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NEW VOICES

Low support for nudging among Swedes in a population-representative sample

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(Received 21 October 2019; revised 22 December 2020; accepted 18 January 2021; first published online 25 March 2021)

Abstract

Recent surveys in China, South Korea, Brazil, South Africa, Russia, Australia, Italy, the UK, Canada, France, Germany, the USA, Japan, Hungary, and Denmark indicate that citizens generally are positive toward state nudging. However, less is known about differences in the support for nudging across socio-demographics and political party preferences, a research gap recently identified in the literature. This article investigates the relationship between the support for nudging and trust in public institutions through a populationrepresentative survey in Sweden. It also analyzes differences in the support for nudging across political party preferences in two ideological dimensions: the economic left-right and cultural GAL-TAN spectra. Data were collected in December 2017 through a custom web survey, using Reisch and Sunstein's (2016) questionnaire. The respondents (N = 1032) were representative of the adult population with regard to gender, age, education, job sector, household income, living region, and political party preference. Sweden was found to belong to the cautiously pronudge nations (along with Japan, Hungary, and Denmark), contrary to hypotheses in previous research. Differences in the support for nudging were found along the economic left-right and GAL-TAN spectra. Individual nudges' variation in support, polarization, and politicization are analyzed and discussed.

Keywords: nudging; public institutions; GAL-TAN

Introduction

Nudges are behavioral change techniques designed to help people make better decisions for themselves or society without violating their freedom of choice (Thaler & Sunstein, 2008). As a policy tool, they have influenced public administration in many countries (Whitehead *et al.*, 2014; OECD, 2017). There are several academic debates on governmental nudging. One concerns its alignment with citizens' preferences and its effectiveness compared with conventional policy tools (Benartzi *et al.*,

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2017; Loewenstein & Chater, 2017, but see Thaler 2017; Osman et al., 2020; Weimer, 2020), another its transparency (e.g., Loewenstein et al., 2015; Bang et al., 2018), and a third its public support. One research program has surveyed the support for nudging in the USA (Jung & Mellers, 2016), the UK, Denmark, France, Germany, Hungary, Italy (Reisch & Sunstein, 2016; Reisch et al., 2017), Australia, Brazil, Canada, China, Russia, South Africa, South Korea (Sunstein et al., 2018), Sweden (Hagman et al., 2015, 2019), and Flemish Belgium (Sunstein et al., 2019). Sunstein et al. (2018) categorize three levels of nudge support internationally: overwhelmingly pronudge nations (China and South Korea), principled pronudge nations (Brazil, South Africa, Russia, Australia, Italy, the UK, Canada, France, Germany, and the USA), and cautiously pronudge nations (Japan, Hungary, and Denmark).

In this article, we address two recent discussions in the literature. One of them concerns the relationship between trust in public institutions and the support for nudging. Previous research has theorized, 'People who have high trust in public institutions would be more willing to accept government nudging' (Sunstein *et al.*, 2019, p. 1423) and has sought to explain international differences in the support for nudging with the same theory (Sunstein *et al.*, 2018).

The other discussion is the relationship between political party preferences and the support for nudging. Sunstein *et al.* (2019) found that left-wing views implied greater support for nudging than right-wing views did, but discovered 'no systematic correlation along approval and party affiliations' (p. 1423).

With this article, we hope to deepen these discussions through an empirical investigation. It will explore the relationship between the support for nudging and citizens' trust in public institutions and their political party preferences.

Sunstein *et al.* (2018) have commented that Denmark paradoxically stands out as a country whose citizens are trustful of public institutions yet relatively unsupportive of nudging. This article will investigate whether that is also the case in its neighboring country, Sweden, an outlier internationally regarding trust in public institutions.

The latest, sixth wave of the World Value Surveys, 2010-2014, reported Swedes' trust in public institutions to be the highest among all countries surveyed. For example, 60% of Swedes (N=1206) had confidence in government, and 59% had confidence in parliament. In comparison, the corresponding proportions among Americans (N=2232) were 20% and 33%, respectively.

Sweden's liberal strategy to manage the COVID-19 pandemic has received world-wide attention because of its reliance on mutual trust between the government and the citizens, a strategy that the Swedish government has labeled 'behaviorally informed' and in which nudging has been involved (Almqvist & Andersson, 2020).

Under Sunstein *et al.*'s (2018) original hypothesis, a relatively high support for nudging would be expected among Swedes. Otherwise, one would be left with two thirds of a Scandinavian puzzle, indicating that high trust in public institutions does not necessarily imply greater support for nudging on a country level. Such a finding would point toward alternate explanations, or a more complex relationship between the two than suggested in the previous literature.

¹In the USA, Republicans are more positive to nudging than Democrats are (Jung & Mellers, 2016), moderated by the choice architect's affiliation (Tannenbaum *et al.*, 2017).

Nudge units can work rather independently of the government, like the Behavioural Insights Team, now a social purpose company part-owned by the UK Cabinet Office (cf., Halpern, 2015). Some citizens may perceive them as outside experts rather than an extension of public institutions. In this article, we, therefore, analyze the relationship between trust in expert technocracy over government and parliament and the support for nudging, using an item from the World Value Survey.

On the relationship between political party preferences and the support for nudging, its systematicity – or lack thereof – may depend on how the parties are positioned. In today's politics, there are at least two dimensions according to which parties can be positioned. One is economic: the left-right spectrum. One is cultural: the GAL-TAN spectrum (Hooghe *et al.*, 2002), which contrasts green, alternative, and libertarian (some say postmodern) values with traditional, authoritarian, and nationalistic ones. Through a population-representative survey involving 1032 respondents, this article explores the Swedish multiparty system to consider the possible relationship between political party preferences and the support for nudging through this two-dimensional theoretical framework.

To position the parties across both of these dimensions, we use the results from the Chapel Hill Expert Survey (Polk *et al.*, 2017), which contains expert ratings of the parties' positions in 31 countries (all European Union members, Norway, Switzerland, and Turkey). As of 2020, there are eight parties in the Swedish parliament. The present, center-left government consists of the Social Democrats (S) and the Green Party (MP), supported by the Center Party (C) and the Liberals (L). The opposition parties are the Left Party (V), the Sweden Democrats (SD), the Christian Democrats (KD), and the Moderate Party (M).

Positioning the parties using the economic left-right and cultural GAL-TAN spectra, three of the four quadrants were represented in parliament: left-GAL, right-GAL, and right-TAN parties (see Table 1).

Loibl *et al.* (2018) have emphasized the need for more studies on the relationship between socio-demographics and differences in the support for nudging within countries, while Sunstein *et al.* (2019) concluded that 'little evidence – at least outside the U. S. – has yet surfaced about which population groups support nudging and which factors shape those attitudes' (p. 1422). This article addresses those research gaps and makes an empirical contribution by adding to the relatively few studies on the public support for nudging and its relationship to socio-demographics and political party preferences (e.g., Diepeveen *et al.*, 2013; Petrescu *et al.*, 2016; Reisch & Sunstein, 2016; Loibl *et al.*, 2018; Sunstein *et al.*, 2018; Sunstein *et al.*, 2019). It also adds a 16th country – Sweden – to the catalog of countries surveyed to date using the same instrument.

Method

Respondents

An online survey was distributed by a Swedish market research company. Its target population was Swedes between 18 and 79 years of age. The data were collected in December 2017 and were analyzed using IBM SPSS Statistics, Version 25.0.² The

²The data that support the findings of this article are available from the corresponding author upon reasonable request.

Party	Economic left-right ^a	Cultural GAL-TAN ^b	Quadrant	
Social Democrats (S)	3.47	4.41	Left	GAL
Moderates (M)	8.41	5.89	Right	TAN
Sweden Democrats (SD)	5.94	8.94	Right	TAN
Centre Party (C)	7.88	2.22	Right	GAL
Left Party (V)	1.24	1.89	Left	GAL
Liberals (L)	7.12	3.17	Right	GAL
Christian Democrats (KD)	7.65	7.06	Right	TAN
Green Party (MP)	3.65	1.61	Left	GAL

Table 1. The Swedish political parties' positions: mean ratings from the Chapel Hill Expert Survey (Polk *et al.*, 2017).

sample included 1032 respondents representative of the target population. Their average age was 47.23 years (SD = 16.64). Controls included gender, age, education, job sector, household income, and living region (see Table 2).

Questionnaire

The survey featured an adapted and translated version of a questionnaire developed by Reisch and Sunstein (2016). Respondents were first asked whether they were 'for or against the following hypothetical policy' and then presented 13 nudges in random order (for the nudges, see Table 3). Answers were provided on a binary response scale: 'for' or 'against'. In addition, the respondents answered the following World Value Survey question-statement on the same response scale: 'having experts, not government and parliament, make decisions according to what they think is best for the country'. The respondents were also asked which, if any, political party they would have voted for had it been national elections that same day, a question that 850 (82%) respondents answered by naming a party represented in parliament, while 182 (18%) respondents were undecided or preferred other parties.

Results

Descriptive statistics

On average, the respondents supported 7.44 (SD = 3.21, 95% CI = 7.25, 7.64) out of 13 nudges. The most popular nudge – approved of by 87%, 95% CI [0.85, 0.89] – was an information campaign against child obesity. The least popular nudge –

^a0 = extreme left; 10 = extreme right.

^b0 = libertarian/postmaterialist (GAL); 10 = traditional/authoritarian (TAN).

³Two of the original nudges were excluded. One – subliminal advertising – because it is illegal in Sweden. The other – enforcing meat-free days in public canteens – as it is not a nudge, but a mandate.

Table 2. Selected respondent characteristics (N = 1032).

	Frequency (%)
Gender	
Male	521 (50)
Female	511 (50)
Age (years)	
18–29	219 (21)
30-49	358 (35)
50-64	251 (24)
65–79	204 (20)
Education	
Primary school	187 (18)
Secondary school	454 (44)
Higher education	369 (35)
Annual income (KSEK)*	
<200	109 (11)
200–399	266 (26)
400-599	204 (20)
>600	338 (33)
Party preference	
Social Democrats (S)	197 (19)
Moderates (M)	191 (19)
Sweden Democrats (SD)	151 (15)
Centre Party (C)	119 (12)
Left Party (V)	84 (8)
Liberals (L)	45 (4)
Christian Democrats (KD)	32 (3)
Green Party (MP)	31 (3)
Other/do not know	182 (18)

^{*1} SEK \approx 0.1 EUR.

approved of only by 18%, 95% CI [0.15, 0.20] – was a default donation to charity upon tax return (see Table 3). The average percentage support across the nudges was 57%, which, together with a relatively low number of supported nudges per respondent, places Sweden among the cautiously pronudge nations, with an average support on a par with that of Japan, Hungary, and Denmark, but lower than that of the other countries surveyed to date (cf., Sunstein *et al.*, 2018).

	Nudge	Support [95% CI]
1	Public education campaign (for parents) to fight child obesity	87 [85, 89]
2	Visual public education campaign against distracted driving	75 [72, 77]
3	Requiring calorie labels in chain restaurants	66 [63, 69]
4	Requiring sweet-free cashier zones in supermarkets	65 [62, 68]
5	Requiring industry to put warning labels on food with high salt	65 [62, 68]
6	Encouraging energy providers to default customers into green energy	65 [62, 68]
7	Requiring energy providers to default customers into green energy	64 [61, 67]
8	Requiring traffic light labels signaling the healthiness of food	52 [49, 55]
9	Active choice on organ donation upon obtaining driver's license	52 [49, 55]
10	Requiring choice architecture for healthy food in large grocery stores	48 [45, 51]
11	Requiring airlines charging customers a carbon emission fee	47 [44, 50]
12	Movie theaters required to run ads against smoking and overeating ^a	42 [39, 45]
13	Default donation of 50 Euro to the Red Cross upon tax return	18 [15, 20]

Table 3. Percentage support and 95% confidence intervals per nudge (N = 1032).

Socio-demographics

There was a gender difference in the number of supported nudges [t(1030) = 6.01, p < 0.001] with higher support among women (M = 8.03, SD = 2.93) than men (M = 6.87, SD = 3.37), 95% CI [0.79, 1.57]. There was no difference in the number of nudges approved of across annual household incomes [F(9, 1022) = 1.56, p = 0.12, ns], but a very weak positive correlation with age [r(1030) = 0.063, p = 0.042]. No differences in the number of nudges approved of were found across occupations [F(8, 1023) = 1.65, p = 0.107, ns], nor were there any between respondents living in major or large cities alternatively on the countryside [F(2, 1029) = 0.60, p = 0.548, ns] or across regions [F(7, 1024) = 0.38, p = 0.914, ns].

Political party preferences

The number of nudges approved of differed across political party preferences [F(9, 1022)] = 7.649, p < 0.001]. There were differences between the supporters of left-GAL, right-GAL, and right-TAN parties in how many nudges they supported [F(2, 847)] = 29.77, p < 0.001]. The support for nudging was the highest among those who supported left-GAL parties (M = 8.47, SD = 2.88, 95%) CI = 8.15, 8.79), followed by right-GAL (M = 7.43, SD = 2.90, 95%) CI = 6.99, 7.88), and right-TAN (M = 6.66, SD = 3.25, 95%) CI = 6.33, 6.99) parties. Bonferroni *post hoc* tests confirmed that left-GAL sympathizers supported significantly more nudges than those who supported right-GAL, 95% CI [0.33, 1.74] or right-TAN parties, 95% CI [1.25, 2.37],

^aReisch *et al.* (2017) have suggested that higher (lower) smoking prevalence would imply lower (higher) support for nudge 12. Sweden has the lowest smoking prevalence in the European Union according to the European health interview survey, but its support for nudge 12 remains quite low.

while those who favored right-GAL parties approved of more nudges than did those favoring right-TAN parties, 95% CI [1.46, 0.09].

A contingency table analysis across individual nudges – comparing observed and expected observations per political party preference – revealed significant differences in support for 8 of the 13 nudges (numbers 3, 4, 5, 6, 7, 10, 11, and 13). These were calorie labels, $\chi^2(7, N=850)=15.23$; sweet-free cashier zones, $\chi^2(7, N=850)=30.01$; warning labels for salt, $\chi^2(7, N=850)=22.04$; encouraging, $\chi^2(7, N=850)=72.68$ – or requiring, $\chi^2(7, N=850)=71.09$ – defaults for green energy; promoting healthy groceries, $\chi^2(7, N=850)=31.51$; the carbon emission fee, $\chi^2(7, N=850)=54.11$; and the default donation to the Red Cross, $\chi^2(7, N=850)=15.21$.

There were no significant differences for the remaining five nudges (numbers 1, 2, 8, 9, and 12): education on child obesity, $\chi^2(7, N=850)=9.33$, ns; warning pictures against distracted driving, $\chi^2(7, N=850)=2.04$, ns; traffic lights for healthy food, $\chi^2(7, N=850)=12.16$, ns; the active choice on organ donations, $\chi^2(7, N=850)=8.36$, ns; and the antismoking and -overeating campaign, $\chi^2(7, N=850)=6.82$, ns. The largest deviations from what would have been expected under the null hypothesis came from the supporters of V (left-GAL, more positive) and M (right-TAN, more negative), followed by S and MP (both left-GAL, both positive) and SD (right-TAN, negative), echoing the general differences within our two-dimensional framework (Table 4).

Expert technocracy

As many as 421 (40%) respondents supported 'having experts, not government and parliament, make decisions according to what they think is best for the country' (for a discussion, see Foa & Mounk, 2016). Those who supported expert technocracy approved of more nudges (M = 7.84, SD = 3.22) than those who did not (M = 7.17, SD = 3.18), t(1030) = 3.29, p < 0.001, 95% CI [0.27, 1.07].

Multivariate analyses

We proceeded with 13 logistic regressions; one per nudge. Like Diepeveen *et al.* (2013) and Sunstein *et al.* (2019) before us, but unlike Petrescu *et al.* (2016), a gender difference was found for several nudges. In comparison with Loibl *et al.* (2018), a similarity between our results and theirs was the absence of a relationship between living regions and support for the nudges; a difference is that we failed to reproduce the differences across income levels found in their study.

Individual political party preferences were significant predictors of the support for nudging for 10 out of 13 nudges, driven by the left-GAL parties, contributing with 17 out of 29 such significant predictors. What also stands out in our logistic regressions is that the support for expert technocracy emerges as a significant predictor for 10 out of 13 nudges (see Table 5).

Following Loibl *et al.* (2018), we also derived a controversy proxy from the number of significant predictors per nudge. Across nudges, an average of 5.46 out of 31 (18%) independent variables were statistically significant.⁴ The most controversial nudge

⁴Loibl et al.'s (2018) proportions were 21% (the UK), 20% (Denmark), 12% (Hungary), and 10% (Italy).

Table 4. Percentage support (standard errors) across nudges and political party preferences (*N* = 850).

		Left-GAL		Righ	t-GAL	Right-TAN				
Nudge	V	S	MP	С	L	KD	SD	М		
1	88 (3.5)	91 (2.1)	94 (4.4)	90 (2.8)	96 (3.1)	88 (5.8)	85 (2.9)	84 (2.6)		
2	76 (4.6)	76 (3.1)	74 (7.9)	75 (4.0)	76 (6.4)	75 (7.7)	79 (3.3)	72 (3.2)		
3*	75 (4.7)	72 (3.2)	74s (7.9)	58 (4.5)	71 (6.8)	53 (8.8)	64 (3.9)	62 (3.5)		
4*	77 (4.6)	77 (3.0)	81 (7.1)	66 (4.4)	62 (7.2)	47 (8.8)	62 (4.0)	58 (3.6)		
5*	75 (4.7)	69 (3.3)	87 (6.0)	60 (4.5)	73 (7.0)	47 (8.8)	63 (3.9)	59 (4.0)		
6*	88 (3.5)	72 (3.2)	94 (4.4)	66 (4.3)	73 (6.6)	50 (8.8)	50 (4.1)	49 (3.6)		
7*	86 (3.8)	72 (3.2)	94 (4.4)	67 (4.3)	71 (6.8)	47 (8.8)	49 (4.1)	50 (3.6)		
8	67 (5.1)	54 (3.5)	58 (8.9)	47 (4.6)	62 (7.2)	53 (8.8)	53 (4.1)	48 (3.6)		
9	56 (5.5)	55 (3.5)	68 (8.4)	56 (4.6)	58 (7.4)	44 (8.8)	48 (4.1)	48 (3.6)		
10*	58 (5.4)	57 (4.0)	58 (8.9)	39 (4.5)	53 (7.4)	28 (7.9)	46 (4.1)	36 (3.5)		
11*	67 (5.1)	58 (3.5)	74 (7.9)	47 (4.6)	53 (7.4)	34 (8.4)	38 (3.9)	34 (3.4)		
12	46 (5.4)	45 (3.5)	42 (8.9)	38 (4.4)	33 (7.0)	28 (7.9)	44 (4.0)	39 (3.5)		
13*	24 (4.6)	21 (2.9)	32 (8.4)	13 (3.0)	18 (5.7)	16 (6.4)	12 (2.6)	15 (2.6)		
Average	68	63	71	56	62	47	53	50		

^{*} χ^2 (7, N = 850) > 14.07; p < 0.05.

Table 5. Logistic regressions: odds ratios per predictor and nudge (N = 1032).

							Nudge						
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)
WVS, experts	0.956	0.545***	0.741*	0.672**	0.675**	0.722*	0.650**	0.828	0.595***	0.587***	1.090	.591***	.459***
Gender	1.564	.992	1.314	2.396***	1.473**	2.460***	2.454***	1.203	1.047	1.694***	1.267	1.053	.982
Age	1.006	1.185	0.993	0.977***	0.990*	1.015**	1.013**	0.979***	1.010*	0.993	0.997	0.983***	1.001
Party preference													
Moderates	0.667	0.963	1.164	0.979	1.240	2.072**	1.811*	0.918	0.822	1.672*	1.476	1.145	1.099
Liberals	0.153*	0.940	0.761	0.859	0.645	0.710	0.722	0.535	0.617	0.909	0.626	1.524	0.917
Center Party	0.418*	0.825	1.420	0.757	1.244	1.066	0.924	0.970	0.587*	1.509	0.856	1.091	1.162
Christian Dems	0.498	0.927	1.607	1.490	2.136	1.780	2.118	0.716	1.026	2.421*	1.403	1.917	1.094
Social Dems	0.345**	0.773	0.772	0.467**	0.932	0.681	0.588*	0.815	0.582*	0.755	0.509**	1.024	0.679
Left Party	0.462	0.717	0.580	0.336**	0.559	0.231***	0.244***	0.366**	0.602	0.654	0.359***	0.759	0.557
Green Party	0.327	0.843	0.673	0.262**	0.264*	0.169*	0.150*	0.505	0.414*	0.725	0.241**	0.781	0.380*
Sweden Dems	0.626	0.804	1.085	0.853	1.147	1.920**	1.871*	0.805	0.868	1.201	1.086	1.056	1.904
Other	0.833	0.941	1.311	0.417	0.435	0.529	0.484	0.642	0.398	0.606	0.536	0.588	0.426
University degree	1.081	1.163	0.842	0.908	0.701*	0.949	0.879	0.864	1.148	1.056	1.102	0.834	0.687*
Annual income (KSEK)													
<200	1.098	0.758	1.036	1.533	1.301	0.595	0.832	1.481	0.543	0.887	0.841	1.967*	1.174
200-299	0.865	1.327	0.843	1.127	0.793	0.549	1.077	1.092	0.640	0.748	0.1.419	1.494	1.219
300-399	0.480	0.783	0.850	0.871	1.276	0.492*	0.742	0.752	0.661	0.534*	0.861	1.496	0.844
400–499	0.672	0.953	1.036	1.560	1.031	0.668	1.121	1.164	1.160	0.778	1.046	1.959*	1.425
500-599	0.703	0.945	0.710	0.963	0.884	0.495*	0.822	1.544	0.443**	0.848	0.861	1.285	1.362

600-699 0.596 0.737 0.521* 0.602 0.836 0.681 0.523 0.794 0.648 0.735 0.738 1.019 1.210 700-799 0.088 0.923 0.478* 0.726 0.696 0.376** 0.466* 0.779 0.675 0.612 0.665 1.101 1.424 800-889 0.425 0.921 0.624 1.005 0.585 0.477* 0.577 0.823 0.648 0.859 0.948 2.654** 1.087 ≥900 0.772 1.406 0.926 1.016 0.996 0.465* 0.664 0.974 0.785 0.934 0.772 1.920* 1.431 Job sector 7 1.406 0.926 1.424* 1.100 1.198 0.849 1.049 0.1335 1.331 1.252 1.180 Public 1.319 0.124 0.837 1.242* 1.100 1.198 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 <														
800-899 0.425 0.921 0.624 1.005 0.585 0.477* 0.577 0.823 0.648 0.859 0.948 2.654*** 1.087 2900 0.772 1.406 0.926 1.016 0.996 0.465** 0.664 0.974 0.785 0.934 0.772 1.920** 1.431 Job sector Private 1.683** 0.783 1.143 1.452** 1.424** 1.100 1.198 0.849 1.049 0.1.335 1.331 1.252 1.180 Public 1.319 0.1244 0.837 1.726*** 0.890 1.263 1.281 0.748 0.778 1.100 1.253 1.180 Region Stockholm 0.862 1.050 0.716 1.617 0.946 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 1.941 Midalradlen 1.212 0.951 1.109 1.511 1.030 1.087 0.662	600–699	0.596	0.737	0.521*	0.602	0.836	0.681	0.523	0.794	0.648	0.735	0.738	1.019	1.210
≥900 0.772 1.406 0.926 1.016 0.996 0.465* 0.664 0.974 0.785 0.934 0.772 1.920* 1.431 Job sector Private 1.683* 0.783 1.143 1.452* 1.424* 1.100 1.198 0.849 1.049 0.1.335 1.331 1.252 1.180 Public 1.319 0.1244 0.837 1.726** 0.890 1.263 1.281 0.748 0.778 1.100 1.253 1.198 1.284 Region Stockholm 0.862 1.050 0.716 1.617 0.946 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 1.914 Målardalen 1.212 0.951 1.109 1.511 1.030 1.087 0.662 1.815 1.200 1.434 0.781 1.046 1.995 Småland, islands 0.411 1.202 1.198 1.330 0.927 1.162 0.745 1.648 2	700–799	0.088	0.923	0.478*	0.726	0.696	0.376**	0.466*	0.779	0.675	0.612	0.665	1.101	1.424
Private 1.683* 0.783 1.143 1.452* 1.424* 1.100 1.198 0.849 1.049 0.1.335 1.331 1.252 1.180 Public 1.319 0.1244 0.837 1.726** 0.890 1.263 1.281 0.748 0.778 1.100 1.253 1.198 1.284 Region Stockholm 0.862 1.050 0.716 1.617 0.946 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 1.941 Mälardalen 1.212 0.951 1.109 1.511 1.030 1.087 0.662 1.815 1.200 1.434 0.781 1.046 1.905 Småland, islands 0.411 1.202 1.198 1.330 0.927 1.162 0.745 1.648 2.183* 1.343 1.241 0.723 1.213 South 0.577 0.850 0.930 1.397 0.781 0.798 0.531 1.363 1.181 1.319 1.067 0.796 1.709 West 0.682 0.797 0.834 1.325 0.813 1.022 0.706 2.101* 1.281 1.185 0.747 0.849 1.460 North-middle 0.905 0.851 1.094 1.485 1.282 1.155 0.696 1.977 9.48 1.545 0.640 0.811 1.246 Middle Norrland 0.278 1.573 0.829 1.580 1.245 1.327 0.978 1.820 1.779 1.914 1.136 0.693 2.341 Model constant 0.245* 0.657 1.054 0.888 0.977 0.304* 0.406 2.115 1.095 1.180 1.482 2.568* 3.976* Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 0.079 0.106 0.102 0.089 0.093 Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3	800-899	0.425	0.921	0.624	1.005	0.585	0.477*	0.577	0.823	0.648	0.859	0.948	2.654**	1.087
Private 1.683* 0.783 1.143 1.452* 1.424* 1.100 1.198 0.849 1.049 0.1.335 1.331 1.252 1.180 Public 1.319 0.1244 0.837 1.726** 0.890 1.263 1.281 0.748 0.778 1.100 1.253 1.198 1.284 Region Stockholm 0.862 1.050 0.716 1.617 0.946 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 1.941 Mälardalen 1.212 0.951 1.109 1.511 1.030 1.087 0.662 1.815 1.200 1.434 0.781 1.046 1.905 Småland, islands 0.411 1.202 1.198 1.330 0.927 1.162 0.745 1.648 2.183* 1.343 1.241 0.723 1.213 South 0.577 0.850 0.930 1.397 0.781 0.798 0.531 1.363 1.181 1.318	<u>></u> 900	0.772	1.406	0.926	1.016	0.996	0.465*	0.664	0.974	0.785	0.934	0.772	1.920*	1.431
Public 1.319 0.1244 0.837 1.726** 0.890 1.263 1.281 0.748 0.778 1.100 1.253 1.198 1.284 Region Stockholm 0.862 1.050 0.716 1.617 0.946 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 1.941 Mälardalen 1.212 0.951 1.109 1.511 1.030 1.087 0.662 1.815 1.200 1.434 0.781 1.046 1.905 Småland, islands 0.411 1.202 1.198 1.330 0.927 1.162 0.745 1.648 2.183* 1.343 1.241 0.723 1.213 South 0.577 0.850 0.930 1.397 0.781 0.798 0.531 1.363 1.181 1.319 1.067 0.796 1.709 West 0.682 0.797 0.834 1.325 0.813 1.022 0.706 2.101* 1.281 1.185	Job sector													
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Stockholm 0.862 1.050 0.716 1.617 0.946 0.843 0.573 1.869* 1.155 1.353 0.823 1.095 1.941 Mälardalen 1.212 0.951 1.109 1.511 1.030 1.087 0.662 1.815 1.200 1.434 0.781 1.046 1.905 Småland, islands 0.411 1.202 1.198 1.330 0.927 1.162 0.745 1.648 2.183* 1.343 1.241 0.723 1.213 South 0.577 0.850 0.930 1.397 0.781 0.798 0.531 1.363 1.181 1.319 1.067 0.796 1.709 West 0.682 0.797 0.834 1.325 0.813 1.022 0.706 2.101* 1.281 1.185 0.747 0.849 1.460 North-middle 0.905 0.851 1.094 1.485 1.282 1.155 0.696 1.977 .948 1.545 0.640 0.811	Public	1.319	0.1244	0.837	1.726**	0.890	1.263	1.281	0.748	0.778	1.100	1.253	1.198	1.284
Mälardalen 1.212 0.951 1.109 1.511 1.030 1.087 0.662 1.815 1.200 1.434 0.781 1.046 1.905 Småland, islands 0.411 1.202 1.198 1.330 0.927 1.162 0.745 1.648 2.183* 1.343 1.241 0.723 1.213 South 0.577 0.850 0.930 1.397 0.781 0.798 0.531 1.363 1.181 1.319 1.067 0.796 1.709 West 0.682 0.797 0.834 1.325 0.813 1.022 0.706 2.101* 1.281 1.185 0.747 0.849 1.460 North-middle 0.905 0.851 1.094 1.485 1.282 1.155 0.696 1.977 .948 1.545 0.640 0.811 1.246 Middle Norrland 0.278 1.573 0.829 1.580 1.245 1.327 0.978 1.820 1.779 1.914 1.136 0.693 <td>Region</td> <td></td>	Region													
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South 0.577 0.850 0.930 1.397 0.781 0.798 0.531 1.363 1.181 1.319 1.067 0.796 1.709 West 0.682 0.797 0.834 1.325 0.813 1.022 0.706 2.101* 1.281 1.185 0.747 0.849 1.460 North-middle 0.905 0.851 1.094 1.485 1.282 1.155 0.696 1.977 .948 1.545 0.640 0.811 1.246 Middle Norrland 0.278 1.573 0.829 1.580 1.245 1.327 0.978 1.820 1.779 1.914 1.136 0.693 2.341 Model constant 0.245* 0.657 1.054 0.888 0.977 0.304* 0.406 2.115 1.095 1.180 1.482 2.568* 3.976* Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 .079 0.106 0.102 0.089<	Mälardalen	1.212	0.951	1.109	1.511	1.030	1.087	0.662	1.815	1.200	1.434	0.781	1.046	1.905
West 0.682 0.797 0.834 1.325 0.813 1.022 0.706 2.101* 1.281 1.185 0.747 0.849 1.460 North-middle 0.905 0.851 1.094 1.485 1.282 1.155 0.696 1.977 .948 1.545 0.640 0.811 1.246 Middle Norrland 0.278 1.573 0.829 1.580 1.245 1.327 0.978 1.820 1.779 1.914 1.136 0.693 2.341 Model constant 0.245* 0.657 1.054 0.888 0.977 0.304* 0.406 2.115 1.095 1.180 1.482 2.568* 3.976* Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 .079 0.106 0.102 0.089 0.093 Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3 <td>Småland, islands</td> <td>0.411</td> <td>1.202</td> <td>1.198</td> <td>1.330</td> <td>0.927</td> <td>1.162</td> <td>0.745</td> <td>1.648</td> <td>2.183*</td> <td>1.343</td> <td>1.241</td> <td>0.723</td> <td>1.213</td>	Småland, islands	0.411	1.202	1.198	1.330	0.927	1.162	0.745	1.648	2.183*	1.343	1.241	0.723	1.213
North-middle 0.905 0.851 1.094 1.485 1.282 1.155 0.696 1.977 .948 1.545 0.640 0.811 1.246 Middle Norrland 0.278 1.573 0.829 1.580 1.245 1.327 0.978 1.820 1.779 1.914 1.136 0.693 2.341 Model constant 0.245* 0.657 1.054 0.888 0.977 0.304* 0.406 2.115 1.095 1.180 1.482 2.568* 3.976* Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 .079 0.106 0.102 0.089 0.093 Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3	South	0.577	0.850	0.930	1.397	0.781	0.798	0.531	1.363	1.181	1.319	1.067	0.796	1.709
Middle Norrland 0.278 1.573 0.829 1.580 1.245 1.327 0.978 1.820 1.779 1.914 1.136 0.693 2.341 Model constant 0.245* 0.657 1.054 0.888 0.977 0.304* 0.406 2.115 1.095 1.180 1.482 2.568* 3.976* Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 .079 0.106 0.102 0.089 0.093 Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3	West	0.682	0.797	0.834	1.325	0.813	1.022	0.706	2.101*	1.281	1.185	0.747	0.849	1.460
Model constant 0.245* 0.657 1.054 0.888 0.977 0.304* 0.406 2.115 1.095 1.180 1.482 2.568* 3.976* Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 .079 0.106 0.102 0.089 0.093 Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3	North-middle	0.905	0.851	1.094	1.485	1.282	1.155	0.696	1.977	.948	1.545	0.640	0.811	1.246
Nagelkerke R² 0.104 0.051 0.062 0.171 0.092 0.179 0.186 0.084 .079 0.106 0.102 0.089 0.093 Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3	Middle Norrland	0.278	1.573	0.829	1.580	1.245	1.327	0.978	1.820	1.779	1.914	1.136	0.693	2.341
Controversy 4 1 3 8 6 13 9 4 6 5 3 6 3	Model constant	0.245*	0.657	1.054	0.888	0.977	0.304*	0.406	2.115	1.095	1.180	1.482	2.568*	3.976*
	Nagelkerke R ²	0.104	0.051	0.062	0.171	0.092	0.179	0.186	0.084	.079	0.106	0.102	0.089	0.093
Politicization 3 0 0 3 2 5 4 2 3 2 3 0 2	Controversy	4	1	3	8	6	13	9	4	6	5	3	6	3
	Politicization	3	0	0	3	2	5	4	2	3	2	3	0	2

Note: Baseline categories: undecided voters, nonresponse on annual income, other job sectors, and residents of upper Norrland. $^*p < 0.05, ^{**}p < 0.01, ^{***}p < 0.001$.

turned out to be the sixth and seventh most popular ones: encouraging, alternatively mandating, and consumers into a green energy default. Controversy proved unrelated to the nudges' relative popularity, $\rho = -0.031$, p = 0.921, ns.

We next introduced a subcategory of controversy: politicization, the number of political party preferences as significant predictors, and found that the two most controversial nudges were also the two most politicized ones. Politicization was unrelated to the nudges' relative popularity too, $\rho = 0.031$, p = 0.920, ns.

As nudges 6 and 7 constituted two thirds of the green nudges (number 11 was the third), we compared the green nudges with the others in terms of controversy and politicization. They were indeed significantly more controversial $\chi^2(1, N=71) = 5.90$, p = 0.015 and politicized $\chi^2(1, N=31) = 5.48$, p = 0.019 than the others.

Conclusions

This article has investigated the public support for nudging and its relationship with socio-demographics and political party preferences, a research gap recently identified in the literature. One of its findings relates to the relationship between trust in public institutions and the support for nudging. While there is support for nudging in Sweden – a country with extraordinary trust in public institutions – it turns out to be relatively low (a cautiously pronudge nation), contrary to what previous research has theorized. A new independent variable – the support for expert technocracy over government and parliament – emerged as a significant predictor of support for most individual nudges. These findings complicate the relationship between trust in public institutions and the support for nudging. On a country level, the empirical literature now includes two Scandinavian countries (Sweden and Denmark) where trust in public institutions is very high but the support for nudging is relatively low; and on an individual level, a new predictor that formally runs counter to trust in public institutions.

Another finding relates to the relationship between political party preferences and the support for nudging. Both parametric and nonparametric univariate analyses found significant associations between the support for nudging and political party preferences across the economic left-right and cultural GAL-TAN spectra. Logistic regressions revealed that at least a couple of individual political party preferences at the time, especially for left-GAL parties, were significant predictors of the support for 10 out of 13 nudges. Going forward, we believe the two-dimensional framework used in this article could be a promising way to systemize differences in the support for nudging across political party preferences.

Like Loibl *et al.* (2018) before us, we speculate that the domestic political debate may have contributed to the individual nudges' controversy and politicization. Green nudges were most controversial and politicized in terms of polarization across socio-demographics and political party preferences. Consistently, environmental issues have been high on the policy agenda in Sweden for the past several years. It is also known from prior research that nudges' support is susceptible to affiliation with the choice architect (Tannenbaum *et al.*, 2017). Accordingly, nudges' polarization, politicization, and support are not static. Surveys of their support are snapshots of moving targets. Much work remains to be done.

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394 Gustav Almqvist and Patric Andersson

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Cite this article: Almqvist G, Andersson P (2024). Low support for nudging among Swedes in a population-representative sample. *Behavioural Public Policy* 8, 382–394. https://doi.org/10.1017/bpp.2021.4