Algeria Survey Pre-registration

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Overview

We are presently conducting an online survey of political attitudes in Algeria. This survey was fielded quickly in response to growing political instability in the country. We are using a range of Facebook advertisements targeted at specific demographics to build a nationally-representative sample. We also have a subset of advertisements that are targeted specifically at the military and police officers to recruit a sub-sample from this demographic. At this stage, we have completed a pilot survey that proves that the research design is able to recruit a representative sample. We intend to continue collecting data for the next several weeks as the situation unfolds.

Our intention in this research is to understand how Algerians are responding to the dramatic political events and in particular to what extent their attitudes are becoming more democratic or more authoritarian. In addition, we want to understand their political behavior during a time when relatively costly political actions, such as turning up to a protest, are relatively commonplace. As such, we also intend to field a second wave of this survey that will follow up with respondents who gave us their cell phone numbers so we could provide them a cell phone credit in exchange for completing the survey. We can use this second wave to see whether respondents who reported a higher willingness to protest did in fact do so, and whether the effect of our treatments persisted over time.

There are multiple experiments that we are considering as part of this research and that we want to pre-register here. First, we conduct an endorsement experiment that sees which Algerian leaders Algerians tend to respond to more positively. Second, we conduct an experiment that examines whether Algerians are more prone to support the regime when primed with information about the amount and type of rents they receive from the regime.

We define each of these treatments in turn and provide hypotheses for each. We also add some hypotheses we want to test with our observational data. We conclude with some sample power analysis.

Endorsement Experiment

Our endorsement experiment randomizes who is attributed as having spoken one of the following five texts:

> "The people of Algeria are prepared for a democratic system."
>
> "In a Muslim-majority country, non-Muslims should enjoy equal political rights as Muslims."
>
> "A society like ours cannot maintain security if we are too concerned with human rights."
>
> "We should respect the elder politicians because they belong to moudjahidine."
>
> "If I had to choose, I would prefer a strong economy over a strong democracy."

We then randomly assign attribution of these treatments to one of the following Algerian leaders:

> Ahmed Gaid Salah: Chief of Staff of Algerian National Army
>
> Ali Benflis: Long-time Algerian politician and former prime minister
>
> Ali Belhadj: Founder of the Islamic Salvation Front
>
> Mustapha Bouchachi: Leader of Algerian Human Rights League and former MP

Following each statement, we ask the respondent to rate their support for the statement on a five-point Likert scale from Strongly Disagree to Strongly Agree.

In terms of these treatments, we want to test the following hypotheses:

> H1: Respondents with Islamic values are more likely to support Islamist statements from Islamist versus secular politicians.

We can test this hypothesis by comparing support for Ali Belhadj versus others for statements 2 and 4 that relate to Islamist sympathies. We expect more Islamist respondents to react negatively to secularist politicians making these statements as they will tend to see these statements as less credible coming from these leaders because they could be disingenuine attempts to use Islam to win support.

We can measure pro-Islamic sympathies by a pre-treatment question that asked how often a respondent prays per day. This question is widely used as a measure of religiosity in the Muslim world.

Second, we want to know if pro-democratic attitudes among respondents correlate with greater support for pro-democratic politicians and statements. Support for statement 1 can be interpreted as pro-democratic sentiment, while support for statements 3 and 5 can be interpreted as support for anti-democratic sentiment. We can examine the following hypothesis:

> H2: Respondents with pro-democratic values are more likely to support pro-democratic statements endorsed by more democratic leaders.

We can test this hypothesis by using pre-treatment covariates that look at a range of respondents' views on regime change and democracy. We use both a list experiment and direct questions to ascertain whether respondents would support regime change in favor of democratization. We also ask respondents whether they participated in recent protests, and whether they intend to participate in protests. As these protest movements are largely pro-democratic, we can interpret protest behavior as providing another good measure of support for democratization. Finally, to test this we can compare support for pro-democratic statements or opposition to anti-democratic statements for Mustapha Bouchachi, the HR activist, versus the other leaders in our experiment.

Finally, we are also interested in knowing overall rates of support for each of these leaders and each of these statements. We can ascertain this by using the method of Graeme, Imai and Lyall (2014) to construct a latent variable tht will provide estimates of support averaging across the measurement error of using several different indicators. These results will provide very credible estimates of support for these statements and leaders while averaging over measurement uncertainty.

Accountability Experiment

Our accountability experiment tests a core part of the rentier thesis argument that the availability of oil rents facilitates authoritarianism by dampening calls for accountability. If a country's citizens had to pay taxes to cover any transfers from the state, so the argument goes, then they would express higher demands for accountability. The setting of a country experiencing the throes of a regime's possible end is an excellent place to test these arguments as for a brief period Algeria's citizens are mobilized and able to affect the course of the regime.

We are interested in testing the following two hypothesis regarding accountablity:

> H3: A lighter tax burden relative to neighboring democratic countries will encourage pro-regime attitudes and actions among citizens in a dictatorship.

> H4: A higher level of gasoline subsidies relative to neighboring democratic countries will encourage pro-regime attitudes and actions among citizens in a dictatorship.

As Algeria receives a large share of its government revenue from hydrocarbons, Algerians have a very low price of gasoline (approximately $1.30 per gallon) and also a relatively low value-added tax burden relative to its democratic neighbor, Tunisia. We use Tunisia as an implied counterfactual by calculating the difference

in VAT coverage rates, gasoline prices and taxi prices between the two countries. We employ this method because we believe that for many Algerians the word democracy will conjure up the neighboring regime of Tunisia which transitioned to democracy relatively recently (2011).

To test the experiment, we first randomly assign the respondent to one of three conditions: control, tax treatment and gasoline treatment. Before the respondent answers the question, we ask them about their asset ownership across a range of categories, including houses, businesses, and cars.

We then ask respondents in the tax treatment to tell us how much they spent on products covered by the value-added tax (VAT) in the prior year in Algeria. If the respondent owns a car, we ask how much they spent on gasoline in the prior year. If the respondent does not own a car, we ask how much the respondent spent on taxis, a popular alternative form of transportation that is directly affected by the price of gas.

We then calculate a counterfactual quantity that represents how much that respondent would have spent if they had lived in Tunisia. For VAT rates, we use the difference in VAT coverage rates from a 2014 IMF study (https://www.imf.org/external/pubs/ft/sdn/2015/sdn1516.pdf). For gasoline prices we simply use publically available data for retail gasoline prices. For taxi rates we use crowd-sourcing websites that collect data from residents in these countries about how much they actually pay in taxi fares as it is difficult to compare the fare prices directly due to differing regulatory structures.

For the treated, we then show them one of the following prompts:

> Based on what you entered, you paid _____ DZD for gas last year. If you lived in Tunisia, a democracy, where gas receives fewer subsidies, you would probably have spent _____ DZD on gas.
>
> Based on what you entered, you paid _____ DZD for taxis last year. If you lived in Tunisia, a democracy, where gas receives fewer subsidies, you would probably have spent _____ DZD on taxis.
>
> Based on what you entered, you paid _____ DZD in VAT taxes last year. If you lived in Tunisia, a democracy, you would probably have spent _____ DZD in VAT taxes.

Those in the control condition do not receive a prompt.

We then first ask a battery of attitudinal questions about how the respondents perceive the government.

> How would you rate the government's performance in the following areas on a scale of 1 to 10:
>
> Providing employment for its citizens; Helping citizens obtain the necessities they need to live; Ending corruption among government officials; Reforming in response to citizens' concerns; Maintaining stability and order.

Next we ask a battery of questions about respondents' future behavior:

> On a scale of 1 being very unlikely and 10 most likely, are how likely are you to take the following actions in the next 3 months:
>
> Participate in a street protest; Visit to a government official to complain about government services; Move personal funds to a bank account overseas; Transfer funds from Algerian currency to other currencies.

We consider the street protest and complain to a government official as expressions of behavior holding the government accountable. The other two behaviors also reflect decreasing support or confidence in the government, except that it is expressed through moving capital to hard currencies or out of the country. This capital flight can also destabilize the authoritarian regime.

We calculate differences in average responses to these questions. We are interested in all of these outcomes and will report all of them. Our prior is that we expect the attitudinal differences to be greater than the behavioral differences. We will also test whether these effects endure in a follow-up survey we will do three months following this initial survey round.

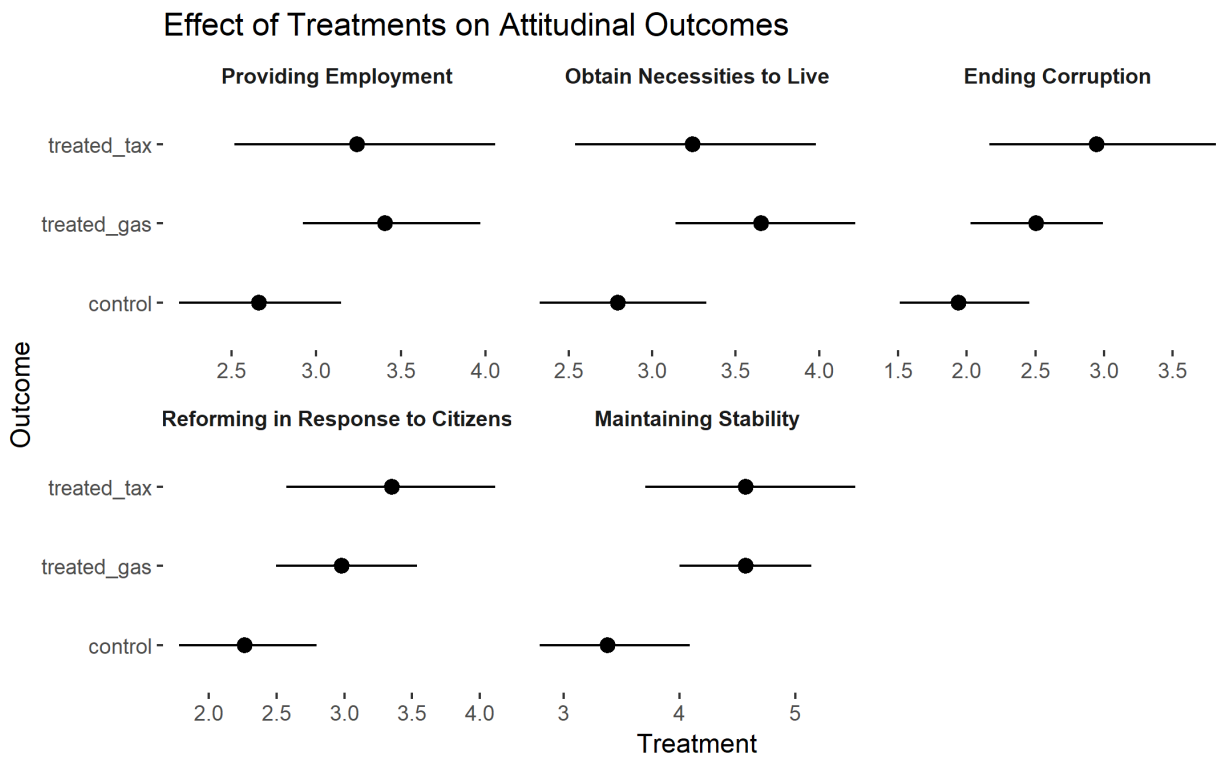

Figure 1:

We include here our initial pilot results for this experiment by treatment condition:

Protest Behavior

Protest is a costly action that is also very destabilizing to a regime if many people participate in it. Our survey asks respondents several questions about their opinion of protests and their willingness to protest. There are existing hypotheses in the literature that we want to test in addition to others.

First, Campante and Chor (2012) propose that there is an education-unemployment interaction in which people who are more educated and unemployed are those who are more likely to protest:

> H5: Respondents with higher education and who are unemployed are more likely to protest and report intentions to protest.

We can further test this hypothesis over time by fielding our survey again and testing for the effect specifically on those respondents who either lost or gained employment. This hypothesis test of course is potentially difficult to power as it depends on job turnover:

> H6: Respondents with higher education and who obtain (or lose) employment are more likely (less likely) to protest and are more likely (less likely) to follow through on intentions to protest.

We also want to see how events in the transition process affect willingness to protest. Doing so involves separating our sample into the actual date of data collection. We can consider pro-regime change events, such as President Bouteflika stepping down, versus anti-regime change events, such as a pro-regime insider gaining control over the transition process, as recently occurred.

> H7: Following pro-regime events, protesters with pro-democratic views are less likely to report intentions to protest.

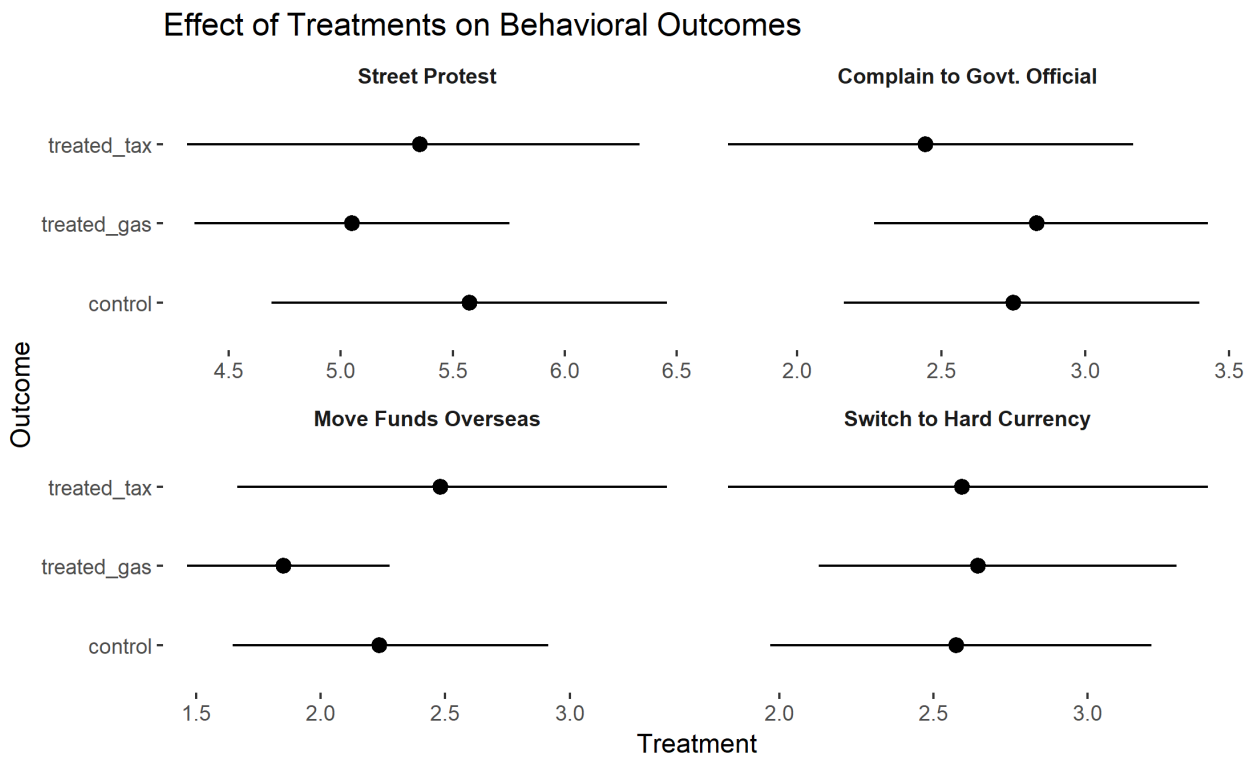

Figure 2:

We are ambivalent about whether this hypothesis will be true or false. It could be that pro-regime events dampen political enthusiasm for protests because they are no longer seen as effective. Alternatively, it could be that pro-regime events enrage protesters and cause higher levels of protests.

Finally, we want to test what results in people following through in their intentions. We surmise that the protesters whose goals are met, which we measure with a question in the survey, are those who are less likely to protest compared to protesters whose goals are unmet:

> H8: Protesters with unmet goals are more likely to actually protest if they report that they intend to protest.

Sample Calculations

We do a sample calculation for a multi-arm experiment with three treatment arms per our accountability experiment (taxes, gas, & taxi prices). We look at three sample sizes of 1000, 2000 and 5000 (the upper limit we may be able to collect). We assume that each treatment arm has a modest effect of .1, or ten percent of respondents increasing their behavior or attitudes on a binary scale. The power calculation is done using the `DeclarDesign` package where one outcome, Y_1, is the control outcome while outcomes Y_2 to Y_4 are treatment outcomes.

```
## [1] "Sample Size of 1000"
```

```
##
## Research design diagnosis based on 500 simulations. Diagnosand estimates with bootstrapped standard e
##
##  Design Label Estimand Label Estimator Label N Sims   Bias   RMSE  Power
##         n1000      ate_Y_2_1 DIM (Z_2 - Z_1)    500  -0.00   0.09   0.19
```

```
##                                                    (0.00) (0.00) (0.02)
##         n1000      ate_Y_3_1 DIM (Z_3 - Z_1)    500  -0.01   0.09   0.18
##                                                    (0.00) (0.00) (0.02)
##         n1000      ate_Y_3_2 DIM (Z_3 - Z_2)    500  -0.00   0.09   0.07
##                                                    (0.00) (0.00) (0.01)
##         n1000      ate_Y_4_1 DIM (Z_4 - Z_1)    500  -0.00   0.09   0.20
##                                                    (0.00) (0.00) (0.02)
##         n1000      ate_Y_4_2 DIM (Z_4 - Z_2)    500   0.00   0.09   0.05
##                                                    (0.00) (0.00) (0.01)
##         n1000      ate_Y_4_3 DIM (Z_4 - Z_3)    500   0.00   0.09   0.06
##                                                    (0.00) (0.00) (0.01)
##  Coverage Mean Estimate SD Estimate Mean Se Type S Rate Mean Estimand
##      0.94          0.10        0.09    0.09        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.95          0.09        0.09    0.09        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.93         -0.00        0.09    0.09        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.97          0.10        0.09    0.09        0.01          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.01)        (0.00)
##      0.95          0.00        0.09    0.09        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.94          0.00        0.09    0.09        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)

## [1] "Sample Size of 2000"

##
## Research design diagnosis based on 500 simulations. Diagnosand estimates with bootstrapped standard e
##
##  Design Label Estimand Label Estimator Label N Sims   Bias   RMSE  Power
##         n2000      ate_Y_2_1 DIM (Z_2 - Z_1)    500  -0.00   0.07   0.35
##                                                    (0.00) (0.00) (0.02)
##         n2000      ate_Y_3_1 DIM (Z_3 - Z_1)    500  -0.00   0.06   0.31
##                                                    (0.00) (0.00) (0.02)
##         n2000      ate_Y_3_2 DIM (Z_3 - Z_2)    500  -0.00   0.06   0.05
##                                                    (0.00) (0.00) (0.01)
##         n2000      ate_Y_4_1 DIM (Z_4 - Z_1)    500  -0.00   0.07   0.34
##                                                    (0.00) (0.00) (0.02)
##         n2000      ate_Y_4_2 DIM (Z_4 - Z_2)    500  -0.00   0.06   0.05
##                                                    (0.00) (0.00) (0.01)
##         n2000      ate_Y_4_3 DIM (Z_4 - Z_3)    500   0.00   0.06   0.05
##                                                    (0.00) (0.00) (0.01)
##  Coverage Mean Estimate SD Estimate Mean Se Type S Rate Mean Estimand
##      0.94          0.10        0.07    0.06        0.01          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.94          0.10        0.06    0.06        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.95         -0.00        0.06    0.06        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.94          0.10        0.07    0.06        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.95         -0.00        0.06    0.06        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.95          0.00        0.06    0.06        1.00          0.00
```

```
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
```

```
## [1] "Sample Size of 5000"
```

```
##
## Research design diagnosis based on 500 simulations. Diagnosand estimates with bootstrapped standard e
##
##  Design Label Estimand Label Estimator Label N Sims   Bias   RMSE  Power
##         n5000      ate_Y_2_1 DIM (Z_2 - Z_1)    500  -0.00   0.04   0.68
##                                                      (0.00) (0.00) (0.02)
##         n5000      ate_Y_3_1 DIM (Z_3 - Z_1)    500  -0.00   0.04   0.72
##                                                      (0.00) (0.00) (0.02)
##         n5000      ate_Y_3_2 DIM (Z_3 - Z_2)    500   0.00   0.04   0.04
##                                                      (0.00) (0.00) (0.01)
##         n5000      ate_Y_4_1 DIM (Z_4 - Z_1)    500  -0.00   0.04   0.67
##                                                      (0.00) (0.00) (0.02)
##         n5000      ate_Y_4_2 DIM (Z_4 - Z_2)    500  -0.00   0.04   0.04
##                                                      (0.00) (0.00) (0.01)
##         n5000      ate_Y_4_3 DIM (Z_4 - Z_3)    500  -0.00   0.04   0.03
##                                                      (0.00) (0.00) (0.01)
##  Coverage Mean Estimate SD Estimate Mean Se Type S Rate Mean Estimand
##      0.95          0.10        0.04    0.04        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.97          0.10        0.04    0.04        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.96          0.00        0.04    0.04        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.94          0.10        0.04    0.04        0.00          0.10
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.96         -0.00        0.04    0.04        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
##      0.97         -0.00        0.04    0.04        1.00          0.00
##    (0.01)        (0.00)      (0.00)  (0.00)      (0.00)        (0.00)
```

We can see that we can obtain acceptable power by the time we have a sample of 2000, and virtually perfect power when we reach a sample of 5000. For these reasons we intend to obtain a sample of at least 2000 for our main experimental results.