Supplementary Materials for:

Sharan Grewal, "Military Repression and Restraint in Algeria,"

American Political Science Review.

March 27, 2023

Contents

1	Appendix A: Survey Methodology	2
2	Appendix B: Validation of Survey Sample	5
3	Appendix C: Demographics of Survey Sample	7
4	Appendix D: Exploring Potential Biases	12
5	Appendix E: Robustness Checks	16
6	Appendix F: Ethics of Priming Experiment	19
7	Appendix G: Questionnaire	19

Survey approved through W&M PHSC-2019-03-11-13532 and Princeton IRB #11581.

1 Appendix A: Survey Methodology

The survey in Algeria was fielded on a rolling basis between April 1, 2019 and February 20, 2020. Respondents were recruited into the survey through two advertisements on Facebook. Both advertisements (Figure A.1) featured the same Arabic text: "Take this academic survey from Princeton University about Algerian politics."



Figure A.1: Facebook advertisment

The first advertisement (Figure A.1, left) featured a modified Algerian flag and was targeted only by country (Algeria), age (over 18) and language (Arabic or French), and hence had a potential reach of all 19 million adult Algerian Facebook users.¹ The second (Figure A.1, right) featured a picture of the Algerian military and was targeted also by interests.² Figure A.2 shows the targeting: I clicked every interest related to the military, including

¹See https://napoleoncat.com/stats/facebook-users-in-algeria/2019/04. Though my focus in this paper is on the military personnel, I should note that I also attempted to create a more representative civilian sample by following Zhang et al. (2020) and implementing age and gender quotas. I created multiple advertisements, each with the same ad but targeted to a specific age-gender group. I spent more on advertisement for groups under-represented on Facebook, such as women over 65, and less on over-represented ones, such as men aged 18-24. The amount spent affects how long each day the ad would be shown to the targeted demographic. These quotas succeeded in creating a more balanced civilian sample.

²Facebook classifies its users into having certain interests based on information they report in their Facebook profile (such as their employment history) as well as their activity on Facebook (such as liking certain Facebook pages). These algorithm-determined interests have been shown to be fairly accurate for most users. A representative survey in the US conducted by the Pew Research Center found that 59% said their Facebook-assigned interests 'somewhat' or 'very accurately' represented them, while only 27% said they were 'not very' or 'not at all' accurate. The remaining 14% either refused to answer or were not assigned interests by Facebook due to lack of activity. See Hitlin and Rainie (2019).

"soldier," "colonel," "army," etc. as well as users that explicitly listed their workplace as "military" or their job title as "corporal," "sergeant," and so on. This targeting thus limited the advertisement to just the 1.8 million Algerian users that Facebook thinks are interested in or working in the military.

Locations Location - Living In: • Algeria 18 - 65+	Audience Definition Specific Broad Protectial Respired 1 200 000 accels 2		
Gender All genders			
Detailed Targeting People Who Match: • Interests: Soldier, Colonel, Sergeant, Military history, Army, Company (military unit), Military tactics, Corporal or Military branch Job title: Corporal, Sergeant first class, First sergeant or Lieutenant colonel • Industry: Military (Global)	Estimated Daily Results Based on 7-day click and 1-day view conversion window Reach ❶ 5.2K - 15K		
Detailed Targeting Expansion: • Off	Conversions 6 < 10		
Languages			
Arabic, French (Canada) or French (France)	The accuracy of estimates is based on factors like past		

Figure A.2: Targeting of Military Advertisement

Clicking on the advertisement took users out of Facebook and into Qualtrics, a survey platform. Since the survey was conducted on Qualtrics, not Facebook, Facebook did not learn users' answers to the survey or even if they took the survey at all. Once in Qualtrics, respondents could choose to take the survey in Arabic, French, or English. Over 93% chose to take the survey in Arabic, with the remainder in French. In the interests of transparency, a banner featuring the Princeton University Qualtrics logo headed every page.

Figure A.3: First page of Qualtrics survey



On the first page, respondents answered three eligibility questions (age over 18, Algerian

nationality, and currently living in Algeria). I later verified that they were living in Algeria using the geolocation of IP addresses; I exclude any survey completed outside of Algeria. Figure A.4 shows the approximate locations of the self-reported military personnel (note that 91% of Algerians live on the coast).



Figure A.4: Location of Miltary Respondents

After answering the eligibility questions, eligible users then proceeded to the consent form, which described the risks and benefits of the survey. If they clicked agree, they could proceed to the survey itself, knowing they could terminate the survey at any time. The survey itself featured nearly 100 questions, including demographics, attitudes toward the protests, toward democracy and political developments post-Bouteflika, and toward the military's role in politics. The questionnaire featured randomization in question and answer order.

To incentivize Algerians to complete the entire survey, I offered cell phone credit as a reward for completion. In the consent form, respondents were informed that if they completed the survey, they would receive 100DZD (<\$1) of mobile phone credit. At the end of the survey, respondents who wished to claim their reward were taken to a separate platform, a Google form, where they could enter their phone number separate from their survey answers. I subsequently sent credit remotely using the Swiss company CY.SEND, which partners with the three largest mobile phone companies in Algeria: Mobilis, Djezzy, and Ooredoo. In total, only one-third of survey takers chose to enter their phone numbers and receive credit.

2 Appendix B: Validation of Survey Sample

In total, 18,744 Algerians clicked on the advertisement and completed the survey. Of these, the vast majority -79% – reported in the survey that they were civilians. The remaining 21% said they had military experience, either being active-duty (8.5%) or former military personnel (12.7%). As expected, the targeted advertisement featured a higher proportion reporting as military personnel (31.4 v. 17.7%), suggesting that the Facebook targeting may have worked (see Table A.1). In absolute terms, however, the general ad, displayed to a much larger population, recruited far more respondents, including more military personnel.

Demographic	Civilian Ad	Military Ad	Total
Total Surveyed	13847	4897	18744
Total Civilian	11394	3357	14751
Total Military	2453	1540	3993
Active-Duty	940	665	1605
Former	1508	875	2383
[Filtered] Total Military	1356	879	2235
[Filtered] Active-Duty	424	324	748
[Filtered] Former	929	555	1484

Table A.1: Survey of Algerians (April 1, 2019-February 21, 2020)

In this paper, I limit the analysis to the self-reported military personnel.³ I have no reason to believe that respondents may have lied about their military status, as the survey did not create any structural incentive to lie. All respondents, civilian or military, were eligible to receive phone credit for completing the survey, and they were told in the consent form that they would receive it regardless of their answers. Moreover, pretending to be in the military is likely a punishable offense, deterring people from trying. Finally, lying is typically lower in self-administered online surveys, due to lower social desirability bias (no enumerator to feel pressured by) and the enhanced feeling of privacy being at your own computer (Huang, 2006; Kays, Gathercoal and Buhrow, 2012; Dropp, 2015).

³We examine the civilians in other papers; see, for instance, Grewal, Kilavuz and Kubinec (2019).

Still, there are three potential groups who might have had incentives to pretend to be in the military. First, perhaps parts of the regime, such as the police or *mukhabarat*, may have wanted to make it seem like the military is loyal. Yet, the majority of the military respondents in the survey said they *support* the protests, and do not want to repress them. It thus does not appear that the regime attempted to influence the results (nor even that they knew about the survey). A second possibility is that the protesters may have tried to sway the results. But this is also unlikely, given the survey was in Qualtrics, not something public like a Twitter poll that people would immediately see the results of. There is thus little for protesters to gain from the survey by way of propaganda. A final, and most plausible, group that may have pretended to have military experience were men who had evaded conscription, but now are claiming to have served.

To deal with these potential concerns, I leverage a number of tests and filters to further validate the military sample. First, I asked a military knowledge question: "Which rank is higher, sergeant or corporal?" This question was randomly shown to some self-reported military and civilian respondents. Over 72% of the self-reported military answered correctly (sergeant), compared to only 37% of civilians, a statistically significant difference (p=0.02).⁴ That difference suggests that respondents may have honestly reported their military status. I then remove all military respondents who answered incorrectly or said don't know.

Second, I filter for inconsistencies among the military sample. I remove respondents who 1) were too young for the rank they claimed to be,⁵ 2) claimed to be conscripted but also an officer, 3) said they were active-duty but unemployed, 4) claimed to have been commissioned as an officer without a college degree, and 5) said they were a general. I also remove the 716 respondents who did not provide their rank at all and for whom I cannot apply these filters. Overall, these filters leave 2235 military personnel.

⁴Notably, the self-reported military personnel were also slightly quicker than the civilians in answering this question (11.4 to 12.8 seconds), suggesting they were not simply more likely to google the answer (which would have added time).

⁵In particular, I removed 18-19 year olds claiming to be First Lieutenants or higher; 20-24 year olds claiming Captain or higher, and 24-29 year olds claiming Major or higher.

I also perform checks to verify that respondents were taking the survey seriously. First, I examine respondents' time to completion, to see that they were not zipping through the survey to receive phone credit. The median time to completion was 24 minutes (see figure A.5, left), with less than 1% completing the survey under 10 minutes.



Figure A.5: Verification Checks: (a) Time to Completion and (b) Duplicates

Second, following Kuriakose and Robbins (2016), I test for duplicate and near-duplicate surveys.⁶ There were no perfect duplicates, and less than 1% of the surveys were even 85% the same (figure A.5, right).⁷

3 Appendix C: Demographics of Survey Sample

Table A.2 compares the 2235 military respondents to the actual Algerian military on the one publicly-available statistic: branch.⁸ The survey sample largely mirrors the actual military, with the vast majority in the land army/military intelligence, or the paramilitary forces (gendarmerie and republican guard).

Of the 2235 military respondents, the vast majority were soldiers (30%) and non-commissioned officers (48%), with smaller numbers of junior officers (18%) and senior officers (3%, including Majors, Lt. Colonels, and Colonels). The sample thus appears to under-represent soldiers, who as the poorest rank likely have the least access to the internet, and thus could not take

⁶Note also that Qualtrics already prevents the same IP address from taking the survey twice.

⁷R code to detect duplicates obtained here.

⁸From the CIA World Factbook. 110,000 army, 6,000 navy, 14,000 air force, and 40,000 gendarmerie.

	Survey Sample (N=2235)	Algerian Military (N=170,000)
Army + Mil. Intelligence	65	65
Navy	4	4
Air + Air Defense Force	11	8
Gendarmerie + Rep. Guard	20	24

Table A.2: Military Sample v. Population (%)

the survey. I discuss this bias in the text (p. 28), noting that the poorest conscripts who the survey could not reach were likely even more supportive of restraint. The large number of NCOs tracks with reality, as there are more NCOs than officers in the Algerian military.⁹

Table A.3 presents full demographic data on the survey sample, split up by rank. Although corresponding data for the actual Algerian military are not publicly available, the demographics are internally consistent. As shown in Figure A.6, the higher ranks are considerably older, wealthier, better educated, and more likely to have received foreign training. About 26% of junior officers and 51% of senior officers have graduate degrees, compared to just 4% of soldiers and 8% of NCOs. About 26% of junior officers and 60% of senior officers have monthly incomes over 100,000 Algerian dinars, compared to just 14% of soldiers and 15% of NCOs. Finally, 77% of senior officers received foreign training, compared to only 36% for junior officers and 20% for soldiers and NCOs.

Other demographics also track with observers' expectations. Women make up just 4% of the sample overall but 9% of the senior officers, in line with the recent push to promote female officers between 2009-2015 (Ghanem, 2015). Officers are also considerably more likely to be active-duty than soldiers and NCOs, who tend to leave the service earlier. Officers and especially senior officers are more likely to staff the historically important Department of Intelligence and Security (DRS; now DSS). Finally, senior officers, having been in service the longest, were far more likely to have fought in the 1990s civil war. Overall, these demographic data help to validate the sample as potentially consistent with the actual military.

⁹Interview with an Algerian analyst and close observer of the military, January 20, 2023.

Demographic	Total	Soldier	NCO	Jun. Officer	Sen. Officer
	(N=2235)	(N=680)	(N=1073)	(N=412)	(N=70)
Branch*					
Army	56	58	57	52	26
Navy	4	3	4	5	4
Air Force	5	4	6	6	7
Air Defense Force	6	5	6	6	11
Intelligence (DRS/DSS)	7	4	5	13	34
Gendarmerie	17	18	17	15	17
Republican Guard	10	10	11	7	11
Active-Duty	33	30	30	48	46
Age (among active)					
18-24	22	31	18	24	0
25-29	20	17	21	26	0
30-34	24	25	20	27	31
35-44	22	18	23	18	56
45 +	12	8	17	6	13
Female	4	5	3	6	9
Location					
Rural	19	23	19	14	6
Suburban	16	17	17	13	10
Urban	65	60	64	74	84
Governorate					
Algiers	11	11	9	13	26
Oran	3	3	2	3	6
Education					
Less than H.S.	17	42	8	0	0
High School	42	41	57	10	0
B.A.	30	13	27	63	49
M.A.+	11	4	8	26	51
Monthly income					
< DA 20k	16	25	14	9	1
DA 20-40k	27	33	27	18	12
DA 40-100k	30	28	44	48	27
> DA 100k	18	14	15	26	60
Fought in 90s	20	15	23	14	45

Table A.3: Demographics by Rank (%)

Note: * = check all that apply (can be army but seconded to Intelligence or Gendarmerie, etc.)



Figure A.6: Demographics by Rank

The political attitudes of the sample also vary by rank in expected ways (see Figure A.7). The senior officers, profiting most from the regime, were far less likely to say the economy is very bad or that corruption is very high, and in turn, were less likely to support the *Hirak* protests or say they should continue. The senior officers were likewise less supportive of each of the *Hirak*'s slogans, of changing the political system, and of ousting interim leaders. Finally, the senior officers appear to have undergone the least political learning, most supportive of the 1992 coup and of preventing Islamists from ruling. These results likewise validate the survey sample and their self-reported ranks.



Figure A.7: Political Attitudes by Rank

4 Appendix D: Exploring Potential Biases

Although the data are internally consistent, they are unlikely to be representative of the Algerian military. First, soldiers without internet access would have no means of seeing the advertisements or taking the survey. One barrier to internet access is income, and thus the sample likely under-represents the poorest soldiers who cannot afford a smartphone or computer.¹⁰ In turn, the sample likely also under-represents the lesser educated. A second barrier to internet access is age, with older military personnel generally less tech-savvy. In short, the survey sample likely skews younger, wealthier, and better educated than the overall Algerian military.

However, these demographic biases would only alter the results if the older, poorer, and lesser educated soldiers are also less likely to be affected by the various hypotheses (protester violence, fraternization, etc.). To explore whether this is the case, Table A.4 interacts every hypothesis with age (model 1), education (model 2), and income (model 3). Only 1 of the 18 interactions is significant, suggesting that a more representative sample on these demographics would not have changed the overall results much. The one interaction that reaches significance is that the effect of nonviolence increases at higher levels of education. Given that our sample over-represents the educated, it is possible therefore that the effect of nonviolence would be weaker among a more representative sample. Overall, however, these tests suggest that protester tactics, international reactions, and political learning should all still matter even on a more representative sample. In her study, Bhutta (2012, p. 58) similarly finds that although her Facebook sample was not demographically representative, "their responses preserved many of the statistical relationships obtained by traditional means."

Moreover, three of the five hypotheses are tested through a survey experiment. Generally, survey experiments produce similar results whether conducted on online, convenience samples or representative ones. In an MTurk replication of 27 experiments, Coppock, Leeper

¹⁰While the survey under-represents the poor, it may over-represent the lower middle class, given that the mobile phone credit might incentivize them more than the upper classes. This in turn might explain why the survey sample has more NCOs (lower middle class) than soldiers (the poor).

and Mullinix (2018) found "very high correspondence," with 0 of the 393 analyses showing an effect in the opposite direction.

A final bias inherent in the survey sample might be privacy. In a highly securitized environment like the military, individuals may have heightened concerns about privacy, which in turn might shape how they answer the survey questions and whether they take the survey at all. Theoretically, however, there is little reason to expect that people who are more concerned about privacy would care any less about violence, or about threats to their interests, and so on, and therefore alter the overall results. There is also one empirical way we might be able to test for this concern. If these privacy biases shaped the results, then we should see a difference between the active-duty personnel, for whom privacy concerns should be highly salient, and former personnel, for whom such concerns may have dissipated. To explore this potential bias, Table A.4, model 4 thus interacts each hypothesis with whether respondents are active-duty. Only one interaction reaches significant: the fraternization prime is weaker among the active-duty. However, this may simply reflect that the former personnel, now back in civilian life, are more convinced that the army and people are indeed brothers.

In short, although the sample is not representative of the Algerian military, there are few theoretical or empirical grounds to think that results would be different among a more representative sample. After all, the results largely accord with theoretical expectations, and with secondary sources and media interviews of the Algerian military. That corroboration suggests that the survey may indeed be capturing the views of the Algerian military.

	DV: Military Restraint (0-1)			
	(1)	(2)	(3)	(4)
Nonviolent Prime-Fraternization Prime-Civilian Control Prime-Russian Support Prime-United Nations Oppose 1992 Coup	$\begin{array}{c} 0.185^{*} \; (0.112) \\ -0.120 \; (0.111) \\ -0.071 \; (0.116) \\ -0.232^{*} \; (0.123) \\ -0.119 \; (0.114) \\ 0.106 \; (0.078) \end{array}$	$\begin{array}{c} -0.107 \; (0.118) \\ -0.058 \; (0.137) \\ -0.105 \; (0.133) \\ -0.206 \; (0.136) \\ -0.090 \; (0.129) \\ 0.029 \; (0.090) \end{array}$	$\begin{array}{c} 0.063 \ (0.054) \\ 0.001 \ (0.059) \\ -0.055 \ (0.059) \\ -0.028 \ (0.062) \\ 0.016 \ (0.059) \\ -0.003 \ (0.038) \end{array}$	$\begin{array}{c} 0.106^{***} \ (0.033) \\ 0.025 \ (0.041) \\ -0.046 \ (0.041) \\ -0.059 \ (0.044) \\ -0.022 \ (0.041) \\ 0.036 \ (0.025) \end{array}$
Age Nonviolent*Age Prime-Fraternization*Age Prime-Civilian Control*Age Prime-Russian Support*Age Prime-United Nations*Age Oppose 1992 Coup*Age	$\begin{array}{c} -0.015 \ (0.020) \\ 0.018 \ (0.020) \\ -0.00003 \ (0.021) \\ 0.032 \ (0.023) \\ 0.019 \ (0.021) \\ -0.012 \ (0.014) \end{array}$			
Education Nonviolent*Education Prime-Fraternization*Education Prime-Civilian Control*Education Prime-Russian Support*Education Prime-United Nations*Education Oppose 1992 Coup*Education		$\begin{array}{c} 0.047^{*} \ (0.026) \\ 0.008 \ (0.030) \\ 0.007 \ (0.029) \\ 0.032 \ (0.029) \\ 0.017 \ (0.028) \\ 0.003 \ (0.020) \end{array}$		
<u>Income</u> Nonviolent*Income Prime-Fraternization*Income Prime-Civilian Control*Income Prime-Russian Support*Income Prime-United Nations*Income Oppose 1992 Coup*Income			$\begin{array}{c} 0.010 \ (0.013) \\ -0.007 \ (0.013) \\ -0.006 \ (0.013) \\ -0.010 \ (0.014) \\ -0.011 \ (0.013) \\ 0.012 \ (0.009) \end{array}$	
Active-Duty Nonviolent*Active-Duty Prime-Fraternization*Active-Duty Prime-Civilian Control*Active-Duty Prime-Russian Support*Active-Duty Prime-United Nations*Active-Duty Oppose 1992 Coup*Active-Duty				$\begin{array}{c} -0.029 \; (0.059) \\ -0.139^{**} \; (0.061) \\ -0.081 \; (0.062) \\ -0.019 \; (0.064) \\ 0.014 \; (0.061) \\ 0.020 \; (0.042) \end{array}$
<u>Covariates</u> Fought in the 1990s Islamist Support Sharia Active-Duty Conscript Soldier Junior Officer Senior Officer	$\begin{array}{c} 0.009 \; (0.026) \\ 0.019 \; (0.030) \\ 0.158^{***} \; (0.036) \\ -0.002 \; (0.024) \\ -0.017 \; (0.023) \\ 0.015 \; (0.024) \\ 0.034 \; (0.030) \\ 0.106^{*} \; (0.062) \end{array}$	$\begin{array}{c} 0.009 \ (0.026) \\ 0.017 \ (0.030) \\ 0.154^{***} \ (0.036) \\ -0.004 \ (0.024) \\ -0.016 \ (0.023) \\ 0.013 \ (0.024) \\ 0.029 \ (0.030) \\ 0.110^{*} \ (0.061) \end{array}$	$\begin{array}{c} 0.012 \ (0.026) \\ 0.019 \ (0.030) \\ 0.158^{***} \ (0.037) \\ -0.005 \ (0.024) \\ -0.011 \ (0.023) \\ 0.010 \ (0.024) \\ 0.035 \ (0.031) \\ 0.100 \ (0.063) \end{array}$	$\begin{array}{c} 0.012 \ (0.026) \\ 0.018 \ (0.030) \\ 0.159^{***} \ (0.036) \\ 0.049 \ (0.062) \\ -0.018 \ (0.023) \\ 0.012 \ (0.024) \\ 0.031 \ (0.030) \\ 0.116^* \ (0.061) \end{array}$

Table A.4: Hypotheses interacted by various demographics

(Continued on next page)

Army/Gendarmerie	$0.021 \ (0.028)$	0.019(0.028)	$0.016 \ (0.028)$	$0.014 \ (0.028)$
Trained in the West	-0.097^{*} (0.058)	-0.091 (0.058)	-0.092 (0.058)	-0.101^{*} (0.058)
Trained in Russia	-0.018(0.034)	-0.019(0.034)	-0.023(0.034)	-0.021(0.034)
Trained in China	0.030(0.105)	$0.025 \ (0.105)$	0.036(0.105)	$0.031 \ (0.105)$
Age	0.154^{***} (0.047)	0.131^{***} (0.042)	0.134^{***} (0.042)	0.129^{***} (0.042)
Female	$0.028 \ (0.054)$	$0.016 \ (0.054)$	0.019(0.054)	$0.023 \ (0.054)$
Education	-0.014(0.012)	-0.064^{**} (0.028)	-0.015 (0.012)	-0.014(0.012)
Urban	$0.005 \ (0.022)$	$0.007 \ (0.022)$	$0.002 \ (0.022)$	$0.004 \ (0.022)$
Employed	0.063^{**} (0.025)	0.060^{**} (0.024)	0.066^{***} (0.025)	0.062^{**} (0.024)
Student	-0.015(0.046)	-0.016(0.046)	$-0.010 \ (0.046)$	-0.011(0.045)
Arab	0.096^{***} (0.029)	0.096^{***} (0.029)	0.092^{***} (0.029)	0.094^{***} (0.029)
Economy Good	-0.037(0.049)	-0.042 (0.048)	-0.038 (0.049)	-0.039(0.048)
Corruption High	$-0.001 \ (0.048)$	$0.002 \ (0.048)$	$0.001 \ (0.048)$	$0.005\ (0.048)$
Support Democracy	0.127^{***} (0.036)	0.124^{***} (0.036)	0.129^{***} (0.036)	0.127^{***} (0.036)
Support Opposition Parties	$-0.055 \ (0.035)$	-0.053 (0.034)	$-0.056\ (0.035)$	$-0.052 \ (0.034)$
Want Hirak to continue	-0.032 (0.022)	-0.032 (0.022)	-0.034 (0.022)	-0.032 (0.022)
Protested	0.092^{***} (0.022)	0.090^{***} (0.022)	0.094^{***} (0.023)	0.089^{***} (0.022)
Pre-Bouteflika Ouster	-0.035 (0.050)	-0.039 (0.050)	-0.044 (0.051)	-0.031 (0.050)
Post-Experiment	$-0.006 \ (0.053)$	$-0.012 \ (0.053)$	-0.013 (0.053)	$-0.016 \ (0.053)$
Month	-0.018^{**} (0.007)	-0.017^{**} (0.007)	-0.017^{**} (0.007)	-0.016^{**} (0.007)
Governorate FE	\checkmark	\checkmark	\checkmark	\checkmark
Constant	$0.245 \ (0.165)$	0.571^{***} (0.164)	0.377^{***} (0.125)	0.319^{***} (0.117)
Observations	1,969	1,969	$1,\!947$	1,969
\mathbb{R}^2	0.112	0.112	0.112	0.114
Adjusted R ²	0.070	0.071	0.070	0.072

Note: **p*<0.1; ***p*<0.05; ****p*<0.01

5 Appendix E: Robustness Checks

Table A.5 shows results are robust to subsetting rather than interacting each hypothesis.

	DV: Military Restraint (0-1)
Hypotheses	
Nonviolent - Senior Officers	0.359^{**} (0.143)
Nonviolent - Rest of Military	$0.087^{***}(0.028)$
Prime-Fraternization - Conscripts	0.093^{*} (0.053)
Prime-Fraternization - Rest of Military	$-0.075^{*}(0.040)$
Prime-Civilian Control - Soldiers	0.008(0.054)
Prime-Civilian Control - Rest of Military	-0.109^{***} (0.040)
Prime-Russian Support	-0.066^{*} (0.037)
Prime-United Nations	-0.018(0.035)
Oppose 1992 coup - Old	0.044^{**} (0.022)
Oppose 1992 coup - Young	$0.007 \; (0.060)^{'}$
Covariates	
Fought in the 1990s	0.011 (0.026)
Islamist	0.018(0.030)
Support Sharia	0.162^{***} (0.036)
Active-Duty	-0.0002(0.024)
Conscript	$-0.042^{*}(0.025)$
Soldier	-0.006(0.026)
Junior Officer	0.030(0.030)
Senior Officer	-0.117(0.137)
Army/Gendarmerie	0.018(0.027)
Trained in the West	-0.093(0.058)
Trained in Russia	-0.024(0.034)
Trained in China	0.044(0.105)
Born after 1995	0.145^{***} (0.049)
Female	0.020(0.054)
Education	-0.013(0.012)
Urban	0.009(0.021)
Employed	$0.063^{**}(0.024)$
Student	-0.010(0.045)
Arab	$0.093^{***}(0.029)$
Economy Good	-0.042(0.048)
Corruption High	0.013(0.048)
Support Democracy	0.129^{***} (0.036)
Support Opposition Parties	-0.054(0.034)
Want Hirak to continue	$-0.037^{*}(0.022)$
Protested	0.091^{***} (0.022)
Pre-Bouteflika Ouster	-0.039(0.049)
Post-Experiment	-0.017(0.053)
Month	$-0.017^{**}(0.007)$
Governorate FE	\checkmark
Constant	0.340^{***} (0.116)
Observations	1,969
\mathbb{R}^2	0.118
Adjusted R^2	0.078

Table A.5: Subsetting rather than interacting each hypothesis

Note: p < 0.1; p < 0.05; p < 0.01

Table A.6 shows that results are robust to using the full answer scale for the dependent variable (model 1) and for the two observational, independent variables (nonviolence and opposition to the 1992 coup, model 2).

	Dependent variable:		
	Restraint (5-point)	Restraint (Dichotomous)	
	(1)	(2)	
Protester Tactics			
Nonviolent (Dichotomous)	0.331^{***} (0.074)		
Nonviolent (Dichotomous)*Senior Officer	0.835^{**} (0.380)		
Nonviolent (4-point)	0.000 (0.000)	0.214^{***} (0.079)	
Nonviolent (4-point)*Senior Officer		0.883^{**} (0.436)	
Prime-Fraternization	-0.184^{*} (0.103)	-0.075^{*} (0.040)	
Prime-Fraternization*Conscript	0.437^{***} (0.149)	0.169^{***} (0.057)	
Prime-Civilian Control	-0.283^{***} (0.105)	-0.110^{***} (0.040)	
Prime-Civilian Control*Soldier	0.336^{**} (0.152)	0.120^{**} (0.058)	
International Reactions			
Prime-Russian Support	-0.171^{*} (0.096)	-0.067^{*} (0.037)	
Prime-United Nations	-0.028 (0.092)	-0.018 (0.035)	
Delitical Learning			
Oppose 1002 coup (Dichotomous)	-0.008(0.057)		
Oppose 1992 coup (Dichotomous)	-0.008(0.037)		
Oppose 1992 coup (Dichotomous) Born after 1995	-0.125(0.165)		
Oppose 1992 coup (5-point) $(5-point)$		$0.067^{\circ}(0.040)$	
Oppose 1992 coup (5-point)*Born after 1995		-0.058(0.113)	
Covariates			
Fought in the 1990s	0.031(0.067)	0.013(0.025)	
Islamist	-0.008(0.078)	0.017(0.030)	
Support Sharia	0.449^{***} (0.095)	0.159^{***} (0.037)	
Active-Duty	-0.016(0.062)	-0.001 (0.024)	
Conscript	-0.169^{***} (0.064)	-0.042^{*} (0.021)	
Soldier	-0.010(0.068)	-0.007(0.026)	
Junior Officer	0.010(0.000)	0.032(0.030)	
Senior Officer	-0.460(0.357)	-0.724*(0.417)	
Army/Condermonie	-0.400(0.337)	-0.124 (0.417)	
Trained in the West	0.030 (0.072) 0.224** (0.151)	0.018(0.028)	
Trained in the west	-0.324 (0.131)	-0.090(0.038)	
Trained in Russia	-0.072(0.088)	-0.024(0.034)	
Trained in China	0.235(0.274)	0.056(0.105)	
Born after 1995	0.303^{++} (0.128)	0.167^{**} (0.083)	
Female	0.049(0.140)	0.020(0.054)	
Education	-0.043(0.031)	-0.013(0.012)	
Urban	0.014 (0.056)	0.009(0.022)	
Employed	0.169^{***} (0.064)	0.063^{**} (0.024)	
Student	0.042(0.119)	-0.010(0.045)	
Arab	0.247^{***} (0.075)	0.092^{***} (0.029)	
Economy Good	-0.045 (0.126)	-0.042 (0.048)	
Corruption High	-0.058 (0.125)	$0.016\ (0.048)$	
Support Democracy	0.245^{***} (0.093)	0.130^{***} (0.036)	
Support Opposition Parties	-0.184^{**} (0.090)	-0.054 (0.034)	
Want Hirak to continue	-0.130^{**} (0.058)	-0.036 (0.022)	
Protested	0.165^{***} (0.058)	0.093^{***} (0.022)	
Pre-Bouteflika Ouster	-0.034 (0.129)	-0.040 (0.049)	
Post-Experiment	-0.099(0.137)	-0.018(0.053)	
Month	$-0.045^{**}(0.018)$	-0.016^{**} (0.007)	
Governorate FE	\checkmark	\checkmark	
Constant	3.330^{***} (0.302)	0.189(0.133)	
Observations	1,969	1,969	
\mathbb{R}^2	0.120	0.116	
Adjusted R ²	0.079	0.076	

Table A.6: Using the full answer scale for dependent and independent variables

Note: p < 0.1; p < 0.05; p < 0.01

Table A.7 shows that the interaction between the fraternization prime and conscription is robust to two alternative dependent variables.

Table A.7: Alternative dependent variables for testing the effect of fraternization (OLS)

	Dependent variable:		
	Soldiers won't shoot, brothers	Officers will, Soldiers won't	
	(1)	(2)	
Hypotheses			
Nonviolent	0.450^{**} (0.187)	0.627^{***} (0.236)	
Nonviolent*Senior Officer	$1.812^{*}(1.027)$	-0.409(1.298)	
Prime-Fraternization	-0.044(0.093)	$-0.202^{*}(0.118)$	
Prime-Fraternization*Conscript	0.395^{***} (0.135)	0.440^{***} (0.170)	
Prime-Civilian Control	-0.026(0.094)	0.028(0.119)	
Prime-Civilian Control*Soldier	0.077(0.138)	-0.050(0.174)	
Prime-Russian Support	-0.070(0.086)	0.004(0.109)	
Prime-United Nations	0.080(0.083)	0.053 (0.105)	
Oppose 1992 coup	0.019(0.093)	0.132(0.118)	
Oppose 1992 coup*Born after 1995	0.015(0.266)	-0.604^{*} (0.336)	
Oppose 1992 coup Dom arter 1995	0.015 (0.200)	-0.004 (0.550)	
Covariates			
Fought in the 1990s	0.007 (0.060)	$0.022 \ (0.076)$	
Islamist	-0.077(0.070)	-0.027(0.089)	
Support Sharia	$0.399^{***}(0.087)$	$0.286^{***}(0.110)$	
Active-Duty	0.102^{*} (0.056)	0.082(0.071)	
Conscript	$-0.118^{**}(0.058)$	-0.084(0.073)	
Soldier	0.061(0.061)	0.069(0.077)	
Junior Officer	0.115(0.071)	0.015(0.090)	
Senior Officer	-1.771^{*} (0.983)	0.238(1.242)	
Army/Gendarmerie	0.022(0.065)	0.092(0.082)	
Trained in the West	-0.089(0.136)	-0.042(0.172)	
Trained in Russia	-0.043(0.080)	-0.091(0.101)	
Trained in China	-0.277(0.247)	0.239(0.312)	
Born after 1995	-0.060(0.196)	0.403(0.247)	
Female	0.096 (0.126)	0.179(0.159)	
Education	-0.085^{***} (0.028)	-0.090^{**} (0.035)	
Urban	0.038 (0.051)	-0.068(0.064)	
Employed	0.053(0.051) 0.054(0.057)	-0.000(0.004)	
Student	0.034(0.037)	0.001 (0.013)	
Arab	0.043 (0.107)	0.021(0.133)	
Fronomy Cood	0.003 (0.001) 0.157 (0.114)	-0.000(0.003) 0.225(0.144)	
Corruption High	-0.137(0.114) 0.033(0.112)	-0.225(0.144)	
Support Demography	0.055 (0.112)	0.050(0.142) 0.155(0.106)	
Support Democracy	$0.240 (0.004) \\ 0.227*** (0.081)$	0.133(0.100) 0.212***(0.100)	
West Hind to continue	-0.227 (0.081)	-0.313 (0.102)	
Protostod	-0.070(0.052) 0.126** (0.052)	-0.002 (0.000)	
Pro Poutofilm Queter	$0.120^{-1}(0.032)$	0.000 (0.000) 0.121 (0.147)	
Post Funoriment	0.100(0.110) 0.066(0.124)	$0.131 (0.147) \\ 0.010 (0.157)$	
r ost-Experiment Month	0.000 (0.124)	-0.019(0.107)	
Month Oscience and a EE	-0.033 (0.016)	-0.025(0.021)	
Governorate FE	√	√ 9 ₹10*** (0.900)	
Constant	3.816**** (0.314)	3.518*** (0.396)	
Observations	1,969	1,969	
R ⁴	0.083	0.067	
Adjusted \mathbb{R}^2	0.041	0.024	

Note: *p<0.1; **p<0.05; ***p<0.01

6 Appendix F: Ethics of Priming Experiment

The entire survey, including the priming experiment, was approved through the IRBs at both W&M (PHSC-2019-03-11-13532) and Princeton (IRB #11581). Each of the experimental primes were factual and already covered in Algerian media, and thus did not involve any deception. Moreover, the overall effect on attitudes should have been null, given that two primes pointed in each direction, cancelling each other out in aggregate. Finally, existing research suggests that priming effects, particularly short paragraphs, are momentary, not durable, dissipating within days, if not hours (e.g., Gaines, Kuklinski and Quirk, 2007, pp. 5-6).

7 Appendix G: Questionnaire

In addition to the survey experiment (Table 1 in the main text), I use the following questions in this paper (variable names in bold):

- 1. [Female] What is your gender?
- 2. [Age] What is your age?
- 3. [Governorate] What province do you live in?
- [Urban] How would you describe the city or village you live in? (Urban, Suburban, Rural)
- 5. [Employed, Student] What is your current occupational status? (Employed, Unemployed, Student, Housewife, Retired)
- 6. [Education] What is your level of education? (Less than HS, HS, BA, MA, PhD)
- 7. [Income] What is the total monthly income for all members of your household?
- 8. [Arab] Which language is your mother tongue? (Arabic, Tamazight, French, Other)

- 9. [Military] Do you have military experience?
- 10. [Active] How would you describe your military experience? (Active-duty, Retired)
- [Conscript] Were you conscripted or did you volunteer for service? (Conscription, Volunteer)
- 12. [Filter] Which rank is higher: sergeant or corporal? (Sergeant, Corporal, Don't Know)
- 13. [Branch] What is your specialty in the military? Check all that apply. (People's National Army, National Navy, Air Force, Territorial Air Defense Force, Department of Surveillance and Security, National Gendarmerie, Republican Guard, Other)
- 14. [Rank] What is the highest rank you have reached? (Private to General)
- 15. [Basic] Where did you perform your basic training? (Algeria, Other country: ___)
- 16. [Additional] In which countries have you received additional training? Check all that apply. (US, Soviet Union, Russia, China, UK, France, Belgium, Italy, Greece, Turkey, Other: ____, None)
- 17. [Prot] Do you support or oppose the goals of the current wave of protests in Algeria? (strongly support to strongly oppose)
- 18. [Protested] Have you personally participated in any of the protests since February 22?
- 19. [Continue] Do you think the protests should continue [Yes, No]
- 20. [Nonviolent] How would you describe the nature of the protests? (nonviolent, mostly nonviolent, mostly violent, violent)
- 21. [Slogans] Do you support or oppose the following slogans? (strongly oppose to strongly support)

- Yetnahaw ga3
- The army and people are brothers, brothers
- A civilian, not military state
- Leave Gaid Salah
- 22. [Actions] Would you support or oppose the following actions? (strongly oppose to strongly support)
 - The removal of interim President Abdelkader Bensalah and Prime Minister Noureddine Bedoui
 - Banning senior officials of the Bouteflika regime from running in elections
 - The removal of Ahmed Gaid Salah as army chief of staff and deputy defense minister
- 23. Survey Experiment (see Table 1 in main text)
- 24. [Repress] Suppose, hypothetically, that military personnel are ordered to repress the protesters. How likely would it be for the military to refuse to repress? [very likely to very unlikely]
- 25. [Alternate DVs] How much do you agree with the following statements?
 - Soldiers would not repress the protesters because they are brothers.
 - While officers may wish to preserve the system, soldiers will not fire on their countrymen.
- 26. How much do you support the following institutions? (strongly support to strongly oppose)
 - [Supp Opp Parties] Opposition Parties

- 27. [Economy] Generally speaking, how satisfied or dissatisfied are you with the economic situation in the country? (very dissatisfied to very satisfied)
- 28. [Corruption] In your opinion, what is the current level of corruption among government officials in Algeria today? (very low to very high)
- 29. [Supp Democracy] Do you agree with the following statement? A democratic system may have its flaws, but it is better than other political systems (strongly agree to strongly disagree)
- 30. [Fight 90s] Did you personally fight in the civil war of the 1990s? (Yes, No)
- 31. [Supp Sharia] Do you believe that the government and parliament should enact laws in accordance with Islamic law (sharia)? [strongly disagree to strongly agree]
- 32. **[Islamist**] Which of the following labels comes closest to describing your political views? (Islamist, Salafi, Secularist, Liberal, Leftist/Socialist, Nationalist)
- [Military Role] Please tell us whether you agree or disagree with the following statements.
 - The military should not allow Islamists to rule Algeria (strongly disagree to strongly agree).
- 34. [Oppose 92 coup] Did you support or oppose the suspension of the legislative elections by the army in 1992? (strongly oppose to strongly support)
- 35. [List Experiment] Please tell me how many of the following items you agree with. We are not interested in which ones, just how many. No one will know which ones you choose.
 - The martyrs of the liberation war deserve respect.
 - The French did not massacre Algerians.

- [Randomized] The army should not have suspended the elections in 1992.
- The Ottoman era should remain included in our national history books.
- Houari Boumediene was the greatest leader in Algerian history.

Respondents supported an average of 2.3 items in the treatment compared to 1.79 in the control, a difference of 0.51, suggesting 51% support for the sensitive items (opposition to the 1992 coup). This mirrors the direct question, so I use that instead.

References

- Bhutta, Christine Brickman. 2012. "Not by the Book: Facebook as a Sampling Frame." Sociological Methods & Research 41(1):57–88.
- Coppock, Alexander, Thomas J. Leeper and Kevin J. Mullinix. 2018. "Generalizability of heterogeneous treatment effect estimates across samples." *PNAS* 115(49):12441–12446.
- Dropp, Kyle. 2015. "Why Donald Trump Performs Better in Online Polling." *Morning Con*sult December 21.
 - URL: https://morningconsult.com/2015/12/21/why-donald-trump-performsbetter-in-online-polling/
- Gaines, Brian J., James H. Kuklinski and Paul J. Quirk. 2007. "The Logic of the Survey Experiment Reexamined." *Political Analysis* 15(1):1–20.
- Ghanem, Dalia. 2015. "Women in the Men's House: The Road to Equality in the Algerian Military." Carnegie Middle East Center November 4.
 - URL: https://carnegie-mec.org/2015/11/04/women-in-men-s-house-roadto-equality-in-algerian-military-pub-61463
- Grewal, Sharan, M. Tahir Kilavuz and Robert Kubinec. 2019. "Algeria's Uprising: A Survey of Protesters and the Military." Brookings Institution.
 - URL: https://www.brookings.edu/research/algerias-uprising-a-surveyof-protesters-and-the-military/
- Hitlin, Paul and Lee Rainie. 2019. "Facebook Algorithms and Personal Data." Pew Research Center January 16.
 - URL: https://www.pewinternet.org/2019/01/16/facebook-algorithms-andpersonal-data/

- Huang, Hsiu-Mei. 2006. "Do print and Web surveys provide the same results?" Computers in Human Behavior 22(3):334–350.
- Kays, Kristina, Kathleen Gathercoal and William Buhrow. 2012. "Does survey format influence self-disclosure on sensitive question items?" Computers in Human Behavior 28(1):251–256.
- Kuriakose, Noble and Michael Robbins. 2016. "Don't get duped: Fraud through duplication in public opinion surveys." *Statistical Journal of the IAOS* 32(3):283–291.
- Zhang, Baobao, Matto Mildenberger, Peter D. Howe and Jennifer Marlon. 2020. "Quota sampling using Facebook advertisements." *Political Science Research and Methods* 8(3):558– 564.