Online Appendix

Policy-taking styles: a typology and an empirical application to anti-Covid policies

Marco Giuliani

Department of Social and Political Sciences, Università degli studi di Milano

Datasets and code @: Harvard Dataverse https://doi.org/10.7910/DVN/D5FZSU

Contents

1.	Descriptive statistics	2
	1	
2.	Additional analysis	.10
3	Robustness	11
5.		• • •
Refe	erences	13
1.010		•••

1. Descriptive statistics



Fig. A.1 Weekly average change in workplace mobility (Google LLC, 2021)

	Mean	Std. Dev.	Min	Max
Austria	-25.80	13.13	-61.14	1.43
Belgium	-26.10	14.12	-61.71	2.29
Bulgaria	-22.50	10.68	-60.20	3.57
Croatia	-18.65	13.76	-59.14	2.14
Czechia	-18.56	13.06	-66.60	2.50
Denmark	-22.69	14.17	-71.80	2.00
Estonia	-21.50	12.14	-52.57	2.00
Finland	-23.79	11.41	-55.60	-2.50
France	-26.20	15.24	-68.86	-1.50
Germany	-19.68	11.48	-61.80	0.00
Greece	-22.07	14.41	-60.00	2.71
Hungary	-20.04	13.19	-65.80	3.50
Ireland	-33.11	14.41	-72.80	1.14
Italy	-25.23	14.48	-68.29	0.71
Latvia	-23.02	11.21	-55.57	2.71
Lithuania	-18.63	13.99	-56.43	5.57
Luxembourg	-27.64	16.69	-71.57	0.00
Malta	-20.20	13.82	-58.57	3.14
Netherlands	-24.21	10.61	-60.40	1.57
Norway	-24.75	12.95	-68.60	-1.86
Poland	-15.86	12.31	-47.14	7.86
Portugal	-24.77	14.66	-65.43	2.14
Romania	-21.68	11.77	-54.57	7.57
Slovakia	-21.43	13.26	-62.40	2.50
Slovenia	-21.61	14.19	-59.29	4.50
Spain	-25.36	15.16	-75.14	2.43
Sweden	-23.25	11.36	-64.20	-1.57
Switzerland	-20.92	11.62	-62.00	-1.57
United Kingdom	-34.14	14.13	-69.40	0.86
Total	-23.22	13.80	-75.14	7.86

Tab.A.1 Descriptive statistics of change in mobility per country

Source: (Google LLC, 2021)



Fig. A.2 Weekly average stringency of workplace regulation (0-100 scale) (Hale et al., 2021)

	Mean	Std. Dev.	Min	Max
Austria	62.87	23.87	0.00	100.00
Belgium	69.31	19.53	0.00	100.00
Bulgaria	50.22	20.63	0.00	100.00
Croatia	43.82	26.20	0.00	100.00
Czechia	46.06	23.99	0.00	100.00
Denmark	58.49	20.65	0.00	100.00
Estonia	41.58	31.00	0.00	100.00
Finland	37.59	18.69	0.00	66.67
France	62.91	22.55	0.00	100.00
Germany	61.45	22.52	0.00	100.00
Greece	56.18	23.26	0.00	100.00
Hungary	36.53	29.70	0.00	100.00
Ireland	71.19	26.36	0.00	100.00
Italy	75.37	18.36	0.00	100.00
Latvia	56.81	23.88	0.00	100.00
Lithuania	46.39	30.32	0.00	100.00
Luxembourg	43.19	22.55	0.00	100.00
Malta	42.09	29.86	0.00	100.00
Netherlands	67.63	18.84	0.00	100.00
Norway	45.57	25.42	0.00	83.33
Poland	52.61	23.81	0.00	100.00
Portugal	68.49	18.53	0.00	100.00
Romania	43.22	17.45	0.00	66.67
Slovakia	48.68	25.33	0.00	100.00
Slovenia	49.16	28.06	0.00	100.00
Spain	52.84	21.28	0.00	100.00
Sweden	33.00	24.80	0.00	66.67
Switzerland	56.57	22.31	0.00	100.00
United Kingdom	66.86	22.45	0.00	100.00
Total	53.33	26.25	0.00	100.00

Tab.A.2 Descriptive statistics of stringency of workplace regulation

Source: (Hale et al., 2021)

		Other	Economic	New cases	Log
Austria	Maan	E2 04		(per 1000)	16.02
Austria	Iviean Std Dov	55.84 10.41	91.30	0.21	16.02
	Stu. Dev.	19.41	20.61	0.28	
	IVIIII		100.00	0.00	
Deleium	IVIAX	/8.5/	100.00	1.56	16.27
Beigium	Iviean	46.94	75.09	0.26	16.27
	Sta. Dev.	16.08	17.68	0.34	
	IVIIII N 4 aug	0.00	0.00	0.00	
	IVIAX	76.19	100.00	1.60	
Bulgaria	Iviean	38.71	65.89	0.16	15.75
	Sta. Dev.	15.58	21.07	0.18	
	IVIIN	3.57	0.00	0.00	
	Max	/5.00	87.50	0.69	
Croatia	Mean	38.05	53.95	0.26	15.22
	Std. Dev.	20.35	23.17	0.32	
	Min	3.57	0.00	0.00	
	Max	95.24	87.50	1.35	
Czechia	Mean	43.67	64.23	0.34	16.19
	Std. Dev.	20.75	24.64	0.43	
	Min	10.71	0.00	0.00	
	Max	80.95	100.00	1.83	
Denmark	Mean	42.28	53.46	0.19	15.58
	Std. Dev.	17.25	33.97	0.34	
	Min	0.00	0.00	0.00	
	Max	69.05	100.00	2.88	
Estonia	Mean	31.79	42.38	0.27	14.10
	Std. Dev.	15.44	31.32	0.32	
	Min	0.00	0.00	0.00	
	Max	71.43	100.00	1.37	
Finland	Mean	36.44	68.77	0.07	15.53
	Std. Dev.	13.49	16.77	0.09	
	Min	10.71	0.00	0.00	
	Max	67.86	75.00	0.94	
France	Mean	56.90	53.53	0.21	18.03
	Std. Dev.	16.31	24.34	0.24	
	Min	3.57	0.00	-0.02	
	Max	84.52	100.00	2.10	
Germany	Mean	59.14	39.03	0.12	18.25
	Std. Dev.	16.84	12.30	0.15	
	Min	0.00	0.00	0.00	
	Max	80.95	62.50	0.69	
Greece	Mean	66.47	76.60	0.16	16.15
	Std. Dev.	18.75	22.23	0.19	
	Min	0.00	0.00	0.00	
	Max	88.10	87.50	2.02	

Tab. A.3 Descriptive statistics of demographic, epidemiological and other policy variables

Hungary	Mean	45.52	45.17	0.20	16.08
	Std. Dev.	22.55	24.73	0.27	
	Min	0.00	0.00	0.00	
	Max	77.38	87.50	1.05	
Ireland	Mean	54.94	93.44	0.22	15.42
	Std. Dev.	23.52	22.09	0.32	
	Min	0.00	0.00	0.00	
	Max	88.10	100.00	2.78	
Italy	Mean	67.80	68.62	0.14	17.92
	Std. Dev.	11.03	17.19	0.16	
	Min	10.71	0.00	0.00	
	Max	91.67	75.00	1.32	
Latvia	Mean	41.22	56.85	0.22	14.44
	Std. Dev.	13.40	35.24	0.27	
	Min	0.00	0.00	0.00	
	Max	65.48	100.00	1.34	
Lithuania	Mean	43.86	69.59	0.29	14.81
	Std. Dev.	21.80	23.39	0.32	
	Min	0.00	0.00	0.00	
	Max	83.33	100.00	1.14	
Luxembourg	Mean	40.90	63.43	0.24	13.36
	Std. Dev.	14.22	33.89	0.25	
	Min	0.00	0.00	-0.27	
	Max	73.81	100.00	1.09	
Malta	Mean	46.50	59.77	0.14	13.15
	Std. Dev.	17.85	12.52	0.21	
	Min	0.00	0.00	0.00	
	Max	88.10	62.50	2.13	
Netherlands	Mean	50.49	68.44	0.27	16.66
	Std. Dev.	20.31	20.58	0.28	
	Min	0.00	0.00	0.00	
	Max	77.38	87.50	1.31	
Norway	Mean	41.85	35.64	0.10	15.51
	Std. Dev.	19.34	8.14	0.16	
	Min	0.00	0.00	0.00	
	Max	78.57	37.50	0.96	
Poland	Mean	47.82	66.84	0.16	17.45
	Std. Dev.	22.02	27.22	0.21	
	Min	0.00	0.00	0.00	
	Max	88.10	100.00	0.76	
Portugal	Mean	55.01	71.94	0.19	16.13
	Std. Dev.	17.46	14.16	0.26	
	Min	0.00	0.00	0.00	
	Max	84.52	75.00	1.74	
Romania	Mean	52.38	74.54	0.14	16.77
	Std. Dev.	19.21	21.22	0.17	
	Min	7.14	0.00	0.00	

	Max	88.10	87.50	0.79	
Slovakia	Mean	47.22	86.33	0.38	15.51
	Std. Dev.	19.99	20.56	0.50	
	Min	0.00	0.00	0.00	
	Max	88.10	100.00	2.08	
Slovenia	Mean	49.08	64.72	0.33	14.55
	Std. Dev.	22.77	18.57	0.36	
	Min	0.00	0.00	0.00	
	Max	88.10	75.00	1.61	
Spain	Mean	54.55	82.85	0.19	17.66
	Std. Dev.	17.75	18.55	0.21	
	Min	0.00	0.00	-0.13	
	Max	80.95	87.50	1.76	
Sweden	Mean	47.45	44.77	0.19	16.13
	Std. Dev.	19.55	16.66	0.19	
	Min	0.00	0.00	0.00	
	Max	65.48	62.50	0.73	
Switzerland	Mean	41.93	37.46	0.22	15.98
	Std. Dev.	12.68	12.94	0.27	
	Min	0.00	0.00	0.00	
	Max	65.48	62.50	1.72	
United Kingdom	Mean	54.81	85.02	0.27	18.04
	Std. Dev.	19.97	31.70	0.31	
	Min	0.00	0.00	0.00	
	Max	84.52	100.00	2.20	
Total	Mean	48.19	64.15	0.21	15.95
	Std. Dev.	20.19	27.59	0.28	1.31
	Min	0.00	0.00	-0.27	13.15
	Max	95.24	100.00	2.88	18.25

			Service		Urbani-	Poor
		Density	sector	Trust	zation	population
Austria	Mean	106.75	62.77	59.01	19.70	16.90
Belgium		375.56	69.50	29.46	1.30	19.50
Bulgaria		65.18	61.46	19.30	18.10	32.80
Croatia		73.73	58.76	23.69	19.30	23.30
Czechia		137.18	56.97	39.54	11.60	12.50
Denmark		136.52	64.69	77.78	13.80	16.30
Estonia		31.03	61.35	46.12	33.30	24.30
Finland		18.14	60.11	63.04	11.50	15.60
France		122.58	70.04	25.35	3.40	17.90
Germany		237.02	62.39	60.63	4.50	17.40
Greece		83.48	70.04	35.53	6.30	30.00
Hungary		108.04	56.39	46.46	17.80	18.90
Ireland		69.87	57.29	51.04	24.30	20.60
Italy		205.86	66.36	28.63	4.70	25.60
Latvia		31.21	64.68	32.13	37.00	27.30
Lithuania		45.14	61.37	37.91	19.90	26.30
Luxembourg		231.45	79.16	72.91	19.70	20.60
Malta		1454.04	75.71	58.57	1.50	20.10
Netherlands		508.54	69.97	74.40	5.00	16.50
Norway		14.46	58.05	82.92	12.10	16.10
Poland		124.03	57.56	33.75	4.50	18.20
Portugal		112.37	65.64	51.89	5.50	21.60
Romania		85.13	59.05	33.90	10.00	31.20
Slovakia		113.13	58.62	29.34	7.80	16.40
Slovenia		102.62	56.55	24.70	13.50	14.40
Spain		93.11	67.94	24.90	7.00	25.30
Sweden		24.72	65.52	61.86	9.60	18.80
Switzerland		214.24	71.69	84.63	1.50	18.80
United Kingdom		272.90	70.90	33.48	13.30	23.10
Total	Mean	179.24	64.16	46.31	12.33	20.91
	Std. Dev.	264.20	6.00	19.29	8.89	5.08
	Min	14.46	56.39	19.30	1.30	12.50
	Max	1454.04	79.16	84.63	37.00	32.80

Tab. A.4 Descriptive statistics of time-invariant country control variables

2. Additional analysis

Based on suggestions from the literature in behavioral economics, which associates more cooperative behaviors with the diffusion of social capital (Putnam, 1993), we tested if different proxies of this concept are related to the countries' coordinates displayed in the map of Figure 3 in the article.

More specifically, we follow Knack and Keefer (1997) who used the World Value Survey to build two measures of social capital. The first measure, which they named 'Trust', is an index of interpersonal confidence, simply measuring the share of respondents who believe that 'most people can be trusted". The second measure, named 'Civic,' relies on a set of questions about the justifiability of certain behaviors. These include 'claiming government benefits to which you are not entitled,' 'avoiding a fare on public transport,' 'cheating on taxes,' and 'someone accepting a bribe'. We replicated both measures using the most recent waves of the World and European Value surveys, which ended exactly in the years covered by our analysis. Trust is a direct proxy of social capital, whereas Civic is inversely related to the concept.

In addition, we also followed Herrmann et al. (2008) who tested the aggregate measure 'Rule of law' included in the World Governance indicators (Kaufmann & Kraay, 2022). This measure is a component and direct proxy of a liberal civic culture (Bowles, 2016).

	Trust	Civic	Rule of law
Appropriateness	0.469**	-0.062	0.497***
	(0.018)	(0.769)	(0.006)
Consequentiality	-0.162	0.091	0.033
	(0.439)	(0.667)	(0.865)

Table A.5 Pairwise correlations (p-values in parentheses)

Table A.5 displays the correlation matrix between the appropriateness and conditionality measures represented by the countries' coordinates in Figure 3 and each of the three social capital proxies mentioned earlier.

Notably, appropriateness - defined as the cooperative and proactive attitude demonstrated by citizens in their responses to various levels of mobility restrictions - shows a significant positive correlation with Trust and Rule of Law, which is consistent with the experimental findings cited in the literature. However, the more complex Civic culture measure is not significantly correlated with appropriateness. As predictable, consequentiality - referring to the extent of the utilitarian element in citizens' mobility decisions after anti-COVID restrictions - does not exhibit any systematic relationship with the measures of social capital.

3. Robustness

It may be that some of the differences in policy-taking styles highlighted in Figure 3 in the article are systematically affected by structural country-differences. Unfortunately, it was not possible to include those variables directly in the models that produced the coefficients used in the map of policy-taking styles because of collinearity issues. To avoid that obstacle, but in order to control for that potential confounding element, we tried a different approach.

Instead of using workplace mobility as dependent variable, we used the quota of the mobility which did not depend on those structural differences. To obtain that quantity we first regressed workplace mobility on the structural country characteristics introduced for the models illustrated in Table 1 in the article – i.e. the size of the service sector, the share of poor citizens, the log of the population, demographic density and urbanization, and the amount of trust in government. We then computed the residuals of that panel regression to obtain a measure of work

11

mobility that did not depend on those characteristics, and finally followed the same procedure illustrated in the article to measure consequentiality and appropriateness. The new map is reported in Figure A.1.



Figure A.1. Map of policy-taking styles during the pandemic (with 95% confidence intervals)

The new map has many similarities with the one presented in the article, with very limited changes in positions or quadrants. A cooperative style still distinguishes the behaviour in Nordic countries, while a lack of consequentiality (with or without appropriateness) remains typical of most East-European countries. By contrast, most West-European countries still populate the upper quadrants of the map, being characterized by the consequential respect of work-mobility restrictions, with most South-European countries again sharing this characteristic coupled with a

lack of appropriateness in the obedient quadrant. Interestingly, by discounting the structural features recalled above, some of the most extreme positions of the preceding map are downgraded in Figure A.1. The clearest examples are the United Kingdom and Luxembourg: while both countries remain in the proactive quadrant, they are now much closer than before to the median vertical line. Very few countries change quadrant, and only because they were already close to the medians acting as cut-off points for the different policy-taking styles. In that event, even a limited change in position can produce a switch of quadrant. As a result, for example, Slovenia and Latvia swapped positions, Spain re-approached the other Southern states in the obedient quadrant, Austria and France moved towards Germany, and Denmark positioned itself at the centre of the map.

References

- Bowles, S. (2016). *The Moral Economy. Why Good Incentives Are No Substitute for Good Citizens.* Yale University Press.
- Google LLC. (2021). Google COVID-19 Community Mobility Reports. Retrieved 15 November 2021 from https://www.google.com/covid19/mobility/
- Hale, T., Angrist, N., Goldszmidt, R., Kira, B., Petherick, A., Phillips, T., Webster, S., Cameron-Blake, E., Hallas, L., Majumdar, S., & Tatlow, H. (2021). A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature Human Behaviour*, 5(4), 529-538. <u>https://doi.org/10.1038/s41562-021-01079-8</u>
- Herrmann, B., Thöni, C., & Gächter, S. (2008). Antisocial Punishment Across Societies. *Science*, *319*, 1362-1367.
- Kaufmann, D., & Kraay, A. (2022). *Worldwide governance indicators*. <u>https://info.worldbank.org/governance/wgi/</u>
- Knack, S., & Keefer, P. (1997). Does Social Capital Have an Economic Payoff? A Cross-Country Investigation. *The quarterly journal of economics*, *112*(4), 1251-1288.
- Putnam, R. D. (1993). *Making Democracy Work. Civic Traditions in Modern Italy*. Princeton University Press.