoming victims of political hostility (namely intimidation, violence, or punishment).

A quick review of the Afrobarometer data on freedom of speech, and fear of political violence or intimidation, shows important differences between citizens who live in the districts that were most affected by the repression, and those who live in or moved to other areas of the country. For instance, only 19% of the Malagasies who live in the most affected districts feel *completely* free to say what they think, while this percentage is 36% for the rest of the country. Similarly, in the affected locations, about 6 in 10 individuals declared to fear becoming a victim of political intimidation or violence during elections. In the rest of the country, by contrast, 51% declared not to fear political intimidation or violence at all.

Our empirical analysis confirms the abovementioned tendencies. In fact, even
when controlling for individual and geographic characteristics, our variable of interest, most affected locations, stands out as a strong predictor of a number of variables associated with freedom of political expression. As will be shown later, our regression models provide enough evidence to conclude that the repression of the Malagasy uprising in 1947 still echoes until today, considerably affecting individuals’ political attitudes and fears.

It is important to point out that, even though this paper is limited to the case of Madagascar, we present some comparisons with the rebellion of Kaba in Benin (1916-1917). We believe that contrasting cases of political repression that differ in their geographic scope and level of violence can lead to important conclusions, and give some directions for further research on the topic. In comparison to the Malagasy uprising, the scope of Kaba’s rebellion -and thereby of its repression- was significantly narrower. Therefore, we expect to observe a slighter impact on Benineses’ freedom of political expression.

In the next section of this paper we explain the historical background and the main theoretical assumptions behind our study. Subsequently, we describe our data sources and methodology. In the fourth section we present the empirical results. We conclude with a discussion on how these findings illuminate our understanding of the long-term effects of political repression, and give some directions for future research.

2. Historical Background and Theory

In 1896, Madagascar was annexed to the French colonial empire. After the Second World War, in 1946, the red island obtained the statute of French territory of overseas.
Madagascar was then equipped with an elected, although institutionally limited assembly. To some extent, this political base awoke the independence claim, and triggered the creation of insurgent movements. The so-called Malagasy Uprising includes a series of violently crushed revolts that took place between 1947 and 1948. The legacy of its repression has caused still present traumas in the Malagasy population.

The Mouvement Democratique de la Renovation Malagache (MDRM), a nationalist political party created in 1946, is at the heart of the Malagasy uprising. Many of the attempted rebellions were connected with the MDRM, whose main goal was independence for Madagascar. Starting on March 29, 1947, Malagasy nationalists revolted in the eastern part of the island. The first seat of the insurrection was the triangle Ambila-Sahasinaka-Ampasimanjeva. The insurrection immediately reached Manakara and Moramanga, and spread to several parts of the country over the following months. The rebels seized the eastern and central regions of the country before French soldiers located in Madagascar received reinforcements from France.

The French colonial authorities violently crushed the rebellion. By November 1948, the French armed forces had practically erased the insurgents from the map. The figure below shows the location of insurrection troops and the progression of the French reoccupation of the Malagasy territory until March 1948.

**FIGURE 1. REOCCUPATION OF THE MALAGASY TERRITORY (MARCH 1948)**
Depending on the source, estimated deaths range from 30,000 to 100,000. Originally, French authorities alleged between 8,000 and 10,000 casualties. This
number, however, has been proven to be far from reality. In December 1948, the high commissariat Pierre de Chevigné boasted in the radio that not a single square centimeter of the island escaped to the French military control, suggesting that between 80,000 and 100,000 people were killed.

Similarly, Jacques Tronchon (1986) talks about 80,000 victims, and Lucile Rabearimanana (1997), from the University of Antananarivo, suggests that 60,000 persons were killed. A more recent study by the historian Jean Fremigacci estimates between 30,000 and 40,000 deaths, among which 10,000 were accountable to violent death, and the other to diseases and malnutrition (Fremigacci 2007).

Hitherto there is no consensus on the number of the casualties. However, it seems evident that at least some thousands were killed. Regardless of the amount of victims, what is particularly interesting for us is how and to what extent this traumatic experience has affected Madagascar’s collective memory. Historians may talk about 10,000 or 100,000 thousands deaths, but what really matters, at least for the purposes of this study, is how this legacy of violent quashing affects Malagasies’ attitudes and behavior.

3. Data Description and Methodology

3.1 Afrobarometer
Data on political attitudes in Madagascar is from the fourth round of the Afrobarometer (2008), which is an independent and non-partisan research project conducted by CDD, IDASA and MSU. The Afrobarometer measures the social, political and economic atmosphere in Africa. Surveys are repeated on a regular cycle since 1999. The fourth round was conducted in 20 countries. In the case of Madagascar, the survey is based on interviews of a random, national representative sample of 1,350 adults. This sample gives a margin of error of 2.67% and a degree of confidence of 95%. It covers the six provinces of the country, and 85 districts. Benin’s data is from the same round of the Afrobarometer, and it is based on a sample of 1,200 adults.\(^1\)

Our analysis considers as dependent variables six measures or components of freedom of political expression. The Afrobarometer asks respondents how free they are to say what they think, to join any political organization, and to choose whom to vote for. Respondents can choose to answer either (i) completely free, (ii) somewhat free, (iii) not very free, or (iv) not at all free. Thus, this set of questions provides us with individual, ordinal measures of freedom of speech, association, and vote.

We also take into consideration a question on how careful people are about what they say in politics. The exact wording is as follows: In this country, how often do people have to be careful of what they say about politics? Respondents can choose to answer either (i) always, (ii) often, (iii) rarely, or (iv) never. We assume answers to this question tell us something about peoples’ fear or self-censorship when it comes to talk about politics.

Finally, we include two variables of political hostility. The first one refers to fear

\(^1\) This sample covers the 12 departments of the country, and gives a margin of error of 3.0% and a degree of confidence of 95%.
of political intimidation or violence. The exact wording of the question is: During election campaigns in this country, how much do you personally fear becoming a victim of political intimidation or violence? Respondents can answer either (i) a lot, (ii) somewhat, (iii) a little bit, or (iv) not at all. The second question reveals fear of governmental punishment, and it is phrased as follows: How likely do you think it is that people can be punished by government officials if they make complaints about poor quality services or misuse of funds? Answer options include (i) very likely, (ii) somewhat likely, (iii) not very likely, and (iv) not at all likely.

3.2 Repression and Affected Locations

Due to data availability, our measure of repression is strictly geographic. We construct a dichotomous variable that distinguishes between the locations (districts) that were heavily affected by the repression and the rest of the country. In the case of Madagascar, the rebellion had nationwide impact, but the most traumatized areas were the eastern and central regions of the island (provinces of Fianarantsoa and Toamasina). Specifically, the most affected locations by the repression were Moramanga, Manakara, Mahanoro, Ifanadiana, Fort-Carnot, Soanierana Ivongo, Mananara, Andilamena, Ambatondrazaka, Andevoranto, Vatomandry, Nosivarika, and the surrounding areas of Fianarantsoa, Antananarivo and Antsirabe.

The figure below shows the cartography of the repression at the district level. The intensity of colors indicates the magnitude of the repression (darker means more affected by the repression). As we can see, heavily affected districts are located in the eastern-central part of the island. The remaining areas of Fianarantsoa and Toamasina
were affected as well, but in a lesser degree, and the rest of the country remained practically unaffected.

FIGURE 2. REPRESSSION AND AFFECTED LOCATIONS

Fortunately, the names of these districts have not changed since 1947, and most of them were in the fourth round of the Afrobarometer survey\textsuperscript{2}. Overall, the sample

\textsuperscript{2} Only Moramanga, Andevoranto, and Vatomandry were not included in the sample.
gives us a total of 242 individual observations belonging to the most affected locations, and 1,108 to the rest of the country.

In the case of Benin, the scope of the rebellion, as well as the degree of violence of the repression, were significantly smaller. Kaba’s revolt took place mainly in the department of Atacora, particularly in the following districts: Tangueta, Natingou, Kouande, Boukoumbe, and Toucountouna. These locations are shown in the Figure 3.

**Figure 3. Repression and Affected Locations in Benin**

Again, the intensity of colors indicates the magnitude of the repression (in this case, medium, low, and no repression at all). Since Boukoumbe and Toucountouna were not included in the sample, the Afrobarometer data provides us with merely 104
individual observations coded as affected locations, and 1,096 for the rest of the Beninese territory.

3.3 Methodology

Our empirical analysis combines different statistical techniques, including principal components analysis (PCA), ordered logistic regression, and matching. First, based on answers to the six questions described above, we construct a principal components index of freedom of political expression. OLS estimates are computed to examine the impact of the repression on individual index levels. Second, we use ordered logit analysis to estimate the effects of the repression on the components of the index; that is, we report OLOGIT estimates for each of the six questions on freedom of expression and political hostility. As a final step, we implement matching techniques to test whether similar individuals behave differently depending on their locations. In addition to these models, we briefly explore the consequences of low levels of freedom of political expression.

Thus, we analyze the long-term effects of political repression on six dependent variables, each of which represents a dimension of the PCA index of freedom of political expression. Our independent variable of interest is affected locations, which works as a proxy for highly violent repression. In addition, we incorporate the following individual-level control variables: sex, age, an indicator variable for whether the respondent lives in an urban or rural area, 5 income fixed effects, 4 education fixed effects, 7 religion fixed effects, 11 ethnicity fixed effects, and 5 region fixed effects. The income fixed effects are based on the respondent’s view regarding their living

3 In the case of Benin, 8 ethnicity fixed effects, and 11 region fixed effects were included.
conditions relative to others: (i) much worse, (ii) worse, (iii) same, (iv) better, or (v) much better. The education fixed effects are for the following categories: (i) no formal schooling, (ii) primary schooling, (iii) secondary or high school, (vii) university or post-graduate.

4. Empirical Results

4.1 Principal Components Analysis (PCA)

We start our analysis examining the relationship between the most affected locations and the index of freedom of political expression. As we have said, we built this index by using PCA. We weighted our six dependent variables as dimensions of freedom of political expression, and retained the first component, which explains most of the variation in the variables. Index values are stored in ascending order.

Table 1 shows OLS estimates of the determinants of the index for Benin and Madagascar, with and without region fixed effects. Because our variable of interest, affected locations, only varies at the district level, we cluster all standard errors at the district level, allowing for non-independence of observations within districts. To save space, we do not report the estimated coefficients and standard errors for the fixed effects.

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>Madagascar (b/SE)</th>
<th>Benin (b/SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affected locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Affected locations</td>
<td>-0.611***</td>
<td>-0.450***</td>
</tr>
<tr>
<td></td>
<td>(0.154)</td>
<td>(0.159)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Affected locations</td>
<td>-0.482**</td>
<td>-0.624**</td>
</tr>
<tr>
<td></td>
<td>(0.237)</td>
<td>(.211)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>-0.107</td>
<td>-0.116</td>
</tr>
<tr>
<td></td>
<td>-0.125</td>
<td>-0.101</td>
</tr>
</tbody>
</table>
The unit of observations is an individual. *** indicates significance at the 1% level.

As we can see, the estimated coefficients for affected locations are negative and statistically significant in both countries. The first and third columns report estimates without region fixed effects. In the second and fourth models, regional level controls are included. These controls are meant to capture factors that affect the historical characteristics of the provinces (in the case of Madagascar) or departments (in the case of Benin). As shown, the coefficients for our variable of interest remain statistically relevant, even when introducing region fixed effects. None of the regions had a negative, relevant effect. In fact, in the case of Madagascar, the provinces of Mahajanga and Antsiranana reported a positive and statistically significant impact\(^4\).

With regard to the rest of the individual controls, age displays a positive, but slight impact on the index. Reported coefficients for sex, education, rural location, income, religion, and ethnicity (with very few exceptions) are not statistically important. In brief, our results are consistent with the legacy of repression adversely

\(^4\) None of the districts coded as affected locations belongs either to Mahajanga or Antsiranana.
affecting, at the district level, current people’s political liberties.

4.2 OLOGIT Estimates

So far, we have proved the existence of a negative long-term effect of both the Malagasy uprising and Kaba’s rebellion on the index of freedom of political expression. The next step is to compute the long-term effects on each of the six components of the index. For that purpose, we use ordered logit models, since the answers to the six questions were coded in ordinal categories.

Tables 2 shows OLOGIT estimates of the determinants of freedom of speech, freedom of association, and freedom to vote, in Madagascar. The results confirm the negative effect of political repression. With the exception of the sixth model, reported coefficients for affected locations are negative and statistically significant at the 1% level. To a lesser degree, age seems to positively impact the three measures of freedom of expression, while being female has a negative effect on the freedom to join any political organization. Reported coefficients for the rest of the control variables are unimportant.

<p>| TABLE 2. OLOGIT ESTIMATES: DETERMINANTS OF FREEDOM OF EXPRESSION IN MADAGASCAR(b/SE) |
| In this country, how free are you: |</p>
<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>To say what you think</th>
<th>To join any political organization you want</th>
<th>To choose who to vote for without feeling pressured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables / Models</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
</tbody>
</table>


In Table 3 we can see estimates for the case of Benin, which reveal important differences. Our variable of interest is not a predictor of freedom of speech and freedom of political association. The legacy of Kaba’s repression, by contrast, seems to be a strong predictor of freedom to vote. Nonetheless, it is worth mentioning that several regions of the country reported positive, and statistically significant coefficients, as well⁵. With the exception of sex, which has a negative impact on freedom of association, the rest of the variables are irrelevant.

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affected locations</strong></td>
<td>-0.533***</td>
<td>-0.347**</td>
<td>-0.652***</td>
<td>-0.585***</td>
<td>-0.552***</td>
<td>-0.179</td>
</tr>
<tr>
<td></td>
<td>(0.157)</td>
<td>(0.165)</td>
<td>(0.163)</td>
<td>(0.184)</td>
<td>(0.165)</td>
<td>(0.183)</td>
</tr>
<tr>
<td><strong>Sex (female)</strong></td>
<td>-0.105</td>
<td>-0.115</td>
<td>-0.284**</td>
<td>-0.298**</td>
<td>-0.032</td>
<td>-0.023</td>
</tr>
<tr>
<td></td>
<td>(0.090)</td>
<td>(0.111)</td>
<td>(0.122)</td>
<td>(0.123)</td>
<td>(0.127)</td>
<td>(0.128)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>0.008**</td>
<td>0.008**</td>
<td>0.010**</td>
<td>0.009**</td>
<td>0.011**</td>
<td>0.011**</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.005)</td>
</tr>
<tr>
<td><strong>Urban/Rural (rural)</strong></td>
<td>0.024</td>
<td>0.144</td>
<td>0.039</td>
<td>0.084</td>
<td>0.470***</td>
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</tr>
<tr>
<td></td>
<td>(0.210)</td>
<td>(0.140)</td>
<td>(0.171)</td>
<td>(0.159)</td>
<td>(0.180)</td>
<td>(0.162)</td>
</tr>
<tr>
<td><strong>Education fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Income fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Religion fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Ethnicity fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Region fixed effects?</strong></td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.04</td>
<td>0.045</td>
<td>0.04</td>
<td>0.046</td>
<td>0.08</td>
<td>0.086</td>
</tr>
<tr>
<td>Number of observations</td>
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<td>1202</td>
<td>1042</td>
<td>1042</td>
<td>1216</td>
<td>1216</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.

⁵ Besides Atacora (where most-affected districts are located), regions with positive, and statistically significant coefficients, for model 6 include: Zou, Oueme, Littoral, Collines, Borgou, Atlantique, and Alibori.
The unit of observations is an individual. *** indicates significance at the 1% level.

Table 4 shows estimates of peoples’ fear or self-censorship when it comes to talk about politics. Again, reported coefficients for our variable of interest are statistically significant. But in this case, the relationship is positive, confirming that people who live in the most affected locations often have to be careful of what they say in politics. The effect seems to be stronger in the case of Benin, and the rest of the controls (with the exception of rural location for Benin and sex for Madagascar) are insignificant.

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>Madagascar</th>
<th>Benin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (female)</td>
<td>-0.246</td>
<td>-0.206</td>
</tr>
<tr>
<td></td>
<td>(0.168)</td>
<td>(0.171)</td>
</tr>
<tr>
<td>Age</td>
<td>0.024***</td>
<td>0.025***</td>
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<tr>
<td></td>
<td>(0.007)</td>
<td>(0.007)</td>
</tr>
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<td>Education fixed effects?</td>
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<tr>
<td>Income fixed effects?</td>
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<td>YES</td>
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<tr>
<td>Religion fixed effects</td>
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<td>YES</td>
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<tr>
<td>Ethnicity fixed effects</td>
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<td>YES</td>
</tr>
<tr>
<td>Region fixed effects</td>
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<td>NO</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.06</td>
<td>0.088</td>
</tr>
<tr>
<td>Number of observations</td>
<td>1185</td>
<td>1185</td>
</tr>
</tbody>
</table>

Table 4. Ologit Estimates: Determinants of “Careful About What You Say” (b/se)
With regard to our measure of fear of political violence or intimidation, reported coefficients in Table 5 reveal an ambiguous effect. Without including region fixed effects, the relationship between this variable and the legacy of repression is statistically significant. However, when controlling for regional levels, the coefficients become insignificant. These results suggest the fear of becoming a victim of political intimidation or violence during election campaigns is not particularly affected by fact of living in a heavily traumatized district.

### Table 5. Ologit Estimates: Determinants of “Fear Political Violence” (b/SE)

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>Madagascar (1)</th>
<th>Madagascar (2)</th>
<th>Benin (3)</th>
<th>Benin (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affected locations</td>
<td>0.359**</td>
<td>0.533***</td>
<td>1.061***</td>
<td>1.566***</td>
</tr>
<tr>
<td></td>
<td>(0.156)</td>
<td>(0.177)</td>
<td>(0.364)</td>
<td>(0.261)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>0.230**</td>
<td>0.249</td>
<td>0.027</td>
<td>0.0157</td>
</tr>
<tr>
<td></td>
<td>(0.115)</td>
<td>(0.138)</td>
<td>(0.095)</td>
<td>(0.097)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.0001</td>
<td>0.001</td>
<td>0.0005</td>
<td>0.0009</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Urban/Rural (rural)</td>
<td>-0.162</td>
<td>-0.177</td>
<td>-0.204</td>
<td>-0.259**</td>
</tr>
<tr>
<td></td>
<td>(0.139)</td>
<td>(0.169)</td>
<td>(0.105)</td>
<td>(0.114)</td>
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<td>Education fixed effects?</td>
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<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Income fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Religion fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Ethnicity fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Region fixed effects?</td>
<td>No</td>
<td>YES</td>
<td>No</td>
<td>YES</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.030</td>
<td>0.054</td>
<td>0.029</td>
<td>0.043</td>
</tr>
<tr>
<td>Number of observations</td>
<td>1070</td>
<td>1070</td>
<td>1166</td>
<td>1166</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.
The last dimension of our index of freedom of political expression has to do with people’s perception of how likely it is that they can be punished by the government if they complain about services or misuse of funds. The results shown in Table 6 provide enough evidence to conclude that the repression of the Malagasy uprising has a long-term effect on this perception. Belonging to a heavily repressed location makes people more likely to think that people can be punished for making complaints. In contrast, the repression of Kaba’s, whose scope was much more limited, does not have any longer an impact on Benineses’ attitudes towards making complaints.

<table>
<thead>
<tr>
<th></th>
<th>0.338**</th>
<th>0.0977</th>
<th>0.752***</th>
<th>0.543</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0.167)</td>
<td>(0.162)</td>
<td>(0.277)</td>
<td>(0.389)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>0.148</td>
<td>0.144</td>
<td>0.196</td>
<td>0.209**</td>
</tr>
<tr>
<td></td>
<td>(0.095)</td>
<td>(0.108)</td>
<td>(0.105)</td>
<td>(0.104)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.003</td>
<td>-0.003</td>
<td>0.007</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.007)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Urban/Rural (rural)</td>
<td>-0.123</td>
<td>-0.134</td>
<td>0.126</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.278)</td>
<td>(0.139)</td>
<td>(0.149)</td>
<td>(0.142)</td>
</tr>
<tr>
<td>Education fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Income fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Religion fixed effects ?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Ethnicity fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Region fixed effects ?</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.018</td>
<td>0.025</td>
<td>0.028</td>
<td>0.039</td>
</tr>
<tr>
<td>Number of observations</td>
<td>1264</td>
<td>1264</td>
<td>1185</td>
<td>1185</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.
### Variables / Models

<table>
<thead>
<tr>
<th></th>
<th>Madagascar (1)</th>
<th>Madagascar (2)</th>
<th>Benin (3)</th>
<th>Benin (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affected locations</strong></td>
<td>0.621***</td>
<td>0.539***</td>
<td>0.232</td>
<td>-0.540</td>
</tr>
<tr>
<td></td>
<td>(0.162)</td>
<td>(0.181)</td>
<td>(0.330)</td>
<td>(0.509)</td>
</tr>
<tr>
<td><strong>Sex (female)</strong></td>
<td>-0.177</td>
<td>-0.153</td>
<td>0.0572</td>
<td>0.0568</td>
</tr>
<tr>
<td></td>
<td>(0.105)</td>
<td>(0.108)</td>
<td>(0.130)</td>
<td>(0.097)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>-0.0001</td>
<td>0.001</td>
<td>-0.006</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td>(0.006)</td>
</tr>
<tr>
<td><strong>Urban/Rural (rural)</strong></td>
<td>0.116</td>
<td>0.146</td>
<td>-0.023</td>
<td>-0.0528</td>
</tr>
<tr>
<td></td>
<td>(0.162)</td>
<td>(0.223)</td>
<td>(0.131)</td>
<td>(0.157)</td>
</tr>
<tr>
<td><strong>Education fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Income fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Religion fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Ethnicity fixed effects?</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Region fixed effects?</strong></td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Pseudo R²</strong></td>
<td>0.043</td>
<td>0.052</td>
<td>0.03</td>
<td>0.037</td>
</tr>
<tr>
<td><strong>Number of observations</strong></td>
<td>1044</td>
<td>1044</td>
<td>1165</td>
<td>1165</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.

### 4.3 Matching

In addition to the regression analysis described above, we implement a powerful method of matching to improve the estimation of causal effects. We use the Coarsened Exact Matching method (CEM) designed by King, Iacus and Porro. The basic idea is to coarsen each variable by recoding so that substantively indistinguishable values are grouped and assigned the same numerical value. Then the “exact matching” algorithm is applied to the coarsened data to determine the matches. Finally, the coarsened data are discarded and the original (uncoarsened) values of the matched data are retained.

---

This matching method will allow us to generate data sets of observations (individuals) with similar characteristics, with the exception that some of them will be exposed to our treatment variable (heavily affected locations), and the rest will not. In so doing, we will be able to know whether or not exposure to a legacy of violent political repression makes a difference. Due to the limited number of observations in Benin, we will focus our analysis exclusively on the case of Madagascar.

For the purposes of this article, we generate two data sets of matched observations. The first one aims to determine whether similar individuals who belong to the same ethnic group behave differently when exposed to the treatment variable. The second data set is meant to determine whether individuals from the same ethnic group, but also from the same province, behave differently depending on whether or not they live in one of the heavily affected districts of that province. Thus, through these matching techniques, we will disentangle the causal effect of the legacy of repression from the effects of ethnicity and region.

To maximize the number of matched strata and matched observations we used two techniques. First, we coarsened the variables of age and education. We set the coarsening for age using the following cutpoints: (15 29.30 49.50). For education the coarsening was set as follows: (no schooling 0-1) (primary school 2-3) (secondary or high school 4-6) (college > 7). Secondly, we decided to drop the following variables: urban/rural location, religion, and income7.

The results of the regression models using matched data are shown in Tables 7, 8 and 9. OLS estimates confirm that exposure to a legacy of political repression

7 These variables are not statistically significant. Therefore, their exclusion does not affect seriously the regression analysis.
negatively affects Malagasy’s freedom of political expression. As we can see in the
table below, the effect is statistically significant at the 1% level even when controlling
for both ethnicity and region (model 2).

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>-0.649***</td>
<td>-0.443***</td>
</tr>
<tr>
<td></td>
<td>(0.127)</td>
<td>(0.140)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>0.029</td>
<td>-0.107</td>
</tr>
<tr>
<td></td>
<td>(0.121)</td>
<td>(0.144)</td>
</tr>
<tr>
<td>Age</td>
<td>0.007</td>
<td>-0.006</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.025</td>
<td>-0.049</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.048)</td>
</tr>
<tr>
<td>Ethnicity level controls?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Region level controls?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>R²</td>
<td>0.113</td>
<td>0.143</td>
</tr>
<tr>
<td>Number of observations</td>
<td>556</td>
<td>338</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.

According to Table 8, our treatment variable negatively influences freedom of
speech and freedom of expression. As for our measure of freedom to vote, we observe a
negative, and statistically significant effect of political repression when controlling for
ethnicity (model 5). However, the effect becomes insignificant when region level
controls are incorporated (model 6).

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCA Index of freedom of political expression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex (female)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity level controls?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Region level controls?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>R²</td>
<td>0.113</td>
<td>0.143</td>
</tr>
<tr>
<td>Number of observations</td>
<td>556</td>
<td>338</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.
In this country, how free are you:

To say what you think To join any political organization you want To choose who to vote for without feeling pressured

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>-0.614***</td>
<td>-0.365**</td>
<td>-0.640***</td>
<td>-0.699***</td>
<td>-0.548***</td>
<td>-0.263</td>
</tr>
<tr>
<td></td>
<td>(0.175)</td>
<td>(0.181)</td>
<td>(0.166)</td>
<td>(0.207)</td>
<td>(0.165)</td>
<td>(0.200)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>-0.142</td>
<td>-0.236</td>
<td>-0.0375</td>
<td>-0.153</td>
<td>0.0238</td>
<td>0.067</td>
</tr>
<tr>
<td></td>
<td>(0.147)</td>
<td>(0.176)</td>
<td>(0.151)</td>
<td>(0.199)</td>
<td>(0.153)</td>
<td>(0.195)</td>
</tr>
<tr>
<td>Age</td>
<td>0.007</td>
<td>0.002</td>
<td>0.0102**</td>
<td>-0.005</td>
<td>0.003</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.006)</td>
<td>(0.005)</td>
<td>(0.007)</td>
<td>(0.005)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.101**</td>
<td>-0.133**</td>
<td>-0.028</td>
<td>-0.0231</td>
<td>0.098</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.061)</td>
<td>(0.047)</td>
<td>(0.068)</td>
<td>(0.051)</td>
<td>(0.070)</td>
</tr>
<tr>
<td>Ethnicity level controls?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Province level controls?</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.021</td>
<td>0.03</td>
<td>0.049</td>
<td>0.069</td>
<td>0.049</td>
<td>0.080</td>
</tr>
<tr>
<td>Number of observations</td>
<td>849</td>
<td>523</td>
<td>723</td>
<td>434</td>
<td>858</td>
<td>525</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.

Table 9 reveals that the legacy of repression positively affects people’s self-censorship in both models. The effect on peoples’ fear of political violence is significant when controlling for ethnicity, but not when including region level controls. Similarly, the impact on people’s perception of how likely to be punished for making complaints looses significance when introducing region fixed effects.
<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>0.446***</td>
<td>0.534***</td>
<td>0.505***</td>
<td>0.108</td>
<td>0.684***</td>
<td>0.637</td>
</tr>
<tr>
<td></td>
<td>(0.158)</td>
<td>(0.195)</td>
<td>(0.170)</td>
<td>(0.176)</td>
<td>(0.179)</td>
<td>(0.230)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>0.099</td>
<td>0.265</td>
<td>0.166</td>
<td>0.121</td>
<td>-0.020</td>
<td>-0.333</td>
</tr>
<tr>
<td></td>
<td>(0.139)</td>
<td>(0.180)</td>
<td>(0.145)</td>
<td>(0.170)</td>
<td>(0.136)</td>
<td>(0.242)</td>
</tr>
<tr>
<td>Age</td>
<td>0.002</td>
<td>-0.0003</td>
<td>-0.010</td>
<td>-0.005</td>
<td>0.0004</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.06)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.005)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Education</td>
<td>0.104**</td>
<td>-0.013</td>
<td>0.058</td>
<td>0.150**</td>
<td>-0.108</td>
<td>-0.103</td>
</tr>
<tr>
<td></td>
<td>(0.045)</td>
<td>(0.062)</td>
<td>(0.054)</td>
<td>(0.060)</td>
<td>(0.060)</td>
<td>(0.079)</td>
</tr>
<tr>
<td>Ethnicity level controls?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Province level controls?</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.018</td>
<td>0.038</td>
<td>0.017</td>
<td>0.033</td>
<td>0.045</td>
<td>0.037</td>
</tr>
<tr>
<td>Number of observations</td>
<td>762</td>
<td>472</td>
<td>872</td>
<td>537</td>
<td>734</td>
<td>469</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.

In brief, with the exception of a few variables, the regression analysis using matched data confirms that the repression of the Malagasy uprising has a long-term effect on people’s attitudes and behavior. Individuals from the same ethnic group, and even from the same province, tend to behave differently depending on whether or not they live in one of the most-affected districts.

### 4.4 Potential Consequences
We now briefly examine some of the potential consequences of lower freedom of political expression in Madagascar. Specifically, we examine whether freedom of political expression affects satisfaction with democracy, electoral participation, and social capital.

The independent variable of interest is the index of freedom of political expression we built using Principal Components Analysis. Our measure of satisfaction with democracy is based on respondents’ answers to the following question: *Overall, how satisfied are you with the way democracy works in Ghana?* Respondents can choose to answer: (i) very satisfied, (ii) fairly satisfied, (iii) not very satisfied, or (iv) not at all satisfied. Our measure of electoral participation is based on the quantification of respondents who declared to have voted in the most recent national election. As for social capital, we included self-reported frequency of joining others to raise an issue during the past year.

As shown in Table 10, there is a strong relationship between freedom of political expression and satisfaction with the way democracy works in Madagascar. Likewise, it seems that our index is a good predictor of both political participation and social capital. There is a positive, and statistically significant impact of freedom of political expression on “electoral participation” and “join others to raise an issue”.

Thus, lower freedom of political expression has negative, or more exactly non-desirable consequences on democratic performance. It is reasonable to assume that the lower the level of freedom of expression, the lower the levels of satisfaction with democracy, of electoral participation, and presumably of social capital.

| Table 10. Ologit estimates: effects of freedom of political expression on satisfaction |
WITH DEMOCRACY, ELECTORAL PARTICIPATION, AND “JOIN OTHERS TO RAISE AN ISSUE” (b/se)

<table>
<thead>
<tr>
<th>Variables / Models</th>
<th>Satisfaction with Democracy</th>
<th>Electoral Participation</th>
<th>Join Others to Raise an Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of Freedom of Political Expression</td>
<td>0.457***</td>
<td>0.183***</td>
<td>0.124**</td>
</tr>
<tr>
<td></td>
<td>(0.0653)</td>
<td>(0.0614)</td>
<td>(0.051)</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>-0.105</td>
<td>-0.415**</td>
<td>-0.405***</td>
</tr>
<tr>
<td></td>
<td>(.176)</td>
<td>(.170)</td>
<td>(.137)</td>
</tr>
<tr>
<td>Age</td>
<td>0.00802</td>
<td>0.0334***</td>
<td>0.0204***</td>
</tr>
<tr>
<td></td>
<td>(0.00669)</td>
<td>(0.00669)</td>
<td>(0.00493)</td>
</tr>
<tr>
<td>Urban/Rural (rural)</td>
<td>0.385</td>
<td>0.195</td>
<td>-0.319</td>
</tr>
<tr>
<td></td>
<td>(.200)</td>
<td>(0.202)</td>
<td>(.166)</td>
</tr>
<tr>
<td>Education fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Income fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Religion fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Ethnicity fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Region fixed effects?</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>R²</td>
<td>0.09</td>
<td>0.077</td>
<td>0.06</td>
</tr>
<tr>
<td>Number of observations</td>
<td>780</td>
<td>780</td>
<td>780</td>
</tr>
</tbody>
</table>

The unit of observations is an individual. *** indicates significance at the 1% level.

5. Conclusions

This paper provides empirical evidence suggesting that Malagasies’ political attitudes and behavior can be traced back to the legacy of violent political repression. In particular, we find that the repression of the Malagasy uprising in 1947-1948 has had a long-term effect on freedom of political expression. The regression analysis shows that this traumatic effect is strongly connected with the geography of the repression. Individual exposure to a heavily affected location has a negative, and statistically significant effect on freedom of speech, freedom of association, and freedom to vote. Correspondingly, exposure to a heavily affected location positively influences self-censorship, and fear of political hostility (intimidation, violence, and punishment).
At a broader level, our results suggest that the scope and/or the intensity of the repression matter. By contrasting the cases of Benin and Madagascar, our results suggest that both the geographic extension and the degree of violence play a crucial role in determining the long-term effects of the repression. From this perspective, our paper illuminates the understanding of the traumatic consequences of violent political repression. Further research on the topic is expected to refine the statistical analysis by including more cases, and more accurate measures of political repression.

References


