Notes and Comments

Individual Opinion Formation in a Direct Democratic Campaign

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The critics of direct democratic procedures typically presume that the bulk of the members of a present-day democratic polity fall considerably short of the ideal of a thinking, reasonable and deliberating citizen. Essentially, as Budge points out, ‘the case against direct democracy can be summed up as saying that ordinary citizens have little political sagacity or prudence, so that they will tend to make decisions hastily but also to be unreasonably attached to them’.\(^1\) According to the critics of direct democratic procedures, the problem is not only that citizens usually do not think and deliberate about the issues in question, the problem is above all that they lack the competence to do so in the first place. Thus Budge concludes: ‘Here is perhaps the nub of the whole argument against direct democracy: the mass of the citizens are not qualified to decide high policy, so they can be allowed to influence it only indirectly, by choosing those who are to decide rather than deciding themselves’.\(^2\) The point of the critics is that, as Sartori suggests, direct democracy ‘would quickly and disastrously founder on the reefs of cognitive incompetence’.\(^3\)

These classic results of opinion research give some credit to the critics of direct democratic procedures. As Lazarsfeld et al. pointed out as early as the 1940s, those who change their opinion during an electoral campaign are mainly the least reasonable and the least thoughtful citizens.\(^4\) Zaller’s theory of opinion formation and change allows us to conceptualize the impact of a direct democratic campaign in a more elaborate way and to put these critics into perspective.\(^5\) According to this theory, the relationship between political awareness – another term for the political reasonableness and thoughtfulness of the classics – and opinion change is not as straightforward as the classics presupposed. In Zaller’s theory, political awareness plays the key role in the processes of the individual reception and acceptance of the messages in the public information flow, which in turn determine the process of opinion change. According to Zaller’s ‘reception axiom’, the greater a person’s awareness, the more likely she is to

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be exposed to and comprehend – in a word, to receive – political messages concerning a given issue. Acceptance, in turn, is conceptualized as a joint function of an individual’s awareness and her political predispositions, i.e. stable, individual-level traits that regulate the acceptance or non-acceptance of the political communications the person receives. We can think of these predispositions in terms of well-formed, crystallized attitudes and general beliefs. According to Zaller’s ‘resistance axiom’, people tend to resist arguments which are inconsistent with their political predispositions, but only to the extent that they are aware of the relationship between the message and their predispositions. The likelihood of resisting information is assumed to increase as a function of political awareness: while the poorly informed tend to accept whatever information they encounter, the well informed tend to possess cues about the ideological or partisan implications of a persuasive message allowing them to resist information which does not accord with their predispositions.

In the context of a direct-democratic vote, the individual mechanisms of reception and acceptance are, in turn, a function of the characteristics of the issue to be voted and of the information flow during the campaign preceding the vote. There are issues where the individual political predispositions are less well established than others, and which, therefore, are to be influenced more easily by political campaigns. I would like to suggest that familiar and constraining issues tend to be associated with more stable opinions than unfamiliar and less constraining ones. Zaller analysed the impact of the familiarity of an issue on attitude change and confirmed that messages on more familiar issues produce less overall opinion change. The results reported by Converse support the idea that opinions on more constraining issues are more stable over time.

As for the characteristics of the information flow during the political campaign preceding the popular vote, we may distinguish between its intensity and direction. Even if it is not very intense, such a campaign typically modifies the moderately intense, temporally stable information flow with respect to a given issue. It intensifies the debate on the issues to be voted upon, and it typically allows even those citizens with little issue awareness to receive some issue-related information. Since they tend to accept the messages they receive uncritically, we expect unaware citizens to be particularly likely to change their minds during a direct democratic campaign – just as predicted by the classics. The greater the intensity of the campaign, the greater the amount of opinion change it is likely to induce, especially among the politically unaware. In addition to intensity, the direction of the information flow is also likely to be crucial: the more one-sided the flux of information in a political campaign, the more one-sided will be the rate of opinion change. In the case of a completely one-sided campaign, individuals whose opinion is in line with the dominant message of the campaign are most likely to be reinforced in their prior opinion, and not likely to change their opinion at all. By contrast, individuals, whose prior opinion is opposed to the dominant message, are rather more likely to be induced to change their opinion. Finally, the more polarized the campaign, the more polarized we expect the reactions of the citizens to be.

THE CASE-STUDY: THE VOTE ON THE TAX ON TRUCKS

Switzerland provides a unique setting for the study of opinion formation in the context of direct democratic procedures. Nowhere else are as many direct democratic votes held

on the national level as in Switzerland. On 20 February 1994 the Swiss citizens had to vote on five federal issues dealing with different aspects of transport policy. Among them were two versions of a tax on trucks. A flat rate tax on heavy road vehicles had been introduced for the first time in 1985 for a period of ten years. The first issue concerned the prolongation of this tax for another ten years and the adaptation of the applicable rate to the current price levels. In addition, Parliament also presented the citizens with a project to introduce a new tax on trucks which was to take into account the ‘polluter pays’ principle: the citizens were asked to authorize Parliament to introduce variable, mileage-related or weight-related rates. At the time of its first introduction in the 1980s, the tax on trucks had been much contested and got the support of only a rather narrow majority of 58.7 per cent. By the early 1990s, however, it had become widely accepted and the proposals met with comparatively limited opposition. All the major federal parties supported the prolongation of the flat rate tax. All the interest groups, with the unsurprising exceptions of the truckers’ association and the trade association of small and medium-sized business firms, supported it too. It is safe to say that the elite consensus with respect to this issue was very large. With respect to the version authorizing the future introduction of the ‘polluter pays’ principle, the consensus was somewhat less widespread, although still very large: the opposition was limited to the smallest of the major parties. Except for the two associations already mentioned, all the major interest organizations of the Swiss business community supported this future modification of the tax, too. We can thus consider both versions of the tax as consensual issues at the elite level.

In addition to these two tax issues, the package the citizens had to vote upon on 20 February 1994 included three more items: a tax on the use of national highways, an air navigation act and the ‘initiative of the Alps’, which dealt with the protection of the Alpine region against the traffic crossing Switzerland from one border to the other. The intensity of the debate during the campaign preceding the vote was not unusually high and concentrated above all on the highly polarized issue of the ‘initiative of the Alps’. A survey taken immediately after the vote revealed the importance of this initiative for the citizens, while the two versions of the tax on trucks were considered to be of average importance to the country as a whole and of below average importance for the individuals personally. With respect to the tax on trucks, the campaign at best reached average intensity. The level of participation in the vote did not attain more than 39.8 per cent, which is below average even for Switzerland.

On the basis of the surveys that are regularly held after the popular votes, we can construct an index for the issue-specific ‘awareness’ of individual voters. The sample average of this index may serve as an indicator of the familiarity of a given issue. On this index, the tax on trucks again obtains an average rating which is close to the mean for the four-year period 1993–96. In many ways the tax on trucks, then, represents a middle-of-the-road issue, one which is neither spectacular nor obscure, neither particularly easy nor particularly difficult to decide. It constitutes a moderately difficult case of decision making for the general public, which has been the object of a moderately intensive campaign, one-sidedly favouring the supporting camp. Finally, this issue is not materially constraining, since the tax is not imposed on the individual citizens, but on


the trucking companies and makes itself felt only in a rather indirect way for the bulk of the population. To some extent, however, this issue has a morally constraining character: environmental protection in general is a valence issue, which finds support from virtually everybody. This implies that highly aware opponents of an ecologically motivated measure such as the tax on trucks are bound to experience some form of cognitive dissonance. While they may find the specific measure proposed wanting from the point of view of their general political predispositions, they may still be persuaded that one has to take at least some measure for environmental protection. This is likely to weaken their resistance to change, i.e. they are likely to be more susceptible to changing their minds than predicted by Zaller’s resistance axiom. By contrast, the ecologically aware supporters of such measures do not experience this type of cognitive dissonance. Instead, they may rather feel ‘politically correct’, which may serve to explain why they are much more resistant to change.

On 20 February 1994 large majorities of the citizens accepted the two versions of the tax on trucks – 72.1 per cent voted for the prolongation of the tax, and 67.1 per cent in favour of the introduction of the ‘polluter pays’ principle. A preliminary analysis on the basis of a survey held immediately after the vote indicates that the voters did not differentiate much between the two versions of the tax. Thus, no less than 91.6 per cent of those who participated in the vote gave the same response to the two versions. Even though the political elites had been quite consensual with regard to these taxes, the amount of support they received in the population still came as somewhat a surprise.

OPERATIONALIZATION

The vote on the tax on trucks took place between the first two waves of a four-wave panel survey dealing with the Swiss policy on air pollution caused by traffic. The first wave had been in the field two months before the vote, in December 1993; the second wave followed three months after the vote, in spring 1994. In the first wave, opinions were asked about several policy measures allowing for a reduction of the air pollution caused by traffic, among them the ‘polluter pays’ version of the tax on trucks. In the second wave, there was a question on how individuals had voted with respect to the two versions of this tax. Both the first and second wave of the survey were completed by 1,062 respondents, who were representative of the Swiss voting population. This gives us the unique opportunity to study the impact of the direct democratic campaign on the formation of opinion with respect to the tax on trucks.

For this purpose, I have operationalized Zaller’s more general concepts in an issue-specific way. With respect to awareness, I focus on domain-specific ‘ecological awareness’. Following the procedures proposed by Zaller and Luskin, this concept is operationalized by a measure of information holding which counts the number of factual items the respondent has correctly answered. More specifically, this indicator is composed of five subscales each measuring a specific subset of a respondent’s ecological awareness. The subscales concern issues related to radioactivity (three items), air pollution caused by carbon dioxide (four items), air pollution more generally (four items), more practical environmental questions, such as the price of electricity or the disposal of batteries (four items), and the number of ecological organizations spontaneously mentioned in response to an open question. The resulting scale corresponds to the sum

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of these subscales and ranges from 0 to a maximum of 20 possible correct answers. For the subsequent analysis, this index will be dichotomized at the mean.

The reception of the messages of the campaign before the vote is also a function of a person’s more general attentiveness to political information. My measure for a person’s attentiveness to political information takes into account the frequency with which someone reads the press, the quality of the papers read, and the attention paid to political (and environmental) issues in the press. On the basis of these three aspects of exposure to political information in the press, we can distinguish between relatively uninformed and well-informed citizens: those 53 per cent who attentively read the political section of at least one quality paper will be considered to be well informed, the remaining 47 per cent are considered to be relatively uninformed.

The predispositions are operationalized by the two defining characteristics of the prior issue-specific opinion – direction (for or against the issue) and strength (strongly or weakly for/against the issue).\(^{11}\) As I have already discussed, the impact of a political campaign on an individual’s opinion depends most decisively on the direction of the individual’s original opinion. As far as opinion strength is concerned, Converse had already suggested that strong opinions are more resistant to change.\(^{12}\) Eagly and Chaiken review a large array of evidence in support of this proposition.\(^{13}\)

### AWARENESS, PRIOR OPINION AND OPINION CHANGE

I start out the analysis with a loglinear logit-model for individual opinion change. The dependent variable in this analysis indicates whether or not a respondent has changed sides between the preceding opinion survey and the vote. This measure not only includes changes of sides between the supporting and the opposing camp, but also ‘half-way’ changes in and out of the ‘no opinion’ category. In the case of the individuals who participated in the vote, the votes they cast are compared with their original opinions. For the non-participants, their vote intentions are compared with their original opinions. Note that we measured the original opinions for the ‘polluter pays’ version of the tax only. That is, the votes or vote intentions on both versions of the tax are compared with the original opinion with respect to this version. Given that the citizens hardly distinguished between the two versions at all, this is hardly a serious drawback. The independent variables included in this first analysis are: ecological awareness, direction and strength of individual opinion.

Table 1 presents the results of a loglinear logit-model for individual opinion change for both versions of the tax. Overall, strength of original opinion and ecological awareness both reduce the rate of opinion change and those who were originally in favour of the tax changed their opinion less frequently than those who were originally against the tax (Model 1). All effects are highly significant, but the directional effect turns out to be the strongest one. Moreover, as expected under Zaller’s theory, the interaction involving the direction of one’s original opinion and one’s awareness is highly significant for both versions of the tax and significantly improves the fit of the model (see Model 2). The results for the two versions are rather similar, but the ones for the ‘prolongation’ turn out to be somewhat clearer. In particular, neither one of the

\(^{11}\) If not explicitly stated otherwise, the original holders of ‘no opinion’ are grouped together with the opponents of the tax.


TABLE 1 Loglinear Logit-Models for Individual Change of Opinion

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<th>Predictor variables</th>
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<th>‘Polluter pays’ version</th>
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<td>Pro-awareness</td>
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<td>$X^2$</td>
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</tr>
<tr>
<td>df</td>
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<td>3df</td>
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<tr>
<td>$P$</td>
<td>0.001</td>
<td>0.122</td>
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Note: The table shows $z$-values of effect parameters and goodness-of-fit statistics; $z$-values larger than about 3.25, 2.5 and 2.0 are significant at the levels of 0.001 (***) , 0.01 (**) and 0.05 (*) respectively.

two models quite fits the ‘polluter pays’ version. Since the results are generally clearer for the ‘prolongation’ version of the tax, I shall subsequently limit my presentation to the results for this version.

Figure 1 clarifies what the interaction between direction of opinion and ecological awareness means in the present context. It shows the rate of individual opinion change as a function of these two variables for the prolongation versions of the tax. Two points emerge from this figure: first, the rate of opinion change is much higher for the original opponents of the tax. Secondly, while the rate of opinion change strongly declines with increasing awareness among the original supporters of the tax, awareness hardly has an impact at all on the rate of change of the original opponents. Both points are clearly related to the characteristics of the issue and of the public debate about the tax during the campaign before the vote. They are consistent with the far-reaching consensus among the political elites in favour of the tax.

Accordingly, the original opponents of the tax found themselves in an ‘easy learning’ situation: even moderately to hardly aware opponents met the first requirement of opinion change – reception of the relevant message. Since these individuals were likely to accept the messages they received uncritically, they would have changed their opinion most frequently. But the consensus among the political elites had an impact on the highly aware among the original opponents, too: as a result of the elite consensus, highly aware original opponents received a large number of messages in favour of the tax during the campaign. Such messages even came from organizations typically opposed to additional taxes, such as the major interest associations of the business community and the major centre-right parties. This must have reduced their partisan resistance to the tax. Moreover, their resistance to a change of opinion must also have been weakened by the cognitive dissonance they were likely to have experienced with regard to ecological measures.

The rates of change documented in Figure 1 turn out to be very high, indeed. In particular, in view of the one-sided character of the debate preceding the vote, the rate of change is surprisingly high among the unaware original supporters of this tax (around 50 per cent). Like everyone else, this group of supporters is likely to have received some messages in favour of the tax, but hardly any messages opposing it. This should rather have strengthened their original support for the tax, instead of turning them against it. To be sure, in line with Zaller’s theory, the unaware original supporters of the tax changed their mind less frequently than the tax’s unaware original opponents. But in the light of Zaller’s theory, their rate of change still turns out to be surprisingly high.
Fig. 1. Interaction between awareness and direction of original opinion, for the prolongation version of the tax

UNCERTAINTY AND OPINION CHANGE

In order to clarify the surprising pattern of opinion change among the unaware supporters of the tax, I propose to distinguish between two types of opinion change. So far, a change of opinion not only included a change of sides, but also an intermediate change to the ‘no opinion’ category. In the case of the tax on trucks, this distinction turns out to be of prime importance. In the first wave of the panel survey, 10.4 per cent of the sample did not have an opinion about this tax. By the time of the vote, however, no less than 21.1 per cent of the panel respondents did not know how to vote with respect to the first version of the tax, 23.4 per cent did not know what to do with respect to the second version, and 28.9 per cent did not know how to vote with respect to at least one of the two versions! I shall refer to this last percentage as the ‘rate of uncertainty’. Note that uncertainty about how to vote is not exactly identical with ‘no opinion’, since it refers to a question about the act of voting. Still, not knowing how to vote in a referendum presupposes that one does not have an unequivocal opinion about the issue at stake.

This very high percentage of ‘uncertainty’ is not an artefact of the lack of recall due to the three-months period which intervened between the vote and the interviews of our second wave, since the ‘rate of uncertainty’ was equally high (20.9 per cent for the first version, 25.0 per cent for the second version, and 27.3 per cent for at least one version) in a survey which was held immediately after the vote. Nor is this ‘rate of uncertainty’ unusually high for issues submitted to a vote: according to the surveys held immediately after the vote, the average rate of uncertainty, calculated for a set of forty-three federal projects voted during the five-year period 1993 to 1996, amounts to no less than 20.7 per cent. The air navigation act, for instance, gave rise to a considerably higher level

\[14\] There are, indeed, some problems of recall in the panel survey, especially with respect to the individual’s participation in the vote, which is largely overestimated by our sample. If the problems of recall tend to overestimate the rate of uncertainty in this sample, the panel probably also includes an overproportional share of active participants in the vote, which – given that the participants are less uncertain about how to vote for a given issue than the non-voters – seems to compensate for the overestimation related to problems of lack of recall.
of uncertainty with 34.4 per cent not knowing how to vote. During the period under consideration, a maximum level of uncertainty of close to 50 per cent (48.8 per cent) was registered for a marginal change in the constitution allowing the government to eliminate small subsidies to distillers of alcoholic beverages. A minimum level of only 4.4 per cent, by contrast, tellingly concerned another case of transport policy – an increase in the tax on petrol.

Where does the increase of uncertainty in the case of the tax on trucks come from? At first, such an increase is counter-intuitive, given that the public campaign held before the vote presumably was designed to clarify the opinion of the average citizens. However, we should not forget that casting a vote in a referendum is not exactly the same as advancing an opinion in a survey. Casting a vote implies a greater amount of responsibility than voicing an opinion in a survey. The fact that the vote will be binding for all members of the polity, and that its consequences may be substantial not only for themselves, but for their country as a whole, may incite some citizens, although certainly not all of them, to pause to think and deliberate about the issue at stake. Moreover, it is also likely that the citizens receive additional information about the issue in the course of the campaign. As a result, some of them tend to become uncertain about what side they are on, either because they realize that they do not know enough, or because they realize that they are ambivalent about the issue. In both instances, some moment of reflection on the part of the citizens serves to weaken their opinions rather than to reinforce them.

In short, faced with the ballot box, the individual voter may be more hesitant to decide which side she is on than in an interview. The increasing uncertainty is expected to be particularly important among voters who have little knowledge about the issues in question – in our case among voters with little ecological awareness, i.e. who lack the relevant cues to interpret the messages they receive during the campaign. In their case, the campaign is not likely to serve the intended purpose, and it may actually have the counter-productive effect of rendering such voters more insecure. Figure 2 shows that this is precisely what happens. To be sure, at the outset of the study the rate of uncertainty was already more than twice as high among the unaware (15.0 per cent) as among the highly aware (6.3 per cent) citizens. But at the polls, the corresponding percentage shoots up to no less than 43.9 per cent for the unaware, while it increases only up to 10.1 per cent for the highly aware. The increased responsibility seems to weigh on everybody, but especially on the unaware.

Taking into consideration the high rate of uncertainty among the unaware allows us to account for the puzzling result from the previous section. In fact, there is no reason, why, with respect to uncertainty at the polls, the impact of the campaign should differ between the groups of unaware individuals from the two opposing camps. Whether voters are originally in favour of or against the issue in question does not matter, if they lack the cues to interpret the messages delivered to them during the campaign. As a consequence, we do indeed find (see the first part of Figure 3) that the rate of increasing uncertainty is very similar for unaware voters from both camps. Moreover, this rate diminishes quite linearly with increasing awareness both for individuals who originally opposed the tax and for those who originally supported it. We may already observe that

Given that the individual vote hardly makes a difference at all, the vote value for the individual citizens may still be rather low (see Anthony Downs, *An Economic Theory of Democracy* (New York: Harper Collins, 1957), pp. 244–5) and many may still act as if they were in the situation of a survey respondent.
the linear trend is somewhat less pronounced among the opponents of the tax than among its supporters – a finding that can again be explained by cognitive dissonance effects and by the general thrust of the campaign. I shall come back to this result in the next section.

In the second part of Figure 3 we find the ‘real rates of opinion change’, i.e. the rates of opinion change net of the increasing rate of uncertainty. For original supporters and at all levels of awareness, this rate is now much less substantial than it appeared to be in Figure 1. Among supporters, the pattern of the relationship is curvilinear, bringing it more closely in line with Zaller’s model. Among the original opponents of the tax, by contrast, the ‘real rate of opinion change’ is high at all levels of awareness: it varies unsystematically between 32.6 and 47.2 per cent. Finally, the difference in overall net rates of change between the opponents and supporters (39.4 – 9.5 = 29.9 per cent) indicates the order of magnitude of the maximum effect of the campaign. It shows that the impact of even a rather moderate campaign may really be substantial.


ATTENTIVENESS TO POLITICAL INFORMATION AND UNCERTAINTY AND CHANGE

In the next step, I shall analyse the two components of the rate of change – the ‘rate of uncertainty’ and the ‘net rate of change’ – separately. I shall now add the indicator for attentiveness to political information to the set of the three predictors – direction and strength of prior opinion and ecological awareness, which proved to be of crucial importance in the previous steps. Table 2 presents the loglinear logit-models for the explanation of the individual ‘rate of uncertainty’. The dependent variable in this analysis is a dichotomous indicator, which takes the value of 1 for those who were uncertain at the polls, and 0 otherwise. As it turns out, all four predictors contribute to the determination of uncertainty in a highly significant way. The additive model without interactions (Model 1) already fits the data rather well, but for theoretical reasons, we should include two interactions in the model – Zaller’s interaction between direction of prior opinion and ecological awareness, and an additional interaction involving ecological awareness and political information. The second interaction is added, because I expect that one needs both ecological awareness and political information in order to be able to make sense of such a direct democratic campaign. Ecological awareness alone is expected to be insufficient, because it does not provide a voter with enough information on the specific issue at stake. But political information about the issue at stake is also expected to be insufficient, because the voter who lacks the capacity to interpret it – i.e. who lacks ecological awareness, will not be able to clarify her opinion. As Table 2 shows, both of these interactions turn out to be significant and adding them to the model considerably improves its fit.

Figure 4 clarifies the meaning of these results. Figure 4a shows that, indeed, attentiveness to political information exerts a significant effect on one’s level of uncertainty only among the ecologically aware. Voters who lack the background information provided by ecological awareness will not be able to make enough sense of the avalanche of information published by the press and other news media. They will be just as puzzled as those who do not bother to pay attention to the campaign at all. That is, attentiveness to political information is a necessary, but not a sufficient criterion...
Fig. 4a. Rate of uncertainty by awareness and level of political information

Fig. 4b. Interaction of political information, awareness and direction of prior opinion

for being able to make sense of it. Figure 4b specifies that the combination of awareness and attentiveness to campaign information reduces uncertainty in both camps, but especially among the original opponents of the tax. As we have seen above, uncertainty at the polls is generally higher among aware opponents than among aware supporters. But in their case, the campaign information has apparently been particularly helpful in limiting uncertainty. I presume that it has been instrumental in reducing their cognitive dissonance and in choosing their side.

As the analysis of the net rate of opinion change reveals, the highly aware and politically informed opponents have particularly frequently changed to the supporting side. Table 3 presents the results of five loglinear logit-models to predict the net rate of opinion change. The dependent variable in this analysis is a dichotomous indicator, which takes the value of one for those who have changed their opinion, including those who, originally uncertain, formed an opinion in the course of the campaign. Everybody else, including the individuals who have become uncertain, is coded as zero. The first three models are analogous to those of Table 2. They do not fit the data very well for the present task: as we already know (see Figure 3), compared to the direction of the original opinion, awareness is only of secondary importance for opinion change. Attentiveness to political information, however, makes a difference: all the opponents change their opinion rather frequently, but the politically more attentive among them
do so significantly more often than the less attentive ones (Model 4). Figure 5a illustrates this result. Model 5, which adds a three-way interaction between awareness, information and direction to the effects of Model 4, specifies that it is above all the opponents who are both well informed and highly aware who change to the supporters’ side. While the aware but uninformed opponents rather tend to resist change, the opponents who combine awareness and information about the tax change their mind more than anybody else (see Figure 5b).

In sum, the campaign for the tax on trucks contributed to the clarification of the point of view of the ecologically most aware and the politically most attentive citizens, while it left perplexed the ecologically least aware and politically least attentive among them. It has led the most attentive opponents, who had the necessary cues (ecological awareness) to interpret the campaign information, to change their opinion more frequently than anyone else. This result is a most resounding disconfirmation of the

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16 The direct effect of political attentiveness disappears if we introduce an interaction effect taking into account the one-sidedness of the campaign (Model 4).

17 This interaction is not quite significant at the 0.05 level, but it is nevertheless meaningful.
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Note: The table shows the $z$-values of effect parameters and goodness-of-fit statistics; $z$-values larger than about 3.25, 2.5 and 2.0 are significant at the levels of 0.001 (***) 0.01 (**) and 0.05 (*), respectively.
original results of the classics. We could still argue, with the classics, that the campaign has had its most important effect on the least logical, least thoughtful and least conscientious people, by rendering them particularly uncertain about how to vote. But an increase in uncertainty is not exactly what the classics had in mind.

CONCLUSION

According to the approach adopted in this study, three sets of parameters jointly determine the impact of a political campaign with respect to a given issue: (1) individual characteristics: political attentiveness, issue-specific knowledge, prior opinion and more general political predispositions, such as political values and ideology; (2) the characteristics of the issue: its familiarity and the degree of constraints it imposes on the realization of the individuals’ interests; and (3) the characteristics of the campaign: its intensity and direction. In the present case, we dealt with a single, moderately familiar and unconstraining issue, which had been the object of a moderately intensive, one-sided (consensual) and supportive campaign. The specificity of the issue and the campaign characteristics of this case already indicate the limits of the present analysis. To arrive at a more complete picture, we need to be able to analyse the impact of systematic variations of the issue specific and campaign-specific parameters. Given the number of parameters involved – two issue-characteristics and two campaign-characteristics, and the need to have at least two measurements of the individuals’ opinions – one prior to the campaign preceding the vote and one after the vote, such a systematic study will not be easy. But, on the basis of the analysis presented here, it holds out considerable promise.

The present analysis of an ‘average case’ shows that the impact of even a moderate campaign before a popular vote is very substantial: no less than 70.5 per cent of the original opponents of the tax on trucks and even 33.8 per cent of its original supporters changed their minds. The impact of the campaign’s direction is most visible in the discrepancy between the rates of change of the two camps. Moreover, as we have seen, the campaign had a double impact: on the one hand, it induced citizens to change their minds; on the other hand, it made them more uncertain about their opinions. In the opposing camp, both effects were roughly of the same order of magnitude: 31.1 per cent of the opponents became uncertain about the issue, while 39.4 per cent of them changed sides. Among the original supporters, many more became uncertain (24.5 per cent) than changed sides (9.5 per cent). Finally, among the sizeable group of originally uncertain citizens – about one-tenth of the original sample – half (49.1 per cent) remained uncertain, and half (50.9 per cent) clarified their minds.

In the present, unconstraining case, the impact of the campaign depended in a decisive way on cognitive parameters characterizing the individual’s capacity to receive and comprehend the campaign’s message. Contrary to the received wisdom, however, it was not the least reasonable and the least attentive members of the public who changed sides most frequently, but those among the original opponents of the tax who were at the same time most attentive to the campaign’s message and most able to interpret it: the impact of political attentiveness and ecological awareness on opinion change proved to be interdependent, and conditioned by the individual’s prior opinion. Opponents who were both ecologically aware and politically attentive not only received the necessary information for a change of sides, but they also had the relevant cues to interpret them and to allow them to overcome what must have been, on their part, an increasing, consciously felt ambivalence about the issue in question. In the supporters’ camp, by
Notes and Comments

contrast, only few changed sides. Supporters mainly received information reinforcing their point of view. In addition, the ecologically aware among them were not likely to feel ambivalent about the issue in question, since its support was at the same time reinforcing the basic ecological values they might have adhered to.

The least reasonable, i.e. the least aware individuals, mainly became more uncertain about the tax in the course of the campaign, and this independently of whether they paid any attention to the campaign or not. Large numbers of unaware individuals from both camps became uncertain in the course of the campaign. This indicates that attentiveness to the campaign (in the case of a moderately familiar issue and a moderately intensive campaign) is not sufficient to allow a voter to arrive at an informed decision. A citizen also needs the background information – i.e. to be ecologically aware in our case – in order to be able to interpret the campaign’s message.

Taking into account that uncertain citizens typically abstain from voting – only 12 per cent among them participated in the present vote, compared to 66 per cent of those who knew how to vote, our analysis comes up with a mixed conclusion as far as direct democratic decision making is concerned: the good news is that, in real life, the spectre of unreasonable and inefficient decision making raised by the classic critics of such procedures does not seem to pose a serious problem. The ‘hidden census’ by which the incompetent – those who, as a result of their ignorance are uncertain about the issue in question – select themselves out of the electorate quasi-automatically solves this problem.\footnote{18} This result may be a relief for all those who were afraid that, as Sartori put it, direct democracy ‘would quickly and disastrously founder on the reefs of cognitive incompetence’. The bad news is that uncertainty about how to vote is, in part at least, cognitively determined. That is, those who do not have a sufficient amount of cognitive resources at their disposal are more likely to be uncertain about how to vote, and, therefore, less likely to participate in the vote. This may pose a problem of legitimacy, or, as David Held has pointed out, a problem of distributive justice.\footnote{19} Direct democracy may, after all, not be as democratic as its defenders like to believe.


\textbf{On the Validation of Measures of Strategic Motivations: A Critical Comment on Alvarez and Nagler}

GEOFFREY EVANS*

In their recent article in this Journal, Alvarez and Nagler model strategic voting in the 1987 British general election using multinomial probit.\footnote{1} They claim to find lower levels of such voting than many other approaches. They also demonstrate purportedly that estimates of strategic voting obtained using self-reported motivations are biased by the time elapsed between the election and the point at which the self-report is obtained. In this Comment I show that these assertions are incorrect.

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Rarely does one have to point to the most egregious errors of inference in the prize-winning work of eminent political scientists. Unfortunately, this is one such instance, and the implications of these errors are substantively and methodologically important for the measurement and understanding of strategic voting. My primary concern is to show that Alvarez and Nagler misinterpret their evidence on the validity of the commonly-used, closed-ended self-reported indicator of strategic (or ‘tactical’) voting. I argue that, because of this misinterpretation, Alvarez and Nagler make various unjustified assertions regarding the lack of validity of the closed-ended measure and the superiority of their own approach.

Alvarez and Nagler claim to ‘demonstrate that the use of self-reported vote motivation causes errors in estimating the amount of strategic voting, and that this problem is exacerbated the further from the election the self-report is obtained.’ By ‘errors’ Alvarez and Nagler seem to mean over-estimation. They argue: ‘It is quite clear that there is a post-election bias in favour of finding increased levels of strategic voting the further the interview is conducted from election day.’ They conclude: ‘Using our new approach we estimate that 7.2 per cent of the electorate cast strategic ballots in the 1987 British election; this is less than half of some of the methodologically-troubled estimates which have been published in the literature’.

So, it would appear to be an open-and-shut case. The use of self-reported vote motivation is bedevilled by difficulties, presumably because ‘researchers using these survey questions do not appear to have seriously considered the quality of the survey responses obtained for questions asking for justifications of reported political behaviour.’ This is used to justify the adoption of Alvarez and Nagler’s preferred estimation technique, which for some reason is referred to as the direct measurement

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2 Alvarez and Nagler’s paper won the Robert H. Durr Award for 1998 given by the Midwest Political Science Association for the best paper applying quantitative analysis to a substantive problem in political science.
5 Alvarez and Nagler, ‘A New Approach to Modelling Strategic Voting in Multiparty Elections’, p. 60. Though this assertion seems not to distinguish between estimates of levels of strategic voting at different elections – after all, there are good reasons to believe there has been a marked growth in such behaviour over time in response not only to the activities of the proponents of tactical voting, but because of changes in the nature of party competition. For evidence on how the low levels of strategic voting in the 1980s have grown in response to changes in party positioning in recent elections, see Geoffrey Evans, John Curtice and Pippa Norris, ‘New Labour, New Tactical Voting? The Causes and Consequences of Tactical Voting in the 1997 British General Election’, British Elections and Parties Review, 8 (1998), 65–79.
methodology. This involves calculating the percentage of strategic votes on the basis of multinomial probit models of vote that include measures of ‘issues, economic perceptions, and demographic factors’ as well as indicators of strategic motivation. It should be noted that no attempt is made to ascertain voters’ motives directly. Rather, these are inferred from combinations of constituency results in the 1983 election and voters’ partisanship. This begs the question, of course, of what, exactly, is direct about their method.

Regardless of these terminological quibbles, however, there are serious grounds for scepticism about a central component of Alvarez and Nagler’s critique of other approaches to estimating strategic motivations. Much of this hangs on the ‘positive bias in estimated strategic behaviour the further the interview was conducted from the election’ that they found when using self-report methodology. In fn. 14 they present their statistical evidence for this conclusion. From the confident assertions in the main body of the text, we might expect the claim that. ‘We expected to see a positive coefficient on the number of months variable’ to be followed by just such a coefficient. But let us look at what is actually stated in the footnote:

we estimated a probit model that specified the probability of a respondent’s strategic misreporting as a function of the number of months since the election when the interview was conducted. We expected to see a positive coefficient on the number of months variable, which we found in two of the three cases. In the case of the closed-ended measure, the probit coefficient was −0.01 (standard error 0.18); for the open-ended measure, the coefficient on the months past election variable was 0.24 (standard error 0.16), and for the combined measure, the coefficient on the months past election variable was 0.16 (standard error 0.15). Thus the open-ended trend we observe in Figure 1 is clearly statistically significant (the t-statistic 1.5), while the combined trend we observe there is not significant at traditional levels, but it does have the expected sign.

These claims are not confirmed by the evidence reported. First, contrary to the impression given by the authors, none of the coefficients is significant at customarily acceptable levels. It is not ‘traditional’ to accept even their highest t statistic (1.5) as an indicator of a significant association. Secondly, the coefficient for the closed-ended measure is negative. If Alvarez and Nagler’s argument was in fact supported by their evidence it should have been positive. Even their graphical evidence does not support Alvarez and Nagler’s expectations. If we examine Figure 1 on p. 62, we see that the lowest level of strategic voting is reported at time point 1. This is followed immediately by the highest level, at time point 2. All other points lie in-between. Thus

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9 On page 64 Alvarez and Nagler define this as ‘objective differences between the stated vote and preference rankings of individuals or the subjective differences between the vote cast and a rank-ordering of parties of candidates’. However, Alvarez and Nagler then reject the strategy of measuring individual voters’ rank orderings of parties.
10 Which is not to get into debates of how we could ever measure internal states such as strategic motivations directly. Any awareness of the theory of measurement – see, for example, Jum C. Nunnally and Ira H. Bernstein, *Psychometric Theory* (New York, McGraw-Hill, 1994) – should have dispelled such notions long ago.
11 See the paragraph that straddles the bottom of p. 62 and top of p. 63 for several such assertions. On p. 61 they also make passing reference to American research that finds a bias towards reporting voting for winning candidates the further an interview is from an election. However, the relevance of this point to biases in reports of strategic motivations is not elaborated.
there is clearly heteroscedasticity, but no trend. If we mentally draw a regression line, we can see that it is flat. The probit estimate accordingly identifies the best line through this ‘trendless fluctuation’. As Alvarez and Nagler make clear in their footnote, it is a line summarized by a coefficient of $-0.01$ that is $1/18$ of its standard error. The open-ended measure, is, arguably, perhaps trending, though not at normal levels of significance.

So, how do we make sense anew of Alvarez and Nagler’s findings? The most we might want to infer is that Alvarez and Nagler’s analysis might suggest speculative grounds for scepticism with respect to the validity of the open-ended measure. As they say, when using the open-ended method, respondents interviewed one month after the election were over twice as likely to report strategic voting as respondents interviewed immediately following the election (though remember that this is not a significant association by standard criteria). This bias is also observed, though less strongly, with the ‘combined measure’, which aggregates closed and open-ended responses. But who uses these open-ended and combined measures? Only one set of authors, Niemi, Whitten and Franklin. In a research note in the *British Journal of Political Science*, they claimed that levels of strategic voting in the 1987 election were far higher than those estimated by other scholars. The British Election Study team (and others who have studied strategic voting on a regular basis) do not use open-ended or combined measures – and have even been in print criticizing their validity. These authors use only the closed-ended measure. Ironically, Alvarez and Nagler’s analysis if anything serves to strengthen belief in the validity of the closed-ended measure. It does this both by showing (a) that the closed-ended measure is not affected by time after election, and (b) that it results in the same general estimate of levels of strategic voting as Alvarez and Nagler’s own measure (and that reported in a separate study, by Johnston and Pattie).

If we take these results seriously, which the authors presumably want us to, we are left with only one conclusion. The closed-ended method of eliciting strategic voting is not biased by the length of time after the election. If we add to this the fact that the closed-ended question finds almost exactly the same level of strategic voting as the estimation techniques employed by Alvarez and Nagler, we should infer that there is no reason here to doubt the closed-ended measure’s validity. A remarkably complex way of estimating strategic voting reaches more or less the same outcome as that attained using a single short, easy to administer, closed-ended question. Rather than engaging in misguided attempts to undermine other measures of strategic motivations, it would make more sense if Alvarez and Nagler treated the findings obtained using the established closed-ended methodology as an indicator of the criterion validity of their own new and less well-developed approach. To have different methods converging on a similar estimate is exactly what is required to increase our confidence in the validity of any one particular approach, especially one that is new and untried. The adoption of such a standard scientific practice, rather than the unjustified dismissal of an established alternative approach, would be a more appropriate strategy for Alvarez and Nagler to adopt in their interesting and innovative attempt to create unified models of voting that include strategic motivations.

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15 Evans and Heath, ‘A Tactical Error in the Analysis of Tactical Voting’.  
17 On this, see, for example, Edward G. Carmines and Richard A. Zeller, *Reliability and Validity Assessment* (Beverley Hills, Calif.: Sage, 1979).
Rejoinder to Reed’s Comment on ‘An Empirical Theory of Rational Nominating Behaviour Applied to Japanese District Elections’

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We are again pleased to respond to commentary on our article ‘An Empirical Theory of Rational Nominating Behaviour Applied to Japanese District Elections’, which appeared in the April 1999 issue of the Journal (pp. 259–89). Unlike an earlier comment by Gary Cox,1 Professor Reed’s2 focuses upon his belief that the nominating behaviour of Japanese parties cannot be explained by a decision process based on rational calculation. Rather, he believes that Japanese nominations result from an on-going learning process based on ‘trial and error’ experimentation by party leaders. The substance of Reed’s comment is that we ‘fail to address [his] learning hypothesis’ and that our interpretation of the Japanese nominating process is both theoretically implausible and empirically deficient. In the short space available to us we are not able to address all of Reed’s misinterpretations of our work. Thus, we shall content ourselves here by offering some general comments on the issues he has raised.

To begin with, Reed is correct to say that we did not (at least directly) address his ‘learning hypothesis’ in our article. Indeed, it was not our intention to do so. Rather, we stated clearly that our purpose was to demonstrate empirically the plausibility of a rationality-based theory of nominating behaviour that was sensitive to elements of the Japanese electoral context. Thus, the predictive and explanatory value of our research is strictly incommensurate with any claims, empirical or otherwise, Reed may have made with respect to his own hypothesis that Japanese nominating behaviour is explained by some learning theory. In other words, we intended our analysis to ‘stand on its own’, and we have invited readers to conclude with us that our evidence warrants the inference that Japanese nominating decisions were based on rational calculation.

Whether some ‘learning theory’ can provide a superior explanation of observed behaviour is a matter of theoretical specification and empirical demonstration. Since Reed does not develop a learning theory of actor behaviour for this context (beyond assuming actors make nominating decisions by ‘trial and error’), he is unable to derive an expected behaviour for individual cases against which actual behaviour can be compared. This failure, we believe, renders tenuous any judgement Reed might make that ‘learning’ explains (in a scientific sense) the nominating behaviour that is observed in the context. Rather, the (aggregate) empirical evidence Reed presents in his article

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on this subject is **descriptive**, not **inferential**, and the conclusions he draws are thus necessarily based on his subjective impression of what constitutes learning for these actors.

Reed complains that we misuse his $M + 1$ equilibrium concept as a standard of rational behaviour contrary to his own intention without (apparently) recognizing that the nomination of $M + 1$ candidates is an equilibrium for rational actors seeking to maximize seat shares under Japanese electoral rules. As such, we would have been justified in using it as a standard of rational behaviour had it served our research purpose. Since $M + 1$ equilibrium describes an aggregate (constituency-level) result of party and individual candidacies, however, we felt it more appropriate to focus our analysis directly on the candidate decisions of the parties themselves. Here, we established the standard that rational actors would not nominate fewer candidates than could win a seat, given an electoral outcome, nor would they nominate so many candidates that a seat that would have been won could be lost. In some cases, this standard allows parties to nominate candidates in excess of the number that would, strictly, maximize their seat shares (‘free’ candidacies), thus recognizing that parties may simultaneously pursue multiple goals through the election process.

In testing our model, we sought to distinguish empirically those cases that conformed to our standard from those failing it, either by ‘over-nomination’ or ‘under-nomination’. Following earlier usage by Cox and Niou we designated these latter cases as ‘nomination errors’ since they failed to satisfy our criteria of rational behaviour. Amazingly, Reed appears to interpret our (but not Cox and Niou’s) usage of the term ‘error’ as a way ‘to impugn the intelligence of Japanese candidates or political parties’, and as a characterization ‘that the JSP in 1969 was stupid’. We, of course, intended nothing of the sort. Rather, failure to meet the standard could derive from a variety of causes, an obvious source of which could be from misestimates of the informational parameters specified in our theory. What Reed has failed to perceive is that we do not assume that actors have perfect information regarding the future voting behaviour of the electorate upon which nominating decisions are contingent. Our explicit recognition that actor decision-making occurs under informational uncertainty erases the need for Reed or anyone else to ‘rise to the defense of humanity’ or perhaps he should have said, ‘human frailty’.

Reed’s apparent belief that rationality-based models require certain information seems to be at the bottom of his categorical rejection of rational (goal-oriented)

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6 One might be moved to believe that Reed impugns Japanese intelligence or thinks the parties stupid because after fifty years of ‘learning’, they have achieved $M + 1$ equilibrium only about half the time, with many nomination ‘errors’ still being recorded in recent periods. We do not, however, really think that Reed holds such opinions about Japanese politicians or parties.

7 Given that the LDP was a majority party during the period studied, an additional source of nomination ‘error’ might be the party’s willingness to risk loss of a constituency seat in order to promote party unity. The loss of a seat here and there through excessive nomination would not compromise the party’s majority, while it could assuage particularly bitter factional disputes in some districts. This possibility is developed in the conclusion to our article.
calculation as a methodology for decision making. If knowledge of outcomes is certain, decision making is mechanical and errors will not be made. While Reed (as do we) finds an assumption of perfect information to be implausible as a description of actual behaviour, he goes so far as to suggest that political actors eschew calculation altogether when making nominating decisions. Instead, their behaviour is explained as ‘learning’ by means of a methodology of ‘trial-and-error’. Although Reed does not identify his expectation of trial-and-error learning with a particular learning theory, this methodology is most prominently associated with the classical and operant conditioning models of behaviourist psychology. Here, individual choices, freely determined by cognitive processes, are considered illusory, and they are instead reduced to being affective responses to stimuli that are experienced by individuals either negatively or positively. Learning, then, refers to repetitions of particular behaviours that are, over time, positively reinforced, while negatively reinforced responses (behaviour) are eventually extinguished.

Whether Reed intends his preferred explanation of trial-and-error decision making to be associated with a behaviourist learning theory or not, we find the notion that political actors do not calculate strategies, particularly electoral strategies, to be, let us say, unconventional. Electoral politics is widely regarded as a ‘numbers game’ played by savvy political operatives whose main preoccupation is to calculate margins of electoral victory and defeat. Parties and politicians routinely collect data on voters and use this information to target particular races, compose appeals to the electorate, and contact voters directly. In short, parties and politicians know a great deal about their own voters and those of the opposition, probably much more than their voters know about them. Our assumption that parties estimate the likely behaviour of voters in advance of making nominating decisions, we believe, is an eminently plausible interpretation of real world politics. It is simply not credible to believe that Japanese politicians do not have a realistic view of voters’ intentions in most constituency elections. Given such political actors, it is natural to believe that they would place this knowledge in the service of nominating strategies calculated to be efficient for realizing the office and non-office benefits that are available through the electoral process. This reality is what we have attempted to model in our empirical theory of rational nominating behaviour in Japan.