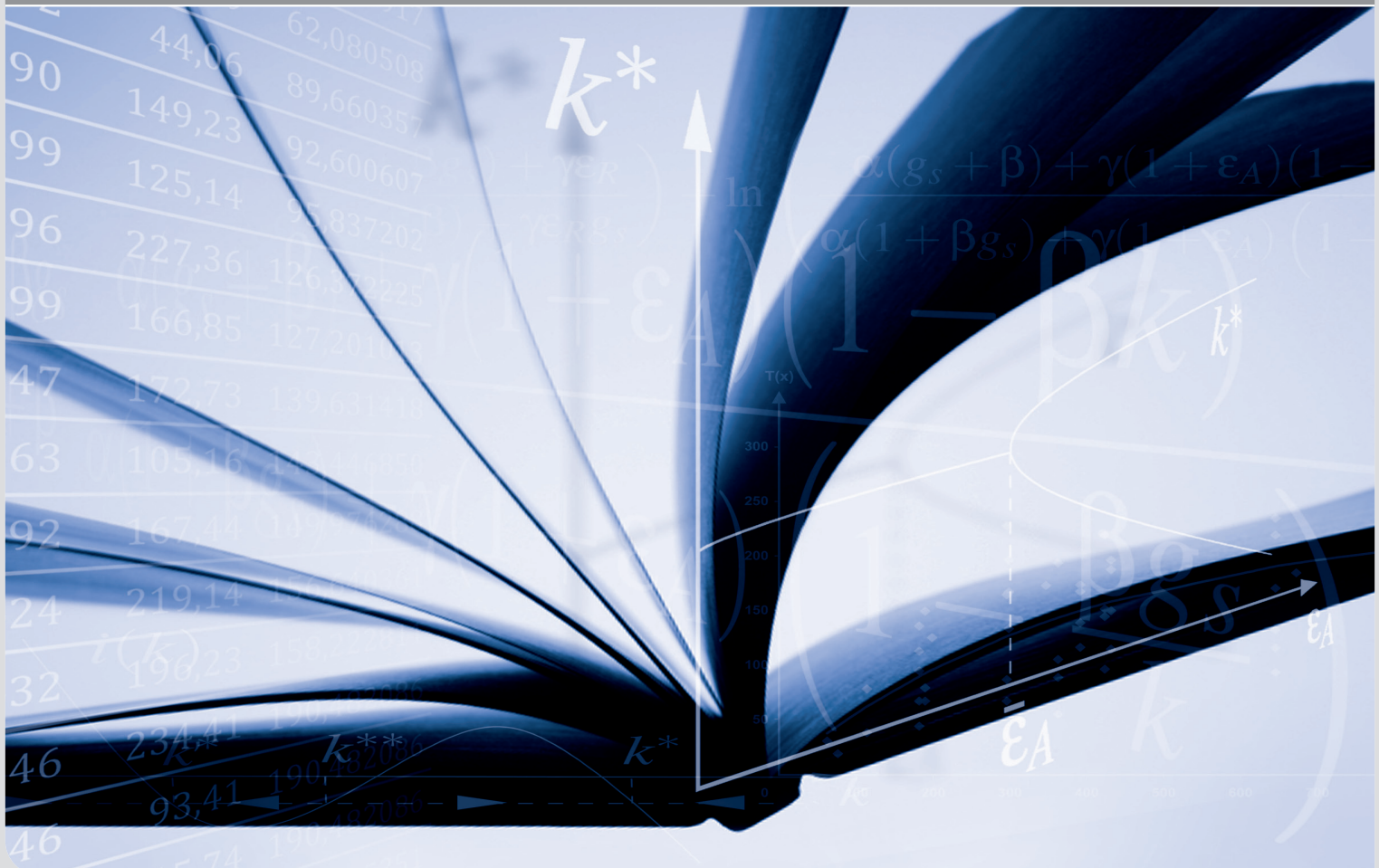


Policy representation by the 2017 Bundestag

by Andranik S. Tangian

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Abstract

The paper estimates the policy representation of 34 German parties that have participated in the 2017 Bundestag (federal) election. For this purpose, the party positions on 31 topical issues are compared with the results of recent public opinion polls. Then we construct the party indices of popularity (the average percentage of the population represented) and universality (frequency in representing a majority). Regarding policy representation, the election winner, the conservative union CDU/CSU is ranked only 27th. The most representative among six Bundestag parties is the GRÜNE, constituting the smallest faction. In turn, the Bundestag indices of representativeness are about 40%, meaning that it is non-representative rather than representative. However, if the Bundestag were elected using ‘the third vote’, i.e. if the size of the Bundestag factions were made proportional to the indices of representativeness, it could significantly gain in policy representation.

Keywords: Policy representation, representative democracy, direct democracy, elections, coalitions.

JEL Classification: D71

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1 Introduction

The late 18th century founding debate on political representation focused primarily on two questions: *Who should be represented?*, i.e. who is entitled to vote (males or also females, with which civil and property status, etc.) and *Who can be a representative?* (sons of the constituency or all trusted citizens, taxpayers of a certain level, etc.) [Manin 1997]. The question *What should be represented?*, i.e. which policies should be pursued on behalf of the electorate and how well the political system represents the electorate’s policy preferences, was of secondary importance.

The latter started to be widely discussed only since the 1960s when the dedicated notion of *policy representation* was coined; see [Miller and Stokes 1963, Pitkin 1967, Monroe 1979, Bartels 1991, Hartley and Russett 1992, Stimson et al 1995, Wlezien 1995, Wlezien 1996, Miller et al 1999, Monroe 1998, Sharpe 1999, Smith 1999, Powell 2000, Budge et al 2001, Klingemann et al 2006, Soroka 2003, Wlezien 2004, Cerami 2007, Budge and McDonald 2007, Soroka and Wlezien 2010, Volkens et al 2013]. To monitor policy representation in modern democracies, a special database has been created within the prize-winning *Manifesto* project (Berlin), aimed at ‘quantitative content analysis of parties’ election programs from more than 50 countries covering all free, democratic elections since 1945’ [WZB 2014].

Most studies in policy representation consider one-dimensional models, locating the policy preferences of parties, governments and voters either on more-or-less policy axes (in terms of budgeting for defence, education, health, etc.) or on the aggregated left-right ideological axis. However, the modern electorate, parties and governments locate themselves with respect to numerous policy issues, making policy preferences essentially multi-dimensional and hardly reducible to left–right alignment:

... in a number of Western societies ... no socioeconomic or cultural cleavage is evidently more important and stable than others. To be sure, citizens do not constitute a homogeneous mass that can be divided in any manner by the choices they are offered, but the social and cultural lines of cleavage are numerous, crosscutting, and rapidly changing. ... The number of floating voters who do not cast their ballot on the basis of stable party identification is increasing. A growing segment of the electorate tends to vote according to the stakes and issues of each election.

[Manin 1997, *Principles of Representative Government*, pp. 223, 231]

The idea of multi-dimensional policy representation is implemented in so-called voting advice applications (VAAs). Following the Dutch *StemWijzer* (*Vote match*) launched on the internet in 1998, several European countries created sites to help electors compare their policy preferences with party manifestos. They include *Wahlkabine* (*Voting booth*) in Austria, *Glasovoditel* (*Vote guide*) in Bulgaria, *Kohovolit* (*Whom to vote for*) in Czech Republic, *Vote&Vous* (*Vote&You*) in France, *Wahl-O-Mat* (*Election automate*) in Germany, *Vote Match* in the UK, *Te kit v alasztan l?* (*Whom would you choose?*) in Hungary, *Vote Match* in Ireland, *Cabine Eletorale* (*Voting booth*) in Italy, *Providus* (*The farsighted*) in Latvia, *Latarnik Wyborczy* (*Election lantern*) in Poland, *Testeaza-ti votul!* (*Test your vote!*) in Romania, *Kohovolit* (*Whom to vote for*) in Slovakia, *Elecciones.es* (*Elections.es*) in Spain and *Smartvote* Switzerland [Garzia and Marschall 2014, Vote match Europe 2017]. In 2006, the Free University of Amsterdam developed a general *Election compass* whose applications range from the university’s works council to the US president and the European Parliament [Kieskompas 2006, EU profiler 2009]. This device not only evaluates the preference proximity between voters and candidates but also locates them on a two-dimensional landscape with five-point ‘Left–Right’ and ‘Conservative–Progressive’ axes.

Following the current trends, we attempt to measure policy representation with respect to multiple policy issues. The given paper is devoted to revealing actual policy preferences of the German electorate and evaluating the current representativeness of German political parties and the Bundestag. For this purpose, we apply the framework from [Tangian 2014, Tangian 2017a, Tangian 2017b, Tangian 2017c]. We compare the positions of the parties and the Bundestag on 31 policy issues with the outcomes of actual public opinion polls on the same issues and construct indices of popularity (the average percentage of the population represented) and universality (frequency in representing a majority).

The results are discouraging. Regarding policy representation, the election winner, the conservative union CDU/CSU is ranked only 27th. The most representative among six Bundestag parties is the GRÜNE, constituting the smallest faction. The indices of representativeness of the 2013 Bundestag were as low as about 50%, as if the correspondence with the electorate’s preference on every policy issue were decided by tossing a coin, meaning that the 2013 Bundestag was practically unrelated to public opinion. However, the 2017 Bundestag indices of representativeness are about 40%, meaning that it is non-representative rather than representative. However, if the Bundestag were elected using ‘the third vote’, i.e. if the size of the Bundestag factions were made proportional to the indices of representativeness, it could significantly gain in policy representation.

Section 2, ‘Representativeness of German parties and the Bundestag’, describes the data sources, defines the indices of popularity and universality of German parties and the Bundestag, and presents the computational results. It is shown that if the 2017 Bundestag were elected using ‘the third vote’, i.e. the size of the Bundestag factions were made proportional to the party indices of representativeness [Tangian 2017b], it could be more representative.

Section 3, ‘Representativeness of the Bundestag coalitions’, the indices of popularity and universality for possible Bundestag coalitions are computed. Again, if the Bundestag were elected using the third vote, the Bundestag coalitions could be more representative.

In Section 4, ‘Conclusions’, the findings of the paper are recapitulated and placed into context.

The Appendix (Section 5) contains full references to the polls of public opinion used in the study, including exact formulation of the poll questions.

2 Representativeness of German parties and the Bundestag

Table 1 shows the 34 German parties that take part in the 2017 federal election (the union CDU/CSU is considered as a single body), and Tables 2–3 display the balance of public opinion and party positions on a number of policy questions.

The questions and the party positions are from the *Wahl-O-Mat* — the voting advice application of the German Federal Agency for Civic Education [Bundeszentrale für politische Bildung 2017]. The *Wahl-O-Mat* (an invented word composed from the German *Wahl* = election and *Automat*) is the German version of the Dutch Internet site *StemWijzer* (‘VoteMatch’) [Pro demos 2017], which was originally developed in the 1990s to involve young people in political participation. Both websites help the users locate themselves on the political landscape by testing how well their opinions match with party positions. Before an election (local, regional, federal and even European), a special governmental supervising committee compiles a list of questions on topical policy issues (‘Domestic deployment of federal armed forces?’—Yes/No, ‘General speed limit on motorways?’—Yes/No, etc.) and asks the parties participating in the election for their answers. A user of the site answers the same questions, eventually attributing weights to reflect their

Table 1: German parties in the 2017 Bundestag election

Party logo	Party description	Number of members		Percentage of votes	
		2013	2017	2013	2017
	Union of Germany's main conservative parties, Christlich Demokratische Union Deutschlands (Christian Democratic Union of Germany) founded in 1950 and Christlich-Soziale Union in Bayern (Christian Social Union of Bavaria) founded in 1945.	615456	572412	41.543	32.739
	Sozial-demokratische Partei Deutschlands (Social Democratic Party) founded in 1863.	473662	441784	25.733	20.389
	Alternative für Deutschland (Alternative for Germany) founded in 2013, a conservative party sceptical of the EU.	17687	28000	4.704	12.563
	Freie Demokratische Partei (Free Democratic Party) founded in 1948, a liberal political party close to employers' organizations.	57263	58000	4.765	10.682
	Die LINKE (The Left) founded in 2007 as the merger of East German communists and the Electoral Alternative for Labour and Social Justice (WASG), a left-wing breakaway from the SPD.	63756	58910	8.589	9.185
	BÜNDNIS 90/DIE GRÜNEN (Alliance 90/The Greens) founded in 1993 as the merger of DIE GRÜNEN (West Germany) and BÜNDNIS 90 (East Germany), both with a social-democratic background.	61359	62100	8.448	8.887
	Piratenpartei Deutschland (Pirate Party of Germany) founded in 2006, part of the international Pirate movement promoting an information society with free access to all digital media.	31700	11138	2.194	0.372
	National-demokratische Partei Deutschlands (National Democratic Party of Germany) founded in 1964, a far-right German nationalist party.	5500	5000	1.283	0.378
	FREIE WÄHLER (Free Voters) founded in 2009, a conservative party opposing EU financial policies and standing for local government, city councils and mayors.	1000	6000	0.970	0.990
	Mensch Umwelt Tierschutz (Human Environment Animal Welfare), founded in 1993, promotes the introduction of animal rights into the German constitution.	1000	1350	0.321	0.798
	Ökologisch-Demokratische Partei (Ecological Democratic Party) founded in 1982, a conservative environmentalist party.	5700	6163	0.291	0.309
	Partei für Arbeit, Rechtsstaat, Tierschutz, Elitförderung und basisdemokratische Initiative (Party for Work, Rule-of-Law, Protection of Animals, Advancement of Elites and Grass-root Democratic Initiative), founded in 2004, a populist paradoxical party with totalitarian trends.	10000	24087	0.180	0.968

Table 1: (continued) German parties in the 2017 Bundestag election

Party logo	Party description	Number of members		Percentage of votes	
		2013	2017	2013	2017
	Bayernpartei (Bavaria Party) founded in 1946, a separatist Bavarian party advocating Bavarian independence within the European Union.	500	6127	0.131	0.124
	Volksabstimmung (Referendum party), founded in 1997, promotes direct democracy of the Swiss type.	1000	1500	0.066	0.021
	Partei der Vernunft (Party of Reason), founded in 2009, promotes liberal ideas of the Austrian School of economic thought — minimal state, free market, decentralization of political power and subsidiarity.	1000	345	0.057	0.001
	Marxistisch-Leninistische Partei Deutschlands (Marxist-Leninist Party of Germany) founded in 1982, an anti-revisionist party, referring to Marx, Engels, Lenin, Stalin and Mao Zedong.	2300	1900	0.055	0.064
	Bürgerrechtsbewegung Solidarität (Civil Rights Movement Solidarity), founded in 1992, a part of the worldwide LaRouche (U.S. politician) Youth movement with republican orientation but promoting worldwide solidarity, e.g. abolishing the debts of the Third World.	1200	1000	0.029	0.014
	Sozialistische Gleichheitspartei Vierte Internationale (Socialist Equality Party – Fourth International, founded in 1971 as Partei für Soziale Gerechtigkeit (Party of Social Justice), is an anticapitalist party aimed at uniting the international workforce and implementing socialist principles. It calls for abolition of secret services and dissolution of EU and NATO.	300	300	0.010	0.003
	DIE RECHTE (The Right), founded in 2012, is a right-wing extremist party with racist-motivated utterances against foreigners and Islam. It calls for a ban on advertising in foreign languages and a wide range of changes in the asylum law.	500	621	0.005	0.004
	Allianz Deutscher Demokraten (Alliance of German Democrats), founded in 2016, wants to enable people with immigration background to live in Germany on the equal-rights basis. It is committed to dual citizenship and rights of Muslim people, being opposed to the EU in its present form.	–	1560	–	0.088
	Allianz für Menschenrechte, Tier- und Naturschutz (Alliance for Human Rights, Animal and Nature Conservation), founded in 2013. It calls for animal protection, animal experimentation-free research, more direct public participation, guaranteed basic income and better hygienic standards in hospitals.	110	134	–	0.069
	B*. Bergpartei, die Überpartei (Mountain Party, Beyond-Party), founded in 2005. It is an alternative left-wing party with the roots in the Berlin squatter scene. It calls for an unconditional basic income, pleads for a restriction of ownership, promotes exiting NATO and the direct exercise of political power by the people.	–	229	–	0.002
	Bündnis Grundeinkommen (Basic Income Alliance), founded in 2016. Its only political objective is implementing an unconditional basic income in Germany intended to enable all to participate in the community.	–	971	–	0.208

Table 1: (continued) German parties in the 2017 Bundestag election

Party logo	Party description	Number of members		Percentage of votes	
		2013	2017	2013	2017
	Demokratie in Bewegung (Democracy in Motion), founded in 2017. DiB calls for greater co-determination, transparency in politic, introduction of binding lobbyists. It supports the expansion of European Union's competences and migration with human rights.	–	225	–	0.130
	Deutsche Kommunistische Partei (German Communist Party), founded in 1968. The DKP is a left-wing extremist party targeted at the establishment of a socialist system. It calls for peace, social security, investment, job creation and reintroduction of property tax.	3500	3000	–	0.025
	Deutsche Mitte (German Center), founded in 2013. The DM criticizes many policy areas and considers its own positions non-negotiable. It is against the euro and the EU, unlimited immigration, public broadcasting, compulsory schooling and interest and taxes.	–	3315	–	0.135
	Die Grauen – Für alle Generationen (The Grey-Haired – For All Generations), established in 2017. The party, having emerged from the interests of the elderly, deals also with general politics, demanding minimum pension, reduction of the retirement age, strengthening of direct democracy and reduction of the five per cent hurdle for parties in representative bodies.	–	281	–	0.021
	Die Urbane. Eine HipHop Partei (The Urban. A HipHop Party), founded in 2017. The du. proposes to transfer the key elements of hip-hop culture into political action. It is against discrimination and calls for the end of German arms exports and the withdrawal of Germany from NATO.	–	221	–	0.006
	Menschliche Welt (Human World), founded in 2013. The MW, following the Yoga school of Indian philosopher Prabhat Ranjan Sarkar, wants to improve society basing on spiritual practices. It calls for minimization of German arms exports, ban on animal experiments and massively subsidizing environment-friendly technologies.	–	505	–	0.025
	Partei der Humanisten (Party of Humanists), founded in 2014. The Humanists promote a world-view based on natural-science laws but not on 'gods or higher powers'. They call for the end of church–state relationships, the legalization of cannabis and free access to tax-financed research results.	–	307	–	0.013
	Partei für Gesundheitsforschung (Party for Health Research), founded in 2015. The party's only political goal is improving research on age-related diseases with no consideration of other policy issues.	–	173	–	0.050
	V-Partei ³ – Partei für Veränderung, Vegetarier und Veganer (V-Party ³ – Party for Change, Vegetarians and Vegans), founded in 2016. Its core requirements are improving consumer, climate and animal protection.	–	1200	–	0.137
	Magdeburger Gartenpartei (Magdeburg Garden Party), founded in 2013. The MG protests against the construction of houses at garden plots, increase of public debt and differences between education systems in German states.	–	361	–	0.012

Sources: [Bundeszentrale für politische Bildung 2017], [Bundesamt für Verfassungsschutz 2015, p. 181], [Liste der politischen Parteien in Deutschland 2017], [Niedermayer 2017, p. 2], [Statista 2017] (party descriptions and number of party members)
[Bundeswahlleiter 2013, p. 14ff.]; [Bundeswahlleiter 2017] (voting statistics converted into percentages)

Table 2: Public opinion on the 2017 *Wahl-O-Mat* policy questions

Questions	Question weights		Public opinion	
	Equal	Google hits in $\log_2 K$	Protagonists, %	Antagonists, %
1 Domestic deployment of federal armed forces. The federal armed forces can be deployed in the country to fight against terrorism.	1	6.79	68	29
2 Taxation of passenger diesel cars. Diesel fuel for passenger cars should be taxed higher.	1	4.38	62	31
3 Upper limit for asylum seekers. Set an annual ceiling for the reception of new asylum seekers.	1	2.51	56	41
4 Expansion of renewable energies. The expansion of renewable energies should to be financed by the federal government on a permanent basis.	1	7.24	95	4
5 Social Housing. The federal government has to provide more funds for social housing.	1	8.34	56	43
6 Parent-independent BAfG (statutory grants for students). BAfG is generally to be paid regardless of the parents' income.	1	6.17	?	?
7 Extending video surveillance. Video surveillance in the public areas must be expanded.	1	4.55	79	19
8 Cut the Greek debts. Germany has to agree to cut the Greek debts.	1	5.34	18	46
9 Tempolimit. General speed limit on motorways!	1	9.15	56	39
10 Increase in defense expenditure. Germany's defense spending should be increased.	1	5.64	42	55
11 Fake news in internet. Operators of internet sites should be legally obliged to delete fake news if they have been informed about the issue.	1	0.73	42	58
12 Organic farming. Organic farming must be subsidized more generously than conventional agriculture.	1	7.83	93	5
13 Children's allowance for Germans. Children's allowance should be paid but to German families only.	1	2.81	?	?
14 Unconditional limitation of employment contracts. Duration of employment contracts should continue to be limited without giving reasons.	1	6.17	25	67
15 Compulsory vaccination. Children should be vaccinated against infectious diseases.	1	7.44	74	21
16 Nationalization of banks. All banks are to be nationalized.	1	4.68	60	31
17 Remembrance culture. The genocide of the European Jews should continue to be a central part of the German memory culture.	1	9.00	18	81
18 Reduction of public debt. Budget surpluses should be used mainly for the reduction of public debt.	1	1.39	19	78
19 Limitation of livestock farming. The total number of livestock in the farms of a municipality should be limited.	1	1.29	?	?
20 Phasing-out brown coal. In the future, brown coal should be phased-out in Germany.	1	6.22	71	25

Table 2: (continued) Public opinion on policy questions

Questions	Question weights		Public opinion	
	Equal	Google hits in $\log_2 K$	Protagonists, %	Antagonists, %
21 Temporary agency work. Companies should continue to employ temporary agency workers.	1	9.43	44	8
22 Double citizenship. Children of foreign parents who are born and raised in Germany should be allowed to have their second nationality alongside with the German one.	1	7.36	35	58
23 Early retirement. Pension reductions should not be applicable to early retirement after 40 years of contributions, .	1	7.53	?	?
24 National currency. Germany has to reintroduce national currency.	1	7.30	28	71
25 Abolition of women’s quota. The women’s quota for the supervisory boards of stock-exchange traded companies should be abolished.	1	1.62	46	48
26 Property tax. High wealth should be taxed.	1	8.16	52	30
27 Condemnation of children under 14 years. For crimes committed, children under 14 years of age are also to be sentenced.	1	3.60	?	?
28 Statutory health insurance. All citizens must be insured with statutory health insurance companies.	1	9.12	68	27
29 Projects against right extremism. The government should continue to subsidize projects against right extremism.	1	4.64	78	8
30 Exemption from the real estate transfer tax. The acquisition of owner-occupied residential property should be tax-free up to a certain amount.	1	1.21	?	?
31 Prohibition of arms exports. Armament exports from Germany areshould be prohibited with no exceptions.	1	3.71	83	14
32 Cannabis sales. The controlled sale of cannabis should be generally allowed.	1	5.25	57	10
33 Abolition of the solidarity tax (to cover exceptional expenses). The solidarity tax must be completely abolished by the end of 2019.	1	5.10	51	36
34 Reduction of refugees’ benefits. Benefits of recognized refugees who refuse to participate in integration programs can be reduced.	1	0.32	88	10
35 Entitlement to full-day care. Parents should receive a right to full-day care for their children until the end of primary school.	1	7.27	72	25
36 Reference to God in the constitution. The reference to God in the German constitution should be retained.	1	1.19	?	?
37 Unconditional basic Income. In Germany there should be unconditional basic income.	1	8.52	73	21
38 Stronger cooperation in the EU. Cooperation between the EU Member States must be made stronger.	1	2.48	78	20

Sources: [Bundeszentrale für politische Bildung 2017] (questions)
Google on 17.09.2017 (question weights)
Section 5 (public opinion)

importance, and then the program compares his or her political profile with that of the parties and finds the best-matching party, the next-best-matching party, etc.

The *Wahl-O-Mat* provides no statistics for individual answers, but even if they were available, they would be biased toward internet users.¹ For this reason we refer to the public opinion polls that pertain to 31 of the 38 *Wahl-O-Mat* questions (for seven issues, no appropriate polls were found) and which were conducted during the two years before the 2017 federal election. For the German formulation of the *Wahl-O-Mat* questions, their translation into English, the references to public opinion polls, their dates and outcomes see Section 5.

Each *Wahl-O-Mat* question divides the society into two groups: protagonists (Yes-group) and antagonists (No-group); abstentions are not considered. A party, answering these questions, represents the Yes-groups for some questions and the No-groups for others. To evaluate the representativeness of a party, we consider two indices. The party’s *popularity* is defined to be the average size of the group it represents, averaged over all the questions. The *universality* of a party is its frequency in representing a majority. Both indices are computed in two versions: for equally weighted questions, meaning their equal importance, and for the questions weighted with the base 2 logarithm of thousand Google hits for the questions’ keywords (the question titles in German — in order to restrict the search to the German area) — it is assumed that the number of relevant search results reflects the importance of the question.

Let us illustrate the construction of representativeness indices using Figure 1. It displays the 38 *Wahl-O-Mat* questions together with their original numbers and color bars indicating the balance of public opinion and the positions of the four Bundestag parties (that received $\geq 5\%$ of the electoral votes); if the data were missing, the corresponding rectangles are missing as well. For a specific example, we take the first question, ‘Domestic deployment of federal armed forces’. The balance of public opinion, with 68% for (protagonists) and 29% against (antagonists) is shown by the blue bar. Its length is normalized, that is, the abstentions have been removed from consideration, and the total bar length is brought up to 100%, as shown by the box. The bar’s segments to the left and to the right of the central axis are proportional to the percentage of antagonists and protagonists in the society, respectively. Thus the prevailing public opinion is visualized by the blue bar’s bias from the center.

Every Bundestag faction is depicted by a rectangle in the official party color; its length is proportional to the number of seats it holds in the Bundestag. The ‘No/Yes’ party opinion on the question is reflected by the positioning of the rectangle to the left or to the right of the central axis, respectively. For every question, the given party represents a certain percentage of the population, as revealed by the corresponding public opinion poll. For instance, the union CDU/CSU with its ‘Yes’ answer to Question 1 represents the opinion of 68% of the population versus the 29% who answer ‘No’. After removal of abstentions and normalization (bringing the total to 100%), we obtain the CDU/CSU *representativeness* for Question 1:

$$r_{\text{CDU/CSU},1} = \frac{68}{68 + 29} \approx 0.70 .$$

With the ‘No’ answer to Question 2, ‘[Higher] taxation of passenger diesel cars’, the union CDU/CSU expresses the opinion of 31% of the population versus 62%. After removal of abstentions and normalization we obtain the following CDU/CSU representativeness for Question 2:

$$r_{\text{CDU/CSU},2} = \frac{31}{31 + 62} \approx 0.33 ,$$

¹Before the 2013 Bundestag election, the *Wahl-O-Mat* site was visited over 13 million times [Bundeszentrale für politische Bildung 2017].

and so on. Taking the average representativeness of the CDU/CSU over the 24 questions for which we have both opinion poll data and definitive party answers, we obtain the party’s unweighted *popularity* index

$$P_{\text{CDU/CSU}} = \sum_{q=1}^{24} \frac{r_{\text{CDU/CSU},q}}{24} = \frac{0.70}{24} + \frac{0.33}{24} + \dots \approx 0.51 \quad (\times 100\% \approx 51\%) .$$

Replacing the weights $\frac{1}{24}$ in the above formula with the normalized Google-weights (that is, proportionally reduced to the total = 1), we obtain the Google-weighted version of popularity. It should be noted that for each party we consider only the questions backed up with public opinion polls and definitive party answers, so the normalization of weights varies from one party to another.

The CDU/CSU (unweighted) universality index is the percentage of the questions for which the CDU/CSU represent a non-strict majority ($\geq 50\%$). Again, we restrict ourselves to the 24 questions with known CDU/CSU positions and backed up by public opinion polls. Since the CDU/CSU represent a non-strict majority on 12 out of 24 questions,

$$U_{\text{CDU/CSU}} = \sum_{q:r_{\text{CDU/CSU},q} \geq 0.5} \frac{1}{24} = \sum_{q=1}^{24} \frac{\text{round}[r_{\text{CDU/CSU},q}]}{24} = \frac{12}{24} \quad (\times 100\% = 50\%) .$$

If the questions are counted with Google-weights instead of $1/24$, we obtain the Google-weighted version of the universality index.

The indices of other parties are computed similarly, being based on the data in Tables 2–3. The indices of the Bundestag before coalition building are based on the Bundestag majority opinions on the issues. For instance, the Bundestag’s position on Question 1 is the one of the majority of three YES-factions, of SPD, DIE LINKE and GRÜNE, as visualized by the cumulative length of the party bars in Figure 1 that surpasses the 50%-threshold shown by dotted lines (for this question Bundestag represents the No-group).

Figure 2 displays the indices of popularity P and universality U for all German parties that participate in the 2017 federal election as well as that of the Bundestag,² each in two versions: for unweighted questions (marked with ‘u’) and Google-weighted questions (marked with ‘g’). The parties are sorted in decreasing order of the mean of the four indices. The mean index makes sense, because the popularity and universality indices are correlated, being defined as expected representativeness and expected rounded representativeness, respectively. Table 4 shows that all correlations between the indices of representativeness are very close to 1.00. It is noteworthy that the votes received by parties are negatively correlated with their indices of representativeness, meaning that voters neglect policy representation.

As we see, the main election winners, conservative union CDU/CSU and the social-democratic SPD are ranked only 27th and 22nd, respectively. The policy representation of the SPD is almost as low as that of the two completely abstaining parties — Gesundheitsforschung and MG (Magdeburger Gartenpartei) — who answered no question and have therefore the neutral representativeness of 50%. The policy representation of the union CDU/CSU is even lower, meaning that it is rather non-representative than representative.

²The indices of the 2013 and 2017 Bundestags reflect the matching of the current party positions with the current public opinion, but the sizes of party factions are proportional to the party votes received in 2013 and 2017 elections, respectively. Figure 2 also shows a hypothetical 2017 Bundestag as if elected using the ‘third vote’, i.e. with the sizes of factions being proportional to the party indices of representativeness [Tangian 2017b].

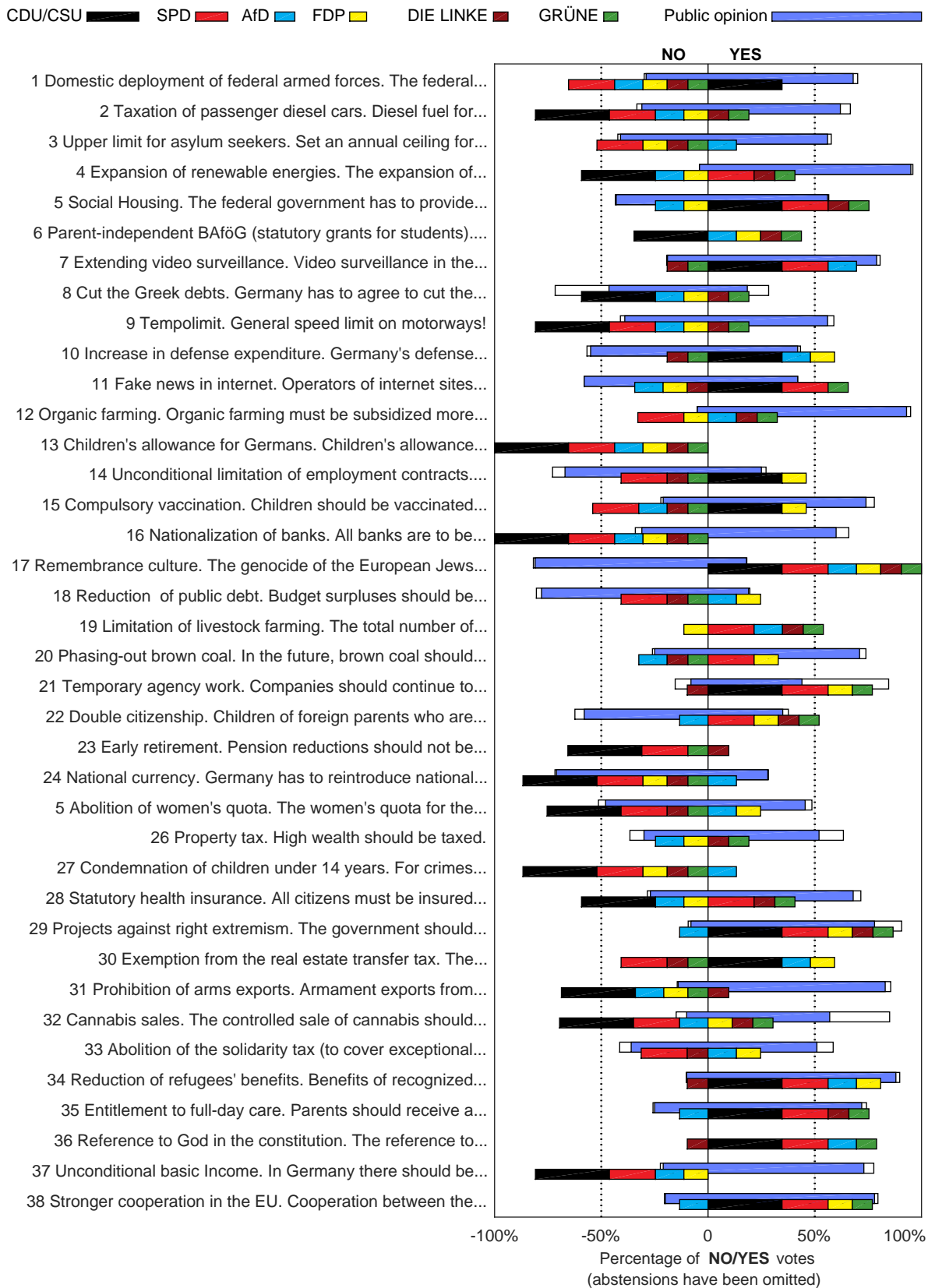


Figure 1: Actual public opinion and representation thereof by the 2017 Bundestag

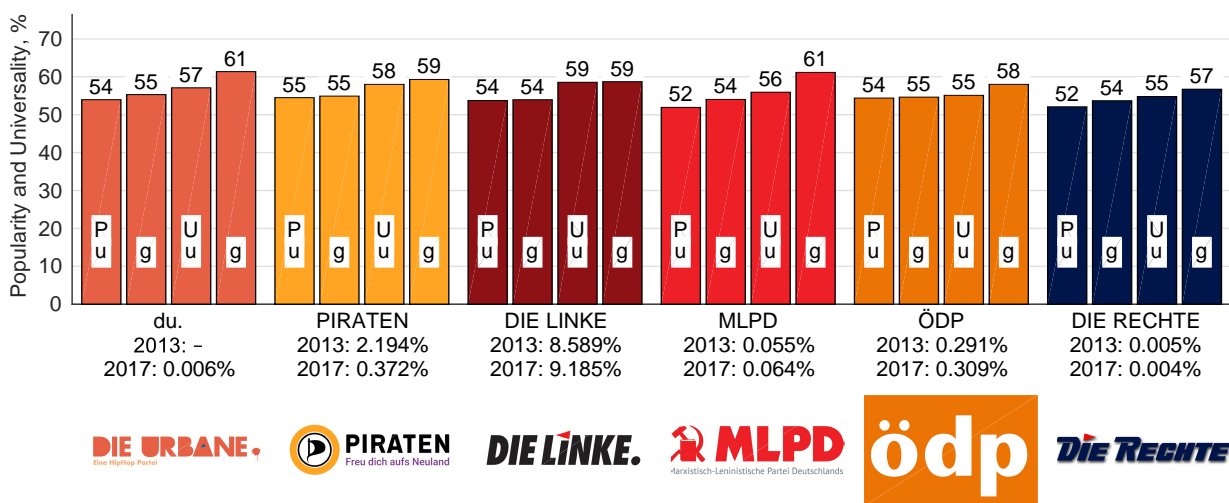
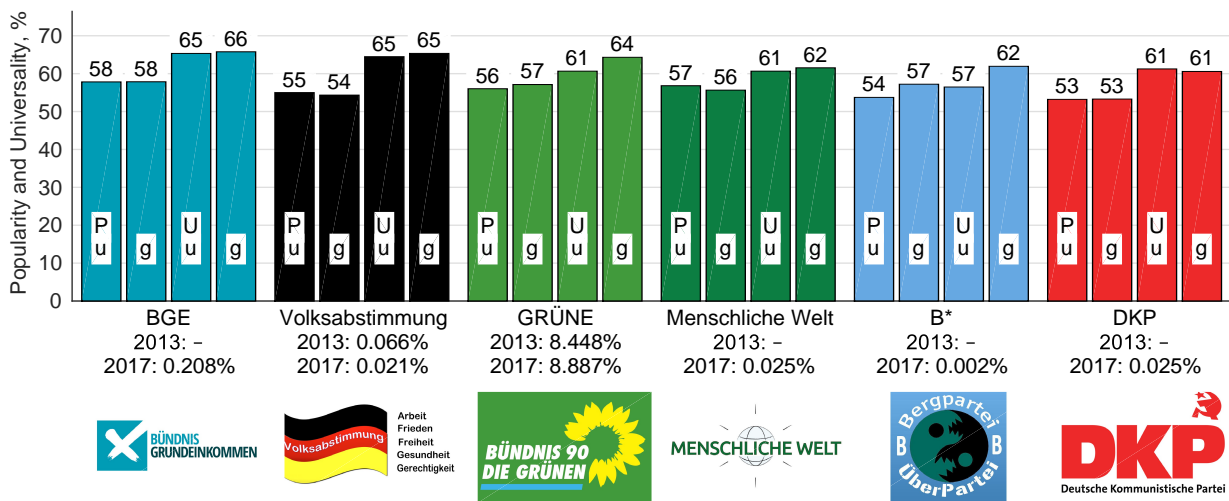
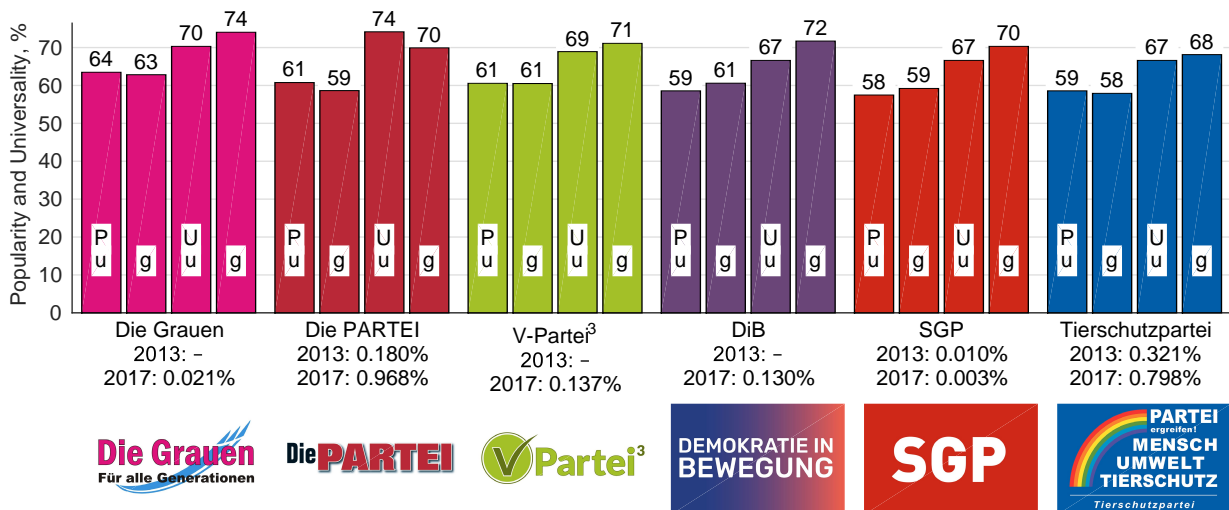


Figure 2: Indices of German parties and the Bundestag: P—popularity, U—universality, u—for unweighted questions, and g—for questions weighted by the number of Google hits

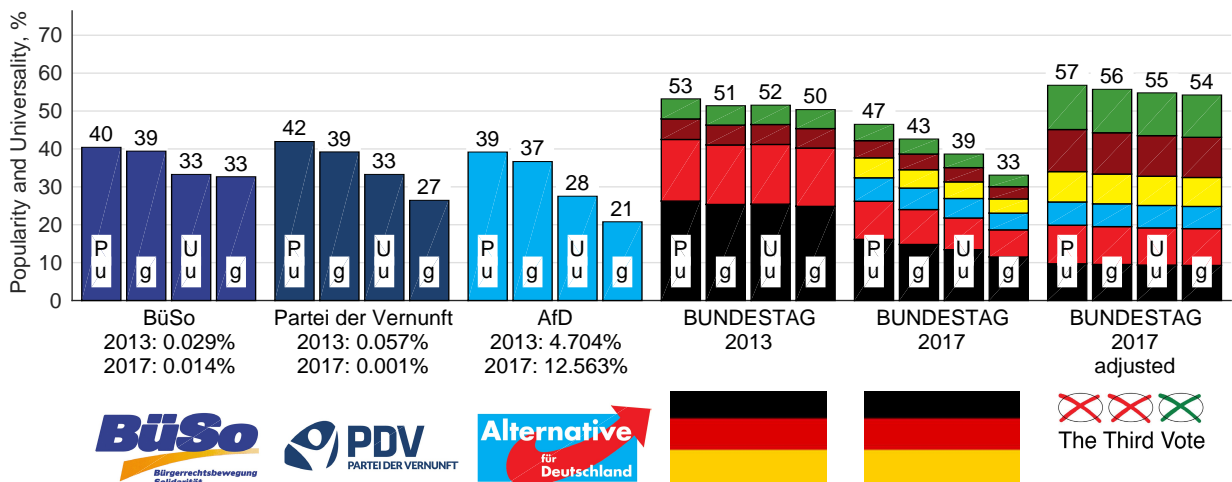
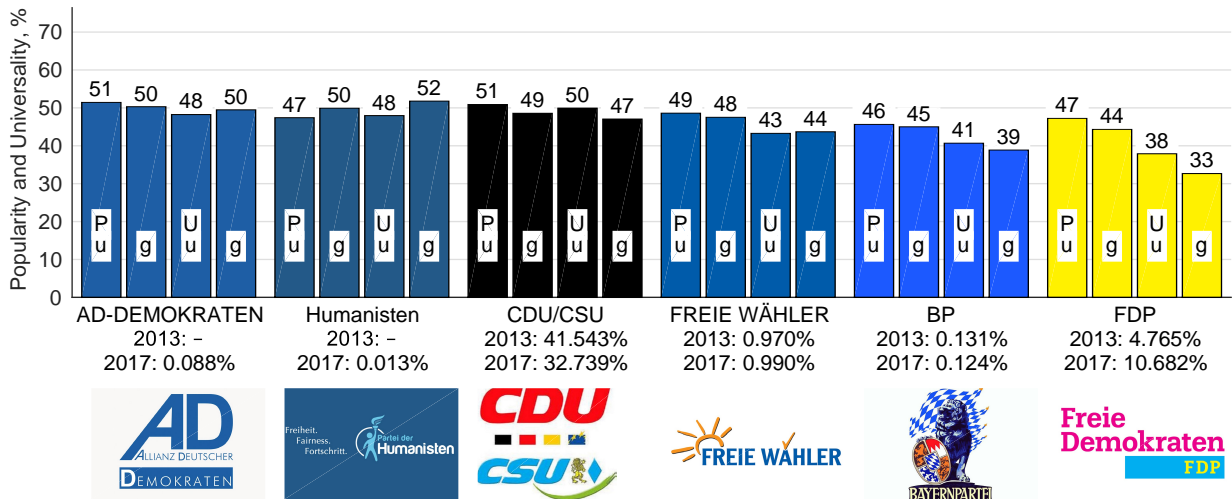
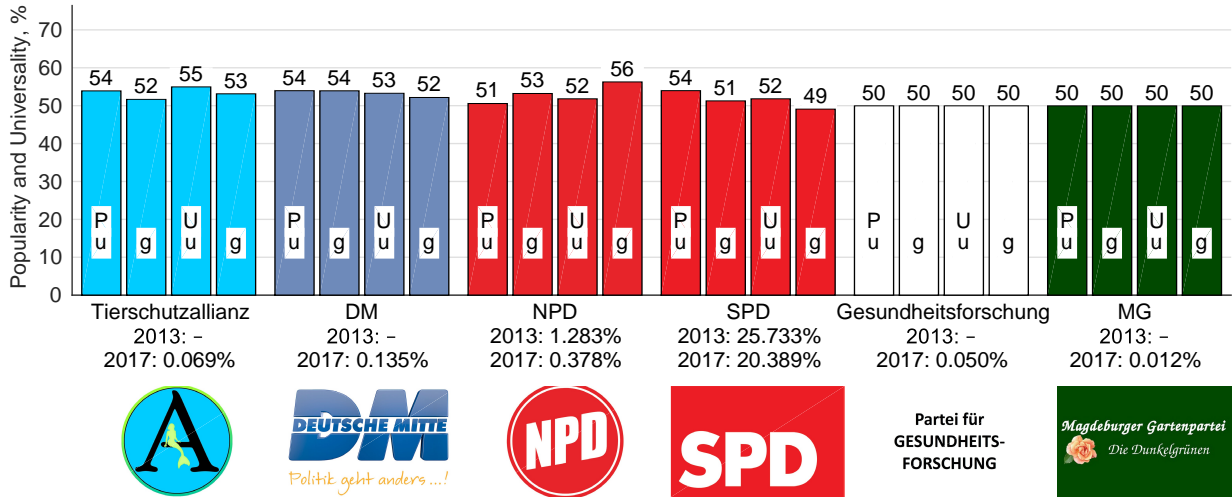


Figure 2: (continued) Indices of German parties and the Bundestag: P—popularity, U—universality, u—for unweighted questions, and g—for questions weighted by the number of Google hits

Table 4: Pearson correlation between parties' votes and their indices of representativeness

	Votes	P unweighted	P Google-weighted	U unweighted	U Google-weighted	Mean index
Votes	1.00	-0.16	-0.26	-0.23	-0.30*	-0.25
P unweighted	-0.16	1.00	0.96***	0.97***	0.94***	0.97***
P Google-weighted	-0.26	0.96***	1.00	0.96***	0.98***	0.99***
U unweighted	-0.23	0.97***	0.96***	1.00	0.98***	0.99***
U Google-weighted	-0.30*	0.94***	0.98***	0.98***	1.00	0.99***
Mean index	-0.25	0.97***	0.99***	0.99***	0.99***	1.00

*** PVAL < 0.01

** 0.01 < PVAL ≤ 0.05

* 0.05 < PVAL ≤ 0.10

As shown in Figure 2, the 2013 Bundestag representativeness is slightly above 50%. It should be noted that the representativeness of 50% is expected when the correspondence with the electorate's preference on every policy issue is decided by tossing a coin. All of these means that the 2013 Bundestag's policy profile is practically independent of public opinion. Due to the low representativeness of additional factions of FDP and AfD, the indices of representativeness of the 2017 Bundestag are even lower, meaning that it is non-representative rather than representative. At the same time, the hypothetical 2017 Bundestag (as if elected using the third vote), demonstrates a significant gain in policy representation.

3 Representativeness of the Bundestag coalitions

Table 5 characterizes the minimal eligible coalitions, that is, those possible to form by the parties with $\geq 5\%$ of the votes and constituting a Bundestag majority. In real politics, the eligible coalitions are usually *minimal*, i.e., they contain no more parties than necessary, because the more parties, the more complex the negotiations and the less power enjoyed by each faction; cf. with Riker's minimum winning coalitions [Riker 1962]. For instance, the coalition CDU/CSU-SPD-GRÜNE is eligible but not minimal; that is, the coalition CDU/CSU-SPD, being itself eligible, does not need GRÜNE.

The coalitions in two sections of Table 5 are illustrated in Figure 3 by 'flags' with blue and red flagstuffs. The eligible coalitions of the actual Bundestag are distinguished by blue flagstuffs, and the ones of the hypothetical Bundestag, as if elected using the 'third vote', are marked with the letter 'T' and have the red flagstuffs.

The first column of Table 5 enumerates the minimal eligible coalitions shown in Figure 3 by bars in the official party colors where the length is proportional to the number of votes received by the party or to their indices of representativeness. The second column shows the coalition weight in % of parliament seats (small adjustments to the number of parliament seats as prescribed by the German constitution are not taken into account). For example, the coalition CDU/CSU-SPD with $32.8 + 20.4 = 53.2\%$ of the electors' votes, has 56.3% of the parliament seats:

$$\begin{aligned} \text{Weight of CDU/CSU-SPD within the Bundestag} &= \frac{32.8 + 20.4}{32.8 + 20.4 + 12.6 + 10.7 + 9.2 + 8.9} \\ &\approx 0.563 \quad (\times 100\% = 56.3\%) . \end{aligned}$$

Table 5: Sheet A. Indices of minimal eligible coalitions with unanimity > 50 in the 2017 Bundestag elected by party name and by the third vote (T), i.e. by party indices (mean of unweighted popularity and universality). Computations are made assuming the impact of faction weights on the coalition decisions $p = 0.50$.

Coalitions	Bundestag seats	Unanimity	Popularity		Universality	
			Expectation	Standard deviation	Expectation	Standard deviation
	%/Rank	%/Rank	%/Rank	%/Rank	%/Rank	%/Rank
1 CDU/CSU–SPD	56.3/2	83.3/1	51.4/1	$\pm 3.7/3$	51.5/2	$\pm 7.2/3$
2 CDU/CSU–AfD–FDP	59.3/1	54.8/2	49.9/3	$\pm 3.1/2$	48.3/3	$\pm 5.8/2$
3 CDU/CSU–DIE LINKE–GRÜNE	53.8/3	51.6/3	51.0/2	$\pm 2.7/1$	51.8/1	$\pm 5.6/1$
Coalitions by the third vote (T)						
1T SPD–DIE LINKE–GRÜNE	57.0/1	67.7/1	53.2/1	$\pm 3.0/3$	54.8/2	$\pm 6.4/3$
2T CDU/CSU–SPD–GRÜNE	55.0/3	58.1/2	52.3/3	$\pm 3.0/2$	52.9/3	$\pm 5.9/2$
3T CDU/CSU–DIE LINKE–GRÜNE	56.1/2	51.6/3	52.3/2	$\pm 2.7/1$	55.1/1	$\pm 5.6/1$

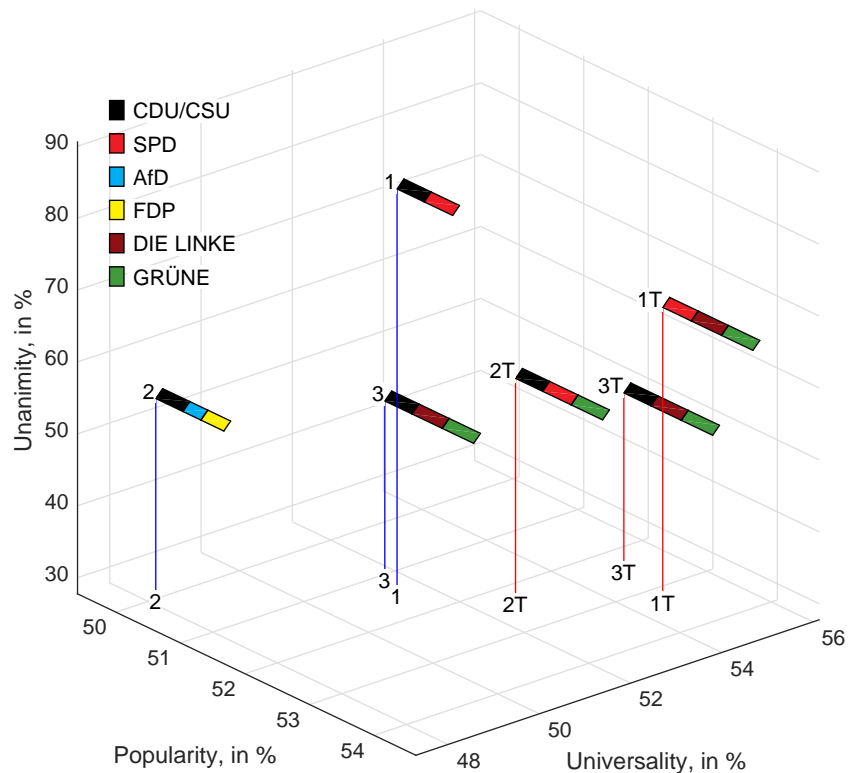


Figure 3: Visualization of Table 5

The third column of Table 5 contains the degree of *unanimity* of the coalition expressed in the total weight of the questions on which all the coalition members agree. In Figure 3, the coalitions’ unanimity corresponds to the heights of the flagstaffs. As shown previously, question weighting plays a secondary role, so we refer to the least partial equal weights of the questions; correspondingly, the coalition indices of popularity and universality are also unweighted; they are X–Y coordinates of the flagstaffs.

If a coalition is unanimous on a certain question then its ‘answer’ is the same as of every member. If coalition members disagree on an issue then the probabilities of the coalition’s Yes/No answer to this question could be assumed proportional to the protagonist-to-antagonist ratio within the coalition. As expressed in a personal conversation with the author by Tobias Lindner, Bundestag member (GRÜNE), the reality is even more uncertain.

To deal with the uncertainty in coalition decision making, we introduce the parameter p — *proportionality of influence to size of the faction* — $0 \leq p \leq 1$, which we explain here with an example. Suppose that, for a certain question, the protagonist-to-antagonist ratio within a coalition is 3:1, that is, the Yes-faction is three times larger than the No-faction. The $p = 1$ denotes the exact proportionality of influence to size, when the coalition answers ‘Yes’ with the probability equal to the weight of the Yes-faction $3/(3 + 1) = 3/4$, and ‘No’ with the probability equal to the weight of the No-faction $1/4$. The $p = 0$ denotes no proportionality of influence to size, that is, the coalition adopts each alternative opinion with equal chances $1/2$. The medium uncertainty $p = 1/2$ means that the influence of faction sizes on the coalition answer is a mix of the two extreme cases in proportion $p = 1/2$ and $1 - p = 1/2$:

$$\begin{aligned} \text{Prob (Yes)} &= \underbrace{p}_{1/2} \times \underbrace{3/4}_{\text{Size influence of Yes-faction}} + \underbrace{(1-p)}_{1/2} \times \underbrace{1/2}_{\text{No influence of size}} = 5/8 \\ \text{Prob (No)} &= \underbrace{p}_{1/2} \times \underbrace{1/4}_{\text{Size influence of No-faction}} + \underbrace{(1-p)}_{1/2} \times \underbrace{1/2}_{\text{No influence of size}} = 3/8 . \end{aligned}$$

Throughout this paper, the medium uncertainty $p = 1/2$ is assumed and applied to all coalitions considered further.

Under uncertainty, the coalitions’ indices of popularity and universality turn into random variables. Then the *coalition’s popularity* and *universality* are understood as the *expected* size of the group represented, and as the *expected* frequency in representing a majority, respectively. These indices are no longer exact magnitudes but expected estimates, with their standard deviation regarded as the estimation accuracy. The coalition indices and their standard deviations are computed with formulas from [Tangian 2014, p. 338]. Note that in Table 5, the higher ranks are assigned to greater representation indices, but to smaller standard deviations characterizing their higher accuracy.

A high degree of unanimity facilitates coalition formation, because parties with close positions cooperate more easily. The most unanimous and simultaneously most representative minimal eligible coalition in the actual Bundestag, CDU/CSU–SPD, fails because of tensions between the parties. In the hypothetical Bundestag, the most unanimous and most representative is the coalition SPD–DIE LINKE–GRÜNE. It should be noted that the eligible coalitions in the hypothetical Bundestag are more representative than the coalitions in the actual Bundestag.

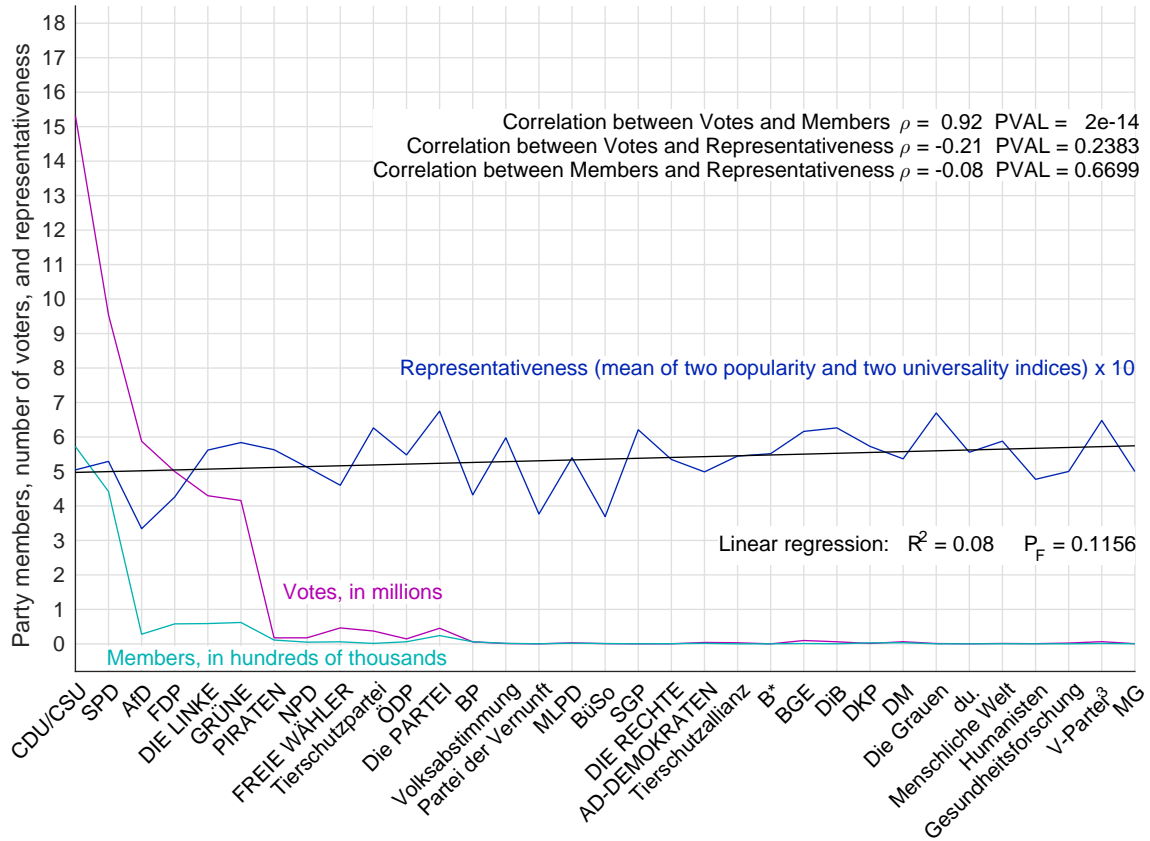


Figure 4: Party sizes and votes received in 2017 and the actual index of representativeness (mean of four indices) of German parties

4 Conclusions

It should be emphasized that in real elections there are numerous considerations beyond policy representation. Indeed, the relations between the parties and the electorate, understood in a broad sense, are in fact many-sided. Large established parties, which in our evaluation are ranked rather low, are much closer to the electorate than the small little known ones with higher indices of representativeness. It is due to networking, experience, traditions, etc., which cannot be overlooked. This is well illustrated in Figure 4, where the electoral success of the parties is highly correlated with the party size, but not with the party policy representation.

On the other hand, the low policy representation of some large parties revealed in our study may be caused by the selection of *Whal-O-Mat* questions that are not as neutral as assumed to be. Their subjects and wordings can be favorable for some parties and unfavorable for others. To avoid claims in partiality, the Karlsruhe Institute of Technology, where the *Whal-O-Mat* is adapted to elections of the Student Parliament, in 2017 asked the parties to formulate the questions themselves as a part of their electoral campaign. The final selection has been made by an optimization model aimed at enhancing contrasts between the parties' policy profiles [Tangian 2017d]. This can be applicable to the *Whal-O-Mat* itself.

Regardless of reservations, our analysis demonstrates that neither the parties are well aware of the electorate's policy preferences nor the voters are well informed about the parties' current positions. This is confirmed also by other scholars at a larger scale:

We find no substantively or statistically significant evidence that voters adjust their perceptions of parties' Left-Right positions in response to the policy statements in parties' election manifestos — a conclusion that is striking given that interviews with European political elites that we conducted (discussed below) suggest that parties campaign on the basis of these manifestos . . . By contrast, we find that European citizens do react to their perceptions of parties' Left-Right positions, i.e., citizens adjust their Left-Right positions and their partisan loyalties in response to the parties' policy images . . . But, because voter perceptions do not track the parties' actual policy statements, there is a disconnect between shifts in elite policy discourse and voter reactions. Voters react to what they perceive the parties stand for, but these perceptions do not match up with the actual statements in the parties' policy manifestos, which form the basis for the parties' election campaigns.

[Adams et al 2011, Is anybody listening? Evidence that voters do not respond to European parties' policy statements during elections, *Am J Polit Sci*: 55, p. 371]

In a sense, our study warns about a possible discrepancy between the electorate and the government elected, although the conclusions based on data samples, as in our case, can be never considered 100%-reliable.

5 Appendix. Public opinion polls relevant to the 2017 Wahl-O-Mat questions

References

- [1] *Wahl-O-Mat Question*: Bundeswehr im Inneren. Bei der Terrorismusbekämpfung soll die Bundeswehr im Inland eingesetzt werden dürfen.

English translation: Domestic deployment of federal armed forces. The federal armed forces can be deployed in the country to fight against terrorism.

Reference to public opinion poll: Bayernkurier (24.02.2017) Umfrage: Mehrheit für Bundeswehr im Inneren. 'Eine große Mehrheit der Bundesbürger will, dass die Bundeswehr in bestimmten Situationen auch im Landesinneren eingesetzt werden kann etwa zur Abwehr von Terroristen. 68 Prozent der Deutschen sprechen sich für diese Möglichkeit aus... Lediglich 29 Prozent lehnen einen Bundeswehreinsatz im Innern ab... Im Auftrag des Bayernkuriers befragte das Meinungsforschungsinstitut dimap zwischen dem 7. und 9. Februar 2017 bundesweit 1.015 wahlberechtigte Bürgerinnen und Bürger. <https://www.bayernkurier.de/inland/22447-mehrheit-fuer-bundeswehr-im-inneren/>. Cited 17 Sep 2017.

- [2] *Wahl-O-Mat Question*: Besteuerung von Pkw-Diesel. Dieselkraftstoff für Pkw soll höher besteuert werden.

English translation: Taxation of passenger diesel cars. Diesel fuel for passenger cars should be taxed higher.

Reference to public opinion poll: Haller Kreisblatt (15.11.2015) Greenpeace will höhere Dieselsteuer. 'So lehnten in der Emnid-Befragung 62 Prozent der Teilnehmer die steuerliche Begünstigung von Diesel gegenüber Benzin ab, nur 31 Prozent sprachen sich dafür aus.' http://www.haller-kreisblatt.de/ueberregional/wirtschaft/20625908_Greenpeace-will-hoehere-Dieselsteuer.html. Cited 17 Sep 2017.

- [3] *Wahl-O-Mat Question*: Obergrenze für Asylsuchende. Für die Aufnahme von neuen Asylsuchenden soll eine jährliche Obergrenze gelten.

English translation: Upper limit for asylum seekers. Set an annual ceiling for the reception of new asylum seekers.

Reference to public opinion poll: Infratest dimap (28.08.2017) Zuwanderung, Bildung und Soziales: alles wichtig, aber was genau? Zielpriorisierung in der Zuwanderungs- und Flüchtlingspolitik. Frage: In der Zuwanderungs- und Flüchtlingspolitik werden derzeit — neben anderen — folgende Ziele diskutiert ... Welches dieser Ziele ist Ihnen persönlich am wichtigsten? Ziel ‘Stärkere Zuwanderungsbegrenzung und konsequentere Abschiebung’: Obeste Priorität – 34%; Mittlere Priorität – 22%; Weder wichtiges noch zweitwichtiges Ziel – 41%. Grundgesamtheit: Wahlberechtigte Bevölkerung in Deutschland ab 18 Jahren. Fallzahl: 1.029 Befragte. Erhebungszeitraum: 10.-12. Juli 2017. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/umfragen/aktuell/zuwanderung-bildung-und-soziales-alles-wichtig-aber-was-genau/>. Cited 17 Sep 2017.

- [4] *Wahl-O-Mat Question*: Ausbau erneuerbarer Energien. Der Ausbau erneuerbarer Energien soll vom Bund dauerhaft finanziell gefördert werden.

English translation: Expansion of renewable energies. The expansion of renewable energies should to be financed by the federal government on a permanent basis.

Reference to public opinion poll: Agentur für Erneuerbare Energien (08.08.2017) Repräsentative Umfrage: 95 Prozent der Deutschen wollen mehr Erneuerbare Energien. Umfrage von Kantar Emind im Auftrag der Agentur für Erneuerbare Energien, 1016 Befragte, Stand 7/2017. Diagramm: ‘Starke Nutzung und Ausbau Erneuerbare Energie sind sehr oder außerordentlich wichtig – 65%; wichtig – 30%; weniger oder überhaupt nicht wichtig – 4%; weiß nicht, keine Angabe – 1%. <https://www.unendlich-viel-energie.de/themen/akzeptanz-erneuerbarer/akzeptanz-umfrage/akzeptanzumfrage2017>. Cited 17 Sep 2017.

- [5] *Wahl-O-Mat Question*: Sozialer Wohnungsbau. Der Bund soll mehr Mittel für den sozialen Wohnungsbau bereitstellen.

English translation: Social Housing. The federal government has to provide more funds for social housing.

Reference to public opinion poll: Infratest dimap (28.08.2017) Zuwanderung, Bildung und Soziales: alles wichtig, aber was genau? Zielpriorisierung in der Sozialpolitik. Frage: Kommen wir zur Sozialpolitik. Dort werden derzeit — neben anderen — folgende Ziele diskutiert: ... Welches dieser Ziele ist Ihnen persönlich am wichtigsten? Ziel ‘Schaffung bezahlbaren Wohnungen’: Oberste Priorität – 28%; Mittlere Priorität – 28%; Weder wichtiges noch zweitwichtiges Ziel – 43%. Grundgesamtheit: Wahlberechtigte Bevölkerung in Deutschland ab 18 Jahren. Fallzahl: 1.029 Befragte. Erhebungszeitraum: 10.-12. Juli 2017. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/umfragen/aktuell/zuwanderung-bildung-und-soziales-alles-wichtig-aber-was-genau/>. Cited 17 Sep 2017.

- [6] *Wahl-O-Mat Question*: Elternunabhängiges BAföG. BAföG soll generell unabhängig vom Einkommen der Eltern gezahlt werden.

English translation: Parent-independent BAfG (statutory grants for students). BAfG is generally to be paid regardless of the parents’ income.

Reference to public opinion poll: No relevant survey found.

- [7] *Wahl-O-Mat Question:* Ausweitung der Videoüberwachung. Die Videoüberwachung im öffentlichen Raum soll ausgeweitet werden.
- English translation:* Extending video surveillance. Video surveillance in the public areas must be expanded.
- Reference to public opinion poll:* Ifratest dimap (Januar 2017) ARD-DeutschlandTREND. Ansichte zur Terrorbedrohung. Frage: Die Videoüberwachung auf öffentlichen Plätzen sollte ausgeweitet werden. Stimme eher zu – 79%; Stimme eher nicht zu – 19%. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/ard-deutschlandtrend/2017/januar/>. Cited 17 Sep 2017.
- [8] *Wahl-O-Mat Question:* Schuldenschnitt für Griechenland. Deutschland soll einem Schuldenschnitt für Griechenland zustimmen.
- English translation:* Cut the Greek debts. Germany has to agree to cut the Greek debts.
- Reference to public opinion poll:* Bild (23.02.2017) Umfrage zu Griechenland: Mehrheit der Deutschen gegen Schuldenschnitt. ‘Berlin. Die Deutschen wollen keinen Schuldenschnitt für Griechenland: Jeder Zweite (46,4 Prozent) findet, dass ein Schuldenerlass für Athen unfair gegenüber den anderen Euro-Ländern wäre. Das geht aus einer exklusiven INSA-Umfrage für BILD hervor. Knapp jeder Fünfte (18,4 Prozent) teilt diese Ansicht nicht, jedem Zehnten (9,1 Prozent) ist das egal.’ <http://www.bild.de/politik/ausland/umfrage/mehrheit-der-deutschen-gegen-schuldenschnitt-50575526.bild.html>Bild. Cited 17 Sep 2017.
- [9] *Wahl-O-Mat Question:* Tempolimit. Generelles Tempolimit auf Autobahnen!
- English translation:* Tempolimit. General speed limit on motorways!
- Reference to public opinion poll:* YouGov (15.10.2015) 150-km/h-Limit auf Autobahnen hätte eine knappe Mehrheit. ‘Demnach würde gut die Hälfte der Befragten (56 Prozent) eine grundsätzliche Begrenzung auf 150 km/h befürworten, 39 Prozent würden sie ablehnen. Bei einem Limit von 130 km/h sieht das Verhältnis hingegen umgekehrt aus: 40 Prozent würden es befürworten, 56 Prozent wären dagegen. Und eine Begrenzung auf 100 km/h würde sogar nur jeder Neunte (11 Prozent) befürworten, 86 Prozent wären dagegen... Auf Basis des YouGov Omnibus wurden in Deutschland 1198 Personen im Zeitraum vom 9. bis 13. Oktober 2015 repräsentativ befragt.’ <https://yougov.de/news/2015/10/15/150-kmh-limit-auf-autobahnen-hatte-eine-knappe-meh/>. Cited 17 Sep 2017.
- [10] *Wahl-O-Mat Question:* Erhöhung der Verteidigungsausgaben. Die Verteidigungsausgaben Deutschlands sollen erhöht werden.
- English translation:* Increase in defense expenditure. Germany’s defense spending should be increased.
- Reference to public opinion poll:* Statista (2017) Sollte Deutschland seine Verteidigungsausgaben in den kommenden Jahren erhöhen? Ja – 42%, Nein – 55%. Deutschland; forsa Gesellschaft für Sozialforschung und statistische Analyse; 09.02.2017 und 10.02.2017; 1.001 Befragte. Quelle: Stern. <https://de.statista.com/statistik/daten/studie/676259/umfrage/umfrage-zu-einer-erhoehung-der-verteidigungsausgaben-deutschlands/>. Cited 17 Sep 2017.
- [11] *Wahl-O-Mat Question:* Falschinformationen im Internet. Betreiber von Internetseiten sollen gesetzlich dazu verpflichtet sein, Falschinformationen (‘Fake News’) zu löschen, auf die sie hingewiesen wurden.
- English translation:* Fake news in internet. Operators of internet sites should be legally obliged to delete fake news if they have been informed about the issue.

Reference to public opinion poll: YouGov (10.08.2017) Alles Fake?! Fake News aus Sicht deutscher Wähler. Frage: Welche der folgenden Maßnahmen sollten Ihrer Meinung nach umgesetzt werden? Bitte wählen Sie alle Maßnahmen aus, die Ihrer Meinung nach umgesetzt werden sollen. Die klassische Medien sollten mehr dafür tun: Nachrichten im Internet auf ihre Richtigkeit zu prüfen und zu bewerten – 44%; Unabhängige Journalisten sollten Nachrichten auf ihre Richtigkeit prüfen und bewerten – 43%; Soziale Netzwerke wie Facebook sollten selbst Lösungen finden, wie sie die Verbreitung von Fake News verhindern können – 42%... Basis: alle Befragten, n=2000... Mehrfachnennungen möglich (p. 11) <http://mkto.yougov.com/i3rQ0QFfpsV00f0107x0D0J>. Cited 17 Sep 2017.

- [12] *Wahl-O-Mat Question:* Ökologische Landwirtschaft. Ökologische Landwirtschaft soll stärker gefördert werden als konventionelle Landwirtschaft.

English translation: Organic farming. Organic farming must be subsidized more generously than conventional agriculture.

Reference to public opinion poll: FORSA (17.01.2017–18.01.2017) Meinungen zur finanziellen Unterstützung der Landwirtschaft. ‘Datenbasis: 1.001 Befragte ab 18 Jahren Erhebungszeitraum: 17. und 18. Januar 2017; statistische Fehlertoleranz: +/– 3 Prozentpunkte; Auftraggeber: NABU... Die überwiegende Mehrheit der Bundesbürger ist der Ansicht, dass Landwirte für Maßnahmen, die eine möglichst umweltfreundliche Produktion (93%) sowie eine möglichst tierfreundliche Viehhaltung (91%) gewährleisten, auf jeden Fall bzw. eher finanzielle Unterstützung erhalten sollten.’ Frage: Für die jeweilige Maßnahme sollten Landwirte finanzielle Unterstützung erhalten — Maßnahmen, die eine möglichst umweltfreundliche Produktion gewährleisten: auf jeden Fall – 70%; eher – 23%; eher nicht – 3%; bestimmt nicht – 2% (p. 1) <https://www.nabu.de/imperia/md/content/nabude/landwirtschaft/170120-nabu-forsa-umfrage-landwirtschaft.pdf>. Cited 17 Sep 2017.

- [13] *Wahl-O-Mat Question:* Kindergeld für Deutsche. Kindergeld soll nur an deutsche Familien ausgezahlt werden.

English translation: Children’s allowance for Germans. Children’s allowance should be paid but to German families only.

Reference to public opinion poll: No relevant survey found.

- [14] *Wahl-O-Mat Question:* Sachgrundlose Befristung. Arbeitsverträge sollen weiterhin ohne Angabe von Gründen befristet sein dürfen.

English translation: Unconditional limitation of employment contracts. Duration of employment contracts should continue to be limited without giving reasons.

Reference to public opinion poll: Infratest dimap (24.02.2017) Korrekturen an der ‘Agenda 2010’ fänden Zustimmung über Parteigrenzen hinweg. Frage: Zeitlich Befristete Arbeitsverträge sollen nur noch bei sachlichen Gründen möglich sein. Befürworte ich eher – 67%; Lehne ich eher ab – 25%. Grundgesamtheit: Wahlberechtigte Bevölkerung in Deutschland ab 18 Jahren. Fallzahl: 1.047 Befragte. Erhebungszeitraum: 20. bis 22. Februar 2017. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/umfragen/aktuell/korrekturen-an-der-agenda-2010-faenden-zustimmung-ueber-partiegrenzen-hinweg/>. Cited 17 Sep 2017.

- [15] *Wahl-O-Mat Question:* Impfpflicht. Kinder sollen gegen ansteckende Krankheiten geimpft werden müssen.

English translation: Compulsory vaccination. Children should be vaccinated against infectious diseases.

- Reference to public opinion poll:* YouGov (26.02.2015) Drei von vier Deutschen sprechen sich für Impfpflicht aus. Frage: Sind Sie für oder gegen eine Impfpflicht gegen schwere Krankheiten wie Masern? Ja – 74%; nein – 21%. ... Auf Basis des YouGov Omnibus wurden 1.000 Personen im Zeitraum vom 23.02. bis 25.02.2015 repräsentativ befragt. <https://yougov.de/news/2015/02/26/impfungen-uber-80-prozent-glauben-wirksamkeit/>. Cited 17 Sep 2017.
- [16] *Wahl-O-Mat Question:* Verstaatlichung von Banken. Alle Banken sollen verstaatlicht werden.
- English translation:* Nationalization of banks. All banks are to be nationalized.
- Reference to public opinion poll:* Stern (25.02.2009) Stern-Umfrage: Deutsche für Banken-Verstaatlichung. ‘Laut einer Umfrage des stern sowie des Fernsehsenders RTL halten es 60 Prozent der Deutschen für richtig, angeschlagene Banken im äußersten Notfall zu enteignen, 31 Prozent lehnen dies ab... Das Forsa-Institut hatte in der repräsentativen Umfrage 1004 Bundesbürger befragt.’ <http://www.stern.de/politik/stern-umfrage-deutsche-fuer-banken-verstaatlichung-3426644.html>; <https://de.statista.com/statistik/daten/studie/4188/umfrage/meinung-zur-verstaatlichung-von-banken/>. Cited 17 Sep 2017.
- [17] *Wahl-O-Mat Question:* Erinnerungskultur. Der Völkermord an den europäischen Juden soll weiterhin zentraler Bestandteil der deutschen Erinnerungskultur sein.
- English translation:* Remembrance culture. The genocide of the European Jews should continue to be a central part of the German memory culture.
- Reference to public opinion poll:* Hagemann S, Nathanson R, Diner D (2015) Deutschland und Israel heute: Verbindende Vergangenheit, trennende Gegenwart? Bertelsmann-Stiftung, Gütersloh. P. 24, Abb. 7. Frage: ‘Wir sollten uns lieber gegenwärtigen Problemen widmen als den Verbrechen an den Juden, die mehr als 60 Jahre zurückliegen.’ Ja – 81%, Nein – 18%. https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/Studie_LW_Deutschland_und_Israel_heute_2015.pdf. Cited 17 Sep 2017.
- [18] *Wahl-O-Mat Question:* Abbau von Staatsschulden. Haushaltsüberschüsse sollen überwiegend zum Abbau von Staatsschulden verwendet werden.
- English translation:* Reduction of public debt. Budget surpluses should be used mainly for the reduction of public debt.
- Reference to public opinion poll:* Infratest dimap (Juli 2017) ARD-DeutschlandTREND. Anhänger Schuldenabbau Steuersenkungen Investitionen Verwendung der Mehreinnahmen des Bundes. ‘Auch wenn Steuern und Abgaben aus Sicht der Bürger derzeit kein Top-Thema sind, wird im Bundestagswahlkampf über verschiedene Steuerkonzepte diskutiert. Ausgangspunkt ist die gute Finanzsituation des Staates: Finanzminister Wolfgang Schäuble kann in diesem Jahr ca. 15 Milliarden zusätzlicher Steuereinnahmen für den Bundeshaushalt verbuchen, die für Steuersenkungen, Investitionen oder Schuldenabbau verwendet werden könnten. Aus Sicht der Bevölkerung sollten Ausgaben für eine bessere Infrastruktur Vorrang haben. Knapp sechs von zehn Bürgern (58 Prozent) plädieren für höhere Investitionen. Jeder Fünfte (20 Prozent) hält Steuersenkungen für zentral und ebenso viele möchten die zusätzlichen Mittel für den Schuldenabbau (19 Prozent) verwenden.’ (p. 5). https://www.infratest-dimap.de/fileadmin/user_upload/dt1707_bericht.pdf. Cited 17 Sep 2017.
- [19] *Wahl-O-Mat Question:* Begrenzung der Nutztierhaltung. Die Gesamtzahl der Nutztiere in den landwirtschaftlichen Betrieben einer Gemeinde soll begrenzt werden können.

English translation: Limitation of livestock farming. The total number of livestock in the farms of a municipality should be limited.

Reference to public opinion poll: No relevant survey found.

- [20] *Wahl-O-Mat Question:* Braunkohleabbau. In Deutschland soll auch zukünftig Braunkohle abgebaut werden dürfen.

English translation: Phasing-out brown coal. In the future, brown coal should be phased-out in Germany.

Reference to public opinion poll: EIKE - Europäisches Institut für Klima und Energie (12.10.2016) Eine missverständlich präsentierte Umfrage zum EEG kommt wie gerufen: Wenn das Umfrageinstitut forsa nicht eindeutiger berichtet, braucht es sich nicht zu wundern, dass jeder die Ergebnisse nach seinen Wünschen auslegt. Frage: Schneller Ausstieg aus der Braunkohleförderung in NRW: Sehr wichtig – 36%; Wichtig – 35%; Weniger bzw unwichtig – 25%. <https://www.eike-klima-energie.eu/2016/10/12/eine-missverstaendlich-praesentierete-umfrage-zum-eeg-kommt-wie-gerufen-wenn-das-umfrageinstitut-forsa-nicht-eindeutiger-berichtet-braucht-es-sich-nicht-zu-wundern-dass-jeder-die-ergebnisse-nach-sei/>. Cited 17 Sep 2017

- [21] *Wahl-O-Mat Question:* Leiharbeit. Unternehmen sollen weiterhin Leiharbeiterinnen und Leiharbeiter beschäftigen dürfen.

English translation: Temporary agency work. Companies should continue to employ temporary agency workers.

Reference to public opinion poll: pwc.de – Pricewaterhouse Coopers GmbH Wirtschaftsprüfungsgesellschaft (April 2017) Zeitarbeitsbranche aktuell 2017: Eine Erhebung zum Einfluss aktueller und künftiger Regulierungsmaßnahmen auf den Zeitarbeitsmarkt. Fragen: Höhere Akzeptanz von Zeitarbeit in 2017–44% (p.10) ; geringere Akzeptanz von Zeitarbeit in 2017–8% (p. 11). <https://www.pwc.de/de/deals/assets/kurzstudie-zeitarbeit-maerz-2017.pdf>. Cited 17 Sep 2017.

- [22] *Wahl-O-Mat Question:* Doppelte Staatsbürgerschaft. In Deutschland geborene und aufgewachsene Kinder ausländischer Eltern sollen weiterhin neben der deutschen ihre zweite Staatsangehörigkeit behalten dürfen.

English translation: Double citizenship. Children of foreign parents who are born and raised in Germany should be allowed to have their second nationality alongside with the German one.

Reference to public opinion poll: Infratest dimap (21.04.2017) Mehr als die Hälfte der Deutschen gegen doppelte Staatsbürgerschaft. Frage: Es ist immer wieder das Thema doppelte Staatsbürgerschaft diskutiert. Was ist Ihre Meinung? Befürwortern Sie die Möglichkeit einer doppelten Staatsbürgerschaft oder sind Sie dagegen? Grundgesamtheit: Wahlberechtigte Bevölkerung in Deutschland ab 18 Jahren; Fallzahl: 934 Befragte; Erhebungszeitraum: 18. bis 19. April 2017. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/umfragen/aktuell/mehr-als-die-haelfte-der-deutschen-gegen-doppelte-staatsbuergerschaft/>. Cited 17 Sep 2017.

- [23] *Wahl-O-Mat Question:* Frührente – Vorgezogener Renteneintritt. Bereits nach 40 Beitragsjahren soll der Renteneintritt abschlagsfrei möglich sein.

English translation: Early retirement. Pension reductions should not be applicable to early retirement after 40 years of contributions, .

Reference to public opinion poll: No relevant survey found.

- [24] *Wahl-O-Mat Question:* Nationale Wahrung. Deutschland soll zu einer nationalen Wahrung zuruckkehren.

English translation: National currency. Germany has to reintroduce national currency.

Reference to public opinion poll: Infratest dimap (29.06.2016) Stabilitat kennzeichnet weiterhin die deutsch-franzosischen Beziehungen. Frage ‘Aussagen zur Europaischen Union: Es sollte die nationalen Wahrung wieder eingefuhrt werden anstelle des Euro.’ Grundgesamtheit: Wahlberechtigte Bevolkerung in Deutschland ab 18 Jahren. Fallzahl: 1.000 Befragte. Erhebungszeitraum: 18., 20. und 22. Juni 2016. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/umfragen/aktuell/stabilitaet-kennzeichnet-weiterhin-die-deutsch-franzoesischen-beziehungen/>. Cited 17 Sep 2017.

- [25] *Wahl-O-Mat Question:* Abschaffung der Frauenquote. Die Frauenquote fur die Aufsichtsrate borsennotierter Unternehmen soll abgeschafft werden.

English translation: Abolition of women’s quota. The women’s quota for the supervisory boards of stock-exchange traded companies should be abolished.

Reference to public opinion poll: FinanzNachrichten.de (25.08.2017) Umfrage: 50 Prozent der Frauen fur Frauenquote in Vorstanden. ‘Demnach sind 50 Prozent der Frauen fur eine verpflichtende Quote, 45 Prozent sind dagegen. Bei Mannern sind 46 Prozent dafur und 46 Prozent dagegen... Meinungsforschungsinstituts Kantar Emnid fur das Nachrichtenmagazin Focus... Fur die Umfrage wurden am 22. und 23. August 2017 insgesamt 1.007 Personen befragt. Die Auswahl der Befragten sei ‘reprasentativ’, teilte das Institut mit.’ <http://www.finanznachrichten.de/nachrichten-2017-08/41557567-umfrage-50-prozent-der-frauen-fuer-frauenquote-in-vorstaenden-003.htm>. Cited 17 Sep 2017.

- [26] *Wahl-O-Mat Question:* Vermogenssteuer. Hohe Vermogen sollen besteuert werden.

English translation: Property tax. High wealth should be taxed.

Reference to public opinion poll: YouGov (25.11.2016) Welche Gruppen fur die Vermogenssteuer sind. Frage: Sollte es wieder eine Vermogensteuer geben oder nicht? Ja – 52%; Nein – 30%. <https://yougov.de/news/2016/11/25/welche-gruppen-fur-die-vermogenssteuer-sind/>. Cited 17 Sep 2017.

- [27] *Wahl-O-Mat Question:* Verurteilung von Kindern unter 14 Jahren. Fur begangene Straftaten sollen auch Kinder unter 14 Jahren verurteilt werden konnen.

English translation: Condemnation of children under 14 years. For crimes committed, children under 14 years of age are also to be sentenced.

Reference to public opinion poll: No relevant survey found.

- [28] *Wahl-O-Mat Question:* Gesetzliche Krankenversicherung. Alle Burgerinnen und Burger sollen bei gesetzlichen Krankenkassen versichert sein mussen.

English translation: Statutory health insurance. All citizens must be insured with statutory health insurance companies.

Reference to public opinion poll: TNS Infratest (August 2016) Paritat in der gesetzlichen Krankenversicherung. Ergebnisse einer telefonischen Befragung. Frage: Es gibt die Idee, die Teilung in privat und gesetzlich Krankenversicherte aufzuheben und eine Burgerversicherung einzufuhren, in der alle Burger verpflichtend krankenversichert sind also auch Selbstandige, Freiberufler und Beamte. Befurworten Sie eine solche Burgerversicherung? Voll und ganz –

33%; Eher ja – 35%; Eher nein – 16%; Überhaupt nicht – 11%. Basis: Wahlberechtigte ab 18 Jahre in Deutschland (p. 6). https://www.igmetall.de/docs_16_10__6_Infratest_Paritaet_394d1d850350b60242697445171cb1530bd514a3.pdf. Cited 17 Sep 2017.

- [29] *Wahl-O-Mat Question*: Projekte gegen Rechtsextremismus. Der Bund soll weiterhin Projekte gegen Rechtsextremismus fördern.

English translation: Projects against right extremism. The government should continue to subsidize projects against right extremism.

Reference to public opinion poll: YouGov (28.08.2015) Mehrheit fordert mehr Geld gegen Rechtsextremismus. ‘Sollen Bund und Länder mehr oder weniger Geld in den Kampf gegen Rechtsextremismus investieren oder ist der Beitrag gerade richtig? Mehr Geld – 57%; Gerade richtig – 21%; Weniger Geld – 8%... Auf Basis des YouGov Omnibus wurden 1122 Personen im Zeitraum vom 25. bis 28. sowie 1083 Personen vom 7. bis 14. August 2015 repräsentativ befragt.’ <https://yougov.de/news/2015/08/28/mehrheit-fordert-mehr-geld-gegen-rechtsextremismus/>. Cited 17 Sep 2017.

- [30] *Wahl-O-Mat Question*: Freibetrag bei der Grunderwerbssteuer. Der Erwerb von selbstgenutztem Wohneigentum soll bis zu einer bestimmten Höhe steuerfrei sein.

English translation: Exemption from the real estate transfer tax. The acquisition of owner-occupied residential property should be tax-free up to a certain amount.

Reference to public opinion poll: No relevant survey found.

- [31] *Wahl-O-Mat Question*: Verbot von Rüstungsexporten. Rüstungsexporte aus Deutschland sollen ausnahmslos verboten werden.

English translation: Prohibition of arms exports. Armament exports from Germany should be prohibited with no exceptions.

Reference to public opinion poll: Neues Deutschland (30.01.2016) 83 Prozent der Bundesbürger gegen Waffenexporte. ‘Berlin. Eine große Mehrheit der Bundesbürger ist generell gegen den Export von Waffen und Rüstungsgütern. Das ist Ergebnis einer Umfrage von TNS Emnid für die Linksfraktion im Bundestag. Auf die Frage, einmal grundsätzlich betrachtet, sollte Deutschland ihrer Meinung nach Waffen und andere Rüstungsgüter in andere Länder verkaufen oder nicht? antworteten 83 Prozent der Befragten mit Nein, nur 14 Prozent waren für solche Exporte... Für die Studie waren Mitte Januar 1.034 repräsentativ ausgesuchte Bundesbürger befragt worden.’ www.stattweb.de/files/civil/Doku20160130.pdf. Cited 17 Sep 2017.

- [32] *Wahl-O-Mat Question*: Verkauf von Cannabis. Der kontrollierte Verkauf von Cannabis soll generell erlaubt sein.

English translation: Cannabis sales. The controlled sale of cannabis should be generally allowed.

Reference to public opinion poll: Zeit-Online (07.08.2017) Umfrage: Deutsche mehrheitlich für Legalisierung von Cannabis. ‘Mehr als jeder zweite Deutsche ist einer Umfrage zufolge für die Legalisierung von Cannabis. Rund 57 Prozent finden, dass Cannabis in Deutschland legal zugänglich gemacht werden sollte, wie eine am Montag vorab veröffentlichte Umfrage des Meinungsforschungsinstituts Mafod.de... Neun von zehn der Befragten zeigten sich überzeugt, dass das geltende Verbot die Menschen nicht davon abhält, Cannabis zu erwerben und zu konsumieren.’ <http://www.zeit.de/news/2017-08/07/deutschland-umfrage-deutsche-mehrheitlich-fuer-legalisierung-von-cannabis-07110402>. Cited 17 Sep 2017.

- [33] *Wahl-O-Mat Question:* Abschaffung des Solidaritätszuschlags. Der Solidaritätszuschlag soll Ende 2019 vollständig abgeschafft werden.
- English translation:* Abolition of the solidarity tax (to cover exceptional expenses). The solidarity tax must be completely abolished by the end of 2019.
- Reference to public opinion poll:* Statista (2016) Sollte der Solidaritätszuschlag sofort abgeschafft werden? Beibehalten – 36%; Sofort abschaffen – 51%; Weiß nicht/keine Angabe – 13%. Deutschland; TNS Emnid; 2016. Quelle: Focus. <https://de.statista.com/statistik/daten/studie/187339/umfrage/meinung-zur-abschaffung-des-solidaritaetszuschlags/>. Cited 17 Sep 2017.
- [34] *Wahl-O-Mat Question:* Leistungskürzungen für Flüchtlinge. Anerkannten Flüchtlingen, die sich Integrationsmaßnahmen verweigern, sollen die Leistungen gekürzt werden können.
- English translation:* Reduction of refugees’ benefits. Benefits of recognized refugees who refuse to participate in integration programs can be reduced.
- Reference to public opinion poll:* Infratest dimap (Februar 2016) ARD-DeutschlandTREND. Bewertung der Maßnahmen der Flüchtlingspolitik. Kürzungen von Sozialleistungen für Flüchtlinge, die sich nicht integrieren lassen wollen. Richtig – 88%; Nicht richtig – 10%. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/ard-deutschlandtrend/2016/februar/>. Cited 17 Sep 2017.
- [35] *Wahl-O-Mat Question:* Rechtsanspruch auf Ganztagsbetreuung. Eltern sollen für ihre Kinder bis zum Ende der Grundschulzeit einen Rechtsanspruch auf Ganztagsbetreuung erhalten.
- English translation:* Entitlement to full-day care. Parents should receive a right to full-day care for their children until the end of primary school.
- Reference to public opinion poll:* 4. JAKO-O Bildungsstudie (22.06.2017). P.12(24) Diagramm Bevorzugte Schulform 2017: Halbtagschule – 25%; Ganztagschule mit verbindlichem Nachmittagsprogramm – 24%; Ganztagschule mit freiwilligem Nachmittagsprogramm – 48%. Frage: ‘Auf welche Schule würden Sie Ihr Kind schicken? // Welche Schule besucht Ihr ältestes schulpflichtiges Kind? https://cdn.jako-o.de/content/LP/2017/bildungsstudie/JAKO-O_Bildungsstudie-2017_Pressemappe.pdf. Cited 17 Sep 2017.
- [36] *Wahl-O-Mat Question:* Gottesbezug im Grundgesetz. Der Gottesbezug im Grundgesetz soll bestehen bleiben.
- English translation:* Reference to God in the constitution. The reference to God in the German constitution should be retained.
- Reference to public opinion poll:* No relevant survey found.
- [37] *Wahl-O-Mat Question:* Bedingungsloses Grundeinkommen. In Deutschland soll es ein bedingungsloses Grundeinkommen geben.
- English translation:* Unconditional basic Income. In Germany there should be unconditional basic income.
- Reference to public opinion poll:* Mein Grundeinkommen (07.06.2016) Neue Umfrage: Deutschland will Grundeinkommen! ‘Die Befunde zeigen deutlich: Die Idee des Bedingungslosen Grundeinkommens kommt in Deutschland gut an. 73 Prozent der Befragten geben an, die Idee des BGE prinzipiell zu befürworten. Nur 21 Prozent lehnen die Idee ab. ... Die verwendeten Daten beruhen auf einer Online-Umfrage der YouGov Deutschland

GmbH, an der 2033 Personen zwischen dem 18.05.2016 und 20.05.2016 teilnahmen. Die Ergebnisse wurden gewichtet und sind repräsentativ für die deutsche Bevölkerung ab 18 Jahren.' <https://www.mein-grundeinkommen.de/news/35KJ62FI7SuyCeqs2oqyEc>. Cited 17 Sep 2017.

- [38] *Wahl-O-Mat Question*: Stärkere Zusammenarbeit in der EU. Die Zusammenarbeit der Mitgliedstaaten in der Europäischen Union soll verstärkt werden.

English translation: Stronger cooperation in the EU. Cooperation between the EU Member States must be made stronger.

Reference to public opinion poll: Infratest dimap (März 2017) ARD-DeutschlandTREND. Zukünftig mehr oder weniger gemeinsame Politik der EU-Länder? Mehr gemeinsame Politik - 78%; Weniger gemeinsame Politik – 20%. Grundgesamtheit: Wahlberechtigte Bevölkerung in Deutschland ab 18 Jahren. <https://www.infratest-dimap.de/umfragen-analysen/bundesweit/ard-deutschlandtrend/2017/maerz/>. Cited 17 Sep 2017.

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