How Do European Citizens Form their Views of the EU Public Administration? Exploring the Role of Heuristics

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Online Appendix

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A Online Appendix

This Online Appendix includes additional empirical evidence and further discussion of claims that were made in the main body of the article. In subsection A.1, I describe the coding of the variables used in the empirical test in more detail. In subsection A.2, I show that the substantive results of the main regression models remain unchanged when using robust standard errors. In subsection A.3, I provide more details and additional empirical tests on the issue of general trust in public institutions. In subsection A.4, I explore whether there are heterogeneous effects of heuristics across different educational and socioeconomic groups. In subsection A.5, I discuss the issue of omitted variable bias in more detail. Finally, in subsection A.6, I argue that the use of the representativeness heuristic is fully compatible with the notion that some respondents would give answers out of "convenience."

A.1 Coding of Key Variables

In the main body of the article, I provide some initial information on the construction of key variables. Here, I provide further detailed information on the coding of these and other variables.

A.1.1 Key Dependent Variables

Trust in the EU Bureaucracy: "How much do you trust or distrust the central bureaucracy of the European Union?"

- 1. Completely trust (3)
- 2. Mostly trust (2)
- 3. Slightly trust (1)
- 4. Neither trust nor distrust (0)
- 5. Slightly distrust (-1)
- 6. Mostly distrust (-2)
- 7. Completely distrust (-3)

Corruption in the EU Bureaucracy: "Do you agree or disagree with the statement that corruption is a problem of the European Union's central bureaucracy?"

- 1. Strongly agree (3)
- 2. Mostly agree (2)
- 3. Slightly agree (1)
- 4. Neither agree nor disagree (0)

- 5. Slightly disagree (-1)
- 6. Mostly disagree (-2)
- 7. Strongly disagree (-3)

A.1.2 Key Explanatory Variables

Trust in the Domestic Central Public Administration: "How much do you trust or distrust the central bureaucracy of Romania?"

- 1. Completely trust (3)
- 2. Mostly trust (2)
- 3. Slightly trust (1)
- 4. Neither trust nor distrust (0)
- 5. Slightly distrust (-1)
- 6. Mostly distrust (-2)
- 7. Completely distrust (-3)

Trust in the Domestic Local Public Administration: "How much do you trust or distrust the local public administration?" 1

- 1. Completely trust (3)
- 2. Mostly trust (2)
- 3. Slightly trust (1)
- 4. Neither trust nor distrust (0)
- 5. Slightly distrust (-1)
- 6. Mostly distrust (-2)
- 7. Completely distrust (-3)

Perceived Levels of Corruption in the Domestic Central Public Administration: "Do you agree or disagree with the statement that corruption is a problem of Romania's central bureaucracy?"

¹Please note that, in terms of question wording, slightly different terminology was used at the local level by referring to "local public administration." It is important to acknowledge that the negative connotation of the term "bureaucracy" could potentially lead to differences in evaluations (Cook and Vogler, 2023). Yet the average difference between the two sets of indicators, is only at approximately 0.8 and 1.47 for trust and corruption, respectively, indicating that such concerns may not have a substantial influence on the overall results.

- 1. Strongly agree (3)
- 2. Mostly agree (2)
- 3. Slightly agree (1)
- 4. Neither agree nor disagree (0)
- 5. Slightly disagree (-1)
- 6. Mostly disagree (-2)
- 7. Strongly disagree (-3)

Perceived Levels of Corruption in the Domestic Local Public Administration: "Thinking about your own experiences and what you have heard from others, how common is it that people make informal payments to the local public administration to speed up bureaucratic procedures or ensure a positive response to a request (for example, to ensure that a request for a business permit will be approved)?"

- 1. Extremely common (3)
- 2. Very common (2)
- 3. Slightly common (1)
- 4. Neither common nor uncommon (0)
- 5. Slightly uncommon (-1)
- 6. Very uncommon (-2)
- 7. Extremely uncommon (-3)

A.1.3 Alternative Explanatory Variables

The Direction of the Domestic Economy: "Generally speaking, how satisfied or dissatisfied are you with the direction of Romania's economy?

- 1. Very satisfied (3)
- 2. Mostly satisfied (2)
- 3. Slightly satisfied (1)
- 4. Neither satisfied nor dissatisfied (0)
- 5. Slightly dissatisfied (-1)
- 6. Mostly dissatisfied (-2)

7. Very dissatisfied (-3)

The Economic Effect of EU Membership on the Domestic Economy: "Generally speaking, does Romania's membership in the European Union have a positive or negative effect on Romania's economy?"

- 1. Very positive (3)
- 2. Mostly Positive (2)
- 3. Slightly positive (1)
- 4. Neither positive nor negative (0)
- 5. Slightly negative (-1)
- 6. Mostly negative (-2)
- 7. Very negative (-3)

Trust in Police: "How much do you trust or distrust the local police?"

- 1. Completely trust (3)
- 2. Mostly trust (2)
- 3. Slightly trust (1)
- 4. Neither trust nor distrust (0)
- 5. Slightly distrust (-1)
- 6. Mostly distrust (-2)
- 7. Completely distrust (-3)

Trust in Courts: "How much do you trust or distrust the courts?"

- 1. Completely trust (3)
- 2. Mostly trust (2)
- 3. Slightly trust (1)
- 4. Neither trust nor distrust (0)
- 5. Slightly distrust (-1)
- 6. Mostly distrust (-2)
- 7. Completely distrust (-3)

Previous Habsburg Rule: This variable reflects whether or not a respondent lives in an area that was historically controlled by the Habsburg Empire. The data were produced for and are taken from Vogler (2022).

- 1. Historical Habsburg Territory (1)
- 2. Not Historical Habsburg Territory (0)

A.1.4 Additional Covariates

Here I present coding information on two additional covariates (for which the coding was not described in detail in the empirical test section).

Education Level: "What is the highest level of education that you have obtained?"

- 1. No high school degree (0)
- 2. High school finished without baccalaureate (1)
- 3. High school finished with baccalaureate (2)
- 4. Bachelor's degree (3)
- 5. Master's degree (4)
- 6. Doctoral degree (5) (No respondent chose this option)

Income Level: "What is the monthly net income of your household (after taxes) (without any unemployment benefits)?"

- 1. Less than RON 500 (1)
- 2. RON 500-1,499 (2)
- 3. RON 1,500-2,999 (3)
- 4. RON 3,000-4,999 (4)
- 5. RON 5,000-7,999 (5)
- 6. RON 8,000-11,999 (6)
- 7. RON 12,000-16,000 (7) (No respondent chose this option)
- 8. More than RON 16,000 (8) (No respondent chose this option)
- 9. All members of my household are retired (0)
- 10. No members of my household are working (0)

A.2 Regressions with Robust Standard Errors

In the main body of the article, the regressions are based on OLS without further standarderror adjustment. To complement these main results, here we also conduct analyses that use robust standard errors. The results can be found in Table A1 and Table A2. There are no substantive differences to any previously obtained empirical findings, which indicates that standard-error adjustment does not have any influence on the fundamental interpretation of the results.

			Dep	pendent vari	able:		
		Trust in EU Bureaucracy					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trust in Central PA	0.506^{***} (0.030)		0.482^{***} (0.033)	0.391^{***} (0.034)	0.367^{***} (0.040)	0.367^{***} (0.041)	0.364^{***} (0.045)
Trust in Local PA	()	0.301^{***} (0.037)	0.062^{*} (0.037)	0.047 (0.034)	-0.004 (0.046)	(0.003) (0.046)	-0.026 (0.050)
Direction of Econ.		()	()	-0.032 (0.027)	-0.001 (0.031)	-0.001 (0.031)	0.001 (0.035)
EU Effect on Econ.				0.368^{***} (0.034)	0.347^{***} (0.040)	0.346^{***} (0.040)	0.311^{***} (0.045)
Trust in Police				()	0.030 (0.045)	0.030 (0.045)	0.026 (0.049)
Trust in Courts					(0.053) (0.039)	(0.053) (0.039)	(0.059) (0.042)
Habsburg Part					(01000)	(0.021) (0.091)	(0.002) (0.110)
Commune						(0.001)	(0.110) -0.216 (0.147)
Municipality							(0.147) -0.153 (0.159)
Age							(0.103) 0.003 (0.003)
Work in PA							(0.003) (0.302) (0.247)
Education							(0.247) -0.005 (0.040)
Income							(0.049) -0.009 (0.052)
Female							(0.052) 0.066 (0.102)
Capital							(0.103) -0.175 (0.014)
Constant	0.549^{***} (0.044)	0.331^{***} (0.065)	$\begin{array}{c} 0.494^{***} \\ (0.056) \end{array}$	0.297^{***} (0.055)	0.348^{***} (0.066)	$\begin{array}{c} 0.340^{***} \\ (0.075) \end{array}$	(0.244) 0.438 (0.301)
	959 0.308 0.308	959 0.087 0.086	957 0.311 0.309	937 0.427 0.425	711 0.433 0.429	711 0.433 0.428	611 0.409 0.394

Table A1:	Trust in	n the	EU	Bureaucracy	(Robust	Standard	Errors)
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Note: Robust S.E.

*p<0.1; **p<0.05; ***p<0.01

			D	ependent var	riable:		
]	Perceived Co	orruption in	EU Bureauci	racy	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Perc. Corr. in Cen. PA	0.533^{***} (0.029)		0.499^{***} (0.035)	0.524^{***} (0.036)	0.539^{***} (0.040)	0.537^{***} (0.041)	0.522^{***} (0.047)
Perc. Corr. in Local PA	(0.020)	0.182^{***} (0.032)	0.089^{***} (0.029)	0.100^{***} (0.029)	(0.104^{***}) (0.036)	(0.103^{***}) (0.036)	(0.105^{**}) (0.042)
Direction of Econ.		()	()	0.078^{***} (0.030)	(0.074^{**}) (0.036)	0.075^{**} (0.036)	0.086^{**} (0.039)
EU Effect on Econ.				-0.029 (0.035)	-0.080^{**} (0.041)	-0.083^{**} (0.041)	-0.102^{**} (0.043)
Trust in Police				()	0.016 (0.049)	0.014 (0.049)	0.028 (0.051)
Trust in Courts					0.026 (0.043)	0.025 (0.043)	0.011 (0.046)
Habsburg Part					(010-0)	0.055 (0.112)	0.162 (0.133)
Commune						(0)	(0.135) (0.171)
Municipality							0.131 (0.174)
Age							(0.111) -0.001 (0.004)
Work in PA							(0.001) -0.124 (0.448)
Education							(0.110) 0.119^{**} (0.055)
Income							(0.050) -0.050 (0.057)
Female							(0.037) -0.004 (0.116)
Capital							(0.110) -1.222^{***}
Constant	-0.095^{*} (0.055)	$\begin{array}{c} 0.782^{***} \\ (0.053) \end{array}$	-0.039 (0.064)	-0.047 (0.067)	-0.096 (0.087)	-0.111 (0.090)	(0.182) -0.071 (0.329)
	$859 \\ 0.258 \\ 0.257$	$705 \\ 0.050 \\ 0.049$	$700 \\ 0.271 \\ 0.269$	687 0.283 0.279	$533 \\ 0.293 \\ 0.285$	$533 \\ 0.293 \\ 0.284$	$458 \\ 0.304 \\ 0.280$

Table A2: Perceptions of Corruption in the EU Bureaucracy (Robust Standard Errors)

Note: Robut S.E.

p<0.1; p<0.05; p<0.01

A.3 Additional Regressions on General Forms of Trust in Public Institutions

Although the regressions in the main part of the article have shown that the importance of *specific* predictors of trust and perceptions of corruption in local and central bureaucracies clearly outweighs the importance of trust in other kinds of institutions (especially once a

range of additional control variables are included), it would be worthwhile to check if the latter types of predictors (trust in other state institutions) still have some predictive power in their own right. For this reason, I present statistical tests that are initially limited to these other trust variables and only then include additional predictors below.

In general, we would expect that views of other public institutions have some correlation with views of bureaucracies. This is because all these institutions are components of the broader theoretical concept of the "state." Ultimately, the question is if this relationship is robust across a variety of different regression models, especially once other measures are included. As I discuss below, it is not: the magnitude and significance of measures of other institutions tend to shrink or vanish once views of domestic bureaucratic institutions are added as covariates. Additionally, as the main empirical models in the article show, once the full set of controls is included, the significance of trust in other institutions completely disappears. This hints at the superior explanatory power of the representativeness heuristic in the case at hand.

As touched upon in the previous paragraph, while we observe a statistically significant correlation in a single initial regression (regression 1) displayed in Table A3, the more important question is if these variables represent a strong and consistent rival explanation to heuristics, which can only be revealed in regressions that include both sets of predictors. In this respect, in the latter set of regressions (regressions 2 and 4), we see that perceptions of bureaucracies clearly outperform trust in other institutions, both in terms of the magnitude of the effect (in model 2) and in terms of the overall significance (in model 4). These results in combination with the fact that, once potentially omitted variables are included as further controls, the statistical significance completely disappears (for details, see the main results section) speaks to the predictive power of variables representing the heuristics explanation rather than these rival explanations.

Accordingly, these additional analyses confirm that an explanation of variation in perceptions based on heuristics is clearly more powerful than an explanation based on general institutional trust.

	Dependent variable:			
	Trust in EU	U Bureaucracy	Perc. Corru	ption in EU Bur.
	(1)	(2)	(3)	(4)
Trust in Police	0.207***	0.042	-0.032	0.029
Trust in Courts	(0.040) 0.157^{***}	(0.040) 0.118^{***}	(0.042) 0.019	(0.040) 0.013
Trust in Central PA	(0.038)	(0.034) 0.457^{***}	(0.040)	(0.036)
Trust in Local PA		(0.032) -0.014		
Perc. Corr. in Central PA		(0.042)		0.523***
Perc. Corr. in Local PA				$(0.040) \\ 0.100^{***}$
Constant	0.394^{***} (0.062)	0.493^{***} (0.059)	0.818^{***} (0.065)	$(0.032) \\ -0.125 \\ (0.093)$
Observations	726	725	659	540
R^2 Adjusted R^2	$0.138 \\ 0.136$	$0.339 \\ 0.335$	$0.001 \\ -0.002$	$0.288 \\ 0.283$
Note: OLS			*p<0.1: **p	<0.05: ***p<0.01

Table A3: Additional Regressions on General Forms of Trust in Public Institutions

A.4 Exploring Potential Heterogeneity in the Application of Heuristics

A.4.1 Heterogeneous Effects across Different Socioeconomic and Educational Groups

The regression results in the main body of the article are focused on the direct or unmediated relationship between perceptions of domestic bureaucracies and perceptions of the EU bureaucracy. It is possible, though, that this effect is heterogeneous across different subsets of the population. For this reason, I conduct a heterogeneity analysis here.

When it comes to heterogeneous effects, there are several potential "candidate factors." Most importantly, education and socioeconomic status could be seen as potentially influencing the observed effects. For instance, one could make the argument that more highly educated individuals are less likely to be subject to cognitive biases. At the same time, as previously indicated, even many highly educated people use heuristics and they even do so in professional contexts (indicating that high levels of education do not prevent individuals from applying heuristics). Given these circumstances in combination with the expectation that almost no citizens have concrete knowledge of the EU bureaucracy, I also expect citizens with high education to apply heuristics. As shown in Table A4 and Table A5, this expectation is empirically confirmed with respect to both key dependent variables as education does not (in a statistically significant way) influence the relationship between perceptions of domestic and EU administrative institutions.

Additionally, it is possible to argue that socioeconomic conditions could influence the observed relationship because one of the key goals of the EU is greater transnational market integration, which is expected to lead to more wealth among its citizens. For this reason, EU citizens with higher incomes may be more satisfied with the EU in general and less prone to applying heuristics when evaluating EU institutions. However, as shown in the tables below, socioeconomic status also is not a significant moderator of the observed empirical patterns. Accordingly, the additional empirical evaluation here highlights that heuristics are a consistently powerful explanation for perceptions of the EU bureaucracy—an explanation that transcends different educational and socioeconomic groups.

A.4.2 Why is there no Observed Heterogeneity across Educational Groups?

It may be surprising to some readers that different levels of education are not systematically linked to heterogeneous treatment effects. Specifically, as indicated in the section on the theory's scope conditions, citizens must not be EU experts for the suggested dynamics to apply. Of course, however, a reasonable assumption is that there is at least a slight increase in the probability of being an EU expert as an individual's level of education increases. There are at least two possible reasons why such a relationship—even if it exists—does not lead to significant observable differences across educational groups in the Romanian context.

The first possible reason is that, in comparison with other EU countries, Romania still has relatively fewer citizens who have tertiary education. In fact, Romania has the lowest relative number of citizens with tertiary education in the European Union (Transylvania Now, 2020). Even if there was a heterogeneous treatment effect dependent on levels of education, a smaller domestic proportion of highly educated people decreases the probability of observing the underlying relationship as statistically significant.

Additionally, Romania is also the country with the lowest GDP per capita in the European Union. It is well known that lower family income and economic uncertainty induce people to choose educational subjects that provide higher (anticipated) levels of financial stability. Specifically, studies have found that "that students from less affluent families favor less risky [university] concentrations" (Montmarquette, Cannings and Mahseredjian, 2002, 551).

As both the earnings potential and chances to obtain a high-quality job are typically lower for graduates of the social sciences (in comparison with many other subjects), including a closely related field such as "EU studies," we can expect relatively fewer people in a country with generally lower income (as reflected by GDP per capita) to choose social science majors (or majors explicitly focused on the EU). Accordingly, even among the highly educated people in Romania, there are likely fewer citizens who we may classify as EU experts than in other European countries. Thus, the combination of both these factors (fewer highly educated citizens and higher propensity for students from low-income backgrounds to not choose social scientific concentrations) is a potential alternative explanation for the absence of statistically significant (heterogeneous treatment) results with respect to education.

	Depend	lent variable:	
	Trust in EU Bureaucracy		
	(1)	(2)	
Trust in Central PA	0.415^{***}	0.418***	
	(0.052)	(0.086)	
Trust in Local PA	-0.080	-0.092	
	(0.058)	(0.095)	
Trust in Central PA * Educ.	-0.038		
	(0.027)		
Trust in Local PA * Educ.	0.045		
	(0.031)		
Trust in Central PA * Income		-0.021	
		(0.030)	
Trust in Local PA * Income		0.025	
		(0.032)	
Controls	\checkmark	\checkmark	
Observations	611	611	
\mathbb{R}^2	0.412	0.410	
Adjusted R ²	0.395	0.393	
Note: OLS	*p<0.1; **p	<0.05; ***p<0.0	

Table A4: Trust: Exploration of Heterogeneous Effects

Table A5: Corruption: Exploration of Heterogeneous Effects

	Dependent variable:			
	Perceived	Corruption in EU Bureaucracy		
	(1)	(2)		
Perc. Corr. in Central PA	0.575^{***}	0.414^{***}		
	(0.080)	(0.122)		
Perc. Corr. in Local PA	0.147^{***}	0.204**		
	(0.055)	(0.098)		
Perc. Corr. in Central PA * Educ.	-0.029			
	(0.039)			
Perc. Corr. in Local PA * Educ.	-0.028			
	(0.028)			
Perc. Corr. in Central PA * Income		0.039		
		(0.040)		
Perc. Corr. in Local PA * Income		-0.037		
		(0.034)		
Controls	\checkmark	\checkmark		
Observations	458	458		
\mathbb{R}^2	0.307	0.306		
Adjusted \mathbb{R}^2	0.280	0.280		
Note: OLS		*p<0.1; **p<0.05; ***p<0.01		

A.5 Extended Discussion of the Potential of Omitted Variable Bias

As briefly touched upon in the main body of the article, the possibility of omitted variable bias has to be taken seriously when interpreting the results that were obtained here. In this appendix section, I expand upon the initial reply to this concern by providing a more detailed, comprehensive, and nuanced analysis.

Omitted variable bias occurs when there is any unobserved factor X_m that has a statistical association with both the key independent variable X_1 and the outcome of interest Y. If factor X_m is not included as an independent variable in the regression, it will bias the observed coefficient of X_1 (β_1) upward or downward (depending on the statistical association that X_m has with X_1 and Y). For an overview, see Jargowsky (2005).

Discussing concerns about omitted variable bias is particularly important with respect to observational studies, as one generally cannot assume randomness in the assignment of the key explanatory factor (X_1) . Specifically, the clearest potential for omitted variable bias in the context of this study arises if there are factors that influence *overall* perceptions of bureaucratic institutions at all levels of government, including the supranational level.

In this respect, it is important to first highlight that the study has already revealed a clear empirical *disconnect* between perceptions of corruption in bureaucracy and trust in bureaucracy at the supranational (EU) level. If there is such a strong empirical disconnect, it becomes less plausible that an external, unobserved factor would have a major consistent impact on overall perceptions of supranational bureaucracy.

Additionally, to avoid omitted variable bias, in the empirical test I systematically control for the factors that have been established as influential determinants of views of bureaucracies in the relevant literature. In this respect, I now briefly review the specific insights that previous contributions have provided.

An important article that directly speaks to the factors that influence perceptions of public administration comes from Lee and Van Ryzin (2020) who study public opinion of bureaucracies in the United States. They find that a number of individual-level variables are important for determining views of bureaucracies, including gender and socioeconomic status (which is measured through indicators of income and education).² Additionally, a study by Tolbert and Mossberger (2006) on the growing use of electronic technologies in public administration suggests that the relevance of age in forming attitudes could become increasingly relevant as well. All these variables (gender, income, education, and age) are included in my regressions. Therefore, they cannot constitute omitted variable bias.

Some studies suggest that citizens' levels of approval for (or trust in) other governmental institutions also has predictive power when it comes to explaining trust in bureaucracy (e.g., Lee and Van Ryzin, 2020; Yackee and Lowery, 2005). As discussed previously, two key public institutions (courts and the police), are measured and included in my regressions. The joint

²Lee and Van Ryzin (2020) also point to the importance of (1) regional variation and (2) differences between members of racial groups in the United States. With respect to regional variation, I account for the key distinction between the regions of Romania that were historically ruled by the Habsburgs and those that were ruled by the Ottomans and later gained independence. I also include a control for the capital city of Bucharest. With respect to racial groups, Romania's population is more than 95% white, which means that racial heterogeneity is unlikely to constitute a strong alternative explanatory factor in this context.

use of both these variable likely captures a large portion of general variations in trust in governmental institutions.³

Certain factors of a person's personality/psychological profile could impact their view of public bureaucracy as well and may therefore lead to omitted variable bias. For instance, Cook and Vogler (2023) suggest that "social dominance orientation" is a psychological factor that influences citizens' views of domestic bureaucracies (specifically, the American bureaucracy). According to this study, social dominance orientation leads to a rejection of "bureaucratic" forms of public organization at the domestic level. It is an open question, though, if these dynamics would equally apply to supranational bureaucracies, such as the EU bureaucracy, which may not be the case. In general, the literature on how personality traits influence citizen views of bureaucracy is in its infancy, which means that it does not provide sufficient guidance with respect to which factors to measure to effectively avoid omitted variable bias. This scarcity of studies in combination with the results obtained here points us to many future research avenues.

It is also true that factors such as perceptions of the European Parliament or the European Council as separate supranational institutions could have an impact on perceptions of the EU bureaucracy. At the same time, it is questionable if those factors would also be associated with perceptions of domestic bureaucracies. Only if there is a statistical association with both the outcome variable Y and the key explanatory factor X_1 (perceptions of domestic bureaucracies), would we expect any form of omitted variable bias to materialize.

In observational studies, it is difficult to entirely rule out omitted variable bias. However, as discussed above, the study at hand controls for the established and widely recognized explanatory factors that have been linked to views of public bureaucracy by the existing literature. It is possible that there are other psychological or social indicators that have an influence on general views of public institutions. Yet the literature on how personality traits influence views of bureaucracy is still in its infancy. While there are no broadly established findings on the matter yet, this study offers additional measures of trust in other governmental institutions as proxies for how personality traits affect attitudes toward public institutions in general. This may not be a perfect solution, but it is the best solution possible at the moment and in light of the data at hand.

All in all, every observational study has imperfections and some degree of omitted variable bias cannot be entirely ruled out in this specific study. At the same time—building on the existing literature—the study at hand accounts for the established sources of such bias, especially when applied to the context of citizen views of bureaucracy in Romania. While the phenomenon cannot be perfectly addressed, there also is a scarcity of established/published literature that would provide further guidance with respect to which personality traits or psychological factors should be accounted for. Accordingly, the exploration of how personality traits influence perceptions of bureaucracy (at both the domestic and supranational level) must be left to future research that concentrates on this specific subject.

³Additionally, Yackee and Lowery (2005) find that ideology is not a significant predictor of attitudes toward bureaucracy. This is in contrast to Lee and Van Ryzin (2020), but means that this is a less certain and less well established predictor of attitudes toward administrative institutions.

A.6 Can Convenience-Based Replies Explain the Observed Patterns?

Readers of this study may suspect that "convenience" could explain the fact that respondents evaluated the EU bureaucracy as similar to their domestic bureaucracies. Not knowing about the phenomenon of the EU bureaucracy, respondents may have simply mirrored their response and arrived at a similar answer as they did with domestic bureaucracies.

While this is an important concern to discuss, there are three reasons why it may be considered a negligible problem for the study at hand. The first factor is that all respondents were made fully aware that they can skip any questions they do not wish to answer. Specifically, the interviewers told them at the beginning of the survey: "You may withdraw from the study at any time and may skip any questions you prefer not to answer." Given that participants were fully aware that they were able to skip answers, they could have simply passed on answering the question, which could be seen as an even more "convenient" answer than providing an opinion on it. Yet we do not observe a large number of non-replies, making convenience-based answer strategies an unlikely explanation for the observed patterns.

Second, even if convenience is (part of) the reason why respondents gave answers that were highly correlated with their views of domestic bureaucracies, this is in no way at odds with an explanation based on heuristics. In fact, it is fully compatible with the use of the representativeness heuristic. For example, when medical and business professionals use forms of the representativeness heuristic—as pointed out in the main body of the article—they do so because this is a quick and easy way to arrive at a decision. In other words, they often do it *out of convenience*. This is also reflected in the fact that the representativeness heuristic, like other heuristics, is generally considered a "mental *shortcut*"—a label that already implies that ease and speed of the decision are key components of the use of heuristics. Accordingly, convenience-based answers are a confirmation of the use of the representativeness heuristic rather than a contradiction to it.

Third, the possibility that (some) respondents in survey research give answers out of convenience is a limitation that is inherent to almost all surveys in almost all contexts. If survey research is meant to be seen as a valid tool of social scientific methodology, then we must accept that some respondents will give answers out of convenience. Most importantly, however, as elaborated in the paragraph above, while some research designs and theories may be contradicted by the use of convenience answers, they do not contradict the notion that a variation of the representativeness heuristic is applied. Rather, they are fully compatible with it. Thus, even if this is a general flaw of survey methodology that might negatively impact some kinds of studies, it does not represent a threat to inference in this specific study.

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