Meritocracy or Malfeasance: Violations of Meritocracy Erode Civic Rule Following

Supplemental Appendix

A Experimental Evidence: Additional Information and Analysis

The experimental sessions were conducted at a public University in the Emilia Romagna region of Italy, in June 2011 and February 2013, and at a public university in New York state in April and November 2012 and February 2013. All subjects were students recruited using the on-line recruitment system ORSEE (Greiner, 2004). 144 subjects participated in the sessions conducted in Italy and 164 subjects participated in the sessions run in New York. At the end of each session subjects were paid in cash and in private at the subjects' stations. Average payments were $\notin 11.34$ (about \$15) in Italy and \$16.82 in New York. Each session lasted around 40-60 minutes, including instructions and final payments. The experiment was computerized and programmed using the software z-Tree (Fischbacher, 2007). Computer desks were divided by partitions in order to avoid eye contact between subjects. Subjects received neutral instructions both on their computer screen and on paper. The text of the instructions is found below. The text in the real-effort task was excerpted from the *Critique of Pure Reason* by Immanuel Kant and was displayed in the original German.

A.1 Incentive Compatibility of Performance-Payoff Mapping

The revelation of the various potential performance-payoff mappings in our experiment has potential implications for the incentive compatibility of the task, but this is nonetheless preferable to deception. Since better performance on the task could potentially result in a *lower* payoff, *ex ante* the task may not be fully incentive compatible. To account for this possibility, the subjects completed a similar, but fully incentivized, effort task at the end of the second stage, and we solicited self-reported assessments of effort on a 0-4 scale for each of the two tasks. Subjects performed significantly better (Wilcoxon signed-rank test, p = 0.000) and reported a significantly higher effort (p = 0.000) in the second (fully incentivized) task. However, the difference between the two self-reported efforts was small (3.31 in the first versus 3.50 in the second). In addition, in both tasks, the majority of people (86% in the first, 92% in the second) reported an effort of 3 or 4, and only 1.95% of the subjects (6 out of 308 subjects) reported an effort task to learning rather than lack of incentives in the first task. The performance categorization and the corresponding initial endowment in the first stage was communicated to each subject immediately before starting the second stage.

A.2 Demographic Variables

Table A.1 reports the demographic variables collected at the end of the experiment. We did not collect the demographic information in the first sessions run in Italy (56 out of 144 subjects). We were, however, able to verify the citizenship of the participants in Italy after the fact.

A.3 Experimental Analysis Including Non-Citizens in U.S. Sessions

In the main text, we analyze data only for the citizens in each experimental site. We did not collect information on citizenship for the 34 participants in the UI treatment in the U.S. For the 130 other participants in the U.S. sessions, 109 reported being U.S. citizens and 18

Characteristics	US	Italy
Gender	(n=161) ^a	(n=96)
Female	52.17% (84)	58.33% (56)
Male	47.83% (77)	41.67% (40)
Age	(n=162) ^b	(n=96)
Mean	20.15	22.82
St. dev.	2.70	3.23
Econ./Bus.	(n=162) ^b	(n=88) ^c
No	91.98% (149)	85.23% (75)
Yes	8.02% (13)	14.77% (13)
Citizenship	(n=127) ^d	(n=144)
non-American/non-Italian	14.17% (18)	0% (0)
non-American/Italian	85.83% (109)	100% (144)
Years in US	(n = 18)	
Mean	4.32	
St. Dev.	5.06	

Table A.1: Demographic Variables

Notes: ^a Three subjects did not report their gender. ^b Two subjects did not report the age and their field of studies. ^c Eight subjects did not report their field of studies.^d We did not include this question in the first sessions run in US, and, therefore we do not have the information for 34 subjects. In addition, three subjects failed to report this information, resulting in a total of 37 missing observations.

reported not being U.S. citizens (3 responses were missing). We then applied the actual non- citizen rate in these sessions (14.17%) to the UI session, resulting in an expectation of 29 citizens and approximately 5 (4.82) non-citizens. This calculation does not tell us, however, which participants are and are not citizens. All possible ways of choosing 29 citizens (or 5 non-citizens) out of 34 participants results in 278,256 different combinations. We randomly choose 1,000 of these possibilities, estimated each of the three mixed-effects regressions described in the main text for each of these 1,000 different combinations. We then simply averaged each of these 1,000 regression estimates. These averages are what is reported in table 3 in the main text. For Figure 3, we also used average figures based on these 1,000 random combinations. Here, we construct the analogous table and figure without excluding the non-citizens. There were zero non-

citizens in Italy, so those data remain unchanged, as do 85% of the U.S. data. The basic treatment effects remained virtually unchanged from those reported in the main text: $D_s(UI) = 0.36 > D_s(EI)$ = 0.31 > $D_s(UE) = 0.25 > D_s(EE) = 0.19$.

Figure A.1 is analogous to Figure 3 in the text. Given that the dataset used in the main text is a subset of the full data, and only excludes the small portion (14%) of subjects in the U.S. sessions that are not U.S. citizens, it is not surprising that the figures are very similar. The most notable disparity is that the inclusion of non-citizens attenuates the differences between the inequitable and equitable treatments conducted in the U.S.

Table A.2 is analogous to table 3 in the main text. The results are roughly equivalent, except that the differences between the U.S. based and Italian subjects are weaker when we include non-American citizens. This strengthens our claim that Americans are especially likely to be affected by violations of meritocratic equity, because We define meritocratic equity as a characteristic of a rule or process prescribing that individual B should receive a greater outcome (reward) than individual A if B's inputs (contribution) are higher than A's in a given social exchange) when we remove non-American citizens, differences between the U.S. and Italy are larger.





		8 8		
	(1)	(2)	(3)	(4)
	Baseline	US Dummy	US imes Inequity	$US \times Inequality$
Inequity	2.46	2.49	1.38	1.37
p — value	0.007	0.006	0.49	0.495
Inequality	1.47	1.52	1.52	1.93
p — value	0.25	0.217	0.213	0.18
Red Signals	1.22	1.22	1.22	1.21
p — value	0.005	0.004	0.005	0.006
U.S.	_	0.60	0.32	0.39
p — value	_	0.125	0.02	0.084
U.S.×Inequity	_	-	3.15	3.16
p — value	_	-	0.08	0.08
U.S.×Inequality	_	-	-	0.638
p — value	_	-	-	0.504
Intercept	0.003	0.003	0.005	0.005
p — value	0.000	0.000	0.000	0.006
N (# obs)	3,850	3,850	3,850	3,850
M (# Custodians)	154	154	154	154

Table A.2: Mixed Effects Logistic Regressions: Determinants of Malfeasance

Note: All coefficients reported as odds ratios. Numbers in **bold** relate to out quantities of interest. Inequity is a dummy variable for the treatments equal to 1 for the inequitable treatments (EI, UI) and 0 for the equitable treatments (EE, UE); inequality represents the second manipulated factor and is coded as 1 for the unequal treatments (UE, UI) and 0 for the equal treatments (EE, EI); Red Signals is the number of red signals received by each Custodian, and takes the values 0-25; U.S. is a dummy variable taking value 1 for a U.S.-based Custodian and 0 for an Italy-based Custodian. All models were estimated using Stata's melogit command.

Comparison of Custodians with a Background in Economics or A.4 **Business**

Several studies (e.g. Zizzo, 2004; Frank and Schulze, 2000) have found that students studying economics behave in a more self-interested fashion in experiments. It is possible, then, that Italian subjects behaved more dishonestly simply because there were a higher proportion of participants who studied economics. To test this possibility we can compare the proportion of Custodians with a major in economics in Italy and US (see Table A.3).¹ The proportion of Custodians with a major in economics is not very large in either of the locations and the difference is not statistically significant (Chi-squared test, p = 0.203). If we also include those Custodians with a major in business (see Table A.4), the difference is still not statistically significant (Chi-squared

¹We do not have the information about the field of studies for all the participants. In particular, 2 out of 164 subjects in the US sessions did not report their field of studies. In addition, we did not collect the demographic information in the first sessions run in Italy (56 out of 144 subjects). This does not pose any limitation to our analysis since the subjects were, in both locations, recruited randomly using the subject pools maintained through ORSEE

(Greiner, 2004). Hence, the sub-sample of Italian subjects for which we have the information about the field of study should be representative of all the Italian subjects that participate in our experiment.

test, p = 0.664).

Economics	US	Italy	Total
No	95.12% (78)	89.13% (41)	92.97% (119)
Yes	4.88% (4)	10.87% (5)	7.03% (9)
Total	100% (82)	100% (46)	100% (128)

Table A.3: Field of Studies for Custodians: Economics vs. Others

Table A.4: Field of Studies for Custodians: Economics & Business vs. Others

Economics or Business	US	Italy	Total
No	91.46% (75)	89.13% (41)	90.63% (116)
Yes	8.54% (7)	10.87% (5)	9.38% (12)
Total	100% (82)	100% (46)	100% (128)

B WVS Data: Additional Information and Analysis

The WVS analysis in the text contains data from all six waves of the WVS, with the oldest surveys conducted in 1981 and the latest 2014. Controlling for the year of the survey does not qualitatively change the results but complicates the analysis. A complete listing of each country-year used is contained in the table on the following page.

Country	Year	Country	Year	Country	Year	Country	Year
Albania	1081	Ectopia	1081	Luxombou	1000	Singapor	1000
Albania	1981	Estonia	1981	Macadoni	1999	Singapor	2002
Albania	2002	Estonia	1996	Macedoni	1998	Singapor	2002
Albania	2008	Estonia	2011	Macedoni	2001	Slovakia	1981
Algeria	1981	Ethiopia	1981	Macedoni	2008	Slovakia	1990
Algeria	2002	Ethiopia	2007	Malaysia	1981	Slovakia	1991
Algeria	2013	Finland	1981	Malaysia	2006	Slovakia	1998
Andorra	2005	Finland	1982	Malaysia	2012	Slovenia	1981
Argentin	1984	Finland	1990	Mali	2007	Slovenia	1992
Argentin	1991	Finland	2005	Malta	1983	Slovenia	2005
Argentin	1995	France	1981	Malta	1990	Slovenia	2011
Argentin	1999	France	1982	Mexico	1981	South Af	1981
Argentin	2006	France	2006	Mexico	1982	South Af	1982
Argentin	2013	Georgia	1981	Mexico	1990	South Af	1990
Armonia	1981	Georgia	2008	Mexico	2000	South Af	2001
Armenia	2008	Georgia	2008	Mexico	2000	South Af	2001
Armenia	2011	Georgia	2014	Mexico	2012	South Af	2013
Australi	1981	Germany	1981	Moldova	1981	South Ko	1982
Australi	1982	Germany	1982	Moldova	1996	South Ko	1990
Australi	1995	Germany	1997	Moldova	2002	South Ko	1991
Australi	2005	Germany	2006	Moldova	2006	South Ko	1996
Austria	1981	Ghana	1981	Monteneg	1981	South Ko	2001
Austria	1990	Ghana	2007	Monteneg	1996	South Ko	2010
Azerbaij	1981	Ghana	2012	Monteneg	2001	Spain	1981
Azerbaij	1997	Great Br	1981	Monteneg	2008	Spain	1982
Azerbaij	2011	Great Br	1982	Morocco	1981	Spain	1990
Bahrain	1990	Great Br	1998	Morocco	2001	Spain	1995
Banglade	2014 1981	Great Br	2005	Morocco	2007	Spain	2000
Banglade	1996	Greece	1999	Netherla	1981	Spain	2011
Banglade	2002	Guatemal	1981	Netherla	1982	Sweden	1981
Belarus	1981	Guatemal	2004	Netherla	2006	Sweden	1982
Belarus	1990	Hong Kon	1990	Netherla	2012	Sweden	1996
Belarus	1996	Hong Kon	2005	New Zeal	1990	Sweden	2006
Belarus	2000	Hungary	2013	New Zeal	2004	Sweden	1981
Belgium	1981	Hungary	1982	New Zeal	2004	Switzerl	1989
Belgium	1982	Hungary	1991	Nigeria	1981	Switzerl	1996
Bosnia	1981	Hungary	1998	Nigeria	1990	Switzerl	2007
Bosnia	1998	Hungary	2009	Nigeria	1995	Switzerl	2008
Bosnia	2001	Iceland	1981	Nigeria	2000	Taiwan	1994
Brazil	2008	India	1984	North Ir	2011	Taiwan	2006
Brazil	1991	India	1990	Norway	1981	Taiwan	2012
Brazil	2006	India	1995	Norway	1982	Tanzania	1981
Brazil	2014	India	2001	Norway	1996	Tanzania	2001
Bulgaria	1981	India	2006	Norway	2007	Thailand	1981
Bulgaria	1991	India	2014	Pakistan	1981	Thailand	2007
Bulgaria	2005	Indonesi	2001	Pakistan	2001	Trinidad	1981
Burkina	1981	Indonesi	2006	Pakistan	2012	Trinidad	2006
Burkina	2007	Iran	1981	Palestin	1981	Trinidad	2011
Canada	1981	Iran	2000	Palestin	2013	Tunisia	1981
Canada	1982	Iran	2007	Peru	1981	Tunisia	2013
Canada	2000	Iraq	1981	Peru	1996	Turkey	1981
Canada	2006	Iraq	2004	Peru	2001	Turkey	1990
Chile	1990	Iraq	2012	Peru	2012	Turkey	2001
Chile	1996	Ireland	1981	Philippi	1981	Turkey	2001
Chile	2000	Ireland	1982	Philippi	1996	Turkey	2007
Chile	2006	Israel	1981	Philippi	2001	Turkey	2011
China	2011 1981	Israel	2001 1981	Poland	2012	Uganda	1981 2001
China	1990	Italy	1982	Poland	1989	Ukraine	1981
China	1995	Italy	2005	Poland	1990	Ukraine	1996
China	2001	Japan	1981	Poland	1997	Ukraine	1999
China	2007	Japan	1982	Poland	2005	Ukraine	2006
Colombia	2012	Japan Japan	1990	Poiand	2012	Ukraine United S	∠011 1091
Colombia	1997	Japan	2000	Portugal	1990	United S	1982
Colombia	2005	Japan	2005	Puerto R	1990	United S	1995
Colombia	2012	Japan	2010	Puerto R	1995	United S	1999
Croatia	1981	Jordan	1981	Puerto R	2001	United S	2006
Croatia	1996	Jordan	2001	Qatar	1990	United S	2011
Croatia	1999	Jordan	2007	Qatar	2010	Uruguay	1981
Cyprus	2006	Kazakhet	1981	Romania	1993	Uruguay	2006
Cyprus	2008	Kazakhst	2011	Romania	1998	Uruguav	2011
Cyprus	2011	Kosovo	1981	Romania	2005	Uzbekist	1981
Cyprus (2008	Kosovo	2008	Romania	2012	Uzbekist	2011
Czech Re	1981	Kuwait	1990	Russia	1981	Venezuel	1981
Czech Re	1991	Kuwait	2014	Russia	1990	Venezuel	1996
Czech Re	1998	Kyrøvzst	2003	Russia	1999	Viet Nam	1981
Denmark	1981	Kyrgyzst	2011	Russia	2006	Viet Nam	2001
Denmark	1982	Latvia	1981	Russia	2011	Viet Nam	2006
Dominica	1981	Latvia	1990	Rwanda	1981	Yemen	1981
Dominica	1996	Latvia	1996	Rwanda	2007	Yemen	2014
Ecuador	2012	Lebanon	1990 2012	Kwanda Saudi Ar	1990	Zambia	1981 2007
Egypt	1981	Libva	1990	Saudi Ar	2003	Zimbabwe	1990
Egypt	2001	Libya	2014	Serbia	1981	Zimbabwe	2001
Egypt	2008	Lithuani	1981	Serbia	1996	Zimbabwe	2012
Egypt	2013	Lithuani	1990	Serbia	2001		
El Salva	1981	Lithuani	1997	Serbia	2008		
EI Salva	1999	Luxembou	1981	Serbia a	2005		

We included four WVS items which ask whether it is justifiable to "accept a bribe in the course of ones duties" (WVS item f117, bribe), "claiming undeserved government benefits" (f114, benefits) "avoiding a fare on public transport" (f115, fare), and "cheating on taxes if one has the chance" (f116, taxes).² In the main text, we only reported the results for our main variable, inequity, for each of our four outcome variables. Tables B.1, B.2, B.3, and 4 report the results of these three additional estimations. Though the coefficients for some of the control variables change sign, the coefficient for the inequity variable remains highly significant and of roughly the same magnitude across all four specifications.

For each of the 77 countries in our sample, figures B.1 and B.2 display $\alpha_{0,j}$ and $\beta_{1,j}$ for the *bribe* outcome variable; figures B.3 and B.4 display $\alpha_{0,j}$ and $\beta_{1,j}$ for *benefits*; figures B.5 and B.6 display $\alpha_{0,j}$ and $\beta_{1,j}$ for *fare*; and figures B.7 and B.8 display $\alpha_{0,j}$ and $\beta_{1,j}$ for *taxes*. Error bars in the figures are standard errors of the mean.

²There are additional items which are conceptually related, including whether it is justifiable to engage in the following activities: "joyriding", "lying", "paying cash to avoid taxes", "buying stolen goods", "keeping money you have found" and "failing to report damage you've done accidentally to a parked vehicle." However, because there is much less country-year coverage—including no data for either of our two countries of interest—for these items, we do not report any results for them here. Nonetheless, the same relationship between a belief in just deserts and these items holds. The estimating equations remain the same as those reported in the text with the only difference being the item(s) used for the dependent variable.

	(1) Baseline	(2) Intercept Only	(3)Intercept & Slope
	Fixed Effe	cts Parameters	
Inequity (s.e.)	0.0617 (0.00157)	0.0646 (0.00157)	0.0580 (0.00736)
p-value	0.000	0.000	0.000
Inequality (s.e.)	0.00666 (0.00151)	0.00756 (0.00152)	0.00721 (0.00151)
p-value	0.000	0.000	0.000
Trust (s.e.)	-0.0233 (0.0103)	0.000791 (0.0104)	0.00517 (0.0103)
p-value	0.024	0.939	0.616
Income (s.e.)	0.0358 (0.0019)	0.0367 (0.00194)	0.0321 (0.00194)
p – value	0.000	0.000	0.000
Gini (s.e.)	0.0198 (0.0005)	0.0532 (0.00225)	0.0434 (0.00227)
p – value	0.000	0.000	0.000
Corruption (s.e.)	-0.00523 (0.0003)	-0.00113 (0.000941)	0.000315 (0.000940)
p – value	0.000	0.230	0.738
GDP (s.e.)	-1.90e-6 (0.542e-6)	1.9e-5 (1.01e-6)	1.16e-5 (1.00e-6)
p – value	0.000	0.000	0.000
α_{00} (s.e.)	0.957 (0.0315)	- 0.718 (0.117)	-0.301 (0.113)
p – value	0.000	0.000	0.008
	Random Eff	cts Parameters	
$\operatorname{var}(\delta_{1,j})$	_	_	0.062 (0.005)
$\operatorname{var}(\delta_{0,j})$	_	0.622 (0.051)	0.558 (0.047)
$var(E_{ij})$	1.802 (0.003)	1.739 (0.003)	1.727 (0.003)
	Country-Specific	Slopes and Intercepts	
$\alpha_{0,US}$	_	-1.649	-1.292
95% C.I.	_	[-1.700, -1.598]	[-1.384, -1.200]
$\alpha_{0,Italy}$	_	-1.409	-0.768
95% C.I.	_	[-1.546, -1.272]	[-1.052, -0.484]
$eta_{1,US}$	_	_	0.090
95% C.I.	_	_	[0.069, 0.111]
$eta_{1,Italy}$	_	_	0.014
95% C.I.		_	[-0.034, 0.061]
N (# obs)	166,236	166,236	166,236
M (# countries)	77	77	77
Log-Likelihood	-333,761	-328,111	-327,065

Table B.1: MLM WVS Results Justifying Bribe-Taking

Notes: All models were estimated using Stata's xtmixed command.

	(1)	Baseline	(2) Intercept Only	(3)Intercept & Slope
		Fixed Effec	ts Parameters	
Inequity (s.e.)	0.069	(0.002)	0.074 (0.002)	0.075 (0.009)
p – value	0.0	00	0.000	0.000
Inequality (s.e.)	-0.01	7 (0.002)	-0.008(0.002)	-0.008(0.002)
p-value	0.00	0	0.000	0.000
Trust (s.e.)	-0.04	3 (0.014)	0.012 (0.138)	0.015 (0.014)
p – value	0.00	2	0.372	0.259
Income (s.e.)	0.020	(0.003)	0.021 (0.003)	0.017 (0.003)
p-value	0.00	0	0.000	0.000
Gini (s.e.)	0.021	(0.001)	0.053 (0.003)	0.046 (0.003)
p-value	0.00	0	0.000	0.000
Corruption (s.e.)	-0.01	2 (0.001)	0.010 (0.001)	0.011 (0.001)
p – value	0.00	0	0.000	0.000
GDP (s.e.)	-2.45	e-07 (7.20e-07)	1.64e-05 (1.33e-06)	1.46e-05 (1.34e-06)
p-value	0.73	4	0.000	0.000
α_{00} (s.e.)	2.13 (0.042)	-0.401 (0.168)	-0.137 (0.166)
p – value	0.00	0	0.017	0.410
	Co	ountry-Specific S	Slopes and Intercepts	
$\alpha_{0,US}$ (s.e.)			-1.93 (0.034)	-1.76 (0.062)
conf. interval			[-2.00, -1.87]	[-1.88, -1.64]
$\alpha_{0,Italy}$ (s.e.)			-1.60 (0.092)	-1.20 (0.190)
conf. interval			[-1.78, -1.41]	[-1.57, -0.82]
$\beta_{1,US}$ (s.e.)				0.11 (0.014)
conf. interval				[0.082, 0.136]
$\beta_{1,Italy}$ (s.e.)				0.05 (0.031)
conf. interval				[-0.01, 0.11]
N (# obs)	164,64	43	164,643	164,643
M (# countries)	77		77	77
Log-Likelihood	-376	,697	-370,845	-370,293

Table B.2: MLM WVS Results: Claiming Undeserved Government Benefits

Notes: The dependent variable is α_{00} is the "grand mean" or global intercept. $\alpha_{0,US}$ and $\alpha_{0,Italy}$ are the country-specific intercepts and $\beta_{1,US}$ and $\beta_{1,Italy}$ are the country-specific slopes for the U.S. and Italy, respectively. Model (1) is a model with no random effects parameters; model (2) includes random intercepts; and model (3) includes both random intercepts ($\alpha_{0,j}$) and random slopes $\beta_{1,j}$. All models were estimated using Stata's xtmixed command.

	(1)	Baseline	(2)	Intercept Only	(3)Intercept & Slope
		Fixed Ef	fects	Parameters	
Inequity (s.e.)	0.09	9 (0.002)	0.0	82 (0.002)	0.081 (0.008)
p-value	0.0	000	0	.000	0.000
Inequality (s.e.)	-0.0	06 (0.002)	-0	.001 (0.002)	-0.001 (0.002)
p – value	0.0	04	0.	.548	0.466
Trust (s.e.)	-0.0	033 (0.014)	-0	.006 (0.014)	-0.007(0.014)
p – value	0.0	19	0.	.665	0.600
Income (s.e.)	0.033	3 (0.003)	0.0	34 (0.003)	0.030 (0.003)
p - value	0.0	00	0.	.00	0.000
Gini (s.e.)	0.020	6 (0.001)	0.0	96 (0.003)	0.089 (0.003)
p – value	0.0	00	0.	.000	0.000
<i>Corruption</i> (s.e.)	-0.0	017 (0.001)	-0	.001 (0.001)	-0.001(0.001)
p - value	0.0	00	0.	.395	0.693
GDP (s.e.)	1.1e-	05 (7.24e-07)	-5	.87e-06 (1.34e-06)	4.47e-06 (1.44e-06)
p – value	0.0	00	0.	.000	0.001
α_{00} (s.e.)	1.81	(0.042)	-1	.36 (0.168)	-1.100(0.167)
p-value	0.0	00	0.	.000	0.000
	С	ountry-Specifi	ic Slo	opes and Intercepts	
$\alpha_{0,US}$ (s.e.)			-2	.27 (0.034)	-2.14 (0.062)
conf. interval			[·	-2.34, -2.21]	[-2.26, -2.02]
$\alpha_{0,Italy}$ (s.e.)			-1	.78 (0.092)	-1.41 (0.188)
conf. interval			[·	-1.96, -1.59]	[-1.78, -1.04]
$\beta_{1,US}$ (s.e.)					0.13 (0.014)
conf. interval					[0.10, 0.15]
$\beta_{1,Italy}$ (s.e.)					0.06 (0.031)
conf. interval					[-0.01, 0.12]
N (# obs)	162,	599	162	2,599	162,599
M (# countries)	76		76		76
Log-Likelihood	-37	3,332	-3	66,670	-366,267

Table B.3: MLM WVS Results: Avoiding Transport Fare

Notes: The dependent variable is α_{00} is the "grand mean" or global intercept. $\alpha_{0,US}$ and $\alpha_{0,Italy}$ are the country-specific intercepts and $\beta_{1,US}$ and $\beta_{1,Italy}$ are the country-specific slopes for the U.S. and Italy, respectively. Model (1) is a model with no random effects parameters; model (2) includes random intercepts; and model (3) includes both random intercepts ($\alpha_{0,j}$) and random slopes $\beta_{1,j}$. All models were estimated using Stata's xtmixed command.

	(1)	Baseline	(2)	Intercept Only	(3)Intercept & Slope
		Fixed Effe	ects P	Parameters	
Inequity (s.e.)	0.095	(0.002)	0.0	082 (0.002)	0.079 (0.008)
p-value	0.00)0	0	.000	0.000
Inequality (s.e.)	0.006	(0.002)	0.0	07 (0.002)	0.008 (0.002)
p-value	0.00	1	0	.000	0.000
Trust (s.e.)	-0.07	2 (0.013)	-0	.006 (0.013)	-0.003 (0.013)
p – value	0.00	0	0	.641	0.813
Income (s.e.)	0.049	(0.002)	0.0	52 (0.002)	0.048 (0.002)
p – value	0.00	0	0	.000	0.000
Gini (s.e.)	0.007	(0.001)	0.0	86 (0.003)	0.076 (0.003)
p-value	0.00	0	0	.000	0.000
Corruption (s.e.)	-0.08	(0.003)	-0	.006 (0.001)	-0.006(0.001)
p - value	0.00	0	0	.000	0.000
GDP (s.e.)	-3.24	e-06 (6.74e-07)	-1	.36e-05 (1.28e-06)	-1.50e-05 (1.28e-06)
p-value	0.00	0	0	.000	0.000
α_{00} (s.e.)	1.92 (0).039)	-0	.921 (0.161)	-0.537(0.159)
p-value	0.00	0	0	.000	0.001
	С	ountry-Specific	Slop	bes and Intercepts	
$\alpha_{0,US}$ (s.e.)			-1	.28 (0.031)	- 0.9 7 (0.057)
conf. interval			E	-1.34, -1.22]	[-1.08, -0.85]
$\alpha_{0,Italy}$ (s.e.)			-0	.63 (0.085)	- 0.05 (0.176)
conf. interval	—		[-0.79, -0.46]	[-0.39, 0.29]
$\beta_{1,US}$ (s.e.)					0.11 (0.013)
conf. interval					[0.09, 0.14
$\beta_{1,Italy}$ (s.e.)					0.04 (0.029)
conf. interval					[-0.02, 0.097]
N (# obs)	163,57	0	163	3,570	163,570
M (# countries)	77		77		77
Log-Likelihood	-361,	135	-3	54,993	-354,362

Table B.4: MLM WVS Results: Cheating on Taxes

Notes: The dependent variable is α_{00} is the "grand mean" or global intercept. $\alpha_{0,US}$ and $\alpha_{0,Italy}$ are the country-specific intercepts and $\beta_{1,US}$ and $\beta_{1,Italy}$ are the country-specific slopes for the U.S. and Italy, respectively. Model (1) is a model with no random effects parameters; model (2) includes random intercepts; and model (3) includes both random intercepts ($\alpha_{0,j}$) and random slopes $\beta_{1,j}$. All models were estimated using Stata's xtmixed command.

Figure B.1: Random Intercepts: Justification of Bribery by Country

Philippines =				
Mali –				
Azerbaijan -				
Slovakia -				
Hungary =				
Crach Ban =				
Albania -				
France =				
Ukraine =				
Croatia -				
Belarus -				
Kyrgyzstan -			-	
Bulgaria -				
Latvia -				
Sweden -				
Kazakhstan -				
Moldova -				
Slovenia –				
Venezuela -				
Pakistan =				
Bosnia -				
Jithuania -				
Zambia =				
Lizbekistan =				
Ghana -				
Montenegro -				
Thailand -				
Algeria -				
Romania -		-0-		
Germany -				
Iraq -				
Rwanda -				
Ethiopia -				
Armenia -				
Finland -				
Poland -				
Egypt -				
Serbia -				
Nigeria -	~			
Dom Ren =				
Estonia -				
Norway -	· · · · · · · · · · · · · · · · · · ·			
Mexico -	-	0		
Cyprus -		e		
Netherlands -		e		
China -		D —		
Iran -	·	p		
Georgia –	_	<u> </u>		
Russia -	_	—		
Tunisia -				
Jordan -				
Bangladesh =				
United Kingdom -				
Malaysia -		20		
Spain -				
Switzerland -				
Indonesia -				
Morocco -	· · · · · · · · · · · · · · · · · · ·			
Italy -	· · · · ·			
Viet Nam -				
Uruguay -	· · · · · · · · · · · · · · · · · · ·			
Turkey -				
Australia =				
Frinidad -				
Canada =				
Peru =				
Chile -				
El Salvador -				
Brazil -				
South Africa -	-0-			
Colombia -				
United States -	- - -			
	1	ó	4	
	-1	U	1	

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Figure B.2: Random Slopes: Sensitivity to Meritocratic Inequity by Country (Bribery)

South Africa	-				
Malaysia	-				
Zambia	-				
India	-			e	
Albania	-				
Egypt	-				
Algeria	2				
Moldova	_				
Mexico	-				
Viet Nam	-				
Ecuador	-				
Indonesia	-				
Thailand	-				
Yemen	-				
Peru	2				
United States	-		-		
Armenia	-				
Kazakhstan	-		•		
Morocco	-				
Belarus	-				
Canada	-				
Ghana	-				
Croatia	-				
Iran Kurauretan	2				
Spain	-				
Lithuania	_				
Romania	-				
China	-				
Mali	-				
Czech Rep.	-				
Finland	-				
Ethiopia	-				
Ectoria	-				
Slovakia	2		- 5		
Latvia	-				
Pakistan	-				
Japan	-				
Australia	-				
Tunisia	-				
Trinidad	-				
Bulgaria	2				
Iordan	_				
Hungary	-				
United Kingdom	-				
Brazil	-				
Ukraine	-				
Serbia	-				
Montenegro	-				
Switzerland	2				
Russia	_				
Colombia	-				
Rwanda	-				
Chile	-				
Bosnia	-				
Venezuela	-				
Italy	-				
Germany	2				
Netherlands	_				
Uruguay	-				
Slovenia	-				
Banglade	-				
El Salvador	-				
Dom. Rep.					
Sweden	-				
Turkey	2				
Poland	-				
Uzbekistan					
France	-				
Azerbaijan					
	0.1	00	01	0.0	0.2
	-0.1	0.0	0.1	0.2	0.5

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Figure B.3: Random Intercepts: Justification of Benefits Fraud by Country

Albania -			-	
Philippi -				
Algeria -				
Croatia -				
Iran -		-0		
Ukraine -		-0-		
Kyrgyzst -				
Belarus -		-0-		
Slovakia -				
Mexico -		-0-		
Moldova -				
India -		-0-		
Latvia =				
Kazakhet =				
Mali -				
Ivian -				
Uzbekist -				
Macedoni -				
Thailand =				
Czech Re -				
China -		-0-		
Slovenia –				
Estonia -		-0-		
Monteneg -				
Azerbaij -		-0-		
Armenia -				
France -				
Iraq -				
Pakistan -				
Lithuani =				
Viat Nam =				
Sanhia -				
Serbia -				
Jordan -				
Poland -				
Chile -				
Russia -				
Ethiopia -				
Peru -		-0		
Bosnia -				
Romania -		-0-		
Egypt -		-0-		
Bulgaria -				
Banglade -				
Yemen =		-0		
Indonesi -				
Gaorgia -		A-		
Ecuador =				
Tunisis -				
Tunisia -				
El Salva -				
Dominica -				
Zambia =		• 3		
Malaysia -				
Hungary -				
Ghana -	-8			
Cyprus -				
Venezuel =				
Trinidad -				
Spain -	-0-			
Brazil -	-0			
Nigeria -				
Morocco -				
Japan -				
Finland =				
Sweden =				
Uniquay =				
Coloringuay -				
Colombia -				
Turkey -				
Italy -				
Germany -				
Rwanda -				
Norway -				
South Af -	-0-			
Great Br -				
Switzerl -				
Australi -	-0-			
Canada -	0			
Netherla -				
United S -				
	1	1.		1
	-2	0	2	4
	55 dd	17 A	Real	100

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Figure B.4: Random Slopes: Sensitivity to Meritocratic Inequity by Country (Benefits Fraud)



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Figure B.5: Random Intercepts: Justification of Transport Fare Evasion by Country



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Figure B.6: Random Slopes: Sensitivity to Meritocratic Inequity by Country (Transport Fare Evasion)





Figure B.7: Random Intercepts: Justification of Tax Evasion by Country

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Figure B.8: Random Slopes: Sensitivity to Meritocratic Inequity by Country (Tax Evasion)



C Experimental Instructions

The same instructions, translated in Italian, were used for the sessions conducted in Italy. The Italian version of the instructions is available upon request.

Introduction

Welcome to our Laboratory. Today, you will participate in a study of individual behavior lasting about an hour for which there is a cash payment that depends on your choices and the choices of other participants.

During the experiment your earnings will be calculated in tokens. Each token is worth 1 cent. Payment will be made in cash at the end of this session and the payments will be carried out in such a way that no other participant will know how much you earned.

The experiment is divided into three phases. At each stage you will be asked to make certain decisions or to answer some questions.

From this point on, all talking or other communication with other participants is prohibited. If you want to ask a question, raise your hand. Please turn off you cell phones and other devices and store them for the duration of the experiment.

Phase 1

In this stage you will be shown a text in a foreign language and you have to record on each line the number of times the letters "c" and "e" appear. You have 5 minutes to complete this exercise.

After all participants have completed the letter counting task, the computer will produce a ranking of all participants based on their performance on the task. Your performance is measured by taking the deviation, in absolute value, between the true number of c's and e's in each line of the text and the number you recorded. This tally is recorded for each line and then summed over all 15 lines of text. The participant with the lowest score is then considered to have the best performance. The 12 participants with the lowest scores will be classified as "high-performers" while the 12 participants with the highest scores will be classified as "low-performers".

For Treatments, UE, UI and EE

After your performance has been ranked, the computer will randomly select your partner for Phase 2. If you are a "high-performer" you will be paired with a "low-performer" and if you are a "low-performer" then you will be paired with a "high-performer".

-OR-

For Treatment EE

After your performance has been ranked, the computer will randomly select your partner for Phase 2. If you are a "high-performer" you will be paired with another "high-performer" and if you are a "low-performer" then you will be paired with another "low-performer".

The assignment of your initial payment is based on whether you are classified as a high performer or a low-performer. There are four possible cases for the payment:

In three of the four scenarios the payment to the high performers will be greater than or equal to the payment to the low performers.

In one out of the four scenarios the payment to the high performers will be less than the payment to the low performers.

You will be notified of which scenario you have been assigned to at the end of phase 1, and just before the start of phase 2.

From here on out, please carefully follow the instructions on the screen. Remember to click "continue" so the group can continue with the experiment.

Task

Here is a text in a foreign language. For each row, count how many times the letters "c" and "e" appear. Then enter the number of times "c" appears in the first column, and enter the number of times "e" appears in the second column.

Effort Report

Before proceeding, indicate on a scale from 0 to 4 how much effort you dedicated to the preceding task (0 = minimal effort and 4 = maximum effort):

Classification

The computer will now order the scores obtained by each participant on the effort task. The 12 participants with the highest scores will be henceforth called "high performers", while the 12 participants with the lowest scores will be referred to as "low performers".

Treatment UE

This session has been assigned to scenario 1. In scenario 1, high performers (B's) receive 1000 tokens and low-performers (A's) receive 300 tokens. As compensation for the effort task in phase 1, the computer will credit you with:

- 1000 tokens for the high performers
- 300 tokens for the low performers

-OR-

Treatment UI

This session has been assigned to scenario 1. In scenario 1, high performers (B's) receive 300 tokens and low-performers (A's) receive 1000 tokens.

As compensation for the effort task in phase 1, the computer will credit you with:

- 300 tokens for the high performers
- 1000 tokens for the low performers

-OR-

Treatment EI and EE

This session has been assigned to scenario 1. In scenario 1, high performers (B's) receive 1000[high]/300[low] tokens and low-performers (A's) receive 1000[high]/300[low] tokens.

As compensation for the effort task in phase 1, the computer will credit you with:

- 1000[high]/300[low] tokens for the high performers
- 1000[high]/300[low] tokens for the low performers

This amount will be paid to each participant together with the earnings from Phase 2 and 3. Your score in the Phase 1 is among the 12 highest scores. For this reason you are classified as a high-performer. The computer will assign you 1000/300 tokens.

-OR-

Your score in the Phase 1 is among the 12 lowest scores. For this reason you are classified as a low-performer. The computer will assign you 300/1000 tokens.

Phase 2

For Treatments UE, UI and EE

For this phase, you have now been paired with a partner. Each low-performer which we will refer to as "A" has been randomly paired with a high-performer, which we will refer to as "B". B has been put in charge of an account of 1500 tokens which belongs to A. B will receive 25 binary signals (RED / GREEN). Each signal is randomly generated by the computer and each signal red or green has an equal probability of occurring each of the 25 times (thus, it is like flipping a coin). The random value of each signal is communicated privately to only B. The green signal means that B is entitled to take 40 tokens from the A's account. The red signal means that B leaves A's account untouched.

-OR-

For Treatments EE

For this phase, you have now been paired with a partner. Each low[high]-performer which we will refer to as "A" has been randomly paired with a low[high]-performer, which we will refer to as "B". B has been put in charge of an account of 1500 tokens which belongs to A. B will receive 25 binary signals (RED / GREEN). Each signal is randomly generated by the computer and each signal red or green has an equal probability of occurring each of the 25 times (thus, it is like flipping a coin). The random value of each signal is communicated privately to only B. The green signal means that B is entitled to take 40 tokens from the A's account. The red signal means that B leaves A's account untouched.

The total number of red and green signals reported by B will be announced to A at the end of phase 2, together with the net amount of his or her account.

What ultimately matters for the actual transfer of payments from the account as well as what is communicated to each A, are the signals as reported the B partner of each A: in other words, if B registers a signal different from that generated by the computer, whether money is transferred from A's account to B's account is determined by the reported signal, not the computer-generated signal. Once B has recorded a signal, its value can no longer be changed.

At the end of this phase, each A subject will receive the amount of the original account (1000 tokens) less the number of green signals reported by their partner times 60 (because 60 tokens is lost with the reporting of each green signal). A's must wait for their partners to receive and report all 25 signals. During this time each A will be asked to predict the number of green signals that they expect their partner to report.

Test Rounds

Before we begin Phase 2 each of you will assume the role of B for 4 practice rounds. These practice rounds are for illustrative purposes only and thus do not affect final earnings. In each round will receive a signal, red or green, and then you will be asked to report the signal. The computer will then display the hypothetical effects of the reported signal on the earnings of each partner.

Explanation

In this round of testing you have received a red signal. We have asked you to record the signal incorrectly as green. As a result, if you were B you would have transferred 40 tokens from A's account into your account. This is because the transfer is determined by the reported signal rather than the signal that was generated by the computer.

Assignment to Scenarios

This session has been assigned to scenario 3. In scenario 1, high performers (B's) receive 1000 (300) tokens and low-performers (A's) receive 1000 (300) tokens.

This session has been assigned to scenario 4. In scenario 2, high performers (B's) receive 1000 (300) tokens and low-performers (A's) receive 1000 (300) tokens.

Assigning the role of low-performer or high-performer

The computer has now assigned your roles and partners for this session Your performance ranking classifies you as a low-performer and therefore you will play the role of A. For this reason, you are the owner of the account with 1000 tokens. You have been randomly matched to a participant whose performance classifies him or her as a high-performer, and thus will play the role of B. Your partner will administer your 1000-token account based on the values reported after observing the series of randomly generated signals. During this stage, your only task is to predict the number of green signals you expect to be recorded by your partner. (Remember that each of the two signals is equally likely to occur each time, therefore the process is similar to flipping a coin 25 times.) Recall that because of the scenario you were selected to be in and your status as a low-performer you will receive 200 (700) tokens in addition to the amount determined by the reporting of the signals in this phase.

-OR-

The computer has now assigned your roles and partners for this session. Your performance ranking classifies you as a high-performer and therefore you will play the role of B. You have been randomly matched with a low-performer, who will be designated as player A. You will administer the 1000-token account owned by A. You will receive a series of 25 binary signals, your recording of which will determine whether a transfer from your partner's account to your account takes place. Recall that because of the scenario you were selected to be in and your status as a high-performer you will receive 700 (200) tokens in addition to the amount determined by the reporting of the signals in this phase.

Phase 3

Phase 2 is completed. Before showing you the results, we ask you to complete a task identical to the one you completed in Phase 1. You will be shown a new text in a foreign language and you have to record on each line the number of times the letters "c" and "e" appear. Again, you

have 5 minutes to do this exercise. Once the time expires, you will receive a payment on the basis of correct answers. For each correct count, you will receive 10 tokens.

Effort Report

Before proceeding, once again indicate on a scale from 0 to 4 how much effort you dedicated to the preceding task (0 = minimal effort and 4 = maximum effort).

References

- Fischbacher, Urs. 2007. "z-Tree: Zurich toolbox for ready-made economic experiments." *Experimental economics* 10(2):171–178.
- Frank, Bjrn and Gnther G Schulze. 2000. "Does economics make citizens corrupt?" *Journal of Economic Behavior & Organization* 43(1):101 113.
- Greiner, Ben. 2004. "The online recruitment system orsee 2.0-a guide for the organization of experiments in economics." *University of Cologne, Working paper series in economics* 10(23):63–104.
- Zizzo, Daniel John. 2004. Inequality and procedural fairness in a money-burning and stealing experiment. In *Inequality, Welfare and Income Distribution: Experimental Approaches*, ed. F.A. Cowell. Vol. 11 Elsevier pp. 215 247.