Supporting Information & Appendix for "Threat Perception, Dirty Hands, and Public Support of Government Torture"

In his dystopian classic, *1984*, George Orwell's protagonist, Winston Smith, reads the following from *The Theory and Practice of Oligarchical Collectivism*:

> . . . practices which had been long abandoned, in some cases for hundreds of years—imprisonment without trial, the use of war prisoners as slaves, public executions, torture to extract confessions, the use of hostages and the deportation of whole populations—not only became common again, but were tolerated and even defended by people who considered themselves enlightened and progressive (*Chapter 9*.)[1]

Our study explores the extent to which public opinion in democracies is a fragile bulwark against these abuses. This supplemental document provides additional information about how we produced those results and provides additional empirical details. It is divided into two sections; the first of these describes our first experiment, examining the role of race/ethnicity and offense type on support for torture. We provide details about how we confirmed random assignment and balance across our treatment groups and further probe the results reported in the article. The second section establishes balance in the second experiment, a list (or item count) experiment of the effect of agency type (specifically, intelligence agents) on support for torture, and reports supplementary results pertaining thereto.

A1 Pre-Treatment Balancing in Experimental Conditions

To implement our experiment, respondents were randomly assigned into one of three groups: *Caucasian*, *Latino* or *Arab*. These groups correspond to one of three names of the accused conditions (William, Hector, or Ahmad) and one of two offense conditions (*Non-Terror* or *Terror*). To test for pre-treatment balancing in these experimental conditions (i.e., to assure random assignment), we estimated a multinomial logit model of treatment assignment by a set of demographic factors: age, female, college degree or higher, white, registered voter status, and religiosity (Table A1).[2] As expected, the overall model does not achieve statistical significance, and we are only able to reject the null of no relationship for two covariates: college educated in the Latino/Terror condition and whites in the Arab/Terror condition. There is no statistical reason to believe that random assignment and treatment group balance was not achieved.

B2 Additional Results

The results in Table B1 augment the results of the 3 $\times$ 2 factorial design reported in the study, providing additional information about racial/ethnic group comparisons. We present pooled results and also stratify the sample by the type of offense for which the accused was being held (Non-Terror or Terror). The statistical

[1] Available as an ebook at: `https://ebooks.adelaide.edu.au/o/orwell/george/o79n/chapter2.9.html`.

[2] Age is an integer count of the person's age. Female, college, white respondent, and registered voter are each self-reported binary indicators where 1 is female, college degree or higher, white (non-hispanic) racial identity, and registered to vote. Religiosity is measured using the Pew importance of religion variable, which contains four values: not at all important, not too important, somewhat important, and very important.

Table A1: Multinomial Logit Model of Experimental Treatment Assignment (Six Categories, Assignment to Latino/Non-Terror as Referent Category)

Regressor	Arab/ Non-Terror	Caucasian/ Non-Terror	Latino/ Terror	Arab/ Terror	Caucasian/ Terror
Constant	-0.616	-0.329	-0.745	-0.240	0.452
	(0.783)	(0.805)	(0.885)	(0.827)	(0.822)
Age	0.005	0.010	0.012	0.011	-0.004
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Female	-0.065	0.318	-0.309	-0.102	-0.107
	(0.278)	(0.295)	(0.282)	(0.281)	(0.292)
College	-0.214	0.302	-0.563	-0.114	-0.161
	(0.294)	(0.299)	(0.284)	(0.294)	(0.307)
White Resp	-0.289	-0.686	-0.332	-0.796	-0.251
	(0.400)	(0.396)	(0.409)	(0.381)	(0.413)
Registered Voter	-0.146	-0.347	0.424	0.275	-0.031
	(0.521)	(0.528)	(0.574)	(0.574)	(0.553)
Religiosity	-0.161	-0.172	-0.014	-0.014	-0.042
	(0.126)	(0.131)	(0.131)	(0.131)	(0.134)
$N = 596$					
Likelihood Ratio χ^2 (d.f.) = 32.13 (30)					

Coefficients in the table are maximum likelihood estimates; standard errors are reported in parentheses. *: $p < .05$, two-tailed test.

results demonstrate that Americans are more supportive of torturing an Arab detainee—regardless of the suspected offense—than they are a Caucasian or Latino detained by government officials. The effect of the Arab condition is particularly strong. Yet we also see that Americans are also more supportive of torturing a Latino than a Caucasian when the offense might be a terror attack, and this effect is statistically significant if we are willing to invoke a 90% confidence level. Recall from the main text, Americans were no more likely to support torture of a Caucasian in the Terror condition than they were a Caucasian in the Non-Terror condition. Our nationally-representative sample was 73% Caucasian, 13% Black, and 9% Latino. As demonstrated above in Table A1, our treatment and control groups were racially (White v. Non-White) balanced.

C3 Effect of Race/Ethnicity of the Accused on Support for Torture

Here we break apart the 3 $\times p = 0.0003$). A direct comparison of Hector Gonzalez to William Shaw shows that though respondents more strongly supported harsh treatment of the Latino detainee (Difference-in-mean = 0.261), this difference is not statistically significant and thus possibly attributable to chance ($t = 1.325$, $p = 0.0930$). Respondents were most likely to support harsh interrogation tactics for the Arab detainee, Ahmad Nazari. The mean level of support among those in the Arab treatment group is significantly larger than that found in the Caucasian (Difference-in-mean = 0.797, $t = 3.873$, $p < 0.0001$) and Latino (Difference-in-mean = 0.536, $t = 2.704$, $p = 0.0036$) treatment groups.

Figure C1 examines the effect of the race/ethnicity of the accused on the respondents' willingness to

Table B1: Difference-of-Means Tests of the Effect of Race/Ethnicity of the Accused on Support for Torture, Pooled and Stratified Samples.

	Difference	t	$d.f.$	$Pr(t>0)$
Pooled Sample				
Mean(Latino) – Mean(Caucasian)	0.261	1.325	387	0.093
Mean(Arab) – Mean(Caucasian)	0.797	3.873	381	0.000
Mean(Arab) – Mean(Latino)	0.536	2.704	419	0.004
Non-Terror Group				
Mean(Latino) – Mean(Caucasian)	0.121	0.449	197	0.327
Mean(Arab) – Mean(Caucasian)	0.613	2.193	192	0.015
Mean(Arab) – Mean(Latino)	0.492	1.834	213	0.034
Terror Group				
Mean(Latino) – Mean(Caucasian)	0.418	1.468	188	0.072
Mean(Arab) – Mean(Caucasian)	0.988	3.311	187	0.001
Mean(Arab) – Mean(Latino)	0.570	1.988	203	0.024

support torture regardless of offense type. To test for pre-treatment balancing in these collapsed three experimental conditions, we again estimated a multinomial logit model of treatment-group assignment by a set of demographic factors, age, female, college degree or higher, white, registered voter status, and religiosity; we also account for offense type (Terror=1) as a covariate (Table C1). As expected, the model does not achieve statistical significance, and none of the respondent covariates are statistically significant, suggesting that random assignment was successful.

We also conducted supplementary multivariate analyses to demonstrate the robustness of these results to the inclusion of additional covariates. We employed ordinary least squares with dummy variables for Latino and Arab because the estimated coefficients for these variables are equivalent to the difference-of-means relative to the excluded group, Caucasian. The covariates include offense type (Terror or Not Terror) and measures of respondents' social demographics and political attitudes. The results are reported in Table C2. The coefficients for Latino and Arab are quite stable across models; the former is not statistically significant while the latter is.

D4 Crime versus Terror Offense Treatment

As above, we separate the offense frame from the race/ethnicity treatment, this time pooling over the latter. To show that we achieve pre-treatment balancing across the Non-Terror offense and Terror offense experimental conditions (i.e., to assure random assignment), we estimated a logit model of treatment assignment (Non-Terror=0, Terror=1) against a set of demographic factors, age, female, college degree or higher, white, and registered voter status (Table D4). Neither the overall model nor any of the variables are statistically significant, providing us with confidence that the treatment was random across these variables and that balance was obtained.

To demonstrate that our second operational hypothesis holds while pooling across race, we distinguish

Figure C1: Effect of Race/Ethnicity of Detainee on Willingness to Support Torture

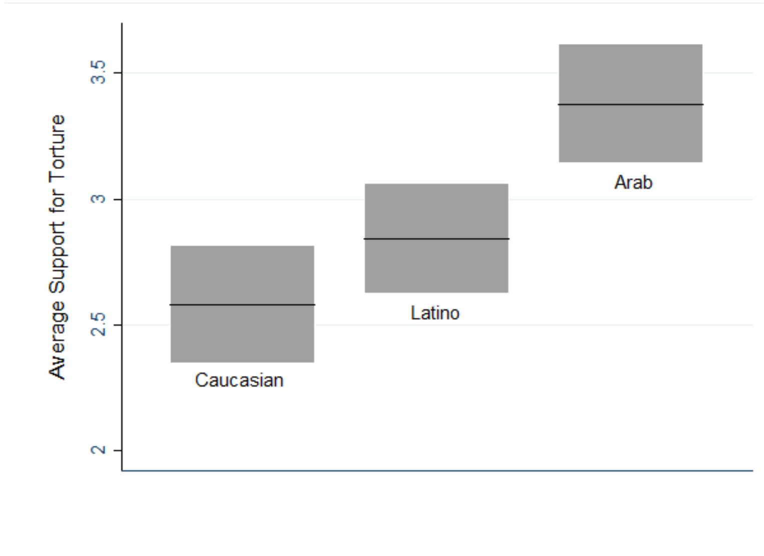


Table C1: Multinomial Logit Model of Experimental Treatment Assignment (Three Categories, Assignment to William as Referent Category)

Regressor	Latino	Arab
Constant	-0.699	-0.189
	(0.600)	(0.579)
Age	0.002	0.005
	(0.007)	(0.007)
Female	-0.256	-0.089
	(0.209)	(0.210)
College	0.204	-0.242
	(0.212)	(0.386)
White Resp	0.328	-0.074
	(0.285)	(0.271)
Registered Voter	0.355	0.241
	(0.408)	(0.386)
Religiosity	0.080	0.019
	(0.094)	(0.094)
Offense Type	-0.074	-0.018
	(0.206)	(0.206)
$N = 596$		
Likelihood Ratio χ^2 (d.f.) = 11.73 (14)		

Coefficients in the table are maximum likelihood estimates; standard errors are reported in parentheses. *: $p < .05$, two-tailed test.

Table C2: Effect of Race/Ethnicity of the Accused on Support for Torture, Adjusting for Covariates

Regressor	Model 1	Model 2	Model 3
Constant	2.299†	1.713†	2.636†
	(0.169)	(0.376)	(0.424)
Latino	0.267	0.206	0.186
	(0.201)	(0.197)	(0.197)
Arab	0.798†	0.755†	0.756†
	(0.202)	(0.198)	(0.200)
Terror Group	0.568†	0.523†	0.582†
	(0.162)	(0.158)	(0.158)
Age		-0.000	-0.004
		(0.006)	(0.006)
Female		-0.614†	-0.488†
		(0.160)	(0.163)
College		-0.260	-0.239
		(0.164)	(0.163)
White Resp		-0.126	-0.209
		(0.215)	(0.227)
Religiosity		-0.325†	-0.119
		(0.072)	(0.078)
Party Identification			0.119†
			(0.052)
Ideology			0.300†
			(0.104)
$N =$	596	596	546
Adj. $R^2 =$	0.04	0.09	0.18
$F =$	9.62†	8.33†	14.33†

Party Identification is a seven-point scale that ranges from Strong Democrat to Strong Republican. Ideology is a five-point scale that ranges from Very Liberal to Very Conservative. The coefficients in the table are ordinary least squares estimates; standard errors are reported in parentheses. $*: p < .05$, two-tailed test, $\dagger: p < .05$, one-tailed test.

between the Non-Terror and Terror treatments described above. Diagnostic evaluation establishes that the treatment was effectively random. Figure D1 depicts a histogram of the level of approval (where 1 = Strongly Disapprove and 7 = Strongly Approve) pooling across the ethnic identities of the detainee, and demonstrates that those exposed to the Terror treatment offer greater support of a policy of torture. The mean level of support for government torture in the Non-Terror group is 2.671 and the mean in the Terror Group is 3.240.

To demonstrate that the differences depicted in Figure D1 are unlikely to be due to chance we conducted an analysis of variance (F = 12.07, p = 0.0005), a difference-of-means test (t = -3.47, p = 0.0003), and

Table D1: Logit Model of Experimental Treatment Assignment for Non Terror versus Terror Treatment.

Regressor	Non Terror v Terror
Constant	-0.485
	(0.479)
Age	0.002
	(0.006)
Female	-0.178
	(0.167)
College	-0.104
	(0.172)
White Resp	-0.157
	(0.225)
Registered Voter	0.353
	(0.332)
Religiosity	0.068
	(0.075)
$N =$	596
Likelihood Ratio $\chi^2(d.f.) =$	4.45 (6)

The coefficients in the table are maximum likelihood estimates; standard errors are reported in parentheses. $*: p < .05$, two-tailed test.

Figure D1: Effect of Alleged Terror Offense on Willingness to Support Torture

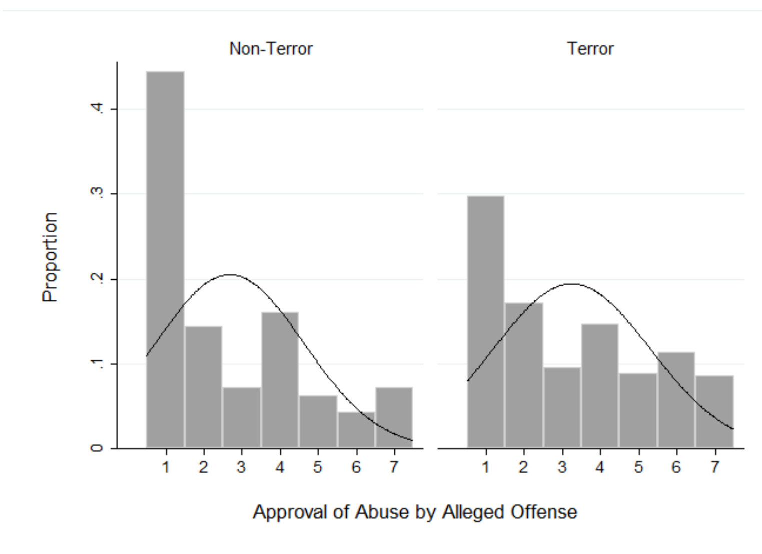


Table E1: Logit Model of Experimental Treatment Assignment for Item Count Experiment

Regressor	Item Count Experiment
Constant	-0.341
	(0.476)
Age	-0.004
	(0.006)
Female	0.069
	(0.167)
College	-0.214
	(0.172)
White Resp	0.088
	(0.224)
Registered Voter	0.264
	(0.327)
Religiosity	0.071
	(0.075)
$N =$	599
Likelihood Ratio$\chi^2(d.f.) =$	3.74 (6)

The coefficients in the table are maximum likelihood estimates; standard errors are reported in parentheses. $*: p < .05$, two-tailed test.

a contingency table analysis (χ^2 (6) = 21.62, p = 0.001). All three permit us to reject the null of no difference between the treatment and the control group.

E5 The Intelligence Agency Item Count Experiment

E5.1 Pre-Treatment Balancing in Experimental Conditions

We implemented an item count experiment examining respondents' willingness to cede government agencies the authority to torture (whip) detainees while questioning them. In the experiment, respondents were assigned to either a control or treatment group (see text for details). To test for pre-treatment balancing in these experimental conditions (i.e., to assure random assignment), we estimated a logit model of treatment assignment by a set of demographic factors, age, female, college degree or higher, white, and registered voter status (Table E1). As expected, the overall model and the independent variables do not achieve statistical significance thus ensuring random assignment and balance across control and treatment groups.

E5.2 Possible Design Effects in the Item Count Experiment

Recent work by Blair and Imai (2012) notes that simple difference-in-means estimators of list experiments may be biased in the face of confounders and subject to "design effects." Design effects occur when the inclusion of the treatment item—in our case, intelligence agents—in the list increases the respondent's propensity to select other groups on the list. If this is the case, difference in means between the control and treatment groups cannot be attributed solely to the inclusion of the treatment item. A Bonferroni test indicates that our item count experiment does not suffer from this design effect. The statistical test builds on the assumptions about the population proportions for each plausible respondent type, and produces a Bonferroni-corrected p-value. If the value is below α (here, α = .05), we can reject the null hypothesis of no design effect. We used the `list` package in R (`http://cran.r-project.org/web/packages/list/`) to produce the Bonferroni-corrected p-value for our intelligence agency item count experiment, and generated the α value of 0.654. The value indicates that our results are unlikely to suffer from this design effect.

As Blair and Imai note, even if design effects do not exist, it is possible that some respondents lie about the sensitive item. The authors identify two scenarios (Blair and Imai, 2012, p. 65):

> The first is the problem of a "ceiling effect," which is caused by the fact that privacy is not protected for those respondents in the treatment group whose true preferences are affirmative for all the sensitive and control items. . . . We also investigate the possibility of a "floor effect" in which some of the respondents whose truthful answer is affirmative only for the sensitive item. . . give $Y_i = 0$ as an answer instead of the truthful $Y_i = 1$

Given the preponderance of zeros in our data, one might expect that floor effects would be most likely to affect our results. Yet—again using the author's `list` package in R—we estimated alternative models accounting for ceiling, floor, and both ceiling and floor effects, and we found the results of each to be nearly identical to the model we estimated without adjusting for these factors.

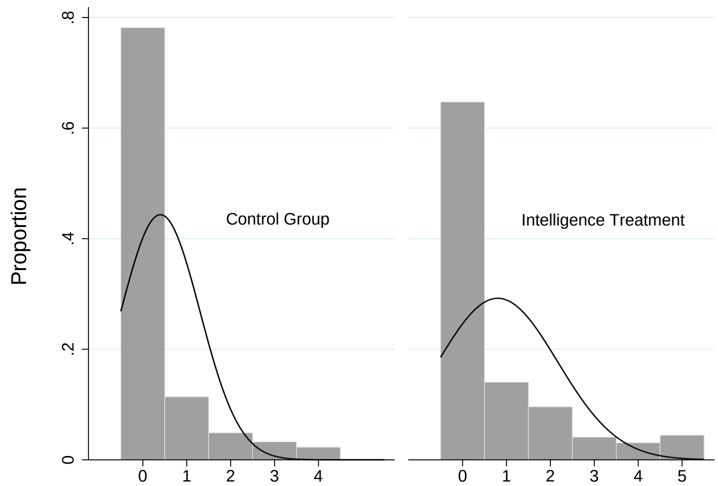
E5.3 Additional Detail of Support for Whipping

Here we provide additional results for the item count experiment. Having two lists, one that contains intelligence officers and a control that does not, allows us to infer the public's level of support for intelligence agents whipping detainees by comparing the difference in means between the groups. If the mean in the test group is higher, we can infer that there is considerable public support for whipping by intelligence officers. Figure E1 indicates first that in both the treatment and control groups our subjects were opposed to any government agency having the authority to whip detainees (78% and 65%, respectively). Yet adding intelligence agency to the list of options reduces the number of respondents who are opposed.

E5.3.1 Multivariate Analyses of Intelligence Agency Treatment on Respondents' Willingness to Authorize Government Agencies to Whip Detainees.

We conducted supplementary multivariate analyses to demonstrate the robustness of our main results to the inclusion of additional covariates. We employ a dummy variable indicating whether the individual was in the *Control* or *Intelligence Agency* treatment groups. In the ordinary least squares model, the estimated coefficient for the Intelligence Agency variable is equivalent to the difference of means relative to the excluded group, i.e., the control. Since the dependent variable is a count, we also present the results of a negative binomial regression for comparison (Table E2). The covariates include measures of respondents' social demographics and political attitudes. The coefficient for the *Intelligence Agency* treatment is quite stable across models.

Figure E1: Distributions of Number of Agencies with Authority to Whip



References

Blair, Graeme and Kosuke Imai. 2012. "Statistical Analysis of List Experiments." *Political Analysis* 20(1):47–77.

Table E2: Effect of Intelligence Agency Treatment on Respondents' Willingness to Authorize Government Agencies to Whip Detainees during Questioning, Adjusting for Covariates.

	Ordinary Least Squares		Negative Binomial	
Variable	Model 1	Model 2	Model 3	Model 4
Constant	$1.066^{\dagger}$	1.372^{*}	0.173	0.777
	(0.235)	(0.248)	(0.454)	(0.493)
Intelligence Agency	$0.386^{\dagger}$	$0.314^{\dagger}$	$-0.635^{\dagger}$	$0.542^{\dagger}$
	(0.093)	(0.093)	(0.172)	(0.181)
Age	$-0.009^{\dagger}$	$-0.010^{\dagger}$	$-0.014^{\dagger}$	$-0.017^{\dagger}$
	(0.003)	(0.003)	(0.006)	(0.006)
Female	$-0.238^{\dagger}$	$-0.215^{\dagger}$	$-0.382^{\dagger}$	-0.340^{*}
	(0.094)	(0.096)	(0.175)	(0.186)
College	$-0.248^{\dagger}$	$-0.231^{\dagger}$	$-0.454^{\dagger}$	$-0.455^{\dagger}$
	(0.096)	(0.096)	(0.183)	(0.191)
White Resp	-0.133	-0.176	-0.280	-0.465^{*}
	(0.127)	(0.135)	(0.223)	(0.252)
Religiosity	0.050	-0.033	0.091	0.070
	(0.042)	(0.046)	(0.082)	(0.093)
Party Identification		-0.033		$0.104^{\dagger}$
		(0.030)		(0.054)
Ideology		$0.131^{\dagger}$		0.252^{*}
		(0.062)		(0.110)
α			$2.409^{\dagger}$	$2.169^{\dagger}$
			(0.372)	(0.375)
$N=$	599	548	599	548
Adj. $R^2=$	0.06	0.08		
$F=$	$6.82^{\dagger}$	$7.12^{\dagger}$		
L.R. $\chi^2(d.f.)=$			$33.58(6)^{\dagger}$	$50.42(8)^{\dagger}$

Party Identification is a seven-point scale that ranges from Strong Democrat to Strong Republican. Ideology is a five-point scale that ranges from Very Liberal to Very Conservative. The coefficients in the table are ordinary least squares estimates; standard errors are reported in parentheses. $*$: $p < .05$, two-tailed test, $\dagger$: $p < .05$, one-tailed test.