

Deliberation and Civic Virtue - Lessons from a Citizen Deliberation Experiment

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Abstract

This paper focuses on the “side-effects” of democratic deliberation. More precisely, we analyse the potential of deliberative mini-publics to enhance political knowledge, efficacy, trust as well as political and other collective action. The empirical analysis is based on a deliberative experiment on nuclear power. This “citizen deliberation” was held in November 2006. Our initial finding is that the volunteers who were willing to take part in the experiment were more inclined to act politically than those who did not volunteer; they also possessed a higher level of internal political efficacy and had more trust in the parliament and politicians. When it comes to the impact of deliberation, participation in the experiment increased energy related knowledge but reduced slightly internal political efficacy. The sense of external political efficacy was not directly affected, but the participants’ trust in parliament and politicians did rise. Interpersonal trust increased slightly as well as the participants’ willingness to take a particular kind of collective action (electricity saving). However, deliberation did not to increase the participants’ preparedness to act politically.

1. Introduction

Theories of deliberative democracy have dominated the academic debate on democracy in recent years. Simultaneously with the expansion of the theoretical debate, problems related to the fulfilment of the deliberative ideals have been tackled at a practical level. Most notably, a variety of deliberative citizen forums, also called *deliberative mini-publics*, have been developed and experimented with around the world (Dryzek and Goodin 2006). Deliberative mini-publics include, among others, citizen juries, consensus conferences and deliberative polls.¹ In deliberative mini-publics, a representative sample of citizens gathers together to discuss a certain controversial policy issue. Before the actual discussions, participants usually hear experts and read briefing material on the issue at hand. Discussions are moderated and follow certain rules of procedures in order to ensure that the ideals of deliberative democracy, such as impartiality and mutual respect, are followed.

So far, deliberative mini-publics have mostly discussed pre-determined policy issues, and they have not been used to raise issues on the political agenda, which was one of the basic ideas of Robert Dahl's (1989) early model of the minipopulus. Deliberative democrats have regarded deliberative mini-publics as instruments of democratic reform, mostly because they are expected to provide a representation of enlightened public opinion, but also because they are believed to enhance certain civic virtues. As the formulation of informed and reflective judgements on political issues is the main aim of democratic deliberation, civic virtues can be regarded as positive by-products of deliberation which may enrich democratic political systems more generally (see e.g. Elster 1986).

Our empirical analysis is based on the results of a deliberative experiment, called citizen deliberation, which was held in Finland in November 2006. The topic addressed was whether a sixth nuclear power plant should be constructed in Finland. Our experiment did not follow exactly any of the pre-existing methods used in deliberative mini-publics as it was mainly designed as a scientific experiment. The focus in the present paper is on the "side-effects" of

¹ Citizens' juries have been developed by Ned Crosby and the Jefferson Center. The Danish Board of Technology developed the consensus conference model to provide a guidance of an informed citizen opinion on technologically complex issues. Deliberative polls have been initiated by James S. Fishkin and his Center of Deliberative Polling. The idea was to provide an alternative to traditional opinion polls by providing opportunities for individuals in the sample to deliberate about the issue. Dryzek and Goodin (2006) also mention AmericaSpeaks, National Issues Forums as deliberative forums.

deliberation, more precisely, the potentials of a deliberative mini-public to increase political knowledge, efficacy, social and political trust as well as readiness to political and other collective action. In addition to the analysis of the impact of deliberation among the participants, we explore whether the people who volunteered to participate in the experiment deviated from the persons who only answered the survey but did not volunteer to participate in the actual deliberation.

2. Deliberation and Civic Virtues: Theory and Hypotheses

In this section, we review previous theoretical discussions and empirical findings on the impact of deliberation, and the participation in deliberative mini-publics in particular, on civic skills, interpersonal trust and inclination for political participation. Based on this discussion, we formulate hypotheses on the effects of deliberation. Although theories of deliberative democracy are based on different philosophical traditions (Rawls 1993; Habermas 1996), they share a similar ideal of collective decision-making. According to this ideal, democratic decisions should be based on public discussion among equal citizens or their representatives. In deliberative discussion, political views are mutually justified and these arguments are judged only by their merits. Decision-making based on deliberation is expected to bring about more rational and reasonable decisions than decisions based merely on the aggregation of individual preferences. This expectation is based on the potential effects of deliberation on individual preferences as well as its effects on the values and beliefs supporting the preferences.

The impact of deliberation on individual values depends on the fact that, in the course of deliberative discussion, individuals have to justify their opinions by appealing to values that are acceptable to others. Arguments appealing to self-interest or other particular interests are not effective in deliberation, unlike the ones referring to generalized principles of justice and public goods. Therefore, deliberation “filters” participants’ preferences and values, not only at the level of rhetoric, but also at a more substantial level.² “Public thinking” evolving in the course of deliberation can be expected to change the ways in which participants think about the issue at hand, but also public issues more generally. Deliberation is also expected to increase the rationality of collective decisions because, in the course of deliberation, people need to weigh different opinions and evidence supporting them. Exposure to oppositional viewpoints increases awareness of the evidence that is used to justify these views (see also Mutz 2006, 73-74).

² Dryzek and List (2003) have argued further that because deliberation changes individuals’ values and, consequently, preferences, it may help to overcome certain social choice problems.

Moreover, the plausibility of epistemic beliefs and consistency of argumentation are tested in deliberative discussions.

Following Habermas, ideal deliberation should lead to a consensus on preferences as well as on values and epistemic beliefs supporting them (Dryzek and Niemeyer, 2006). Consensus on preferences, values and beliefs is naturally quite difficult, if not impossible, to achieve in deliberations related to real-world decision-making. In fact, Habermas himself admits that consensus is easier to reach in conflicts concerning the means to achieve certain goals rather than value conflicts. Even Habermasian deliberative democrats seem to be ready to accept that democratic decision-making involves forms of voting (Dryzek 2000, 48). Despite of this, some deliberative mini-publics, such as consensus conferences and citizens' juries, involve consensus-building processes because they are expected to come up with a common statement. In deliberative polls, on the other hand, either no group decision is made or it is made by a secret ballot, mostly because of the risk of group pressure (Fishkin 2003, 130). The aim of our citizen deliberation experiment was *to examine the effects of decision-rule on the processes of deliberation*.

As this paper focuses on the “side-effects” of deliberation, we concentrate on the impact of deliberation on participants' civic virtues. As pointed out above, deliberative democrats argue that deliberation, understood as a process of mutual justification, should increase participants' knowledge and correct their misconceptions on the discussed issue. This argument has been challenged, for example, by Cass Sunstein (2005). According to Sunstein, social pressures related to deliberative discussions may, indeed, lead to an amplification of errors. False epistemic beliefs may gain more support in group discussions especially when people want to conform to the position that is dominant in the group. Moreover, discussions may be based on a skewed pool of factual arguments when deliberation takes place among like-minded people who are not confronted with alternative views. Consequently, it may be assumed that deliberation has a positive impact on knowledge only when the deliberators are confronted with arguments and evidence which are different from the ones they held initially.

In deliberative mini-publics, there are certain procedural features that may alleviate the problems pointed out by Sunstein. Random selection of participants and random allocation to small groups ensure the representation of a variety of views in group discussions, and the use of moderators ensures that all viewpoints are actually heard in these discussions. Furthermore, the use of

balanced expert information should help to prevent extreme biases in the pool of factual arguments put forward in the course of deliberation. The impact of deliberation on participants' knowledge on the issue at hand has been regularly studied in conjunction with deliberative polls and also other deliberative mini-publics. It has been established that participation in deliberative mini-publics increases knowledge on the topic of deliberation (see e.g. Fishkin & al. 2000; Luskin & al. 2002; Andersen & Hansen 2003).

Deliberation can also be expected to increase other capabilities needed in participating in democratic politics. In addition to participant's knowledge, deliberation can be expected to improve the ability to comprehend and to resolve political problems. Public deliberation can be expected to improve the participants' capacity to formulate and justify proposals, listen to others, cooperate and compromise (Crosby 1995; Smith and Wales 2000; Gastil & al. 2002; Fung 2003). Internal efficacy is a measure of individuals' subjective feelings and evaluations on one's own personal competencies of political participation. The improvement of political knowledge and skills through deliberation may be reflected in an increased sense of internal efficacy. For example, Gastil (2000, 358) has argued that deliberation increases internal efficacy. Although political skills may, objectively measured, improve when people are confronted with opposite views to their own, this may also cause doubt and vacillation on one's position that reduces the sense of internal efficacy (Mutz 2006; 119). Indeed, the empirical evidence on the effects of democratic deliberation on participants' internal efficacy is mixed (see Morrell 2005).

External efficacy refers to individuals' perceptions that their political action has an impact on the political process. In other words, external efficacy refers to the perception that the political system is responsive to citizens' action and demands (Niemi 1988, Morrell 2005, 51-54). On the one hand it may be assumed that participation in deliberative mini-publics enhances external efficacy because it potentially increases the participants' self-confidence with respect to what they can achieve in politics. On the other hand, as deliberation often involves confrontation with people who offer opposing viewpoints, this may reduce the deliberators' sense of external efficacy. Political trust is rather closely related to the concept of external efficacy as it refers to the extent to which political institutions and actors fulfill people's normative expectations, such as responsiveness. Political trust may be increased through the fact that deliberators learn and understand the complexities related to political issues, which makes them more understanding and trusting of the procedures and actors of representative democracy.

Participation in deliberative mini-publics may enhance social trust and proneness to collective action. There are certain features in deliberative settings, such as public argumentation and the ongoing character of discussions, which enhance the development of norms such as sincerity and consistency among deliberators, and which, consequently, may increase interpersonal trust (Dryzek and List 2003). It may be argued, further, that, as far as small group discussions in deliberative mini-publics include people representing different social groups, they may be expected to increase generalized interpersonal trust especially. Furthermore, theorists of democratic participation, for example John Stuart Mill (1858) and, more recently, Benjamin Barber (1984) have discussed the potential of public discussion to help citizens to overcome their immediate self-interest and subjective values and become more “other-regarding” (Barber) or “public spiritedness” (Mill). Mill pointed out the need for “schools for public spirit” in representative systems, which refers to different forums for public discussion (Ackerman & Fishkin 2002).

In the course of deliberative discussions, participants hear alternative viewpoints and have to relate their own views to them. Participants have to appear other-regarding because arguments referring purely to self-interest or other particular interests are not effective in deliberation. As far as the all relevant viewpoints are represented in deliberations, the deliberative setting can thus be expected to encourage arguments appealing to generally acceptable views of justice and public goods. Because deliberators have to appear other-regarding and public spirited, deliberative settings encourage expressions of socially desirable motivations. This may, contribute to the increase of social trust but also readiness to collective action for the common good, i.e. purposes acceptable to all.

Regardless of certain reservations put forward above, we hypothesize that participation in democratic deliberation has the following, partially interlinked, positive “side-effects”. We anticipate that deliberation *increases*:

- i. Political knowledge because people are confronted with views and rationales that are different from their own;
- ii. The sense of internal political efficacy;
- iii. External political efficacy and political trust;
- iv. Interpersonal trust and preparedness for collective action for the common good.

It may be assumed, further, that the above-mentioned by-products of deliberation contribute positively to people's willingness to political participation. Both internal and external efficacy are elements of people's perception on how they can influence politics (Morrell 2005, 56). It has been established that certain types of political trust, especially trust in parliament and politicians, increases individuals' propensity to vote (Grönlund & Setälä 2007). Generalized social trust, on the other hand, is regarded as an element of social capital that facilitates collective action, including many forms of political participation (Putnam 2000, 19-21). If deliberation has the above-mentioned "side-effects",

- v. it may be assumed that deliberation increases the preparedness to act for political goals, both when it comes to conventional and unconventional political participation.

As implied above in the discussion on internal and external political efficacy, there are some good reasons to be skeptical about the potential of deliberation to increase people's willingness to act politically. In a recent study, Diana C. Mutz (2006) puts forward evidence which suggests that exposure to oppositional views decreases people's willingness to take part in political activities. Her conclusion is that discussions with like-minded people encourages political participation, whereas exposure to conflicting views and political disagreement causes uncertainty on one's own views which makes people passive, especially when it comes to political acting for specific partisan goals.

3. The Citizen Deliberation Experiment

Experimental Procedure

In this section we describe the procedure used in the citizen deliberation experiment which was held in Finland in November 2006. The topic of citizen deliberation was the use of nuclear power in Finland. More specifically, the participants were asked to make a decision on the question of "*Should a sixth nuclear power plant be built in Finland?*" Nuclear power was chosen as the topic for several reasons: (1) It is a relevant topic which concerns all citizens; (2) It is an issue which is continuously debated in the media; (3) It is a contested and politicised issue in Finland; (4) The decision of building nuclear power plants is a part of the democratic process because the parliament makes the final decision; (5) It was (correctly) anticipated that the political decision on the issue would not be made before the citizen deliberation event.

Table 1 shows the phases of the experiment, and the five surveys conducted during the experiment (T1-5). The first phase was the recruitment of participants which was a three-stage procedure. First, we drew a random sample of 2500 persons among all eligible voters in the constituency of Turku region in Finland.³ A preliminary invitation to take part in the citizen deliberation and a survey measuring, among other things, opinions on energy issues and background variables was sent to the sample in September 2006 (T1).⁴ In the invitation, it was informed that the participants of the experiment will receive a gift voucher worth 100 Euros at the end of the deliberation, and that participants' travel expenses and meals will be covered. The survey was answered and returned by 23.7 percent (n = 592) of the sample and 244 of the respondents agreed to participate in the event. Therefore, the second stage of the recruitment process was based on self-selection. A reminder to return the survey was considered unnecessary as there were more than enough volunteers.

Table 1 about here.

At the third stage in the recruitment process, we needed to cut down the number of participants so that the target sample of 144 people, that is, 12 small groups consisting of 12 participants each, could be reached. We invited 194 of the 244 volunteered to take part in the citizen deliberation event. This final selection of the invited people was based on stratified sampling in order to guarantee equal representation in terms of age and gender. Within strata based on gender and age, random sampling was used. Two small groups were reserved for the Swedish-speaking minority. Of the invited, 135 participants finally showed up.

The experiment started with a quiz including 10 questions on energy politics and five questions addressing general political knowledge (T2). After completing the quiz, participants were asked to read briefing material on nuclear energy. An expert panel was then heard and questioned in a plenum. The panel consisted of two experts supporting nuclear energy, a member of parliament from the conservative National Coalition Party and the director of communications of a nuclear power company (TVO); and two experts opposing it, a member of parliament from the Green

³ The sample consisted of 2000 Finnish-speaking people and 500 Swedish-speaking people. The samples were treated separately in order to recruit two Swedish-speaking small groups to the actual event. There are totally over 358,000 eligible voters in the constituency.

⁴ An English translation of the pre and post deliberative polls, the experimental procedure, the common statements and the quiz are available from the authors.

Party and a representative from the Finnish Association for Nature Conservation. Each member of the panel made a short presentation after which the participants were allowed to pose questions to the experts.⁵

After the plenum, the participants completed a short survey of seven questions measuring the possible preference effects of the provided information and the expert panel (T3). The actual deliberation took place in 12 small groups to which participants were randomly allocated. The small groups consisted of 10 - 13 members. The participants were asked to follow certain rules of discussion, such as giving respect for others' opinions and justifying one's own views. The discussions were moderated but the moderators were strictly instructed to intervene in the discussions only in particular circumstances, for instance in the case of someone dominating the conversation. In the beginning of the small group discussions, each participant stated a viewpoint which they wished to be discussed, and a free discussion on these themes followed. The discussions lasted for three hours, after which the groups were asked to make a decision on whether a sixth nuclear power plant should be built in Finland. The group sessions ended with a survey with the same questions as in the first survey in September (apart from the background variables), the participants' feelings about the deliberation, as well as the replication of the quiz measuring political knowledge (T4).

There were two experimental treatments. Namely, in six small groups the decision was made by secret ballot, whereas in the other six groups it was made by formulating a common statement. The variation in the decision-making procedure was the only difference between the groups, and otherwise they followed exactly the same procedure of discussion. In the vote groups, members could vote yes, no or cast an empty ballot. In the common statement groups, there was a predetermined procedure of writing a final statement which all groups followed. The procedure was designed to help the groups to complete the statement within the time limit of the event, as well as to avoid extreme group pressure. The procedure emphasized the search for a "meta-consensus" at the level of viewpoints and facts related to the nuclear power decision, but no consensus on the issue itself was required (cf. Dryzek and Niemeyer 2006). It was expected that the requirement of a common statement would lead to a more profound deliberation than voting: it was designed both to encourage processes of mutual justification and to support the discovery

⁵ It is worth pointing out that our procedure was different from deliberative polls as the questions to be set to the expert panel were defined by individual participants, not by small groups.

of viewpoints and facts agreed on by all group members. Group pressure effects were, however, regarded as a potential risk with the common statement procedure.

4. Comparison of the volunteers and the non-volunteers

The socio-demographic and political characteristics of the participants, non-participants and the voters of the Turku region constituency are compared in appendix 1. It can be seen that men were somewhat over-represented among the participants. It means that even though we did control for gender in accepting participants, more women than men chose not to show up at the experiment. Nevertheless, different age groups were represented in the same proportion as their shares are among the voting age population within the constituency. The participants were clearly more educated than the Finnish population on average, which probably reflects the elements of self-selection at the second stage in the selection process. Supporters of the Centre Party, Social Democrats and especially the Left Wing Alliance were under-represented compared to the parties' support at the parliamentary election in 2007 in the constituency. Supporters of the Green Party were, on the other hand, over-represented.

Before testing the hypotheses put forward in section 2, we compare those who volunteered to participate in the citizen deliberation experiment with those who answered the survey but did not volunteer (T1). The aim is to find out whether the volunteers differed from the non-volunteers with respect to their "civic virtues" at the outset. The empirical analyses are carried out through contingency tables, mostly displaying arithmetic means. Statistically, the possible differences between groups and within groups at different measurement points are tested with the t-test. In table 3, the readiness for different forms of political action is surveyed. The sample is divided into three sub groups, the control group which did not volunteer to take part in the deliberation (N=347), the group who volunteered but in the end did not participate (they were either randomly excluded in the selection process or did not turn up even though accepted, N=108), and the actual participants (N=135).

Table 2 shows differences in the inclination to act politically between those who only filled in the survey and those who volunteered to take part in the experiment, whereas there are no substantial differences within those who volunteered. The same observation applies also to the following comparisons between the participants and the control group. Therefore, these initial differences will be tested in the following only between the volunteers and the non-volunteers. As table 2

shows, persons who were interested in taking part in the deliberation are politically more active than the control group. Of the nine political action items, the volunteers had either done or were prepared to act more frequently on seven, which is verified by the t-tests. Most notably, the volunteers had taken part in peaceful demonstrations much more frequently than non-volunteers. Only voting, which is a form that almost everybody in every group has done, and political violence, which nobody wanted to use, are equally distributed among the volunteers and the control group. All in all, and not unexpectedly, the volunteers had a greater readiness to act for political goals than the non-volunteers.

Table 2 about here.

In table 3 we compare the volunteers with the non-volunteers concerning their attitudes toward politics and the political system. Through these items we try to measure whether the willing deliberators differ from the remaining population with respect to internal and external political efficacy, as well to their support for democratic values and their opinions on the performance of democratic system. The differences have been tested with the t-test and significant differences are shown in bold.

Table 3 about here.

The volunteers have more internal efficacy than the non-volunteers (statements 1 and 2). When it comes to external efficacy (statements 3 and 4), the volunteers have more belief in the possibility for an ordinary citizen to influence politics. On the other hand, there are no differences between the groups concerning to the extent to which they regard voting as a channel for influence. On the whole, the respondents seem rather satisfied with the way the Finnish democracy performs. Even though general democratic principles are highly valued by all (statement 10), also a support for strong leaders is quite high (statement 9). Nevertheless, the volunteers are more critical of strong leaders than the non-volunteers. The volunteers are also more interested in politics in general and energy politics in particular, which is hardly surprising concerning the nature and the topic of the experiment.

Table 4 measures the levels of trust in public institutions and politicians in Finland. It shows clearly that the volunteers have more trust in the parliament and politicians than the control

group. Trust in the legal system and police does not vary between the groups. All in all, the citizens who were willing to take part in deliberation have higher levels of internal efficacy, trust in the parliament and politicians and more political interest than their fellow citizens.

Table 4 about here.

Social trust and other-regarding attitudes were measured in two sets. First, a “Macchiavellian” set of six statements (cf. Marks & Lindsay 1966) together with a standard question on interpersonal trust was used to construct a social trust index. Second, two statements measuring inclination for voluntary collective action on an energy-specific issue were tested, that is, the respondents’ own readiness to save electricity and belief in others’ willingness to save electricity if needed. Social trust is equally distributed between the groups.⁶ Since there were no statistically significant differences in relation to these issues, these comparisons are not reported here. The items on which the testing occurred are similar to the items in table 9 further ahead.

5. The Impact of Deliberation on Civic Virtues

This section consists of an analysis of the impact of deliberation on the participants’ civic virtues within the group of participants, in other words, a test of the hypotheses i-v describing the possible “side-effects” of deliberation. The tests are carried out within the group of actual participants of the experiment (N=135). The surveys used to test the hypotheses are the initial survey in September (T1); the quiz measuring knowledge in the beginning of the deliberation day (T2); the survey at the end of the deliberation (T4); the control survey which was sent to the participants and volunteered non-participants in February (T5).⁷ Since T3 only measured energy preferences, it will be omitted in the present paper. The impact of deliberation on energy preferences as well as conversation dynamics are analysed in another article. It can be mentioned that the two different treatments did not have any systematic impact on how the participants’ energy preferences changed during the experiment. Moreover, we found that there were neither

⁶ Altogether, Finns have a high level of generalized social trust, which has also been established in a European comparison (Grönlund & Setälä 2006, 162)

⁷ Unfortunately, the control survey at T5 was not returned by all participants. The response rate was 85 per cent (115 returned vs. 20 non-returned surveys). An analysis of the dropouts shows that the following groups were more inclined not to respond at this stage: men, younger persons, those whose opinion on the nuclear power issues did *not* change during deliberation. On most issues (e.g. education, social trust, political action, motives for taking part in the experiment), however, there were no statistically significant differences between the groups.

indications of group pressure among the participants in general, nor significant differences between the two treatments in this respect (See Setälä et al. 2007).

How did the information and deliberation influence the participants' level of knowledge? As it is complicated to measure knowledge in mail-in surveys, we measured the participants' objective level of knowledge on energy issues as well as their general political knowledge at the beginning (T2) and at the end of the deliberation (T4). In the quiz, there were ten questions measuring knowledge on nuclear power and other energy issues, as well as five questions measuring general political knowledge. Six of the energy questions could be answered through reading the information material given to the participants after the first measurement of knowledge.⁸ The knowledge questions can be found in an appendix. In table 5, the development of these and other political knowledge issues is analyzed both in the whole sample and within the two treatments. Information gains are analyzed in three groups. First, we want to see how well the participants acquired the information included in the written material. Second, the impact of deliberations can be traced by analyzing those four energy-related information items for which no answer could be found in the text material. Third, a control is made through using the remaining five items measuring general political knowledge.

Table 5 about here.

A glance at the whole sample verifies that there indeed were clear information gains during the day. Not surprisingly, the largest knowledge increases are achieved among the questions to which answers were "hidden" in the information material. On average, the respondents knew the right answer to almost three out of six questions in the beginning, but at the end of the day over four answers were correct. There is a mean increase of 1.24 correct answers. Our results are in line with the results from earlier deliberative experiments. The experience of deliberative mini-publics suggests that through deliberation participants acquire more knowledge on the issue at hand (Luskin et al. 2002, Hansen 2004). It has been claimed, however, that the research design of most of these experiments makes it impossible to determine whether participants acquire more knowledge through the provided reading materials, through deliberation or because of some combination of these factors (Muhlberger 2006, 3). Given the short length of our deliberative experiment (everything, including the reading of the information material happened in the course of one day in our experiment) we are not in the position to separate knowledge gains as a result of

⁸ This material was collected away from the participants before the new quiz at T4.

information versus deliberation *per se*; it was not considered meaningful to measure knowledge levels at three points in one day. Nevertheless, the setting of our experiment with two treatments casts some additional light on this matter.

When we look at the two treatments, the knowledge of the participants in the common statement groups increased somewhat more than in the vote treatment groups. All these increases were tested with the within samples t-test and they are significant at the .001-level. General political knowledge did not increase during the day, which seems quite logical. The most interesting finding is in the second column which shows that the members of the common statement groups gained more knowledge on energy questions to which no answer could be found in the written material. It seems that a common statement as a decision-making method had a more positive impact on the participants' knowledge on energy issues. Because the requirement of a common statement presumably lead to more profound processes of deliberation, this confirms the view that *not only the provided information, but also deliberation contributed to the increase in knowledge.*

Even though the comparison between the two treatments is only reported in relation to political knowledge items, we have made this comparison for all the dependent variables throughout the analyses. These comparisons do not, however, indicate any significant differences between the two treatments. There were no substantial differences between the treatments initially (most likely thanks to the random allocation into groups), nor did the treatment affect the development of "side-effects". Our main result reads therefore: *the development of civic virtues occurred, when it did occur, in both treatments equally.* Nevertheless, there were minor exceptions to the uniform rule. At the end of the deliberation day, there was a higher and statistically significant level of satisfaction with the current Finnish government, as well as the functioning of democracy in Finland in the groups with a common statement procedure, compared to the vote treatment groups. Similarly, the participants of the common statement groups were slightly more willing to save electricity if needed. These differences were not traced between the treatments at T1, and at T5 they had vanished. It is rather difficult to gauge whether these differences at T4 were actually caused by the mode of decision-making and why these differences proved to be non-permanent.

In table 6, the statements measuring internal and external efficacy and other attitudes towards the political system are compared within the group of participants. There were three measurement points for these items (T1, T4 and T5) and the comparisons are made between them. There are

only minor changes during the process. The only permanent change seems to be an increased interest in energy politics. There was no increase in participants' internal efficacy (statements 1 and 2) or external efficacy (statements 3 and 4). On the contrary, there is a slight decrease in internal efficacy (statement 1) at the end of the deliberation day. Probably, the confrontation with written and oral information, as well as the deliberation in groups has led to the feeling that politics is complicated. The evaluation of how democracy works in Finland seems to become more positive as a result of the experiment, but this effect is not permanent, which can be seen in the control survey in February. The slight decline in support for the statement "It is up to each and everyone if they choose to vote or not" occurs between T4 and T5 and might just reflect the fact that the parliamentary election of March 2007 was approaching by the time of the last survey, and the sense of civic duty increased as a result of the electoral campaigning. It is unclear why the respondents by the time of T5 also evaluate the work of the Finnish government more positively.

Table 6 about here.

In table 7, the development of trust in public institutions is mapped. Two significant changes in trust have occurred between T1 and T4, that is, an increase in trust in the parliament as well as in politicians. This increase is clearly a result of the deliberation and supports our theoretical expectation that deliberation makes people more trusting in representative actors and institutions. It should be kept in mind that the participants already initially had a higher level of trust in parliament and politicians than their fellow citizens. In any case, it can be concluded that the participation in citizen deliberation increased participants' trust in the representative democratic actors and institutions. The higher level of trust in parliament prevailed in the follow up survey T5.

Table 7 about here.

In table 8, the development of social trust and readiness for collective action is examined. The index for social trust does not change between the different points of measurement. Of the individual items, however, there are changes in two statements. There is a small increase in generalized social trust after the deliberation, which corresponds to our theoretical expectations. Somewhat surprisingly, there is also a small increase in support for the claim that people do not work hard unless they are forced to do so, although this view has a low support altogether. Maybe the fact that the participants had worked hard under supervised forms during the whole day

influenced some participants' views when filling in the survey at the end of the deliberation day. Neither of these increases prevailed at T5.

Table 8 about here.

The two statements which measure attitudes to voluntary action for a common purpose, i.e. the preparedness to save electricity if asked to do so, and the belief that others are prepared save electricity, both show a lasting increase. It is notable that the most significant increase is in belief that other Finns would save electricity. This can depend on the fact that the deliberative setting encouraged expressions of socially desirable motivations, which, in turn, gave rise to a positive "cascade" concerning others' motivations. Electricity saving can be regarded as a kind of collective action that is in everybody's interests and does not include any partisan or controversial ends. One may, of course, ask whether the individual willingness to engage in this type of voluntary collective action genuinely increased in the course of deliberation, or whether the increase was only a result of pressures present in the deliberative setting to conform to socially desirable behavior (cf. Pellikaan & van der Veen 2002, 14) However, both the increase in the preparedness to save electricity and in the belief in others' willingness to do so prevailed in the follow-up survey in February. This suggests that the changes in the participants' motivations and beliefs have been quite profound.

Finally, we look at the development of the participants' readiness for political action (table 9). Given the time frame, it would not be fruitful to anticipate that the mode "has done" would vary as a result of the deliberation. Therefore, we analyze the share of respondents who choose "would never do" in order to see whether the readiness for political participation actually changes within the experiment.

Table 9 about here.

There is only one significant change in the table between T1 and T4. The readiness to show civil disobedience through illegal direct action grows a little during deliberation. Prior to deliberation, 73 per cent announced that they would never do this. After deliberation, the share has gone down to two thirds. In our control survey in February, the share has gone up again close to the initial level. Therefore, the slightly increased preparedness to show civil disobedience seems to have been a temporary rather than a permanent phenomenon. Our hypothesis which anticipated that

deliberation would increase the readiness to act politically does not gain support in the light of the analysis. Although the participants' proneness to political action did not decrease either, this result, together with the decrease of participants' internal political efficacy, seems to give limited support for Mutz' views on the effects of exposure to conflicting views.

In order to better understand the impact of deliberation on participants' civic virtues; we take into account the context of initial preferences. Initially, none of the groups was unanimously in favour of or against nuclear power. However, in 10 of the 12 groups a majority could be identified at T1, whereas the initial preferences were evenly split in two groups. In nine groups a majority was for and in one group a majority against a sixth nuclear power plant. Persons representing a majority view within their group (N=70) are compared to the remaining participants (N=65), i.e. participants belonging to a minority, or in a case of two groups, a split environment. Also persons with no initial opinion on nuclear power (N=7) are included in the latter group. The logic of operationalization is as follows. Persons who belong to a majority within a group are expected to feel more comfortable in their environment because their view dominates, whereas the minority is more strongly exposed to oppositional views. Consequently, people who deliberated in groups consisting of a majority of like-minded people could be expected to be more willing to participate in the future whereas people who were more exposed to conflicting views may become less willing to participate.

We tested the possible impact of this initial preference context on all our dependent variables (as in tables 5-9). When it comes to efficacy and trust as well as political action, there are no differences between the majority and the rest. Another variable, whether the subjects were going to vote in the parliamentary election of March 2007, shows no difference either. Neither are gains in energy knowledge related to this contextual distinction⁹. We have also exploited another set of statements, "feelings" about the experiment, in order to gauge possible differences between group majorities and others. The tested statements are: "Taking part in citizen deliberation was a positive experience; My prerequisites to take part in politics and citizen activities increased during citizen deliberation; I would like to take part in a similar event anew; I took actively part in the discussions of my group; In the group discussion the participants showed respect and paid attention to each others' views; I could present my views in a satisfactory manner in the group

⁹ Initially (and at the end of the day), persons who belonged to the within group majorities, show a higher level of general political knowledge than the others. However, the levels of energy knowledge are even. The gains in energy knowledge during the day are equally high among all.

discussion.” There are no statistically significant differences between group majorities (based on initial preferences) and other participants.

6. Conclusions

In this paper, we have analyzed the impact of participation in a citizen deliberation experiment on civic virtues, that is, attitudes and inclination to collective and political action. In the initial analysis, we found that those volunteering to participate in the citizen deliberation experiment were more prone to political participation than the control group. They were more interested in politics, had more internal efficacy and trust in parliament and politicians. Moreover, they had already acted politically more than those in the control groups. In this respect, the participants had more propensities for political action than the population at large. This finding raises some questions about the “civic” impacts of deliberative mini-publics. Even when random sampling is used in the recruitment procedure, there are inevitably elements of self-selection which cause a more active participation of those who are more “virtuous” at the outset.

Among the participants of the citizen deliberation experiment, the level of political knowledge increased clearly, which is in line with theoretical expectations and earlier empirical findings. It is also worth pointing out that the level of knowledge increased more in groups which were required to write a common statement. This may reflect a more profound deliberation process within these groups. Despite the increase in the level of knowledge, the participants’ sense of internal efficacy did not increase but indeed decreased slightly. This confirms the view of the potentially negative impact of the exposure to conflicting views on people’s perceptions of their own competence to participate. The epistemic complexity of the nuclear power issue may have strengthened the negative impacts.

Related to this finding, it seems understandable that trust in the representative actors (politicians) and institutions (parliament) as well satisfaction with democracy increased among the participants. The complexity of the nuclear power issue may have made the participants more aware of the necessity of delegating decision-making powers to elected representatives. Participants did not become more prone to engage in political action, apart from the temporary increase in their propensity to civil disobedience. It is worth pointing out, however, that the participants’ proneness to political participation did not decrease either, which would have been in line with Mutz’s argument that an exposure to conflicting views would reduce people’s willingness to act for political goals.

The effects of deliberation on generalized interpersonal trust were small but positive. It is noticeable, however, that deliberation increased participants' readiness for voluntary collective action when it comes to electricity saving. Even more significantly, deliberation increased participants' belief that other people would be ready to save electricity. This may be interpreted as a consequence of the fact that deliberative settings encourage expressions of socially desirable motivations. Electricity saving in the situation of shortage surely is a goal acceptable to all participants, regardless of their views on energy politics or politics more generally. The clear increase in the preparedness for this type of collective action is especially notable considering the absence of significant changes in items measuring the preparedness for partisan political action.

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Table 1. The timeframe of the experiment.

September 2006 Pre deliberation survey (T1)
November 18, 2006 1. Quiz measuring knowledge (T2) 2. Reading information material on the nuclear power issue 3. Hearing and questioning the expert panel (2 hours) 4. A short poll of 7 questions (T3) 5. Small group discussions (3 hours) 6. Decision making in the small groups (1.5 hours) 7. Final poll and the quiz measuring knowledge (T4)
February 2007 A follow up survey measuring the stability of opinion changes (T5)

Table 2. The distribution of different forms of political action among the respondents.

		Only filled in the survey	Initially willing to participate	Participated	All	N
Vote in an election (<i>t</i> =-.29, <i>p</i> =.549)	Has done	94	94	94	94	555
	Might do	4	5	4	4	25
	Would never do	1	2	0	1	7
	DK	-	-	1	1	3
Write a letter to editor (<i>t</i> =4.09, <i>p</i> =.000)	Has done	15	21	20	17	101
	Might do	66	69	74	68	400
	Would never do	17	7	3	12	69
	DK	2	3	3	3	15
Contact politicians (<i>t</i> =2.86, <i>p</i> =.004)	Has done	19	20	31	22	127
	Might do	60	67	58	61	354
	Would never do	15	10	7	13	73
	DK	6	4	4	5	29
Sign a petition (<i>t</i> =2.69, <i>p</i> =.007)	Has done	55	63	67	59	347
	Might do	37	31	27	33	196
	Would never do	6	3	4	5	31
	DK	2	3	2	2	12
Take part in a boycott (<i>t</i> =3.01, <i>p</i> =.003)	Has done	23	34	31	27	156
	Might do	53	50	50	52	304
	Would never do	17	12	10	15	87
	DK	7	4	8	6	38
Take part in a peaceful demonstration (<i>t</i> =5.59, <i>p</i> =.000)	Has done	8	26	21	14	84
	Might do	49	47	52	49	289
	Would never do	34	20	20	28	166
	DK	9	6	7	8	49
Show civil disobedience through illegal direct action (<i>t</i> =2.98, <i>p</i> =.003)	Has done	2	8	3	3	20
	Might do	16	24	22	19	112
	Would never do	74	61	68	70	409
	DK	8	7	7	7	42
Take part in demonstrations which have earlier been violent (<i>t</i> =2.34, <i>p</i> =.020)	Has done	1	3	-	1	5
	Might do	5	9	10	7	41
	Would never do	92	83	85	89	521
	DK	3	5	4	3	20
Use violence in order to achieve political goals (<i>t</i> =1.00, <i>p</i> =.319)	Has done	-	-	-	-	0
	Might do	3	6	3	4	21
	Would never do	96	93	96	95	558
	DK	1	1	1	1	8
	N	347	108	135	590	

Note: The independent sample t-tests have been carried out between those who were willing to participate (regardless whether they actually participated) and those who only filled in the survey. The scale for the t-test calculation is: 1 'has done', 0.5 'might do', 0 'would never do'. Don't knows have been coded as missing in this comparison.

Table 3. Comparisons of opinions on democracy and the political system between the volunteered the non-volunteered respondents. Arithmetic means.

	Type of item	Volunt.	Non-volunt.	Mean diff.	sig.
1. Sometimes politics seems so complicated that an ordinary citizen cannot really understand what is going on.	Internal E	2.93	3.15	-0.22	**
2. I know more about politics and government than most of my fellow citizens.	Internal E	2.43	2.09	0.34	***
3. People can exert influence through voting.	External E	3.28	3.34	-0.06	
4. An ordinary citizen cannot influence politics.	External E	2.31	2.50	-0.19	*
5. All in all, it does not really matter which parties form the Finnish Government.	(external E)	2.21	2.25	-0.04	
6. On the whole, democracy works well in Finland.		3.02	3.04	-0.02	
7. Decisions made by politicians do not have any influence on my life.		1.74	1.92	-0.18	*
8. It is up to each and everyone if they choose to vote or not.	Civic duty	3.02	3.10	-0.08	
9. Our country needs strong leaders who can reinstate discipline and order in the society.	Dem. supp.	2.91	3.07	-0.16	*
10. Democracy may have weaknesses but it's better than any other form of government.	Dem. supp.	3.59	3.68	-0.09	
11. In an increasingly globalized world it is difficult for the Finnish government to have influence on what happens in Finland.		2.34	2.44	-0.10	
12. Referendums should be used more in Finnish decision-making.		2.82	2.77	0.05	
13. I am happy with the way the current Finnish government is doing its job.		2.55	2.62	-0.07	
14. How interested are you in politics?		2.84	2.57	0.09	***
15. How interested are you in energy politics?		2.96	2.70	0.26	***
	N	244	348		

Significant * at the .05-level, ** at the .01-level, *** at the .001-level.

The scales have been coded as follows:

4 'Agree fully' 3 'Agree somewhat' 2 'Disagree somewhat' 1 'Disagree fully'.

Political interest and interest in energy politics:

4 'Very interested' 3 'Somewhat interested' 2 'Not much interested' 1 'Not at all interested' .

Table 4. How much do you trust the following Finnish institutions?

	Volunteers	Non-volunteers	Mean diff.	sig.
The Parliament	2.30	2.43	0.13	*
The legal system	1.97	2.05	0.08	
The police	1.77	1.78	0.01	
Politicians	2.82	2.97	0.15	*
N	244	348		

The trust scale has been coded as follows:

4 'A great deal' 3 'Quite a lot' 2 'Not very much' 1 'Just a little' .

Table 5. The participants' knowledge levels before and after the deliberation day. Sum of correct answers (arithmetic mean).

	Items found in the information material (N=6)				Other energy items (N=4)				General political knowledge (N=5)			
	T2	T4	mean change	sig.	T2	T4	mean change	sig.	T2	T4	mean change	sig.
All	2.86	4.10	1.24	***	2.06	2.45	0.39	***	2.84	2.84	0.00	
Secret ballot	2.88	3.99	1.11	***	2.03	2.27	0.24		2.88	2.93	0.05	
Common statement	2.84	4.22	1.38	***	2.09	2.63	0.54	***	2.79	2.76	-0.03	

Significant * at the .05-level, ** at the .01-level, *** at the .001-level.

Table 6. Opinions on democracy and the political system. Within group comparisons among the participants.

	T1	T4	Diff		T5	Diff T5-T1	
			T4-T1	sig.		T5	sig.
1. Sometimes politics seems so complicated that an ordinary citizen cannot really understand what is going on.	2.95	3.09	0.14	*	3.00	0.05	
2. I know more about politics and government than most of my fellow citizens.	2.39	2.41	0.02		2.44	0.05	
3. People can exert influence through voting.	3.28	3.39	0.11		3.36	0.08	
4. An ordinary citizen cannot influence politics.	2.28	2.20	-0.08		2.30	0.02	
5. Public policies do not much depend on the party composition of the government.	2.22	2.29	0.07		2.28	0.06	
6. On the whole, democracy works well in Finland	3.07	3.18	0.11	*	3.03	-0.04	
7. Decisions made by politicians do not have any influence on my life.	1.63	1.67	0.04		1.67	0.04	
8. It is up to each and everyone if they choose to vote or not.	3.16	3.10	-0.06		2.94	-0.22	*
9. Our country needs strong leaders who can reinstate discipline and order in the society.	2.79	2.71	-0.08		2.78	-0.01	
10. Democracy may have weaknesses but it's better than any other form of government.	3.63	3.69	0.06		3.70	0.07	
11. In an increasingly globalized world it is difficult for the Finnish government have influence on what happens in Finland.	2.26	2.30	0.04		2.35	0.09	
12. Referendums should be used more in Finnish decision-making.	2.69	2.65	-0.04		2.67	-0.02	
13. I am happy with the way the current Finnish government is doing its job.	2.59	2.70	0.11		2.70	0.11	*
14. How interested are you in politics?	2.83	2.75	-0.08		2.69	-0.14	
15. How interested are you in energy politics?	2.97	3.06	0.09	*	3.10	0.13	**
	N	132	132		115		

Table 7. How much do you trust the following Finnish institutions?

			Diff T4-		T5	Diff T5-T1	
	T1	T4	T1	sig.		sig.	sig.
The parliament	2.76	2.87	0.10	*	2.82	0.06	*
The legal system	3.08	3.15	0.07		3.12	0.04	
The police	3.27	3.30	0.03		3.29	0.02	
Politicians	2.25	2.35	0.10	*	2.25	0.00	
N	132	132			111		

Coding as in Table 4.

Table 8. The development of social trust and readiness for collective action among the participants.

			Diff		Diff		
	T1	T4	T4-T1	sig	T5	T5-T1	sig
1. Most people are basically good and kind.	2.95	3.07	0.12		3.14	0.19	***
2. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.	2.18	2.16	-0.02		2.14	-0.04	
3. Honesty is the best policy in all cases.	3.53	3.53	0.00		3.57	0.04	
4. There is no excuse for lying to someone else.	3.12	3.11	-0.01		3.06	-0.06	
5. Anyone who completely trusts anyone else is asking for trouble.	2.86	2.92	0.06		2.85	-0.01	
6. Generally speaking, people won't work hard unless they're forced to do so.	1.84	2.06	0.22	**	2.00	0.16	
7. Generally speaking, would you say that most people can be trusted?	3.20	3.37	0.17	*	3.27	0.07	
Index for social trust	3.00	2.99	-0.01		3.01	0.01	
Finns would save electricity if there were a lack thereof and they were asked to do so.	3.08	3.40	0.32	***	3.30	0.22	**
I would save electricity if there were a lack thereof and I was asked to do so.	3.53	3.67	0.14	*	3.70	0.17	*
N	132	132			111		

The index is an arithmetic mean and has been calculated for cases with at least five valid values.

The following items have been reversed for calculation of the index: 2, 5, 6.

Table 9. The readiness for political action among the participants (Percentage of would **never** do).

	T1	T4	Diff. T4-T1	sig.	T5	Diff. T5-T1	sig.
Vote in an election	0.0	1.5	1.5		2.2	2.2	
Write a letter to editor.	3.1	5.3	2.2		5.3	2.2	
Contact politicians.	7.8	5.3	-2.5		8.2	0.4	
Sign a petition.	4.5	6.1	1.6		6.2	1.7	
Take part in a boycott.	11.3	9.4	-1.9		12.6	1.3	
Take part in a peaceful demonstration.	21.6	22.8	1.2		23.9	2.3	
Show civil disobedience through illegal direct action.	73.0	66.7	-6.3	*	71.8	-1.2	
Take part in demonstrations which have earlier been violent.	89.1	88.5	-0.6		89.0	-0.1	
Use violence in order to achieve political goals.	97.0	96.2	-0.8		97.3	0.3	
	N	133	133		115		

The scale has been calculated in the following manner:

1 'would never do', 0 'has done', 0 'might do', Don't knows have been coded as missing.

Appendix 1. Socio-demographic characteristics of the participants, non-participants and people in the Turku area constituency (Varsinais-Suomi, Egentliga Finland)

	Participants (n = 135)	Non-participants (n = 457)	Turku area constituency (Source: Statistics Finland, www.stat.fi)
Gender			Among voting age pop.
Male	53.3	48.8	47.7
Female	46.7	51.2	52.3
Age			Among voting age pop.
18-24	9.6	6.6	11.0
25-44	34.8	32.4	32.6
45-64	33.3	37.4	35.0
65-	22.3	23.6	22.4
Education			Among 15+ yrs old, in the whole of Finland:
Primary or Secondary	17.2	19.7	36.6
Vocational or Upper secondary	44.6	51.6	38.0
Polytechnic or Bachelor	21.1	13.6	18.3
At least Master's Degree	17.2	15.2	7.1
Party identification			General Election result 2007
Conservatives	21.9	15.5	27.4
Swedish PP	7.6	11.8	5.5
Centre party	7.6	11.8	15.8
Christian Democrats	2.9	0.8	4.7
Social Democrats	13.3	16.3	21.8
Left wing	1.9	6.1	10.6
Greens	14.3	4.7	9.4
Other or DK	30.5	32.9	4.8

Note: Party identification and electoral results are not fully comparable because of the question wording in the survey (“Do you feel closer to any political party, which one?”).

Appendix 2. The political knowledge items. (Items in bold, e.g. **v1**, were covered in the information material that was handed out to the participants at the event).

v1 Which of the following energy sources produced the most electricity in Finland 2005?

- 1 = Coal
- 2 = Water power
- 3 = Nuclear power**
- 4 = Gas

v2 How many nuclear power plants are there in use in Finland at the moment?

- 1 = 2
- 2 = 3
- 3 = 4**
- 4 = 5

v3 What is meant by a parliamentary form of government?

- 1 = Democracy
- 2 = The parliament has the support of the government
- 3 = That the government has the support of the parliament**
- 4 = That the government has the support of the president

v4 In which of the following Finnish municipalities did the company Cogema (Areva) apply for a permission to map the possibilities for extracting uranium?

- 1 = Askola**
- 2 = Eurajoki
- 3 = Parkano
- 4 = Tervola

v5 Who is the Minister of Finance in Finland's present government?

- 1 = Antti Kalliomäki
- 2 = Eero Heinäluoma**
- 3 = Kimmo Sasi
- 4 = Liisa Hyssälä

v6 Which proportion of the total world production of electricity is produced by nuclear power?

- 1 = 16 %**
- 2 = 25 %
- 3 = 39 %
- 4 = 60 %

v7 Which of the following energy sources is classified as renewable by the EU?

- 1 = Peat
- 2 = Water power**
- 3 = Nuclear power
- 4 = Gas

v8 In which of the following countries is the uranium used in Finnish nuclear power plants extracted?

- 1 = France
- 2 = Sweden
- 3 = Finland
- 4 = Russia**

v9 Based on the number of parliamentary seats, which of the following is the second largest party in Finland at the moment?

- 1 = Centre Party
- 2 = National Coalition Party
- 3 = Social Democratic Party**
- 4 = Left Wing Alliance

v10 Where will the nuclear waste from Finnish nuclear power plants be stored?

- 1 = It will be stored in Russia
- 2 = It will be stored in Finland**
- 3 = It will be stored partly in Russia and partly in Finland
- 4 = No final decision has been on where it will be placed

v11 Which decision-making body has the final say when the decision on the expansion of nuclear power is made in Finland?

- 1 = The Parliament**
- 2 = Ministry of Trade and Industry
- 3 = The Radiation and Nuclear Safety Authority
- 4 = The Government

v12 Which of the following countries is a permanent member of the United Nations Security Council?

- 1 = Japan
- 2 = Canada
- 3 = Germany
- 4 = Russia**

v13 In which year did the nuclear reactor in Chernobyl in Ukraine explode?

- 1 = 1979
- 2 = 1982
- 3 = 1986**
- 4 = 1990

v14 Which of the following countries has held a referendum on nuclear power?

- 1 = France
- 2 = Sweden**
- 3 = Germany (Federal Republic of)
- 4 = Denmark

v15 According to the current legislation, who is entitled to vote in Finnish parliamentary elections?

- 1 = All legal residents in Finland who have reached the voting age.
- 2 = All Finnish citizens who have reached the voting age.**
- 3 = Finnish citizens living in Finland who have the voting age.
- 4 = Taxpayers living in Finland who have reached the voting age.