

Correct Voting in Direct Legislation

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Abstract: *Correct voting in elections has been extensively analysed in the recent past. However, thus far, correct voting in direct legislation has hardly been investigated. This is all the more surprising since direct legislation is a more demanding form of democracy and, thus, to vote one's true preferences in direct legislation represents a greater challenge than picking the "right" party or the "right" candidate at elections. Moreover, the few researches on the correctness of individual referendum votes used a measurement method that we think has some methodological shortfalls. Instead, we want to propose another better-suited method of measuring correct voting in direct legislation settings. This method makes use of voters' stances on the issue at stake. Besides, we will scrutinize the share of correct voting as well as its determinants on the Swiss popular vote of November 2009, which included three rather different propositions. The study shows that a majority of Swiss voters are indeed able to vote their true preferences. The ability to vote correctly depends primarily on the individual voter's project-specific knowledge, but also, under certain circumstances, on the use of heuristics.*

KEYWORDS: Switzerland, Voting behavior, Direct Democracy

Introduction: Are citizens able to handle the participatory and informational demands of direct democracy?

Direct legislation is a rather demanding form of democracy. Its citizens are expected to be sufficiently informed about a broad variety of issues. This not only includes substantial knowledge about the issues at stake and what personal consequences the proposals have, but also knowledge about what the alternatives are and an understanding of the issue in a broader ideological context. This was the pervasive view at the time the practice of direct legislation was established in Switzerland and in a number of US states (Cronin 1999). However, many years of political sophistication research have demonstrated that citizens typically cannot cope with such informational demands. Philip Converse (1990:372) famously remarked: "The two simplest truths I know about the distribution of political information in modern electorates are that the mean is low and the variance high." Since then, an ever growing body of evidence has supported this claim (Converse 1964, Kinder and Sears 1985, Sniderman 1993, Delli Carpini und Keeter 1996; for Switzerland, see: Gruner und Hertig 1983, Bütschi 1993, Kriesi 2005). Moreover, direct democracy does not only impose high informational demands, but also heavy *participatory* demands on its citizens. Participation in political decisions is required not only once in four or five years, but considerably more often. In short, a high level of political sophistication and a strong willingness to participate are essential pillars of

direct democracy; however, both conditions are typically not met when it comes to citizens dealing with politics.

Proponents of a “new look in public opinion research” argued that these conditions do not necessarily have to be met in order for direct democracy to work effectively (Sniderman 1993). By taking advantage of judgmental shortcuts, citizens are able to make sense of the political world and subsequently, to cast a reasonable vote despite their obvious lack of political sophistication—so goes the argument of those promoting this new look commonly labeled as “low information rationality” (Krosnick 1990, Fiske and Neuberg 1990, Fiske and Taylor 1991, Popkin 1991, Lupia 1994). A plethora of studies have provided evidence that such informational cues are indeed used in political decision making in general (to name only a few: Lodge and Hamill 1986, Conover and Feldman 1989, Kuklinski and Hurley 1994) and in direct democratic decisions in specific (Lupia 1994, Kriesi 2005, Christin et al. 2002). Lau and Redlawsk (2001:952) even called the ubiquitous use of heuristics the “new conventional wisdom.” While it seems to be a truism that everybody employs some kind of simplifying strategy in one situation or another, it is, however, less clear whether heuristics, in fact, do work (Sniderman, Brody and Tetlock 1991, Bartels 1996, Kuklinski and Quirk 2000, Lau and Redlawsk 2001). Lau and Redlawsk, for instance, (2001:967) showed that, ironically, cognitive shortcuts are most helpful to those *who need them least*—that is, political experts among the citizenry. The unsophisticated voters, however, use heuristics *ineffectively* and quite *often fail to vote in accordance* to their preferences despite applying shortcuts. Moreover, politics are relatively removed from everyday life and, thus, to run an effectiveness scan of the heuristics employed is hardly possible. It is certainly more difficult than in other areas of social life where one is punished immediately if using heuristics wrongly. Hence, there are reasons to believe that mental shortcuts may not work as effectively in politics as in other domains (Kuklinski and Hurley 1994, Lau and Redlawsk 2008). If, however, heuristics are not always the answer to low information voting, the quality of voter decision-making has to be questioned again. Thus, is the average citizen able to make the one choice that best does justice to his preferences? If he is not, this would call the credibility of democratic decision-making into serious question.

Some may argue that there is already a vast body of literature dedicated to this question. Indeed, correct voting has been investigated thoroughly in the recent past (e.g., Lau and Redlawsk 1997, 2001, 2008, McClurg and Holbrook 2006, Nai 2009). However, it has been scrutinized in all but a few cases for elections and not for direct legislation decisions (two exceptions being Hobolt 2007 and Nai 2009). Moreover, previous research on the correctness of individual *referendum* votes equaled correct voting as the ill-informed voters’ capacity to mimic the behavior of their well-informed brethren. We believe that this measurement method has some methodological shortfalls. Instead, we want to propose another and what we believe to be better-suited method of measuring correct voting in direct legislation settings.

Our focus will be on Switzerland, and in particular on the ballot of November 28, 2009. Switzerland is a true playground for investigating direct democratic votes. Nowhere else is there such an extensive use of direct democracy than in Switzerland. Furthermore, since 1977, representative follow-up surveys on voting behavior have been conducted after each ballot. Thus, the Swiss case is particularly well suited for investigating in correct voting at popular ballots. *One* recent Swiss ballot is of particular interest for our purposes: the ballot of November 28, 2009. It has attracted worldwide attention through unusually extensive media coverage. Media attention was a result of the fact that a majority of Swiss

voters approved *a ban on minarets*, thereby overlooking the legal reservations of the government and the parliament. The fact that on the same election day, the Swiss people had to decide on *two additional*, but much less controversial matters, gives us the possibility to analyze what determines correct voting in the first place.¹

We will begin with a short introduction into the vote of November 28, 2009. We know that this is a rather unusual way to begin, but we think that it is necessary to provide a short description of the one ballot we are going to examine, because all of the following parts of the article will refer in some way to the three proposals on which the Swiss people were asked to vote. Subsequently, we will extensively discuss what correct voting means and the methods of how to measure correct voting in direct democratic decisions. We will then investigate the conditions under which correct voting is likely to happen. An empirical analysis of the decision-making process leading to the November 28th ballot will shed a light on the voters' capabilities to vote correctly and on the determinants of correct voting. The final part of the article will deal with the discussion of the results, which we will attempt to put into a broader context.

The popular vote of November 28, 2009, and the post-ballot VOX survey

On November 28, 2009, the Swiss electorate had to decide on three proposals: a popular initiative against the construction of minarets, a popular initiative to ban the export of war material, and a constitutional amendment calling for a jet-fuel duty on private domestic flights. To the great surprise of pundits, politicians, and the government alike, the Swiss people approved the hotly debated ban on minarets by a surprisingly clear margin of 57.5%. This came as a huge surprise because pre-ballot polls predicted a different outcome. By contrast, the ban on arms export—a popular initiative launched by the Social Democrats—suffered an overwhelming defeat. Only 31.8 percent voted in favor of it. Both popular initiatives were issues that mattered to many Swiss citizens and were also easy to understand, resulting in a comparably strong turnout of 53% (the average turnout for the last 20 years being 44%). The last proposal, however—a jet-fuel duty on private domestic flights—was a very unfamiliar and highly technical matter. Voters admitted to have had considerable difficulties making up their minds. It demonstrably shows in the share of ill-informed voters displayed in Table 1. Nonetheless, 65% of the voters approved the amendment.²

Within two and a half weeks after the ballot took place, the VOX survey was conducted. The VOX survey is a post-ballot poll carried out regularly since 1977. The surveys are conducted with representative samples of approximately 1,000 interviewees.³

¹ On November 28, 2010, there was another vote attracting international attention: the vote on the deportation initiative (“Ausschaffungsinitiative”). However, that vote doesn't suit our purposes well because the parliament offered a counter-proposal to the initiative, on which the Swiss people had to decide at the same time. Thus, the voters were confronted with *more than two* alternatives (i.e., initiative, counter-proposal, and status quo). In such a situation, however, it could be quite reasonable for voters to vote strategically (i.e., to cast a vote for a less preferred option in order to avoid the worst case). With our procedure, it would be impossible to distinguish this kind of strategic voting from incorrect voting (see Lau and Redlawsk 2008:401).

² According to Media Focus, the campaign expenditures amounted to approximately 2 million CHF for the ban on minarets and the ban on arms export, respectively. Virtually no campaign money was spent for the ballot on the jet fuel duty (Weber 2012).

³ The November 29, 2009 sample included 1,008 interviewees, of whom 722 (72%) took part in the ballot.

Table 1: Project-specific knowledge (in percent (n))^a

	level of information			
	very low	low	high	very high
ban on minarets	0.2 (1)	1.1 (7)	17.0 (112)	81.8 (539)
ban on arms export	3.2 (23)	9.7 (70)	39.2 (283)	47.9 (346)
jet-fuel duty	12.2 (61)	24.9 (124)	32.1 (160)	30.9 (154)

^aThe operationalization of the project-specific knowledge is presented in the appendix.

What is a “correct” vote?

Again, contrary to the usual practice, we will not continue by presenting a theoretical grounding in the empirical literature on what we know about voting in ballot elections. The starting point of our analysis will be to first determine what a correct vote decision is. Not surprisingly, there are distinct ways to determine the correctness of a vote decision. One could, for example, apply some kind of normative criteria, say, the voter’s economic interests. We then would say that, considering his particular economic situation, this individual ought to have decided in a specific way (see, for example, Frank 2004, Gelman 2008). Such a “quasi-objective” approach, however, ultimately leads to normative criticism. There are no objective and comprehensible principles why, for example, a vote decision taken on economic grounds should be deemed “better” or “more competent” than a vote decision taken on some other grounds (Kuklinski and Quirk 2000). As a consequence, Lau and Redlawsk have chosen a different approach. They abstained from imposing any external, normative criterion, but instead left it to each voter’s own judgement whether he/she voted correctly or not. This judgment, however, should be passed only when being provided with full information about the respective voting matter. *Thus, a correct vote is a decision taken under conditions of complete information, irrespective of what determined the voter’s choice.* Correct voting, in turn, refers, as Lau and Redlawsk defined it (1997), to the likelihood that an incompletely informed individual would have made the same decision if he had been completely informed. Clearly, this approach has the advantage of not being fixed on subjective and elusive criteria, but instead relying on the voters’ own preferences.

How to measure a correct vote in a referendum situation

But how can we find out whether a voter expressed his preferences correctly? Or, in other words, how do we know the vote decision of a fully informed voter when he is obviously not fully informed? We will first present two measures that we will reject because of practical or theoretical reasons and subsequently include a new measure that we believe is either more suitable or more compelling than the other two measures.

Lau and Redlawsk (2001) offer two techniques to operationalize “correct voting” in elections. The first one is determined by the subjects themselves. They indicate at the start of the interview what candidate they prefer. At the end of the interview, the respondents are provided with additional information about all competing candidates—information they presumably have not seen before and therefore has not been considered in the initial decision-making process. In a follow-up, the interviewees are asked whether they still would have stuck with their original vote or whether they would prefer to change their decision. If they stay with their initial decision, that choice is considered to be “correct.” Moreover,

Lau and Redlawsk offer a second approach, which they call the “normative-naive measure” of correct voting. The measure is naive insofar as it is based on the subject’s own values and preferences. These preferences are revealed beforehand by filling out an associated questionnaire. Based on this information, the preferred candidate (the one with the highest naïve-normative evaluation, as Lau and Redlawsk describe it) is subsequently qualified as the correct vote. The evaluation of the candidate is based on external criteria and thus “normative.”

Both measures, however, are not available for the evaluation of the Swiss voters’ decision-making abilities in referendum ballots. Hence, Nai (2009) proposes a different approach. The approach is based on a comparison between a well-informed proxy group and an ill-informed control group sharing similar political predispositions (see also Lupia 1994, Kuklinski and Quirk 2001, Zaller 1992). At first, Nai distinguishes between heuristically and systematically processing voters (Petty and Cacioppo 1986, Eagly and Chaiken 1993). Following the HS-model’s propositions, Nai argues that the voters who systematically engaged with the content of a proposal are *necessarily* well-informed and thus capable of casting a correct vote. Their vote choice is, therefore, by definition “correct.” However, the majority of the Swiss voters, Nai continues, employ heuristics. Their vote choice, by extension, is considered to be correct only if *equal* to the choice of systematically processing voters *sharing the same values and political views*.

We have several objections against this procedure. First, this procedure only allows us to analyze the decision quality of *a certain group of voters*—those using shortcuts.⁴ Second, Nai qualifies the vote choice of the systematically processing voters as the benchmark for a high quality decision, against which the vote decision of the cue-takers is measured. However, this only makes sense if *all* the voters activating systematic reasoning and sharing the same values cast the *same* vote. But this is not the case. The sophisticated voters’ choices do differ, *even between those sharing the same political predispositions, making it logically impossible to determine what the correct choice was*.⁵ Third, it is rather doubtful whether the systematically engaging individuals necessarily cast a correct vote. They might err as well (Kuklinski and Quirk 2001).

Hence, we suggest another measure of correct voting particularly suitable for direct legislation elections. It does not refer to a comparison between two groups, but in a certain way manipulates the information base of the voters, and hence, enables us to simulate the vote choice taken under fully informed conditions. Let us first clarify that this means of judging a vote’s correctness is not entirely new. Kriesi (2005) used a very similar measure, though not to measure correct voting, but to determine the effects of heuristic processing. It consists, generally speaking, of the voters’ stances on the issue at stake. The post-ballot VOX survey, which is conducted regularly after each referendum, asks the interviewees to position themselves with respect to a set of arguments that are closely linked with the respective ballot question. These arguments are selected by the teams conducting the respective VOX survey and quite accurately reflect the main lines of argument that have

⁴ Moreover, we have strong reasons to doubt the high *share* of heuristically processing voters as indicated by Nai (close to 75 % of the Swiss electorate, Nai 2009:11). Kriesi (2005) in his comprehensive study about Swiss referendum decisions argues that *systematic engagement is definitely more prevalent* than heuristic processing. Thus, the number of voters whose decision quality can be evaluated using Nai’s approach is presumably rather small.

⁵ In order to determine what the actual correct vote choice was, Nai had to introduce a rather arbitrary threshold (2009:9). If a majority of 60% or more of the sophisticated voters voted consensually, that decision was considered to be a correct vote.

been exchanged during the course of the campaign (for more details see Kriesi 2005: 178f.).⁶ Moreover, the order in which the questions are asked in the VOX survey is of paramount importance for our measuring purposes. The voters' opinions about the issue-specific arguments are asked *at the end* of the interview and thus, *after* their vote decisions have been determined. Hence, one could argue, that the resulting argument-based opinions of the voters represent, at least to a certain degree, the fully informed vote. Let us explain this important line of argument more thoroughly. Let us assume a voter who hasn't paid any attention to the issue-specific campaign and who just blindly followed his preferred party's recommendation.⁷ No doubt, his vote choice is ill-informed (*though, it is not necessarily incorrect*). When asked in the VOX telephone interview to position himself with regards to the key arguments exchanged during the campaign, he will be confronted with information *he didn't have before*. In other words, the arguments represent information he hasn't considered before, and thus, hasn't been part of his original decision calculus. To avoid misunderstandings and to make clear where the difference to Lau and Redlawsk's measure lies, the VOX survey doesn't subsequently ask whether, in the light of the new information provided, one still would stick with one's original vote or whether one would prefer to switch to the other option. But we can reconstruct the "fully" informed vote on the basis of the *voter's argument-based opinion*. The argument-based opinion reflects the negative and positive considerations towards the proposal at stake that are on the top of a voter's head (Zaller 1992). In order to dissolve that issue-specific ambivalence, the voter calculates the mean of all considerations and translates the result into a vote decision, Zaller argues; we agree. In a nutshell, the argument-based opinion stands for the vote the subject would have come to when fully informed.⁸ A correct vote, thus, is one that aligns with the respondent's argument-based position.

As we said before, we think that our method is better suited for measuring correct voting in direct legislation than the ones used before. However, we make no secret about the fact that our measure is too far from being perfect. Subsequently, we want to discuss the (potential and real) weaknesses of our measure.

First and foremost, the arguments do not simulate a fully informed decision situation. While this is, of course, true, the arguments certainly represent additional and presumably newly acquired information about the issue at stake.

Second, and this might be the biggest concern, we do not know anything about the respondent's *weighting* of the individual arguments. Our assumption is that all pieces of information essentially matter the same. This is, to say the least, a very bold assumption.

⁶ Since we are restricted to the arguments about which the survey asked, one could argue that there might have been *other additional* considerations not covered by the survey that *truly mattered* to the respondents. Luckily, the VOX survey also asks about the *reasons for the particular vote*. It is an open question (thus, no response categories were specified by the interviewer) and it is asked *right* after the vote choice has been determined. The respondents can give up to six reasons for their voting decision. When comparing these vote reasons with the arguments the survey asked about (see Tables 9 to 11 in the Appendix), we can see that there are only a few (substantial) arguments that have not been covered by the VOX argument battery.

⁷ In the run-up to each referendum, Swiss political parties offer endorsements to their fellowship. These endorsements could serve as heuristics, as they are easily available and substitute a systematic engagement with the aspects of the referendum issue.

⁸ Lau et al. (2008:399) argue that basically three types of information are needed to measure correct voting in elections: 1) measures of where a voter stands on a number of issues; 2) measures of which of those issues are most important to the voter; and 3) measure of the eligible candidates' stand on the same issues. Two of those measures' requirements are fulfilled by our method; only the second point leaves considerable room for improvement.

It might well be the case that one particular argument, say, an argument *supporting* the ballot, was absolutely crucial and, thus, was outweighing all other, possibly *negative* considerations. Unfortunately, there is no question in our data set that would allow us to measure what arguments mattered the most to the voters. However, one particular VOX question asked right at the beginning of the interview (“Why did you vote Yes (or No, respectively)?”) tells us indirectly something about the voter’s weighting of arguments. The first answer to that open question (mostly, voters give not more than one answer) can be regarded as the most important vote reason. How did respondents *whom we classified as voting incorrectly* justify their vote? We investigated this question for all three proposals. In the case of the highly complex jet-fuel duty, we found out that 66% of them could not provide a substantial answer to this question (e.g., “I was rather unsure and whenever I am in doubt I vote no,” “I followed the endorsement of the government,” etc.). Moreover, about 20% made some very general remarks showing low levels of involvement (e.g., “Everybody wants to fly nowadays. This is simply not necessary,” or “Because of political reasons,” etc.). In the case of the ban on minarets, 24% clearly voted against their very preferences⁹ and another 31% made a very general comment. For the ban on arms export, the results are even more pronounced. Forty-two percent of those whom we classified as voting incorrectly voted against their preferences; 22% provided a very general, non-substantial answer; and only 36% were able to give a substantial response to this question. In short, most of the respondents we classified as voting incorrectly were not voters with an unbalanced weighting scheme, but voters who were seemingly overwhelmed with the complexity of the bill. Thus, our assumption that all considerations basically matter the same (and, therefore, it is not about the quality or the importance of arguments, but just the number on balance), holds true, at least in most of the cases.¹⁰

Another problem with our measure is rationalization. One cannot exclude that some respondents just tried to justify their vote (Tourangeau et al. 1989, Bartels and Achen 2006). That would mean that respondents did not reveal their “true attitudes” (provided there are true attitudes) towards the arguments (of which they might never heard of and thought about), but just rationalized (by lining up their preferences with the vote choice they stated before). While this may be true of a minority, we do not think that it is a mass phenomenon for the following three reasons:

- 1 First, there are around 30-40 questions between the vote choice and the arguments, which make a pure justification more difficult (the VOX questionnaire can be found at: http://forsdata.unil.ch/projects/VOXit/sonda_details.asp?lang=d).
- 2 Second, it is not always such an easy task to bring arguments and vote decisions in line. At least for certain proposals and arguments, it requires a rather notable level of political knowledge. Why? Because arguments are not always declared pro or contra beforehand. To give a better idea of how the line of argument goes, take the following example. One of the arguments in favor of the jet-fuel duty reads as follows: “The revenues from jet-fuel duty should be further used for road transport.” Ill-Informed voters simply do not know whether that is a pro or a con argument (which is confirmed by the

⁹ The respondents are asked to indicate a reason why they voted either in favor or against a proposal. The above mentioned group of respondents unmistakably confused their vote decision. For example, quite a number of them argued that minarets are *not* to be built in Switzerland. However, they voted *against* the initiative, which (obviously) doesn’t make sense. They simply confused a YES with a NO vote. Such a voting behavior is rare, but not totally uncommon, particularly when an initiative is calling for a ban or a stop.

¹⁰ Furthermore, several studies of decision-making have shown that it does not really make a difference whether one employs weighting schemes or not (Dawes 1979, Lau and Redlawsk 2008).

fact that 38% of the respondents did not know what the referendum on the jet-fuel duty was *all about*; see Hirter and Vatter 2010). Hence, an ill-informed respondent was almost certainly not able to synchronize his vote decision with his argument-based attitude, at least in this particular case.

- 3 Third, the argument-based opinion relies not only on one question but on a whole battery of questions on the campaign arguments. Hence, if a respondent is ultimately driven by the need to rationalize, we would expect him to either favor or oppose *all* arguments with the *same* relation to the pro or con side of the campaign. After all, if one feels a pressure for rationalizing, then why only for certain arguments but not for others? Consequently, we analyzed how many voters agreed with an argument that is *in opposition* to their actual decision (e.g., how many respondents who voted NO agreed with an argument *in favor of* the proposal). As we argued before, we expect rationalizing respondents to support all arguments they identify as valid justifications of their vote decision, while at the same time rejecting all arguments they identify as favoring the opposing side. Table 2 shows that in the case of the most controversially discussed ballot, the ban on minarets (i.e., the one ballot where we would expect rationalization to be *particularly easy*), only 9% and 8%, respectively, either agreed with all pro arguments or with all con arguments. Inversely, this means that the overwhelming majority (around 90%) had at least one “consideration” that was not in line with their vote choice. From a “rationalization point of view,” this result must be rather puzzling. For the other two ballots, the respective shares are smaller,¹¹ but nonetheless, a vast majority was ambivalent about the two proposals. Such ambivalence is, however, not exactly what one would expect from rationalizing respondents.
- 4 Finally, one could argue that, by using the argument questions, we are again measuring *attitudes* (i.e., towards campaign arguments) and *not the fully informed vote*. Those attitudes, in turn, can *change* if voters become more informed. In short, we are not measuring the “true” underlying preferences, but something much shakier. At first, one could deny the very existence of “true preferences” (Zaller 1992). Assuming they do exist, it is still true that we are not explicitly providing the respondents with additional bits of information. Though, the arguments submitted *contain valuable information* about the proposals. They provide information about the main conflict lines, the aims of the proposal, who is benefiting from it and who is not, and sometimes which parties support the proposal and which do not.¹² Apart from that, the attitudes towards the campaign arguments are not as unstable as one might think. The polling agency carrying out the VOX survey (GfS) was conducting two pre-election surveys where they asked exactly the same argument questions as in the post-ballot survey.¹³ Though, it was not a panel survey, the aggregate approval figures for the arguments tell us

¹¹ This is most likely due to the smaller number of argument questions asked. In any case, it is not because rationalizing was easier for these two proposals. It was rather the opposite.

¹² Take, as an example, the vote on the jet-fuel duty. Many respondents had no clue what the proposal was all about. However, the arguments submitted told them about the aim of the proposal (revenues should be spent on air transport and not on road transport), who is benefiting from it (air transport), and what the main conflict lines were (air transport has still the poorest ecological track record).

¹³ The first pre-ballot survey wave took place between October 13 and 17 (1,207 respondents). The second pre-ballot survey wave was conducted 20 days prior to the vote (1,213 respondents). For more details, see Longchamp et al. (2009), Medienbericht zur Begleitstudie “Abstimmung vom 29. November 2009. 1. Welle Oktober 2009,” GfS Bern. Longchamp et al. (2009), Medienbericht zur Begleitstudie “Abstimmung vom 29. November 2009. 2. Welle Oktober 2009,” GfS Bern.

Table 2: Ambivalence (in grey) towards campaign arguments (agreeing with at least one pro or con argument in percent of respondents)

	Agreed with at least one con argument minaret ban	Agreed with at least one pro argument minaret ban	Agreed with at least one con argument ban arms export	Agreed with at least one pro argument ban arms export	Agreed with at least one con argument jet fuel duty	Agreed with at least one pro argument jet fuel duty
Voters supporting proposal	91	100	75	99	59 ^a	95
Voters rejecting proposal	99	92	99	79	91	66

^aIn addition, 12 percent of the respondents answered at least once with “Don’t know”.

something about the stability of argument attitudes (Table 12 in the Appendix). Moreover, the first survey wave was launched six weeks before the ballot took place, at a time when the hot phase of the ballot campaign hadn’t yet started and most vote decisions were not yet made (for more details about campaigning and the opinion making process in Swiss referendum votes, see Kriesi 2002, 2005, 2012). Still, the approval figures for most of the arguments remained surprisingly stable between wave 1 and voting day. Thus, the attitudes towards the campaign arguments do not remain unchanged during the course of a campaign, but the changes are conceivably small.

How many voted correctly and who voted correctly?

To measure the argument-based and, thus, by our standards, “correct decisions,” we created a new variable consisting of the whole set of arguments, which had been submitted to the respondents in the corresponding VOX survey. As we pointed out before, the arguments consist of issue-specific statements (for the wording, see Table 8 in the Appendix) that have been exchanged during the campaigns. In a first step, we used a five-point scale to measure the extent of agreement with each argument: the values +2 and +1 are indicative of a strong (a rather strong, respectively) support of the pro side’s argumentative position; the value 0 equals a neutral position (“Don’t Know” answers), whereas the values -1 and -2 stand for a rather strong and a strong ballot-opposing opinion.¹⁴ We then added up the scores for each argument of the same project to form a global argument-based opinion. This newly created variable is, depending on the *number of arguments* asked, a 41-point scale (in the case of the minaret ban initiative [10 arguments asked]), a 25-point scale (in the case of the ban on arms export initiative [6 arguments asked]), and a 17-point scale (in the case of the jet-fuel duty [only four arguments were asked]) measure, which, in turn, has been recoded into a three-point scale variable. Positive values equal a ballot-favoring argumentative position (1), negative values a ballot-opposing argumentative posi-

¹⁴ Note that there are pro and con arguments (see Table 8 in the Appendix). Hence, if a respondent agrees with a con argument, he gets a negative value, whereas *disagreeing* with a con argument results in a positive value.

tion (-1), and the value 0 equals a neutral position (basically, 0 means that the number of positive and negative considerations are perfectly balanced). Positive values imply a yes vote, negative values a no-vote. Respondents with the value 0 are highly ambivalent (or, for that matter, completely indifferent to all arguments asked) and hence, cannot be classified as easily as the other respondents. Thus, how ought we to deal with those ambivalent respondents? One possible solution is to define a *lower* and an *upper* limit of correct voting. To assign the upper limit, the ambivalent voters' decisions were considered to accurately reflect their preferences. For determining the lower limit of correct voting, however, the ambivalent group's vote choice was assumed to be *incorrect*. Clearly, both assumptions are hardly realistic, but it leaves us with a *maximum* and *minimum* value of correct voting with the true value falling somewhere in between.

By these standards, at least 87% (lower limit) voted correctly on the minaret ban initiative (upper limit: 91%). The overall levels of correct voting were lower for the other two proposals, however, not by a clear margin. Seventy-nine percent voted in line with their issue-position on the ban on arms initiative (upper limit: 86%), and yet 73% voted in line on the highly complex jet-fuel duty (upper limit: 85%). The latter number comes a bit as a surprise. As we pointed out before, the issue of the jet fuel-duty was rather unfamiliar to most voters, and thus, we would have expected significantly lower overall levels of correct voting. A reason for this surprising result surely lies in the fact that 12.8% of the voters showed a highly ambivalent attitude towards that issue—many more than for the other two proposals (see Table 3).¹⁵ In addition, respondents who could not remember how they voted were dropped from the analysis. Normally, their number is very limited. In the case of the jet fuel-duty, however, close to 12% of those who indicated to have taken part in the vote could not remember their decision (plus, 14% voted blank). The respective numbers for the other two proposals are much smaller. There is, of course, no way to examine whether these voters voted correctly or not, but there are strong reasons to believe that quite a number of them did not know what the ballot issue was all about and thus were rather likely to cast the wrong vote. Hence, in the case of the jet-fuel duty, the lower limit of correct voting might, in fact, be markedly lower than indicated in Table 3. But even if we would take it for granted that all of the above mentioned voters confused their voting preferences, it would still leave us with close to 47% voting correctly on the jet fuel-duty. Our estimated overall levels of correct voting are above those indicated by Nai (2009), who gives us an estimate of 21% of non-systematic citizens voting correctly. But our numbers come rather close to the levels indicated by Lau, Andersen, and Redlawsk (2008) for American elections, varying between 51% and (most recently) 85% of voters.

The VOX survey offers us a possibility to check whether our indicator is adequately measuring what it is supposed to measure. As we pointed out before, respondents are asked to provide a vote reason *immediately* after having indicated their vote choice (and thus before answering to the key arguments). It is an open-ended question. Thus, no response categories were specified by the interviewer. Instead the respondents explain in their own words why they voted either in favor or against the respective proposition. Besides providing all kind of specific vote justifications, some respondents, time after time, indicate *obviously wrong* reasons (i.e., they state that they voted YES but provide a clear

¹⁵ It is rather questionable whether we can call all of these voters highly ambivalent. Ambivalence is the simultaneous existence of positive and negative considerations. However, 40% of those having an attitude score of 0 did so because they had *no attitude at all* towards *each* argument. These voters were not highly ambivalent, but totally indifferent.

Table 3: Correct Voting on the three ballot measures (in percent (n))

	lower limit (in% of evaluable voters)	upper limit (in% of evaluable voters)	ambivalent (in% of evaluable voters)	empty vote (in% of all voters)	did not remember vote decision*
ban on minarets	87.2 (578)	90.8 (602)	3.6 (24)	2.1 (15)	3.6 (26)
ban on arms export	79.2 (519)	86.1 (564)	6.9 (45)	3.2 (23)	5.1 (37)
jet-fuel duty	72.7 (386)	85.5 (454)	12.8 (68)	14.1 (102)	11.7 (84)

The group of *evaluable voters* includes all those respondents who took part in the vote and indicated a substantive decision (either a YES or a NO vote). Besides, there were respondents who either voted blank (varying between 2.1 (ban on minarets) and 14.1 percent (jet-fuel duty)) or could not remember how they voted (varying between 3.6 (ban on minarets) and 11.7 percent (jet-fuel duty)).

* in% of all voters.

NO reason in the survey¹⁶). Other respondents are not able to provide a *substantial* reason (e.g., answering that they don't know why they voted as specified or just making a very general comment ["it's all rubbish" or "that's my standpoint"]). Lastly, there are some others who openly admit to having followed the endorsements of their preferred party and/or the government's vote recommendation. We can expect all these voters to have a lower rate of correct voting than those providing content related vote reasons. The clearest case is the group of those who obviously confused their vote. If our measure is valid, this group should definitely have a higher overall rate of incorrect votes than those not confusing their votes. Those being not able to justify their vote with substantial reasons appear to be ill-informed about the issue at stake. As we pointed out before, knowing nothing (or hardly anything, for that matter) about the issue at stake doesn't *necessarily* imply a wrong vote. In fact, one still has a 50/50 chance to vote correctly (provided one has at least *one valid* consideration). But the decision quality certainly suffers significantly from ignorance, and thus, we can expect this group to have an *above average overall rate* of incorrect votes. Lastly, the cue-takers' rate of voting correctly is more difficult to predict. If they are able to efficiently use the available cues, this should even *increase* their correct vote probability (Lau and Redlawsk 2002). On the other hand, if ill-informed, there is a realistic chance to employ the *wrong cue*, which, in turn, will most likely lead to a *wrong decision*.

Table 4 shows that those confusing their vote indeed have a much lower overall level of voting correctly (28%) than those providing a substantial vote reason (90%).¹⁷ Interest-

¹⁶ An example of the November 28, 2009 vote: A respondent claiming to have voted NO to the initiative against the construction of minarets justified his vote by saying that he *absolutely supports the idea of banning minarets* in Switzerland. Clearly, if he really wants the minarets to be banned, he should have voted YES. Irrespective of whether this respondent *really* confused his vote or just *didn't remember correctly* what he voted for, our measure should detect an incorrect vote.

¹⁷ Obviously, we would have preferred to present overall levels of close to 0% for those confusing their vote. That said, however, it cannot be excluded that those confusing their vote *still* voted correctly. The reasons are quite obvious; some of them may have based their vote decision on one argument only. Had they considered *other* arguments, it might have led them to vote otherwise. Actually, assuming that *everybody* who confuses his/her vote is necessarily voting incorrectly would also mean that everybody who provides a substantial vote reason, in turn, *necessarily voted correctly*—an assumption that clearly isn't true.

Table 4: Share of Correct Voting for different groups (in percent (n))

	Confusing the vote (n)	No substantial reason (n)	Cue-takers (n)	Rest (n)
Correct vote share in%	28 (54)	57 (51)	83 (70)	90 (1538)

ingly, those incapable of providing a substantial vote reason (basically those who did not know why they voted as specified) had a correct vote level of close to 50%. It is exactly what one would expect from a group of ill-informed voters who, not knowing what the proposition is about, are, figuratively speaking, “rolling the dice.” In any case, that level is much lower than the one for those capable of indicating a substantial vote reason. Lastly, cue-takers had a similar correct vote level as those not taking cues. We will abstain from commenting on this last result. It will be discussed in the second part, which deals with the question of what enables a citizen to cast a correct vote. While this test does not yet confirm our measurement strategy, it provides us at least with a first, but nonetheless important, initial level of construct validity.

Second Part: What enables a voter to vote correctly?

After introducing our alternative measure of correct voting, we want to proceed with the question of what makes a voter more or less likely to vote correctly. We would first like to say that we will consider only individual-level predictors and thus no institutional determinants of correct voting. Lau and Redlawsk (2008) brought it to the point by saying that every individual decision-maker is led by *two fundamental principles*: first, the willingness to make a good decision, and second, the desire to make an easy decision. In arguing, they refer to the vast literature on motivated reasoning, which distinguishes two fundamentally different strategies of information processing (e.g., Petty and Cacioppo 1986, Kunda 1990, Eagly and Chaiken 1993). When applying the *systematic* mode, citizens exert considerable cognitive effort in evaluating political information or messages. Heuristic processing, by contrast, requires only a few, if any, cognitive efforts and typically relies not on the message’s content, but on attributes of the messenger.¹⁸ The information processing strategy chosen depends on the motivation and sophistication level of the individual (Eagly and Chaiken 1993). The HS-model assumes that people are cognitive misers (Taylor 1981) who wish to make decisions without consuming too many cognitive resources (Simon

¹⁸ Clearly, the heuristic-systematic transition is not binary, but continuous (Petty and Cacioppo 1986). Therefore, one could argue that given the high complexity of referendum questions, just about everyone, even the most politically astute, must rely on some form of heuristics. Hence, the interpretation of our empirical results depends heavily on our definition of heuristics. The question, then, is, “What is a heuristic and what do we classify as systematic engagement?” We found the definition by Kuklinski and Hurley (1994:732) to be a very useful one: Systematic engagement involves assessing the content of the message itself. Heuristic processing, on the contrary, focuses on the messenger and not on the message itself. As McGuire (1969:198) described it, “When the purported source is clearly positively or negatively valenced, he (the cue-taker, added by the author) uses this information as a cue to accept or refuse the message’s conclusion without really absorbing the arguments used.” Plus, heuristics imply only a minimal cognitive effort. As an example, the opinion towards the social welfare state is, by our definition, not a cue in a referendum situation in which the voter has to decide on a welfare issue. Why? Because finding out that the referendum question has something to do with the welfare issue is a cognitive effort the prototypical cognitive miser would never exert.

1956). Hence, if motivation is low or one lacks the required amount of political knowledge, heuristic forms of opinion formation will suffice. If, however, one is personally affected by the issue at stake, one will systematically engage into the matter. In the latter case, systematic engagement is favored over the less demanding heuristic processing because it renders a higher decision certainty or confidence.

Thus, systematically processing, motivated voters have a higher probability to vote correctly (Lau and Redlawsk 2002, 2008). They are well-informed, which, in our specific case, also includes the knowledge about the arguments tested (systematic processors certainly have had heard of these arguments before); they are highly motivated to learn more about the issue at stake and thus will use as many information sources as possible to do so. Correspondingly, we expect voters with a high project-specific knowledge to be better able to cast a vote that corresponds with their attitude towards the issue than political ignorants (for the operationalization of the used variables, see the Appendix). In a same vein, we expect the correct vote share to increase with higher political involvement. Systematic processing means gathering all kinds of information about the issue at the stake, and thus, those voters who use a high number of different information sources (for the operationalization, see the Appendix) should be able to vote more correctly than voters using only a few information sources. Even more fundamental is the motivation level (for the operationalization, see the Appendix): When the stakes are high, voters will be highly motivated to engage into the voting matter, which should lead to a higher likelihood of voting correctly.

One could argue that all of these variables are characteristics of systematic processing and should thus correlate strongly with each other. However, they do not necessarily have to, and, as Table 5 shows, they don't empirically.¹⁹ Political experts will have a high project-specific knowledge, irrespective of the relevance they are assigning to the issue at stake. Furthermore, the use of different information sources doesn't necessarily increase the knowledge level and moreover, doesn't necessarily facilitate the voting decision. Thus, we decided to test the influence of each of those variables separately.

H1: Well-informed voters should have a higher probability of voting correctly than ill-informed voters.

H2: The higher the political involvement, the higher the probability of voting correctly.

H3: The higher the motivation level (i.e., the more the issue at stake matters to the voter), the higher the probability of voting correctly.

As we pointed out before, heuristics may also facilitate correct voting, if employed correctly. The vast literature on cognitive shortcuts has provided enough evidence that citizens do employ mental shortcuts in political decision-making. Heuristics help to make sense of the political world and also shape the voters' perception of *candidates and issues alike* (Lodge and Hamill 1986, Conover and Feldman 1989, Rahn 1993; for popular votes in

¹⁹ Table 5 shows that project-specific knowledge about the ban on minarets and the jet-fuel duty *barely* relied on involvement, motivation, formal education, and political interest. However, there is a rather strong relationship between all those variables and the PSK on the ban on arms export. We think that there is a simple explanation for that. In the case of the ban on minarets, almost everyone was well-informed about the aims of the initiative. In contrast, only a few knew what the jet-fuel duty was about. Only in the case of the ban on arms export the PSK was, in fact, normally distributed.

Table 5: Project-specific knowledge (PSK), use of media sources, motivation, formal education and interest in politics, bivariate correlations

	PSK	INVOLV	MOT	EDU	POLINT
PSK minaret ban	–	-.01	.08*	-.02	.06
PSK ban arms export	–	.49***	.33***	.16***	.47***
PSK jet-fuel duty	–	-.01	.03	.07	.10*
use of media sources (INVOLV)	–	1.00			
formal education (EDU)	–	.13**	–	1.00	
political interest (POLINT)	–	.58***	–	.23***	1.00

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Switzerland, see also Kriesi 2005, Sciarini, Bornstein and Lanz 2005, Milic 2010). However, Sniderman, Brody, and Tetlock (1991), as well as Lau and Redlawsk (1997, 2001), have shown that it is mostly the political experts (those least in need of shortcuts) who are able to use heuristics *effectively*. Thus, we additionally modeled an interaction effect between project-specific knowledge and heuristic use. However, there is still an unanswered question with regards to heuristic use: Which heuristics do Swiss voters employ in referendum situations? According to Kriesi (2005), there are two important cues: the parties' endorsements and the government's vote recommendations. Other cues have been proven to be of only marginal importance (Kriesi 2005, Hardmeier and Roth 2003).

As it is mostly the case, we do not have a *direct* measure of heuristic use, but data tells us something about the *availability* of a shortcut. Thus, we know whether a respondent has a party identity or not. Those feeling close to a party might use their parties' vote recommendation as a cue.²⁰ Cue-taking, in turn, should increase the probability of voting correctly if used properly. Certainly, the fact that someone feels close to a party does not necessarily imply the use of the partisan heuristic—which, in the specific case of Swiss referendum votes, would mean that this individual would follow his favorite party's vote endorsement. But the availability of a cue increases its use significantly, and thus, it is quite plausible to expect those with a party identity to use that shortcut. In a similar vein, those who trust the government²¹ might use the government's endorsement as a vote cue.

H4: Generally speaking, the use of heuristics should be associated with higher levels of correct voting.

H4a: However, we expect heuristics to increase the decision quality only if employed efficiently (i.e., by political experts). Thus, we expect an interaction between the availability of a heuristic and the information level.

²⁰ The parties' recommendations have an obvious heuristic value. In contrast to carefully considering every facet of an issue at stake, a voter could just follow his favorite party's vote endorsement. All Swiss parties formulate voting recommendations for each and every ballot. These vote recommendations are published in the most important newspapers and are, thus, easily accessible. Hanspeter Kriesi (2005) states: "The partisan heuristic in a sense constitutes the quintessential shortcut in direct democratic votes."

²¹ In the case of the jet-fuel duty, a significant number of respondents openly confessed that they used the government's recommendation as a vote cue. Hence, in this particular case, we used the vote reasons indicated by the respondents as a measure of the government's endorsement use.

Table 6: The determinants of voting correctly: *unstandardized logit regression coefficients*

	(1) ban on minaret	(2) ban on arms export	(3) jet fuel duty
Party Identity	.553 (1.66)	.728** (2.67)	.031 (.08)
Trust in government	-.085 (-.52)	.025 (.18)	1.349* (2.54)
Use of media sources	-.05 (-.71)	.006 (.10)	-.066 (-.86)
Education	.040 (.48)	.159* (2.18)	.143 (1.64)
Project specific knowledge	1.149*** (4.23)	1.366*** (7.32)	.996*** (6.17)
Motivation	.402** (3.30)	.234 (1.75)	-.109 (-.74)
Age	-.285** (-2.96)	.014 (.08)	-.007 (-.08)
Sex	.058 (.20)	.095 (.25)	-.297 (-.97)
Constant	26.95** (2.70)	-4.982 (-.58)	1.469 (.14)
N^a	619	605	427
Pseudo R^2	.10	.16	.15

^aVoters with a perfectly balanced argument-based opinion score (i.e. a score of 0) are not included.

z statistics in parentheses

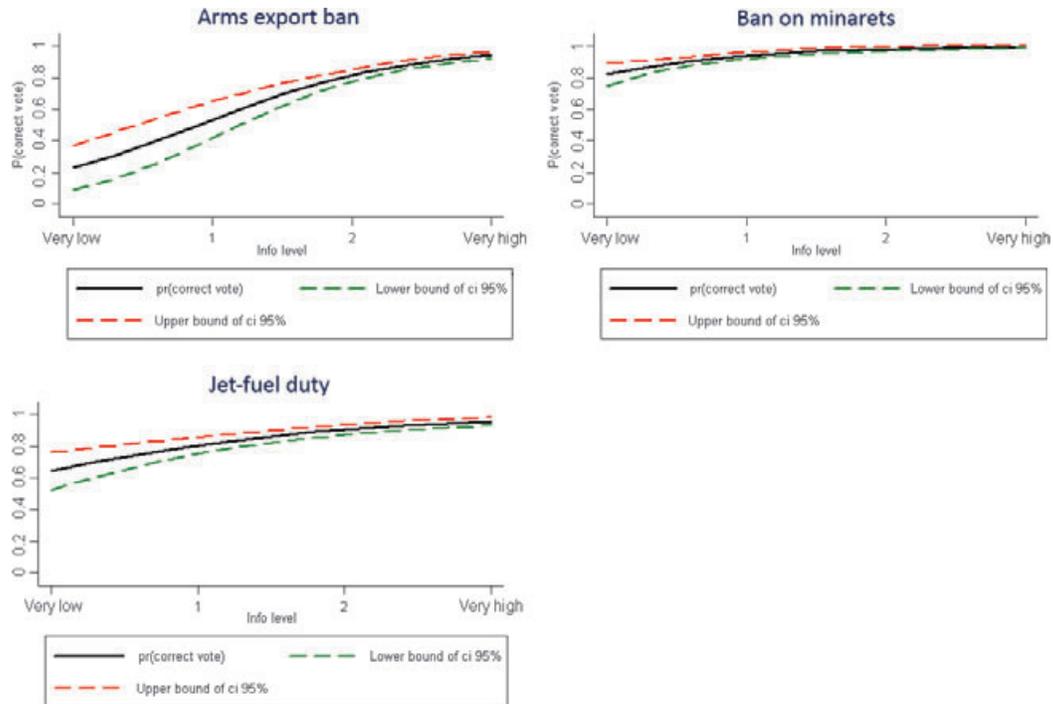
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

We also included standard measures of formal education, age, and sex as control variables into our model. We have no reason to expect any of these variables to have a significant impact on correct voting, but will include them as additional controls. Model 1 presents logit equations for the main effects; Model 2 presents additional equations for the interaction effects (Berry et al. 2010). The first column provides the estimates for the ban on minarets ballot, the second column for the ban on arms export ballot, and the last column for the jet-fuel duty.

As expected, project-specific knowledge emerges as the most powerful predictor of correct voting. It carried the greatest weight in all three ballots. This certainly does not come as a surprise. In order to be able to vote in accordance with one's issue preferences, one either needs reliable voting cues or one knows exactly what the issue at stake is about. While this seems to be a matter of course, it does, however, lend substantial validity to our measure of correct voting. Clearly, a valid and reliable indicator of correct voting in a direct democratic campaign should correlate strongly with issue-specific knowledge. Figure 1 below displays the predicted probabilities for voting correctly for each level of information while holding all other variables at their mean. It shows that project-specific knowledge was particularly important for the *vote on the ban on arms export*. In that vote, the odds of voting correctly are quadrupled with every additional level of information. Besides that, the results also show a substantial relationship between the availability of a cue and the decision quality. Respondents feeling close to a party were significantly more likely to make a quality choice on the ban on arms export than those without a party identity. Moreover, as Table 7 shows, partisan cues were particularly helpful for the political experts to improve their decision quality, though such was not so much the case for those with low levels of project-specific knowledge.

Our results also demonstrate that under certain circumstances, the government's endorsements can play a significant role in direct democratic votes. The use of the govern-

Figure 1: The impact of project-specific knowledge on voting correctly: estimated probability of voting correctly.

Table 7: The determinants of voting correctly: *unstandardized logit regression coefficients*

	(1) ban on minarets	(2) ban on arms export	(3) jet-fuel duty
PID	-.010 (-.02)	-1.724* (-1.96)	-.069 (-.11)
Trust in government	.119 (.46)	.265 (.62)	1.347 (1.83)
Use of media sources	-.053 (-.75)	-.002 (-.04)	-.067 (-.86)
Project-specific knowledge	.432 (.73)	.456 (1.22)	.936** (1.22)
Motivation	.406*** (3.31)	.242 (1.80)	-.111 (-.75)
Formal education	.044 (.53)	.156* (2.11)	.143 (1.63)
Age	-.275** (-2.87)	.015 (.19)	-.008 (-.08)
Sex	.067 (0.22)	.084 (.32)	-.294 (-.96)
Information*trust	.312 (.99)	.117 (.60)	.005 (.01)
PID*information	.747 (1.08)	1.138** (2.96)	.075 (.20)
Constant	27.49** (2.74)	-3.582 (-.42)	1.575 (.15)
<i>N</i>	619	605	427
<i>Pseudo R</i> ²	.11	.17	.15

z statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

ment's recommendation enhanced the decision quality in the vote on the jet-fuel duty. As we pointed out before, the ballot was a highly complex and unfamiliar matter and the campaign was virtually nonexistent. In such cases, voters tend to rely on heuristics without absorbing substantial arguments and the most frequently used heuristic in Swiss ballots is the government's recommendation (Milic 2010).

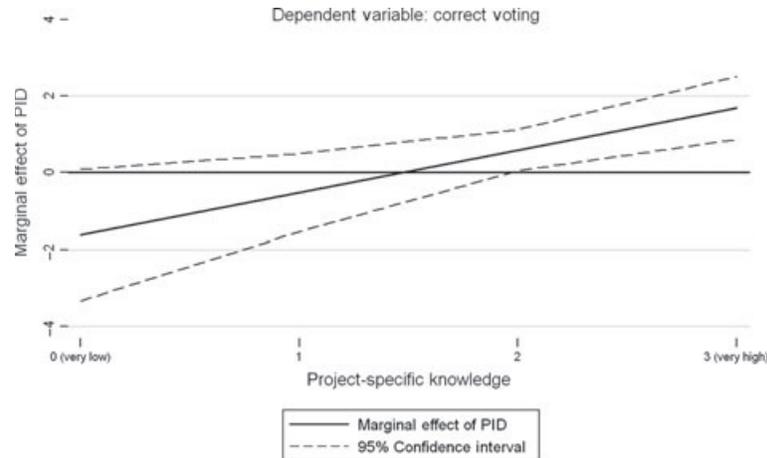
The impact of the motivation level on the quality of the vote decision is surprisingly small. Only for one of three ballots is there a significant relationship (vote on ban on minarets). Why does the motivational level not influence the quality of the voting decision? Our interpretation is that the question of how important the ballot was considered to be from the point of view of the respondents (see Appendix) does not adequately measure the subjective motivation level. It demonstrably shows in the fact that quite a number of respondents who gave the ballots the highest priority even failed to *participate* at the vote. If the decision quality really were subject to motivational influence, it certainly would have led those voters taking part in the vote.

Neither the number of media sources used nor education (however, with one exception: the vote on the arms export ban) comes close to having a significant relationship with the decision quality. With regards to education, this makes theoretical sense. Luskin (1990) showed that education does not affect political sophistication if one controls for other motivational and ability variables like intelligence and political interest. The exposure or use of media information also fails to have a significant impact on the decision quality. Again, this has been observed elsewhere. Luskin (1990) found out that the degree of exposure to media information has only a negligible effect on what an individual knows about politics. Luskin (1990:351) explained that by stating that people "do not acquire much more, the more often they read, watch, or listen to the news, with intelligence, occupation, and interest held constant. It does not take much time with the newspapers, magazines or newscasts for an able, motivated person to maintain a relatively high level of sophistication. The key is paying serious attention to and thinking seriously about the information one encounters, in the media and elsewhere." He conveyed a vivid image (1990:351): "Think of a belief system as a canvas, with the most elementary cognitions as individual marks or strokes. Some canvases contain only widely scattered, incoherent dots and squiggles. Others are dense with meaningful elements, themselves organized into meaningful scenes. News coverage or political advertising may alter the hue or arrangement of particular elements, but is unlikely to transform a sparsely filled Jackson Pollock into a Breugel or a Grandma Moses."

We found only one substantial interaction effect (Brambor et al. 2006): the interaction between party affinity and project-specific knowledge at the vote on the ban on arms export. Figure 2 below shows the marginal effect of having a party affinity on the probability to vote correctly for different information levels. We can see that party affinity (thus, the availability of a cue) has a strong reductive effect on the likelihood to vote correctly when the voter is ill-informed. However, as expected from what we know based on the previous work of Lau and Redlawsk (2002, 2008), this reductive effect *declines* as voters become better informed. For well-informed voters (level 3 in the figure, about 50% of the voters), the partisan cue no longer has a reductive effect, but, in fact, increases the probability of a correct vote.²²

²² To help the reader to better judge the substantive implications of the results, see Table 1 for the number of observations that fall into the four categories of information level.

Figure 2: Ban of arms export initiative: marginal effect of party identity on correct voting if information level changes.



Discussion

The more immediate goal of the article was to develop a new, alternative measure of correct voting. What we have found in our analysis is that there is indeed an alternative method of measuring “correct voting” in direct democratic legislation. The traditional way of measuring correct voting basically compares two groups of voters: systematically processing voters who, by definition, vote correctly and heuristically processing voters. As we pointed out before, this method has some shortcomings. Our alternative measurement method makes use of the substantial VOX arguments, which are closely linked to the ballot question and which are asked only after the vote decision has been indicated. These arguments are information that voters may not have considered before, and thus, might alter their voting decision. The arguments allow us to reconstruct the voters’ corresponding issue orientations from which we can derive his fully informed and, thus, correct vote.

Of course, our measure has some weaknesses, too. It lacks, for example, a weighting. One should, however, take into consideration that our measure proved to be highly consistent with what we could expect from the vote reasons the respondents were asked to state. Employing our unweighted measure of correct voting, most of those respondents who, for instance, *verifiably confused* their vote were indeed counted as voting incorrectly. If there was a significant bias resulting from an inappropriate weighting of the arguments, we surely would not have obtained these results.

Rationalization is another possible source of bias. It is indeed almost certain that some voters were just bringing their attitudes towards the arguments in line with their vote decision. Unfortunately, there is probably nothing one can do about it. However, the analysis of the answers to the argument questions showed that only a small number of respondents were *not* ambivalent. In fact, most respondents had, *at the same time*, positive *and* negative considerations towards the proposals. Respondents who are guided only by the need to rationalize would presumably give entirely consistent answers. Hence, rationalization is a problem, but we do not think that it affects our measure significantly.

Another issue we have to address is the fact that our measurement method does not allow predicting the correct vote of those whose considerations are perfectly balanced—the

ambivalent or indifferent voters. One might argue that there simply is no “correct vote” for this group of voters. Indeed, they could decide either this or the other way, as both would not be necessarily inconsistent with their preferences. But given the fact that the size of the ambivalent group varies a lot between the proposals, it is quite likely that we are missing some interesting results if we just drop those cases from the analysis. Our solution to define two limits—an upper and a lower limit for correct voting—is only partly satisfactory. Moreover, there are citizens casting an empty vote. Here again, it is difficult to decide what to do with this group. One could argue that, given the fact that those voters did not feel competent enough to take a meaningful decision, they voted correctly by casting an empty vote. However, they also might have had “hidden” preferences that they could not properly translate into an according voting decision. Normally, the number of empty votes is very small, but in the case of the referendum on the jet-fuel duty, it was considerably higher.

Another concern has to do with our conception of correct voting. As we pointed out before, there was a heated debate in the aftermath of the ballot as to whether the vote on the minaret ban really reflected voters’ preferences or whether it might have been a symbolic vote, signaling dissatisfaction with the government’s performance in other policy fields (notably in the field of immigration and asylum). Although we have shown that the argument-based issue preferences were mostly in line with the vote, some individuals voted not in accordance to what their attitudes would have predicted they would support. Does that necessarily mean that they voted incorrectly? Let there be no misunderstanding: their vote was definitely not *in line with their actual preferences over minarets*. Thus, if voting incorrectly is exclusively defined by the preferences towards that issue, we are right in saying that they voted incorrectly. However, if voters vote strategically (i.e., the vote decision has nothing to do with the proposition at stake, but with, say, the government’s performance in general [“I will vote NO to teach the party in office a lesson”]), our definition is surely missing its target.

What do our findings imply for the workings of Swiss direct democracy? As our data suggests, an overwhelming majority of Swiss voters do, in fact, vote their true preferences. Our numbers, by the way, come close to the numbers Lau and Redlawsk (2008) reported for American elections. As we pointed out before, we cannot identify the exact overall presence of correct voting, primarily because there is a considerable number of highly ambivalent (or, for that matter, in some cases, completely indifferent) voters for whom we cannot predict the correct vote. The number of these ambivalent and indifferent voters rises significantly when the issue at stake is complex and unfamiliar, such as the ballot on the jet-fuel duty. But all in all, it seems as if a clear majority of Swiss citizens vote correctly. Again, that doesn’t mean that these voters are necessarily able to pursue their material or idealistic interest. Our means of judging accuracy was not a certain normative measure, but the voters’ own preferences as indicated by themselves. Thus, it only means that they wouldn’t change their voting decision when fully informed. However, the data on the project-specific knowledge of Swiss voters seriously challenges the grim picture of a mostly politically ignorant electorate that Converse and others have painted (Converse 1964). Swiss voters seem to be rather well-informed (see also Kriesi 2005). After all, based on our empirical grounds, the view that only a thin stratum of the electorate is informed enough to coherently decide on political matters must be rejected.

Since we only conducted a single case study, there remain some research desiderata. We feel compelled to underline one of these unresolved matters in particular. Our study included one vote with three different ballots. We discovered that there are significant

differences between the single ballots with regards to several aspects, not least the share of correct voting. Different contextual determinants seem to have an influence on the overall presence of correct voting: complexity of the matter, familiarity of the issue at stake, campaign intensity, and closely connected to this, the availability and visibility of cues, the number of ballots per vote, and lastly, the conflict configuration. Thus, any further research should consider the role of contextual factors and cross-level interactions.

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Methodological Appendix

Operationalization of the variables

Project-specific knowledge (information level)

To test the respondent's issue-specific knowledge, we relied on three open-ended VOX questions. The first question asks the *title of the proposal* submitted to the recent vote. The second knowledge question, which follows the first one immediately, asks for the *contents of the proposal*. The third question asks about the *reasons for the particular vote*. The

respondents can give up to six reasons for their voting decision, though only the first one has been used for measuring the informational level. On every survey, a number of voters are not able to give a substantial answer to the latter question. They either abstain from answering (“Don’t Know” or refusal) or they give a voting justification so general they could use it for each and every proposal, irrespective of its content (e.g., “It’s just rubbish!”). These answers have been coded as 0 (“Don’t Know” and refusals) and 1 (highly general remarks), respectively (see: Gruner and Hertig 1983), whereas substantial answers have been coded as 2. In the end, a respondent could score up to 4 points (three questions, of which one is a 3-point scale measure).

Party Identification (PID)

The following question was used: “Which of the National Council’s and Council of the State’s (*the two chambers of the Swiss parliament*) parties’ objectives complies the most with your own objectives?” Independent voters (i.e., those who reported no party affinity) were given the value 0, while those who felt close to any given party were given the value 1.

Trust in government

The following VOX question was used: “There are two views about our government about which one gets an earful. First: Mostly, I can trust our government; it acts conscientiously and for the benefit of all. The second view reads as follows: The government decides more and more often against the people’s will. It no longer knows our concerns and our needs. Please tell me, which view do you share?” Trustful respondents were given the score 0, distrustful respondents the score 1.

Motivation

The measurement of *motivation* is based on a VOX survey question that directly asks the respondents to rate how important the propositions were to them personally. The ratings range from 0 (not important at all) to 10 (very important).

Use of media sources

The corresponding VOX question asks what media sources have been used in the course of the campaign. The interviewer specifies 13 different media sources (TV, newspapers, radio, the federal government’s official information leaflet, letters to the editor, campaign advertisements, election posters, Internet, direct mailing, announcements at work, promotional activities, printed matter) and asks for each of them whether the respondent used that type of media source. Use of media sources is, thus, a 14-point scale measure, ranging from 0 (no media sources used) to 13 (all 13 media sources used).

Vote reasons and arguments submitted to the respondents

Does the Vox survey cover all the considerations that mattered in the voters’ decision-making process? To answer this question, we compared the vote reasons that respondents indicated immediately after providing their vote decision with the arguments which were submitted near the end of the interview. To begin with, there is of course a large number

Table 8: Vox Arguments submitted to the respondents and their approval rates (in% of respondents)

Arguments	agree	disagree	DK
Ban on minarets			
Pro1: „Minarets have nothing to do with religious freedom. They are a symbol for the religious claim to power of Islam.”	61	35	4
Pro2: „The exercise of the Christian religion is suppressed in Islamic countries. Thus, a ban on minarets is clearly justified.”	54	42	4
Pro3: „It's about making a statement against an encroaching islamisation of Switzerland and Western Europe in general.”	57	39	4
Pro4: „Mosques and minarets are breeding places of Islamic extremism.”	34	61	5
Pro5: „In Islam, women get oppressed.”	87	8	5
Con1: „The only aim of the initiative is to propound propaganda against foreigners.”	58	38	4
Con2: „A ban on minarets violates fundamental human rights.”	36	52	12
Con3: „The initiative endangers the political and economical relationships with Muslim and Arabic countries.”	57	39	4
Con4: “The Swiss and the Muslim life styles get along well with each other.”	63	29	9
Con5: “A minaret ban may result in Muslim countries boycotting Swiss companies.”	42	50	9
Jet-fuel duty			
Pro1: „Switzerland's position as a premier air traffic location should be further strengthen.”	56	36	8
Pro2: „The revenues from jet-fuel duty should be spent on air transport. “	70	24	6
Con1: „The revenues from jet-fuel duty should be further used for road transport”	35	56	9
Con2: „Air transport still has the poorest ecological track record. Thus, one shouldn't support air transport with taxes.”	50	38	13
Ban on arms initiative			
Pro1: „Switzerland shouldn't enrich itself with weapons exports.”	65	31	4
Pro2: „To export arms contradicts Switzerland's humanitarian tradition and its long-standing neutrality.”	47	49	4
Pro3: „If jobs will be lost due to the initiative, the regions and firms in question can be supported with state measures.”	49	45	6
Con1: “Switzerland's defense industry wouldn't survive a ban on arms export. Thousands of jobs would get lost.”	73	24	3

Table 8: *Continued*

Arguments	agree	disagree	DK
Con2: "An own arms industry makes Switzerland more independent from other countries."	61	35	4
Con3: "Exports of military supplies is already strictly regulated. Thus, a ban on arms export is unnecessary."	67	26	7

Table 9: Ban on minarets initiative. Vote reasons and corresponding arguments submitted to the respondents (in% of respondents)

Arguments	Vote reasons	First votes in%	All votes in%
Pro1: "Minarets have nothing to do with religious freedom. They are a symbol for the religious claim to power of Islam."	The minaret is a symbol of political will to take power.	24	35
	Minarets are not necessary for exercising the freedom of religion.	15	29
Pro2: "The exercise of the Christian religion is suppressed in Islamic countries. Thus, a ban on minarets is clearly justified."	Exercise of the Christian religion is suppressed in Islamic countries. Christian churches are also not allowed to be built in Muslim countries.	10	10
Pro3: "It's about making a statement against an encroaching islamisation of Switzerland and Western Europe in general."	We have to defend Western and Christian values.	4	6
Pro4: "Mosques and minarets are breeding places of Islamic extremism."			
Pro5: "In Islam, women get oppressed."	I do not agree with Islam and Muslim values in general.	4	5
	Minarets disturb the Swiss landscape	13	19
	Don't know, no substantial answer provided	3	3
Con1: "The only aim of the initiative is to propound propaganda against foreigners."			
Con2: "A ban on minarets violates fundamental human rights."	The initiative violates fundamental rights.	31	40
	A ban is intolerant towards/ a discrimination of Muslims	11	17

Table 9: *Continued*

Arguments	Vote reasons	First votes in%	All votes in%
Con3: "The initiative endangers the political and economical relationships with Muslim and Arabic countries."	A minaret ban leads to a conflict with Muslim society in general.	5	8
Con4: "The Swiss and the Muslim life styles get along well with each other."	(Pro: Muslims don't follow Swiss laws)	(9)	(15)
Con5: "A minaret ban may result in Muslim countries boycotting Swiss companies."	Don't know, no substantial answer provided	20	20
	Minarets haven't disturbed me so far.	13	14

Table 10: Jet-fuel duty. Vote reasons and corresponding arguments submitted to the respondents (in % of respondents)

Arguments	agree	First votes in%	All votes in%
Pro1: "Switzerland's position as a premier air traffic location should be further strengthen."	In general good for the air traffic.	8	12
	(Con: I am against promoting/strengthening air traffic.)	34	40
Pro2: "The revenues from jet-fuel duty should be spent on air transport. "	It is just for air traffic to get their rightful share of tax revenues.	36	41
	Followed my preferred party's/ the government's endorsement	18	19
	Don't know, no substantial answer provided	25	25
Con1: "The revenues from jet-fuel duty should be further used for road transport"	The revenues should be used for other purposes	6	8
	The revenues should be used for road transport	12	15
Con2: "Air transport still has the poorest ecological track record. Thus, one shouldn't support air transport with taxes."	(Pro!: It promotes environmental protection)	7	7
	Don't know, no substantial answer provided	32	33

of individual vote reasons indicated. Some of them are rather specific, but most of them can be assigned to a few categories. Thus, by sifting out the essential core meaning of the individual vote justifications, we reduced them to a few, manageable categories. In the case

Table 11: Ban on arms export. Vote reasons and corresponding arguments submitted to the respondents (in% of respondents)

Arguments	agree	First votes in%	All votes in%
Pro1: "Switzerland shouldn't enrich itself with weapons exports."	I am against everything that supports war.	43	50
	Criticism of the weapons industry.	11	15
	General remarks on weapons (e.g. "weapons are bad").	11	11
Pro2: "To export arms contradicts Switzerland's humanitarian tradition and its long-standing neutrality."	Exporting arms contradicts Switzerland's neutrality.	13	19
Pro3: "If jobs will be lost due to the initiative, the regions and firms in question can be supported with state measures."	No arms export in areas of war.	4	4
	Wrong reasons	14	17
	Don't know, no substantial answer provided	3	3
Con1: "Switzerland's defense industry wouldn't survive a ban on arms export. Thousands of jobs would get lost."	Economic reasons.	13	24
	Jobs would get lost.	53	55
Con2: "An own arms industry makes Switzerland more independent from other countries."	The initiative is harmful to the Swiss army.	5	12
Con3: "Exports of military supplies is already strictly regulated. Thus, a ban on arms export is unnecessary."	Exports are already strictly regulated.	5	7
	If Switzerland doesn't export arms, other countries will.	8	14
	Wrong reasons	3	4
	Don't know, no substantial answer provided	10	10

of the minaret ban initiative, only two considerations have not been asked about in the argument battery: "Minarets disturb the Swiss landscape" (13% of the pro reasons) and its counterpart on the con side "Minarets have not disturbed me so far" (13% of con reasons). Moreover, it is rather questionable whether one supported (or rejected, for that matter) the minaret ban only for aesthetical reasons (the logical consequence would then be to prohibit industrial plants, radio towers, etc.). It sounds more like a self-serving assertion. With regards to the referendum on the jet-fuel duty, the survey's argument battery did not miss any argument at all. Note that 25 percent of the supporters (and 32 percent of the opponents respectively) could not provide a substantial vote reason. In addition, 18 percent of the supporters stated to have had followed a party's or the government's voting recommendation. As for the ban on arms export the Vox survey's argument battery basically missed one (rather cynical) line of argument: "If Switzerland doesn't export arms any longer, someone else will do."

Table 12: Arguments submitted to the respondents and their approval (first number) and rejection (second number) rates plus share of “don’t know” answers (third number) for each of the three survey waves (in% of respondents)

Arguments	wave 1	wave 2	post ballot survey
Ban on minarets			
Pro1: “Minarets have nothing to do with religious freedom. They are a symbol for the religious claim to power of Islam.”	44/40/16	50/42/8	61/35/4
Pro2: “The exercise of the Christian religion is suppressed in Islamic countries. Thus, a ban on minarets is clearly justified.”	–	–	54/42/4
Pro3: “It’s about making a statement against an encroaching islamisation of Switzerland and Western Europe in general.”	–	49/45/6	57/39/4
Pro4: “Mosques and minarets are breeding places of Islamic extremism.”	–	–	34/61/5
Pro5: “In Islam, women get oppressed.”	–	–	87/8/5
Con1: “The only aim of the initiative is to propound propaganda against foreigners.”	–	47/49/4	58/38/4
Con2: “A ban on minarets violates fundamental human rights.”	–	42/53/5	36/52/12
Con3: “The initiative endangers the political and economical relationships with Muslim and Arabic countries.”	52/39/9	52/41/7	57/39/4
Con4: “The Swiss and the Muslim life styles get along well with each other.”	–	–	63/29/9
Con5: “A minaret ban may result in Muslim countries boycotting Swiss companies.”	–	–	42/50/9
Jet-fuel duty			
Pro1: “Switzerland’s position as a premier air traffic location should be further strengthen.”	–	–	56/36/8
Pro2: “The revenues from jet-fuel duty should be spent on air transport.”	–	–	70/24/6
Con1: “The revenues from jet-fuel duty should be further used for road transport”	–	–	35/56/9
Con2: “Air transport still has the poorest ecological track record. Thus, one shouldn’t support air transport with taxes.”	–	–	50/38/13
Ban on arms initiative			
Pro1: “Switzerland shouldn’t enrich itself with weapons exports.”	64/27/9	66/28/6	65/31/4

Table 12: *Continued*

Arguments	wave 1	wave 2	post ballot survey
Pro2: "To export arms contradicts Switzerland's humanitarian tradition and its long-standing neutrality."	55/37/8	49/46/5	47/49/4
Pro3: "If jobs will be lost due to the initiative, the regions and firms in question can be supported with state measures."	51/37/12	48/43/9	49/45/6
Con1: "Switzerland's defense industry wouldn't survive a ban on arms export. Thousands of jobs would get lost."	55/33/12	64/30/6	73/24/3
Con2: "An own arms industry makes Switzerland more independent from other countries."	52/37/11	55/37/8	61/35/4
Con3: "Exports of military supplies is already strictly regulated. Thus, a ban on arms export is unnecessary."	57/31/12	61/28/11	67/26/7

– indicates that the respective argument question hasn't been asked.

This number either includes those who actually took part at the vote (post-ballot survey) or those who were absolutely sure that they would take part in the upcoming ballot (the two pre-ballot waves).

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