Gutenberg School of Management and Economics

& Research Unit "Interdisciplinary Public Policy"

Discussion Paper Series

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Evidence from a survey experiment

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This version: 27.10.2017

Abstract

The call for more direct democracy is often and loudly heard and met with support from large numbers of citizens in many countries. This paper explores the motives for supporting direct democracy, and more specifically, referenda: Do citizens support them for intrinsic reasons, because referenda allow them exercise their democratic rights more directly? Or are preferences for referenda based on the assumption that they are likely to produce desired policy-outcomes, and thus instrumentally motivated? Our survey experiment explores how substantial policy preferences affect the preference for referenda over alternative decision-making procedures. Controlling for abstract support for referenda, we can show that congruence between a respondent's own opinion and the expected majority opinion is associated with support for a referendum on a given matter. Moreover, we find evidence for systematic misperceptions of the majority opinion leading to support for a referendum. We thus arrive at the conclusion that calls for direct democracy should be reassessed in light of instrumental, but misinformed preferences.

Keywords: democratic innovations, process preferences, direct democracy

Introduction

Both in political science and in political practice, democratic innovations are discussed as a means to overcoming political disinterest and to reviving representative democracy. The rise of populist parties and movements, which is often viewed as a result of frustration with existing institutions and power structures, has further propelled calls for procedural reforms. The apparently most popular types of innovations are elements of direct democracy, ranging from citizen initiatives over obligatory or facultative referenda to plebiscites. This paper will neither deal with the ailments of contemporary democracy, nor will it discuss the merits and risks of direct democracy. Instead, it is a contribution to the growing literature on 'process preferences', asking 'who wants democratic innovations, and why?'[1]

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[1] On process preferences, see Bowler, Donovan et al., 2007, Bengtsson and Mattila, 2009, Seyd, 2013, Font, Wojcieszak et al., 2015, VanderMolen, 2017.

More specifically, we explore and test for two different sets of motives actors may have for supporting democratic innovations, and direct democracy in particular: First, their procedural preferences may be motivated by an intrinsic value attached to the procedure. People may thus value direct democracy because it enables citizens to participate in legislation rather than merely in elections, to become authors of the laws that bind them, or because it sparks discussions and furthers civic virtues. Second, however, procedural preferences may also be motivated by instrumental considerations. In this case, specific procedures, such as a referendum, are supported because actors believe that they will bring about their preferred policy outcomes. Drawing on Fritz Scharpf's terminology, the first type of motive could be described as input-oriented, the second one as output-oriented (Scharpf, 2009).

The structure of our paper is as follows: We will first outline theoretical considerations behind the assumption of two types of motives for procedural preferences and give an overview of the existing literature. Subsequently, we will explain the survey experiment we conducted to identify effects of intrinsic and instrumental motives in the choice of a referendum as decision-making procedure. We go on to present results of a number of analyses and robustness checks and discuss our findings, coming to the conclusion that instrumental procedural preferences require more attention in the debate about democratic innovations.

Theory: explaining preferences over procedures

In political science, there is a strong tradition that draws a sharp distinction between constitutional decisions, including procedural ones, and substantial policy decisions. According to contract theories, consensus on substantial policy decisions is, given the diversity of interests and values in any modern society, out of reach. By contrast, constitutional choices are viewed as allowing for at least hypothetical consensus. According to Niklas Luhmann, it is precisely because modern societies cannot establish a consensus on substantial matters that procedures become the ultimate and only source of legitimacy (Luhmann, 1983). The procedural consensus on the rules of the game thus becomes the foundation of modern democracy. One of the reasons why consensus is deemed possible on the procedural level is that the outcome effects of procedures are assumed to be either non-transparent or inexistent.[2] This contract-theoretical tradition has, in combination with the growing influence of institutional economics, led to a view of institutions and procedures as cooperation structures with beneficial effects on the community. However, this view of institutions blinds out the distributive effects of institutions themselves and ignores that institutions themselves are the result of competition and power struggles (Knight, 1992, Moe, 2005). Moreover, it cannot explain the choice between *alternative* institutions and democratic decision-making procedures.

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[2] Where outcome effects are transparent, for example in electoral re-districting, the procedural decision quickly becomes a substantial one, with consensus out of reach.

Recently, research on 'democratic innovations' has brought forms of participation that could complement or in part even replace established representative institutions, such as direct democracy and deliberative forums, to the political agenda (Smith, 2009). When it comes to explaining preferences over specific democratic decision-making procedures and reforms rather than support for democratic decisions per se, the question 'who wants democratic innovations, and why?' becomes more pressing. Several studies have addressed determinants of support for different types of innovations: Dalton et al. find that less educated citizens and supporters of extremist parties are more likely to support direct democracy (Dalton, Burklin et al., 2011). Bengtsson and Mattila show that support for both direct and stealth democracy is higher among those with less political knowledge and low beliefs in external efficacy, although citizens leaning towards the left tend to favor direct, those leaning to the right stealth democracy (Bengtsson and Mattila, 2009). Seyd focusses on electoral reforms within the representative system and presents compelling arguments for complementing a 'classical' political science perspective that assesses respective proposals for their effects on inclusion and representation with an economic approach that considers winners and losers of respective reforms (Seyd, 2013). Gabriel finds evidence that 'losers' in elections favor direct democracy more than 'winners' (Gabriel, 2013).

Fewer studies analyze the *relative* weight of factors that potentially determine individuals' preferences over procedures: Wenzel et al. have compared explanations viewing voters as self-interested with "a more ideological and psychological approach" where constitutional choices are concerned, finding, for example, that support for the majority principle shapes constitutional preferences (Wenzel, Bowler et al., 2000). In a cross-national comparison, Bowler et al. find that the demand for direct democracy can be driven both by the expectation of more opportunities to participate and by a wish to 'keep watch on the government' (Bowler, Donovan et al., 2007). With similar results, Bengtsson and Wass have studied voters' preferences on the Finnish electoral system, finding effects of both different normative views of representation (delegate vs. trustee-model) and of socio-demographic variables (Bengtsson and Wass, 2010). Still, knowledge on the relative importance of alternative determinants of procedural preferences remains relatively scant.

Moreover, we are not aware of any studies trying to explain preferences over specific alternative decision-making procedures within democracy. The majority of the above-mentioned studies use generalized support for democratic innovations, and most commonly, referenda, as a dependent variable. That is, survey respondents are typically asked whether they would support the introduction of instruments of direct democracy or whether they think that 'there should be more referenda' in their country. By contrast, we adopt an experimental approach that confronts survey participants with a discrete choice of alternative decision-making procedures for *specific* policy decisions. While three of the possible procedural choices (referenda, expert decision-making,

stakeholder deliberation) constitute innovations compared to the forth and 'default' option of parliamentary decision-making, our focus in this paper is only on the preference for a referendum as a contextualized choice. We concentrate on referenda not only because they are the most frequently discussed and adopted democratic innovation, but also and primarily because the outcome effects of a referendum on a specific policy issue can under certain conditions be more or less *transparent* to our subjects: If I am sure that a majority of voters shares my policy preference, a referendum is likely to result in the desired outcome.

The central question behind our study is whether (and to what extent) the choice of a specific decision-making procedure in a specific context is determined by substantial policy preferences and dependent on the belief that this procedure will help to realize them, or whether (and to what extent) the choice is determined by an intrinsic value attached to the procedure, and independent of substantial preferences and expected outcome effects. We thus assume that, on the individual level, two sets of motivational factors can potentially determine preferences over procedures:

Intrinsic motives

Preferences over procedures may be motivated by considerations of procedural justice or normative conceptions of democracy as a form of collective decision-making. This idea is central in the influential work of Russel Dalton, Ronald Inglehart or Pippa Norris (Inglehart, 1990, Dalton, 1999, Norris, 1999). With different emphases and foci, all three argue that in advanced and affluent democracies, a transformation of values towards post-materialism leads citizens to value political participation as an end in itself. 'Critical citizens' (Norris, 1999) want to exercise democratic autonomy and practice civic virtues, and they demand more opportunities for political participation than representative systems typically offer. They tend to support referenda as a more direct form of citizen legislation. While they may go hand in hand with specific, probably post-materialistic, policy preferences, the critical citizen's procedural preferences are independent of, and unaffected by substantial preferences. We describe such preferences as *intrinsic procedural preferences,* as procedures are valued for themselves and not for expected outcome effects. A person with a strong intrinsic preference for referenda would approve of their application even if he or she expects them to bring about decisions he or she disapproves of. According to this view, general support for direct democracy should have a positive effect on the probability of choosing a referendum as the mode of decision-making in any case, and regardless of one's own position on the issue to be decided. However, an intrinsic preference for direct democracy does not necessarily extend to all conceivable policy decisions. In particular, even the 'critical citizen' may regard referenda as more suitable for policy decisions that are less complex and can be presented to citizens as a binary choice. One may thus assume the specific policy issue (regardless of the own

position on it) to have a moderating effect on the intrinsic preference for referenda. We thus arrive at the following set of hypotheses for our first set of motives:

H1: General support for direct democracy raises the probability of choosing a referendum as the decision-making procedure for a specific policy issue.

H2: Referenda are less likely to be preferred as a decision-making procedure where the matter at hand is viewed as complex.

Instrumental motives

Whereas political science predominantly focuses on values, or intrinsic motives, an economic perspective focuses on plain self-interest as the central determinant of procedural preferences.[3] From this perspective, the choice of institutions is interpreted as the result of a simple cost-benefit analysis, with individuals preferring one procedure over another if it is likely to produce outcomes that further their material interests or substantial policy preferences. Accordingly, actors attach only *instrumental* value to decision-making procedures, and support for a specific procedure is conditional on the assumption that it will bring about desired outcomes. However, the outcomes associated with specific decision-making procedures are neither deterministic nor fully transparent. Most importantly, results depend on the choices made by others, and aggregate decisions are thus subject to interdependence. Seeking an instrumental explanation for the choice of a referendum as a decision-making procedure, we therefore cannot expect substantial preferences to have a *direct* effect on the procedural choice. Instead, the effect must be viewed as moderated by expectations about the majority opinion: if and only if the 'democratic instrumentalist' expects the majority to share his or her policy preference will he or she choose the referendum. Regarding *instrumental preferences* over decisions-making procedures, we thus arrive at the following hypothesis:

H3: If a person expects majority support for his or her own substantial policy preferences on a given policy issue, he or she will with a higher probability choose a referendum as a decision-making procedure on that issue. Conversely, if a person expects her or his own position to be in contrast with the expected majority position, she or he is more likely to reject a referendum as a decision-making procedure on that issue.

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[3] In political economics, there exists a rich theoretical and empirical literature that explores how individuals' self-interest and their notion of fairness determine policy choices within a given institutional framework. By contrast, there are only few political-economic contributions that endogenize agents' choice of the "rules of the game" (see e.g. Acemoglu and Robinson, 2000, Ticchi and Vindigni, 2010, Robinson and Torvik, 2016). What is common to these studies is that they interpret the choice of institutions as the result of a cost-benefit analysis, with individuals preferring one procedure over another if the former is likely to produce outcomes that further their material interests.

Illustration 1 displays our causal model: general support for direct democracy and the own substantial policy preference on the issue at hand constitute the central explanatory variables, with the subject matter and the expected outcome respectively moderating their effect on the choice of a referendum as a mode of decision-making, which constitutes our explanandum.
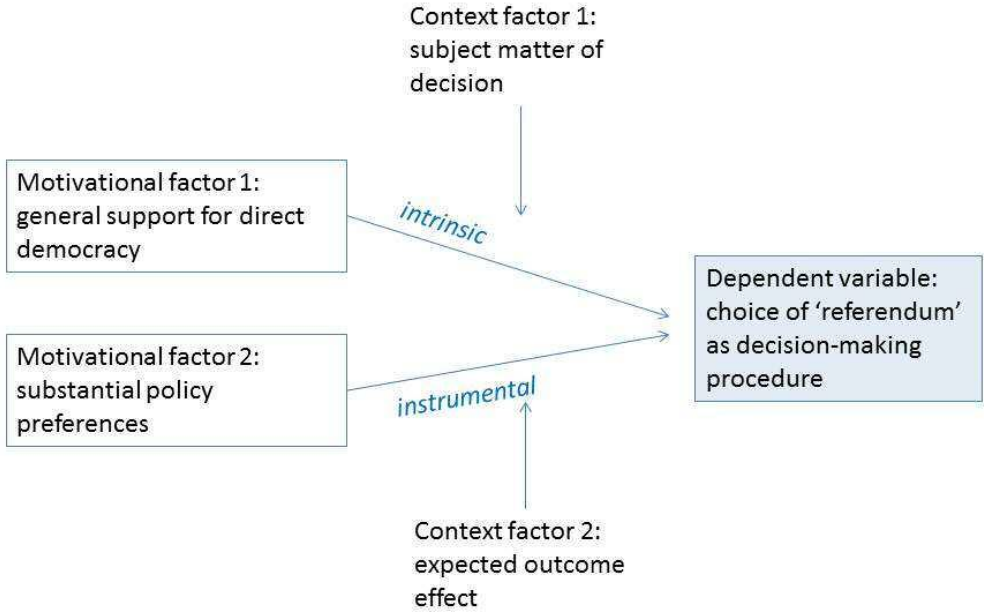

Illustration 1: Intrinsic and instrumental motives as determinants of individuals' support for referenda

The survey experiment

To explore intrinsic and instrumental motives for procedural preferences, we designed a survey experiment that was fielded via the GESIS panel in 2016 (GESIS, 2017). The GESIS panel is a mixed-mode access panel started in 2013, representative of the German-speaking population between 18 and 70 in Germany (Bosnjak , Dannwolf et al., 2017). Since 2013, panelists have been participating in bi-monthly waves of surveys. Due to the experimental design of our survey, only panelists in the online-access mode could participate. The GESIS data include, besides specific survey items, a wide range of sociodemographic questions as well as standard attitudinal constructs. The waves we draw on are wave 10 („ce", October-December 2015) and 15 („dd", August-October 2016).

The dependent variable in our survey is the discrete choice of the procedure 'referendum' over alternative procedures for a decision over a specific policy-issue. The experimental treatment consists

in the confrontation with different issues. The panel is divided into four subgroups and in each group, panelists are asked about their procedural preference for a decision on one of four policy issues: assisted suicide, immigration, renewable energies and taxation.[4] We thus asked participants:

> 'Currently, there is a lot of discussion about assisted suicide [immigration / transition to renewable energies / fair taxation]. How should a political decision on the matter in your opinion be taken?
>
> a) After a public debate, a referendum should be held.
> b) The Bundestag [German parliament] should decide on the basis of discussions within the political parties.
> c) An independent expert commission should develop a recommendation which is then implemented.
> d) Representatives of all affected groups should come together at a table and jointly find a solution.'

On the subsequent screen, we asked participants about their own substantial attitudes on the matter on a five-point scale ranging from 'absolutely in favor' (1) to 'absolutely against' (5), e.g. 'Are you for or against the legitimization of assisted suicide?'. On a third and final screen, we asked participants for their assessment of the majority opinion, again on a five-point scale, ranging from 'clear majority for' (1) to 'clear majority against' (5), e.g. 'Do you think that the majority of Germans agree or disagree with the legitimization of assisted suicide?'.

To test hypothesis H1, we make use of an item that asks for general support for more direct democracy ('There should be more referenda in Germany.' Fully disagree (1) to fully agree (7) on a 7-point scale) as an independent variable. Since this item was part of the August/September-2015 wave, while the experiments described above took place in the June/July-2016 wave, we can be sure that the reaction to this statement reflects respondents' *general* attitude towards referenda, i.e. that it is not affected by their view on any particular policy issue.

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[4] There is a minor inconsistency where the wording of the items on immigration is concerned: While the first question asks how a decision about immigration should be taken, the subsequent questions about the own position and the assumed majority position ask whether participants are in favor or against "the admission of refugees'. However, given that in face of the 2015 refugee crisis, the debate on immigration was entirely dominated by the refugee topic, we assume that respondents have interpreted the immigration question as referring to refugees. Note also that, while the GESIS survey was entirely conducted in German, translations of the items from German to English are our own and partly non-identical with translations occurring in the GESIS codebook. The exact wording for each of the items is provided in the Appendix.

H2 is covered by the experimental treatment, i.e. the confrontation with apparently less complex (assisted suicide, immigration) or more complex (taxation, support for renewable energies) issues. To analyze whether respondents consider a referendum more or less appropriate for individual policy issues, we introduced dummies reflecting respondents' participation in a specific experiment.[5]

To test our third central hypothesis H3, we started by constructing a variable labelled *Congruence*, measuring the relation between a respondent's own substantial preference and the expected majority opinion. More specifically, this variable assumed a value of 1 if the respondent revealed to be 'strongly in favor' or 'rather in favor' of a particular policy decision – e.g. assisted suicide, admission of refugees, higher income taxes for high-income earners, an expansion of renewable sources of energy – *and* expected a majority of the domestic population to support that policy issue. Likewise, *Congruence* assumes a value of 1 if the respondent was 'strongly opposed' or 'rather opposed' to the policy decision and expected a majority of the domestic population to share her/his view. Conversely, *Congruence* assumes a value of -1 if respondents stated that their own attitudes were in contrast with the expected majority view – either, because they were absolutely/rather in favor of a certain policy position and expected the majority to *oppose* it, or because they were absolutely/rather against that position and expected the majority to *support* it. In all other cases – i.e. if respondents either did not utter a definite view on a specific policy issue and/or if they did not expect a clear position of the majority – the variable *Congruence* assumed a value of 0.[6]

While the inclusion of 'congruence' captures the essence of H3, we will later replace it with alternative measures that also allow us to identify the role of instrumental motives in shaping agents' preferences for particular procedures.

Analyses and Results

Benchmark Results: The Role of Congruence

The first set of results presented below will be based on estimating variants of the following regression equation:

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[5] The summary tables in the Appendix document that the experimental groups do not differ systematically with respect to their members' socio-economic characteristics. Hence, we have no evidence that individuals were not randomly selected into these groups, and we can be confident that the estimated coefficients of these dummies reflect the effect of the treatment (i.e. being confronted with a specific policy issue), not the composition of the subsamples.

[6] The survey design allowed respondents to refuse giving an answer. The resulting entry ("Item nonresponse") could either be interpreted as a missing observation, or as a reflection of the fact that the respondent had no clear opinion and/or did not expect a majority in favor/against a given policy issue. The results presented below are based on the first approach. However, not deleting these observations turned out to be inconsequential for our findings – probably, because the relevant number of "item nonresponse" entries in the sample is quite small (12 observations).

$$(1) \qquad \text{Referendum}_{ij} = \beta_0 + \beta_1 \cdot \text{Ref\_Pref}_i + \beta_2 \cdot \text{Congruence}_{ij} + \sum_j \gamma_j \cdot \text{Group}_{ij} + \varepsilon_{ij}$$

In this equation, *Referendum$_{ij}$* assumes a value of 1 if respondent i picked a referendum as the appropriate procedure to decide on policy issue j. The variable *Ref_Pref$_i$* reflects respondent i's view on the general (!) desirability of referenda as a means to take policy decisions. As mentioned in the preceding section, this variable is defined on a scale between 1 to 7, with a higher value reflecting a stronger support for referenda. *Congruence$_{ij}$* is a variable that assumes a value of 1 if respondent *i* expects her/his opinion on policy issue j to be aligned with the majority's view, a value of -1 if the respondent expects himself to be in opposition to the majority, and zero otherwise. Finally, *Group$_{ij}$* is a dummy variable that is 1 if respondent i participated in experiment j and zero otherwise. We started by estimating equation (1) using only *Ref_Pref* as a regressor, and then subsequently added the other variables. In terms of estimator, we first used OLS – i.e. the "linear probability model" – then added logit estimates, accounting for the non-linear nature of the relationship. The numbers presented in Table 1 give estimated coefficients – for logit: average marginal effects – and t/z-statistics based on a robust covariance matrix.[7]

Table 1: OLS and Logit Regressions for all respondents (Dependent variable: Choice of referendum as a procedure for a given policy issue)

VARIABLES	(1) OLS	(2) Logit (m.e.)	(3) OLS	(4) Logit (m.e.)	(5) OLS	(6) Logit (m.e.)
Ref_Pref	0.0800	0.0883	0.0799	0.0883	0.0795	0.0871
	(18.21)***	(16.83)***	(18.33)***	(16.93)***	(18.26)***	(16.73)***
Group ass. suicide			0.114	0.116	0.107	0.109
			(4.858)***	(4.770)***	(4.601)***	(4.527)***
Group immigration			0.0959	0.0994	0.0944	0.0966
			(4.215)***	(4.221)***	(4.175)***	(4.129)***
Group taxation			-0.0272	-0.0289	-0.0326	-0.0352
			(-1.264)	(-1.250)	(-1.502)	(-1.510)
Congruence					0.124	0.112
					(4.923)***	(4.776)***
Constant	-0.105	-3.270	-0.150	-3.574	-0.153	-3.601
	(-4.753)***	(-17.51)***	(-5.945)***	(-17.35)***	(-6.117)***	(-17.45)***
Observations	2,944	2,944	2,944	2,944	2,932	2,932
Adjusted R-squared	0.088		0.104		0.114	
Pseudo R-squared		0.0797		0.0951		0.103
Percent corr. pred.		68.89		71.40		71.42

The coefficients in columns (2), (4) and (6) reflect the average marginal effects ("m.e.") of the regressors on the probability of supporting a referendum as a procedure to decide on a specific policy issue. Robust t-statistics are given in parentheses. The reduction of sample size in columns (5) and (6) is due to the omission of observations

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[7] For the dummy variables, the numbers in the logit columns reflect the average effect of a discrete change from zero to one on the probability of choosing a referendum. Our qualitative results did not change when we replaced average marginal effects by marginal effects evaluated at the sample means.

where respondents' own opinion and/or their expectation of the majority opinion was coded as "item nonresponse". Asterisks reflect significance levels: *** p<0.01, ** p<0.05, * p<0.1.

As indicated by columns (1) and (2), the results strongly support H1: if an individual has expressed his support for referenda as a decision-making procedure *in general*, she/he is more likely to choose a referendum as a procedure to decide on a specific policy issue. Apparently, the marginal effects do not differ very much between the OLS and the logit model: an individual who fully agrees with the view that there should be more referenda in Germany – i.e. for which *Ref_Pref* assumes a value of 7 – is 48 to 53 percent more likely to support referenda as an appropriate procedure on a specific issue than an individual who fully disagrees with that statement (i.e. for which *Ref_Pref* assumes a value of 1).

Interestingly, the marginal effect of *Ref_Pref* hardly changes once we add dummies that reflect respondents' participation in a particular experiment. However, columns (3) and (4) indicate that – given individuals' *general* support for referenda – there are massive differences across policy issues: relative to energy policy (as the omitted category), respondents were 11 percent more likely to choose referenda as a procedure to decide on assisted suicide, and 9.5 percent more likely to advocate referenda for decisions on immigration. By contrast, no such effect could be observed for those participants who had to pick a procedure to decide on taxation. These results confirm H2: given their general view on referenda as a decision-making procedure, individuals consider this procedure more appropriate for seemingly 'simpler' policy issues such as assisted suicide and immigration than for policy issues that obviously require more complex regulation such as taxation or energy policy.

Columns (5) and (6) of Table 1 document the role of instrumental motives in guiding respondents' preference for referenda as a decision-making procedure: the coefficient of *Congruence* is positive and highly significant, indicating that, ceteris paribus, an individual who believes that her/his view on a particular issues is aligned with the majority's view is 24 percent more likely to support a referendum as a procedure than an individual who sees herself/himself in opposition to the majority. We interpret this result as evidence that the attractiveness of a referendum is enhanced by the expectation that a majority vote will result in an outcome that coincides with a respondent's preferred result.

So far, we have focused on respondents' support for referenda, essentially ignoring the alternative decision-making procedures offered by the survey. To explore whether and how *Congruence* affects individuals' choice of these alternative procedures, we estimated equation (1), replacing *Ref_Choice* by dummy variables that reflected individuals' support for *alternative* decision-making procedures: a parliamentary decision based on discussions within parties (*Parties*), a decision based on expert commissions (*Experts*), or a decision based on a discussion among representatives of all affected

groups (*Representatives*). Since Table 1 demonstrated that the logit estimator delivered results very similar to OLS, we used the latter to estimate marginal effects[8]. To facilitate comparison, column (1) of Table 6 reproduces column (5) from Table 1.

The results in Table 2 indicate that – not surprisingly – a general preference for referenda significantly reduces the likelihood that an individual advocates a decision on a given policy issue based on within-party discussions or by expert commissions. Interestingly, no such significant effect can be found for the fourth possible procedure, a broad-based discussion among representatives of all affected groups. More importantly for our discussion, *Congruence* only has a significantly positive effect on the probability to choose referenda. For the other available procedures, the effect is either significantly negative (columns (2) and (4)) or insignificant (column (3)). This finding lends further support to the notion that individuals advocate referenda if they reckon that a majority vote results in an outcome which coincides with their own interests. Our finding thus confirms the important role of instrumental motives in shaping agents' procedural preferences.

Table 2: OLS Regressions for all respondents (Dependent variable: Choice of a given procedures for a specific policy issue)

VARIABLES	(1) Referendum	(2) Parties	(3) Experts	(4) Representatives
Ref_Pref	0.0795	-0.0473	-0.0257	-0.00654
	(18.26)***	(-11.42)***	(-5.992)***	(-1.310)
Congruence	0.124	-0.0282	0.00743	-0.103
	(4.923)***	(-1.767)*	(0.370)	(-4.301)***
Group assisted suicide	0.107	-0.0366	-0.0849	0.0141
	(4.601)***	(-2.262)**	(-4.287)***	(0.553)
Group immigration	0.0944	0.0392	-0.0902	-0.0434
	(4.175)***	(2.173)**	(-4.614)***	(-1.749)*
Group taxation	-0.0326	0.0515	0.0333	-0.0523
	(-1.502)	(2.844)***	(1.508)	(-2.093)**
Constant	-0.153	0.377	0.353	0.424
	(-6.117)***	(14.11)***	(12.77)***	(13.44)***
Observations	2,932	2,932	2,932	2,932
Adjusted R-squared	0.114	0.064	0.030	0.008

The coefficients are based on OLS estimation and reflect the marginal effect of the regressors on the probability of supporting a referendum, within-party discussion, expert discussion, or a discussion among representatives of all affected groups as a procedure to decide on a specific policy issue. Robust t-statistics are given in parentheses. Asterisks reflect significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$..

To further explore whether *Congruence* has a particularly strong effect on agents' support for referenda, we used the *multinomial logit estimator*, which allows to model a respondent's

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[8] Average marginal effects based on logit estimation are very similar and are available upon request.

simultaneous choice among different alternatives.[9] The coefficients in Table 3a represent the effect of the regressors on the *log-odds*, i.e. the logarithm of the probability of picking a given procedure relative to the probability of choosing a 'discussion among representatives' (the omitted category). More specifically, a respondent who expects the majority to share his opinion – i.e. for whom *Congruence* = 1 – is almost four times as likely to choose a referendum (relative to a discussion among representatives of all affected groups) than an individual who expects to be in conflict with the majority opinion (*Congruence* = -1).[10] Interestingly, *Congruence* also has a significantly positive effect on the relative probability of choosing a decision by expert commissions. However, the effect is much weaker than the effect on the support for referenda. This is also reflected by Table 3b, which shows the *average marginal effects* of the regressors on the probability that a respondent chooses a referendum.[11] This effect is significantly positive for *Congruence*. By contrast, the marginal effect of *Congruence* is significantly negative or not significantly different from zero for the other decision-making procedures.[12]

Table 3a: Multinomial logit regressions for all respondents: Log-odds (Dependent variable: Choice of a given procedures for a specific policy issue)

VARIABLES	(1) Referendum	(2) Parties	(3) Experts
Ref_Pref	0.370	-0.302	-0.127
	(10.81)***	(-9.153)***	(-4.255)***
Congruence	0.692	0.0338	0.325
	(4.951)***	(0.194)	(2.066)**
Group assisted suicide	0.363	-0.429	-0.547
	(2.796)***	(-2.306)**	(-3.541)***
Group immigration	0.460	0.367	-0.414
	(3.549)***	(2.228)**	(-2.662)***
Group taxation	-0.00400	0.520	0.303
	(-0.0285)	(3.214)***	(2.169)**
Constant	-2.497	0.333	0.0624
	(-11.32)***	(1.736)*	(0.355)
Observations	2,932	2,932	2,932
Pseudo R2	0.0682	0.0682	0.0682
Percent corr. pred.	44	44	44

The coefficients are based on multinomial logit estimation and show the regressors' effects on the log. of the probability that a respondent chooses a given procedure relative to the probability of choosing the omitted procedure (discussion among representatives of all groups involved.) Robust z-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

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[9] While the preceding (binary) logit approach estimated under which conditions respondents found referenda preferable to all procedures mentioned in the survey, the multinomial logit estimator models the probability that respondents prefer referenda vis-à-vis any individual procedure.

[10] To arrive at this result, we use the coefficient of *Congruence* in Table 3a and compute exp(2·0.69) = 3.99.

[11] See Wooldridge, 2002:497 on the computation of marginal effects for multinomial logit models.

[12] The corresponding regression outputs are available upon request.

Table 3b: Multinomial logit regressions for all respondents: Average marginal effects on the choice of a referendum as a procedure for a specific policy issue

VARIABLES	Referendum
Ref_Pref	0.0856
	(16.34)***
Congruence	0.114
	(4.834)***
Group assisted suicide	0.111
	(4.559)***
Group immigration	0.0950
	(4.062)***
Group taxation	-0.0336
	(-1.437)
Observations	2,932

The coefficients are based on multinomial logit estimation and show the average marginal effects of the regressors on the probability that an individual chooses a referendum as a decision-making procedure. Robust z-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

The Role of Instrumental Motives: A Binary Perspective

While the results reported so far seem to strongly support the role of instrumental motives in guiding agents' preference for referenda as a decision-making procedure, there are some issues that we have to address: first, the effect of agreement and disagreement with the expected majority view may not be as linear as suggested by *Congruence*. More specifically, being in accord with the majority may have a stronger (or weaker) effect than being in conflict – i.e. the expectation that the majority shares my opinion on a specific policy issue may make me more enthusiastic about a referendum, while the expectation that the majority position contrasts with my own view may have no effect, and vice versa. We allow for this possibility by replacing *Congruence* with two dummy variables: the variable *Positions_aligned* assumes a value of 1 if the respondent expects her/his view to *coincide* with the majority's position – either by supporting or by rejecting the policy issue she/he is asked about – and 0 otherwise. Conversely, *Positions_contrasting* assumes a value of 1 if a respondent expects her/his view on a policy issue to be *in conflict* with the majority position.

A further possibility that we have to be aware of is that the positive effect of *Congruence* might reflect a more general attitude that we term 'majoritarianism': the idea that if there is a clear majority for a policy, the matter can and should be decided by a referendum – regardless of whether the expected majority position coincides with my own position or not. In this case, the selection of the referendum option is, while dependent on the policy issue at hand, not instrumentally, but procedurally motivated. To account for this possibility, we introduce the variable *Majority_expected*, which assumes a value of 1 if a respondent expects the majority to be for or against a particular policy

issue and zero otherwise. We thus modify equation (1) by replacing *Congruence* with the dummy variables *Positions_aligned*, *Positions_contrasting*, and *Majority_expected*:

$$(2) \quad \text{Procedure}_{ij} = \beta_0 + \beta_1 \cdot \text{Ref\_Pref}_i + \beta_2 \cdot \text{Positions\_aligned}_{ij}$$

$$+ \beta_3 \cdot \text{Positions\_contrasting}_{ij} + \beta_4 \cdot \text{Majority\_expected}_{ij} + \sum_j \gamma_j \cdot \text{Group}_{ij} + \varepsilon_{ij}$$

In this equation, *Procedure*$_{ij}$ assumes a value of 1 if individual i picks a given procedure (referenda, party discussions supporting parliamentary decisions, decisions by expert commission, decisions after discussion among representatives of all groups involved) to decide on issue *j* and zero otherwise. Again, we are presenting the results based on OLS estimation. In terms of marginal effects and significance levels, logit estimation delivers similar results.

Table 4: OLS Regressions for all respondents (Dependent variable: Choice of alternative procedures for a given policy issue)

VARIABLES	(1) Referendum	(2) Parties	(3) Experts	(4) Representatives
Ref_Pref	0.0778	-0.0468	-0.0253	-0.00566
	(17.87)***	(-11.30)***	(-5.866)***	(-1.129)
Positions aligned	0.0886	-0.0342	0.0385	-0.0929
	(1.833)*	(-0.965)	(0.988)	(-1.861)*
Positions contrasting	-0.0139	-0.0193	-0.00357	0.0368
	(-0.203)	(-0.389)	(-0.0645)	(0.508)
Majority expected	0.0968	-0.0109	-0.0439	-0.0420
	(2.328)**	(-0.340)	(-1.310)	(-0.938)
Group assisted suicide	0.104	-0.0355	-0.0842	0.0161
	(4.451)***	(-2.194)**	(-4.254)***	(0.631)
Group immigration	0.0878	0.0405	-0.0881	-0.0403
	(3.885)***	(2.239)**	(-4.498)***	(-1.615)
Group taxation	-0.0524	0.0564	0.0383	-0.0423
	(-2.384)**	(3.095)***	(1.707)*	(-1.664)*
Constant	-0.152	0.376	0.353	0.423
	(-6.083)***	(14.10)***	(12.76)***	(13.41)***
Observations	2,932	2,932	2,932	2,932
Adjusted R-squared	0.120	0.064	0.030	0.009

The coefficients are based on OLS estimation and reflect the marginal effect of the regressors on the probability of supporting a referendum, within-party discussions, expert discussion, or a discussion among representatives of all affected groups as a procedure to decide on a specific policy issue. Robust t-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

While the findings displayed in Table 4 still support the notion that instrumental motives play a role in determining agents' preferences over procedures, they also suggest a more nuanced view: apparently, an individual's expectation that her/his own view on a specific policy issue is *aligned* with the majority view *raises* the likelihood that she/he will advocate a referendum to decide on this issue. This effect

does not emerge for the other procedures at disposal, i.e. *Positions_aligned* only has a significantly positive effect in column (1). However, expecting a *conflict* between the personal attitude and the expected majority position does not render referenda *less attractive*: in column (1), the coefficient of *Positions_contrasting* is negative, but not significantly different from zero. Finally, respondents support referenda regardless of their own policy attitude if they expect the majority of the population to have a strong view on an issue. No such effect can be found when we use the choice of alternative procedures as the dependent variable.

Table 5, which presents the results of multinomial logit estimation (with "discussion among representatives of all affected groups" as the omitted category), paints a similar picture. Note that the effect of *Positions_aligned* on the log-odds of choosing *Experts* in column (3) is close to the coefficient in column (1), but not significantly different from zero.

Table 5: Multinomial logit regressions for all respondents: Log-odds (Dependent variable: Choice of a given procedures for a specific policy issue)

VARIABLES	(1) Referendum	(2) Parties	(3) Experts
Ref_Pref	0.361	-0.302	-0.128
	(10.60)***	(-9.132)***	(-4.271)***
Positions aligned	0.554	-0.0149	0.549
	(2.050)**	(-0.0398)	(1.581)
Positions contrasting	-0.137	-0.284	-0.103
	(-0.379)	(-0.545)	(-0.215)
Majority expected	0.406	-0.0440	-0.190
	(1.731)*	(-0.146)	(-0.629)
Group assisted suicide	0.345	-0.427	-0.549
	(2.647)***	(-2.298)**	(-3.556)***
Group immigration	0.431	0.370	-0.410
	(3.297)***	(2.246)**	(-2.633)***
Group taxation	-0.100	0.539	0.304
	(-0.696)	(3.321)***	(2.139)**
Constant	-2.481	0.343	0.0683
	(-11.33)***	(1.775)*	(0.387)
Observations	2,932	2,932	2,932
Pseudo R2	0.0708	0.0708	0.0708
Percent correctly pred.	44	44	44

The coefficients are based on multinomial logit estimation and show the regressors' effects on the log. of the probability that a respondent chooses a given procedure relative to the probability of choosing the omitted procedure (discussion among representatives of all groups involved.) Robust z-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Let us take stock: our results so far suggest that – given their *general* preference for referenda, as captured by the variable *Ref_Pref* – agents are more likely to advocate a referendum as a procedure to decide on a specific policy issue if they expect their own view on this issue to be aligned with the

majority's view. We interpret this as evidence that procedural preferences are – at least partly – determined by instrumental motives, i.e. respondents support a decision-making procedure if they expect this procedure to raise the likelihood that their preferred policy outcome will be realized. At the same time, however, we find no evidence that respondents oppose referenda if they expect their own view to be *in conflict* with the majority's position. Instead, they support referenda if they believe that the majority of the population holds a strong view on an issue, regardless of their own opinion. The latter two findings support the notion that procedural preferences are intrinsic. Finally, the strongly significant coefficients of the group dummies indicate that, on top of their instrumental and intrinsic procedural preferences, individuals consider referenda to be more appropriate for some policy issues than for others.

Considering Different Policy Issues

So far, our analysis was based on a sample that combined the responses of participants in all four experiments. We accounted for the fact that some respondents had to pick a procedure to decide on assisted suicide while others were asked about their views on taxation by using group dummies. In this section, we explore the possibility that not only individuals' support for referenda, but also the relative importance of instrumental motives, as captured by the dummies *Positions_aligned* and *Positions_contrasting*, differs across policy issues. To explore whether such differences actually exist, we separately consider the subsamples of the individuals who participated in the four experiments. Table 6 displays the results of estimating equation (2) by OLS, using *Referendum$_{ij}$* as a dependent variable, limiting the sample to participants in experiment *j* and, of course, omitting the group dummies.[13]

The results in Table 6 suggest that the importance of instrumental motives indeed differs across policy issues: while *Positions_aligned* has a significantly positive effect on the support for referenda when it comes to deciding on assisted suicide and immigration, no such effect can be observed for taxation and energy policy. *Positions_contrasting* lowers the support for referenda, but only in the group that focuses on immigration. Moreover, the prominent role of majoritarianism suggested by Table 5 seems to be driven by the immigration group.

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[13] Again, the average marginal effects based on logit estimation are very similar.

Table 6: OLS Regressions for participants of different experiments (Dependent variable: Choice of referendum as a procedure for a given policy issue)

VARIABLES	(1) Assisted suicide	(2) Immigration	(3) Taxation	(4) Energy policy
Ref_Pref	0.0718	0.0850	0.0804	0.0707
	(7.610)***	(9.022)***	(9.978)***	(8.790)***
Positions aligned	0.329	0.181	-0.0311	0.0417
	(2.450)**	(2.038)**	(-0.458)	(0.299)
Positions contrasting	0.250	-0.294	0.0170	0.0182
	(1.341)	(-2.156)**	(0.191)	(0.0796)
Majority expected	-0.0664	0.150	0.0681	0.144
	(-0.539)	(1.983)**	(1.195)	(1.199)
Constant	-0.0235	-0.115	-0.193	-0.117
	(-0.485)	(-2.405)**	(-5.014)***	(-3.003)***
Observations	714	747	734	737
Adjusted R-squared	0.094	0.148	0.107	0.090

The coefficients are based on OLS estimation and reflect the marginal effect of the regressors on the probability of supporting a referendum as a procedure to decide on a specific policy issue. Robust t-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$

In our analyses of the previous sections, we did not consider any additional variables to control for respondents' socio-economic characteristics. This was for good reason: as long as the sample combined participants of all four experiments, there was no proper argument why respondents' income, gender, age etc. should influence their procedural preferences beyond their general view on the desirability of referenda, as expressed by the variable *Ref_Pref*. However, once we split the sample into groups of individuals who were asked about their preferred procedure to decide on assisted suicide, on immigration, etc., such a separate effect becomes possible, if not plausible: for example, the view on using a referendum to decide on assisted suicide may depend on a respondent's age, the view on using a referendum to decide on immigration may depend on a respondent's citizenship, and the view on using a referendum to decide on taxation may depend on a respondent's relative income. Since we had no clear hypothesis on the factors that may or may not matter for specific policy issues, we included all of the following control variables in our regressions: *High Income* is a dummy variable that assumes the value of 1 if a respondent reports his personal monthly net income to be above 4000 Euros – clearly exceeding the average monthly income in Germany. *Female* is a dummy variable indicating the respondent's gender. *Birth year* reflects respondents' age, with higher values characterizing younger agents. Since the GESIS panel uses the value of 1943 (1995) for all respondents that were born in 1943 or earlier (1995 or later), we use the dummy variables *Old* (*Young*) for all individuals born in 1943 or earlier (1995 or later). *German citizen* is a dummy variable meant to control

for respondents' citizenship, *University entrance degree* and *University degree* are dummy variables indicating respondents' educational attainment.[14]

Table 7: OLS Regressions for participants of different experiments (Dependent variable: Choice of referendum as a procedure for a given policy issue) – including socio-economic characteristics

VARIABLES	(1) Assisted suicide	(2) Immigration	(3) Taxation	(4) Energy policy
Ref_Pref	0.0604	0.0765	0.0670	0.0788
	(5.575)***	(7.458)***	(7.517)***	(9.151)***
Positions aligned	0.254	0.184	0.0915	0.0578
	(1.772)*	(1.919)*	(1.323)	(0.409)
Positions contrasting	0.165	-0.262	0.0940	0.118
	(0.815)	(-2.062)**	(1.050)	(0.494)
Majority expected	-0.0324	0.102	0.00216	0.140
	(-0.248)	(1.267)	(0.0391)	(1.164)
High income	0.0218	-0.0441	-0.0435	0.0410
	(0.294)	(-0.608)	(-0.872)	(0.662)
Female	-0.0603	-0.118	-0.0695	-0.0138
	(-1.555)	(-3.335)***	(-2.167)**	(-0.406)
Birth year	0.00247	0.000600	0.00593	0.00103
	(1.586)	(0.445)	(4.809)***	(0.771)
Old	-0.220	-0.163	0.320	-0.0931
	(-1.866)*	(-1.455)	(1.957)*	(-0.732)
Young	-0.248	0.185	-0.0159	0.116
	(-1.831)*	(0.731)	(-0.108)	(0.584)
German citizen	0.0354	-0.219	-0.0697	-0.00838
	(0.188)	(-1.997)**	(-0.682)	(-0.0811)
Univ. entr. degree	-0.0875	-0.0547	-0.127	0.000119
	(-1.687)*	(-1.157)	(-3.069)***	(0.00265)
University degree	-0.0798	-0.0654	-0.0204	-0.0270
	(-1.569)	(-1.377)	(-0.521)	(-0.600)
Constant	-4.747	-0.936	-11.63	-2.157
	(-1.548)	(-0.354)	(-4.808)***	(-0.822)
Observations	594	657	617	649
Adjusted R-squared	0.095	0.159	0.142	0.106

The coefficients are based on OLS estimation and reflect the marginal effect of the regressors on the probability of supporting a referendum as a procedure to decide on a specific policy issue. Robust t-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

The results displayed in Table 7 are interesting in many respects: gender, age, and citizenship seem to matter for some policy issues, but not necessarily for those that we would have expected ex ante. Moreover, individuals with a higher educational attainment seem to oppose referenda – in particular as a procedure to decide on taxation. Most importantly, our previous results on the role of aligned and contrasting policy positions and the role of majoritarianism remain largely intact: when it comes to deciding on assisted suicide and immigration, respondents who see their own opinion in accord with

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[14] Exact definitions and descriptive statistics for all these variables are given in the Appendix.

the expected majority opinion are more likely to support referenda as a procedure. Moreover, a perceived contrast between the own and the majority's position on immigration reduces the support for referenda as a decision-making mechanism. Finally, the support for referenda does not depend on aligned or contrasting positions when the issue at stake is taxation or energy policy. The most important difference to Table 6 is that majoritarianism – as reflected by the variable *Majority expected* – no longer plays a role in any of the policy experiments, once we control for socio-economic characteristics.

False Consensus?

As noted before, instrumental motives behind a procedural preference are particularly plausible and easy to identify in the case of referenda because these allow for procedural transparency: if I know the majority position on an issue and expect a representative turnout, I know what policy decision a referendum is likely to result in. An instrumental preference for a referendum is thus dependent upon specific expectations about the majority position, which can be more or less accurate. Inaccurate expectations of the majority position can lead to misinformed and therefore 'irrational' instrumental preferences: supporting a referendum when there is in fact a majority *against* the own position. How do people form beliefs about the majority opinion? For highly salient issues, and particularly if a referendum is a feasible decision-making procedures, media reports about opinion polls can offer a cue. At the same time, beliefs can be influenced by conversations with friends, family members or colleagues at work. For many people and in many cases, these cues are likely to result in accurate assumptions about the majority position. However, psychologists have frequently documented a 'false consensus effect' when it comes to individuals' assessment of majority opinions: many people systematically and significantly overestimate the portion of the population that shares their own views (Marks and Miller, 1987). To explore whether our previous results reflect the influence of false consensus, we complete our analysis of procedural preferences by asking the following question: are respondents who *erroneously* expect that their own opinion is shared by the majority more likely to advocate a referendum? [15]

To assess the relevance of the false consensus-phenomenon for our findings, we construct a dummy variable *False consensus*, which assumes a value of one whenever a respondent expects that his or her own opinion is aligned with the majority's opinion and if the assessment about the majority's

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[15] Note that *Positions_aligned* equals one whenever *False_consensus* equals one, but not vice versa: while *Positions_aligned* reflects *every* match between a respondent's opinion on an issue and the expected majority position, *False_consensus* singles out those respondents who *erroneously* expect the majority to share their view. The share of false-consensus-based replies differs across the experimental groups – as do the shares of individuals who see their positions aligned or contrasting, or who expect a clear majority for or against a policy issue. These percentages are given in the Appendix.

attitude is *wrong*. To identify the de-facto majority opinion, we consider the distribution of responses on each of the four policy issues. These distributions are illustrated by the histograms in the Appendix: it turns out that for neither of the four issues, a majority *against* the issue at stake exists – be it assisted suicide, support for immigration, higher taxes on the rich, or increased support for renewable energies. We thus set the variable *False consensus* equal to one whenever respondents are against (or strongly against) an issue and if they (erroneously) expect the majority to share this view.

Table 8: OLS Regressions for participants of different experiments (Dependent variable: Choice of referendum as a procedure for a given policy issue) – including socio-economic characteristics and false consensus

VARIABLES	(1) Assisted suicide	(2) Immigration	(3) Taxation	(4) Energy policy
Ref_Pref	0.0605	0.0714	0.0667	0.0786
	(5.575)***	(6.842)***	(7.470)***	(9.178)***
Positions aligned	0.260	-0.230	0.0407	0.00783
	(1.806)*	(-1.892)*	(0.579)	(0.0538)
Positions contrasting	0.165	-0.267	0.0940	0.118
	(0.816)	(-2.102)**	(1.050)	(0.494)
Majority expected	-0.0327	0.107	0.00297	0.141
	(-0.250)	(1.325)	(0.0535)	(1.168)
False consensus	-0.179	0.558	0.286	0.176
	(-0.576)	(5.126)***	(2.330)**	(0.974)
High income	0.0223	-0.0646	-0.0501	0.0406
	(0.301)	(-0.927)	(-1.018)	(0.652)
Female	-0.0590	-0.110	-0.0707	-0.0149
	(-1.520)	(-3.147)***	(-2.204)**	(-0.436)
Birth year	0.00249	0.000625	0.00575	0.00100
	(1.597)	(0.462)	(4.696)***	(0.751)
Old	-0.221	-0.162	0.293	-0.0843
	(-1.867)*	(-1.433)	(1.821)*	(-0.677)
Young	-0.248	0.184	-0.00521	0.115
	(-1.832)*	(0.735)	(-0.0359)	(0.581)
German citizen	0.0354	-0.218	-0.0509	-0.00867
	(0.188)	(-1.980)**	(-0.478)	(-0.0838)
Univ. entr. degree	-0.0888	-0.0518	-0.121	0.00252
	(-1.707)*	(-1.095)	(-2.949)***	(0.0557)
University degree	-0.0796	-0.0539	-0.0203	-0.0290
	(-1.565)	(-1.147)	(-0.518)	(-0.644)
Constant	-4.787	-0.968	-11.29	-2.108
	(-1.559)	(-0.365)	(-4.701)***	(-0.802)
Observations	594	657	617	649
Adjusted R-squared	0.094	0.181	0.151	0.107

The coefficients are based on OLS estimation and reflect the marginal effect of the regressors on the probability of supporting a referendum as a procedure to decide on a specific policy issue. Robust t-statistics are given in parentheses. Asterisks reflect significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Adding *False consensus* to the list of regressors yields the results displayed in Table 8. Interestingly, this variable seems to matter for the experiments on immigration and taxation: if respondents in these

groups erroneously expect the majority to share their opinion – i.e. they are against higher immigration (taxation) and expect the majority to share this position – they are more likely to prefer referenda as a decision-making mechanism. For the immigration experiment, the inclusion of *False consensus* even changes the sign of the coefficient of *Positions aligned*, suggesting that individuals who are in favor of the admission of refugees and expect a clear majority to share their view nevertheless reject the use of referenda to decide on this issue. A plausible explanation for the strong false consensus-effect in the immigration group is a kind of populist mindset that aspires to a unified, homogeneous people and assumes a 'silent majority' to share its anti-immigration views.

The negative coefficient of *Positions contrasting* in the immigration experiment can be accounted for by respondents with pro-immigration attitudes fearing a majority against immigration and therefore rejecting a referendum in that specific case. In case of the taxation experiment, the false consensus-effect, while unlikely to be motivated by populist thinking, might similarly be accounted for by a kind of wishful thinking. Again, false consensus affects only those who are against higher taxation of the rich and expect that a majority shares their view. Given that, as in most countries, the income distribution in Germany is skewed to the right, with the mean income exceeding the median income, such a majority seems improbable (Meltzer and Richard, 1981) and does not in fact exist in the sample. Nonetheless, some people with anti-redistribution attitudes may hope (and assume) a majority to share their position for ideological reasons rather than out of self-interest.

Discussion and Conclusions

The literature on democratic innovations focuses mainly on intrinsic, or ideological reasons to complement existing representative decision-making structures with more participatory elements. However, direct democracy is a special case among the suggested democratic innovations. We have argued that this is because in the case of direct democracy, and referenda in particular, the outcome effects of the decision-making procedure are quite transparent. Especially where decisions on specific policy issues are concerned, information about the majority position allows for a reasonable prediction of a referendum's result. Our discrete choice-experiment shows that the selection of a referendum as a decision-making procedure is – at least in part and for some policy issues – instrumentally motivated. Moreover, our analyses may still underestimate the effect of instrumental motives, as general support for referenda (which we use as a proxy for intrinsic motives) may itself be driven by specific outcome expectations, i.e. the belief that for most, or the most important policy issues, a majority shares the own position.

Two of our further results stand out: First, we find interesting evidence for an attitude that we label 'majoritarianism', i.e. the idea that where a clear majority exists, the matter should be decided by referendum – regardless of the own position. Second and more importantly, the preference for a

referendum on specific policy issues is at least in two of our experimental groups (immigration and taxation) influenced by false consensus assumptions, i.e. by respondents who erroneously expect a majority to share their view.

We believe that our findings have important implications for democratic theory and practice. First, discussions about democratic innovations that complement or replace existing representative structures should be better informed about the outcome effects of procedures and take more seriously the old question 'who benefits?' Instrumental motives behind procedural preferences should be revealed and openly discussed. Finally, those who initiate referenda should be aware not only of the volatility of public opinion, but also of false consensus assumptions they might be subject to – and reconsider their initiative in light of these.

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Appendix

Data definitions and sources

VARIABLES	Definition	Source
High income	Dummy variable: 1: respondent reports to have an average personal net income of 4000 or more Euros / 0: otherwise	GESIS panel, wave df, Variable dfzh055b
Female	Dummy variable:	GESIS panel, wave df,

	1: female / 0: male	Variable dfzh037a
Birth year	Answer to question: Please provide the year of your birth. 1943 for all respondents born in or before 1943; 1944, …, 1994, 1995 for all respondents born in or after 1995	GESIS panel, wave df, Variable dfzh038c
Old	Dummy variable: 1: born in or before 1943 / 0: otherwise	GESIS panel, wave df, Variable dfzh038c
Young	Dummy variable: 1: born in or after 1995 / 0: otherwise	GESIS panel, wave df, Variable dfzh038c
German citizen	Dummy variable: 1: German citizen / 0: otherwise	GESIS panel, wave df, Variable dfzh039a
Univ. entr. degree	Dummy variable: 1: respondent reports to have advanced technical college certificate („Fachhochschulreife") or General qualification for university entrance („Abitur, allgemeine oder fachgebundene Hochschulreife") / 0: otherwise	GESIS panel, wave df, Variable dfzh044a
University degree	Dummy variable: 1: respondent reports to have technical college degree („Abschluss einer Fachhochschule") or University degree („Abschluss einer Universität") / 0: otherwise	GESIS panel, wave df, Variable dfzh047a
Ref_Pref	Answer to question: To what extent do you agree with the following statements? There should be more referendums in Germany. 1: fully disagree/ … / 7: fully agree	GESIS panel, wave ce, Variable ceaz116a
Referendum	Dummy variable: 1: respondent chooses referendum as procedure to decide on given policy issue 0: otherwise	GESIS panel, wave dd Assisted suicide: Variable ddaz143a Immigration: Variable ddaz147a Taxation: Variable ddaz150a Energy policy: Variable ddaz152a
Procedure	Dummy variable: 1: respondent chooses referendum / discussion within parties / independent committee of experts / discussion among representatives of all affected groups as procedure to decide on given policy issue 0: otherwise	GESIS panel, wave dd Assisted suicide: Variable ddaz143a Immigration: Variable ddaz147a Taxation: Variable ddaz150a Energy policy: Variable ddaz152a
	Policy issues: Variable ddaz144a: "Are you for or against the legitimization of assisted suicide?" 1: absolutely for, …, 5 absolutely against Variable ddaz147a: "Are you rather in favor of or against the admission of refugees?" 1: absolutely for, …, 5 absolutely against Variable 150a: "Do you approve or oppose implementing a higher income tax for high earners?" 1: absolutely for, …, 5: absolutely against Variable 153a: "Are you for or against the fast expansion of renewable energy (wind turbines, power lines), even if there is opposition?"	

	1: absolutely for, ..., absolutely against	
Congruence	1: respondent is for or strongly for the proposed position and expects clear majority for proposed position 1: respondent is against or strongly against the proposed position and expects clear majority against proposed position -1: if respondent is for or strongly for the proposed position and expects clear majority against proposed position -1: if if respondent is against or strongly against the proposed position and expects clear majority for proposed position 0: otherwise	GESIS panel, wave dd Assisted suicide: Variables ddaz144a, ddaz145a Immigration: Variables ddaz147a, ddaz148a Taxation: Variables ddaz150a, ddaz151a Energy policy: Variables ddaz153a, ddaz154a
Positions aligned	Dummy variable: 1: Congruence = 1 0: otherwise	
Positions contrasting	Dummy variable: 1: Congruence = -1 0: otherwise	
Majority expected	Dummy variable: 1: clear majority for or against proposed policy position expected 0: otherwise	GESIS panel, wave dd Assisted suicide: Variable ddaz145a Immigration: Variable ddaz148a Taxation: Variable ddaz151a Energy policy: Variable ddaz154a
False consensus	Dummy variable: 1: Positions_aligned = 1 AND clear majority against proposed policy position expected. 0: otherwise	

Note: Negative entries (e.g. -99 for item nonresponse) are treated as non-observables.

Descriptive Statistics

	(1) All	(2) Suicide	(3) Immigration	(4) Taxation	(5) Energy
VARIABLES					
High income	0.0719	0.0668	0.0535	0.0895	0.0787
	(0.258)	(0.250)	(0.225)	(0.286)	(0.269)
Female	0.490	0.497	0.505	0.471	0.486
	(0.500)	(0.500)	(0.500)	(0.500)	(0.500)
Birth year	1,965	1,966	1,965	1,966	1,964
	(13.69)	(13.36)	(13.76)	(14.05)	(13.54)
Old	0.0181	0.0240	0.0173	0.0135	0.0177
	(0.133)	(0.153)	(0.130)	(0.116)	(0.132)
Young	0.00986	0.0103	0.00472	0.0169	0.00803
	(0.0988)	(0.101)	(0.0686)	(0.129)	(0.0893)
German citizen	0.975	0.990	0.973	0.963	0.976
	(0.155)	(0.101)	(0.161)	(0.189)	(0.153)

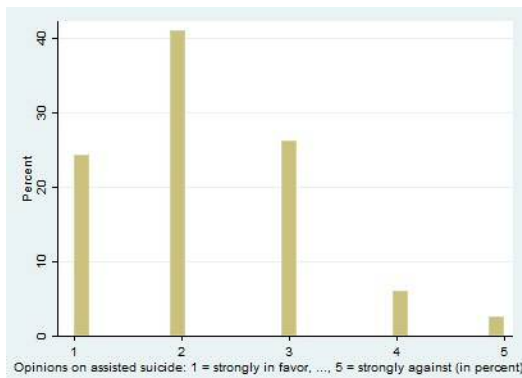|					
Univ. entr. degree	0.485	0.481	0.442	0.520	0.499
	(0.500)	(0.500)	(0.497)	(0.500)	(0.500)
University degree	0.303	0.296	0.280	0.326	0.311
	(0.460)	(0.457)	(0.449)	(0.469)	(0.463)
Ref_Pref	5.160	5.171	5.176	5.155	5.136
	(1.731)	(1.737)	(1.706)	(1.728)	(1.758)
Majority expected (perc.)		13.74	15.93	27.18	8.92
Positions contrasting (perc.)		1.34	1.67	5.50	0.92
Positions aligned (perc.)		10.39	8.95	15.86	5.54
False consensus (perc.)		0.34	6.68	2.75	1.54

Note: The numbers give the means for the samples included in the regressions. Numbers in parentheses give the standard deviations. The last four rows give percentage shares of responses for which the respective dummy variable equals one.

Distribution of positions on policy issues

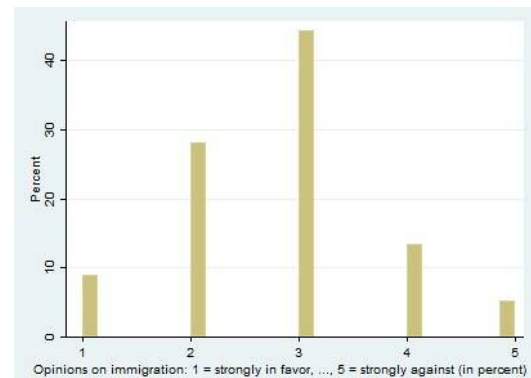See table above for proposed policy positions underlying the respondents' answers
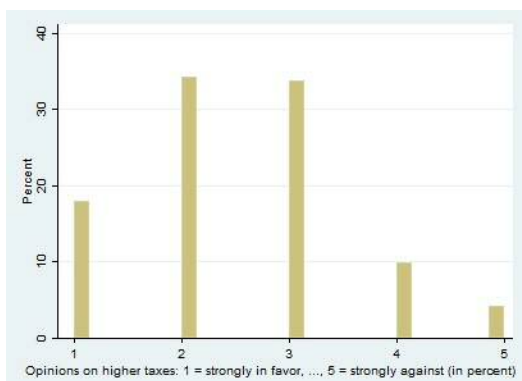
Assisted suicide

mean: 2.22

Opinions on assisted suicide: 1 = strongly in favor, ..., 5 = strongly against (in percent)

Immigration

mean: 2.78

Opinions on immigration: 1 = strongly in favor, ..., 5 = strongly against (in percent)

Taxation

mean: 2.48

Opinions on higher taxes: 1 = strongly in favor, ..., 5 = strongly against (in percent)

Energy Policy

mean: 2.39

Opinions on supp. of ren. energy: 1 = strongly in favor, ..., 5 = strongly against (percent