

OPINION STABILITY AND CHANGE DURING AN ELECTORAL CAMPAIGN: RESULTS FROM THE 1999 SWISS ELECTION PANEL STUDY

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ABSTRACT

The purpose of this paper is to provide an explanation of the stability and change of issue-specific opinions during an electoral campaign. To structure our analysis we use a revised version of Zaller's model of opinion formation. Arguing that Zaller's model suffers from a cognitive bias, we amend it so as to better take into account the normative resistance to change, i.e. the role played by 'opinion crystallization'. Additionally, we assume that the stability of opinions also depends on the characteristics (intensity and direction) of the information flow of a particular issue. From this we derive a number of hypotheses and test them on data from a three-wave panel-study carried out in the context of the 1999 Swiss federal elections. The empirical tests confirm that opinion crystallization has an overriding impact on resistance to change. They also provide encouraging support for our hypotheses that issue-specific campaigns influence the likelihood of change, both directly, and through interaction with political awareness.

Issue-specific positions of parties are one of the major short-term forces which influence the electoral choice of individuals (e.g. Alvarez, Nagler, & Bowler, 2000). But how do such positions influence the opinions citizens have about the issues themselves? This question has received little attention in the literature so far. In this paper we attempt to fill this gap, by analyzing the determinants of the stability and change of issue-specific opinions during an electoral campaign. We start out with John Zaller's (1992) model of opinion formation, according to which the 'reception' and 'acceptance' of political messages depend on the interaction of both individual (a citizen's political predispositions and awareness) and contextual (intensity and direction of elite political communications) variables. While we accept the basic thrust of this model, we believe that it puts too strong an emphasis on the impact of political awareness on the resistance to change, and underestimates the importance of political predispositions. In light of this claim, we examine in some detail two additional aspects of predispositions: the strength

of an opinion, and its embeddedness in an individual's attitude structure (which we describe as the 'crystallization' of an opinion). Building upon a pre-existing consensus (see, for instance, Converse, 1964; Eagly & Chaiken, 1993; Petty & Krosnick, 1995; Sniderman, Brody, & Tetlock, 1991), we argue that 'opinion crystallization' has a strong impact on the resistance to change: the more crystallized an opinion, that is, the stronger and the more embedded in a consistent ideological structure, the less likely it is to change. Once the crystallization of an opinion is controlled for, we assume that the level of political awareness has a minor impact on the likelihood of opinion change. In addition, this impact is likely to vary according to the intensity and direction of the issue-specific information flow.

Our empirical tests are based on opinions concerning seven major issues in Swiss politics (asylum policy, membership to the European Union, bilateral treaties with the European Union, unemployment, old-age pensions, maternity insurance, public deficits), collected during the 1999 Swiss federal election campaign.

This paper is structured as follows. In the next section we elaborate on Zaller's work and present our theoretical model of opinion stability and change. We develop our argument regarding predispositions and crystallization, and we clarify the circumstances under which political awareness is likely to regulate the reception/acceptance mechanisms. Then we present the data and our operationalization of it, along with some basic information regarding the 1999 Swiss federal elections. The empirical tests appear in the next section, and they are followed by a discussion of opinion change at the aggregate level, and then an analysis of the determinants of individual opinion change. The article ends with concluding remarks.

OPINION STABILITY AND CHANGE: A THEORETICAL FRAMEWORK

Zaller's (1992) model of opinion formation is based on the assumption that the formation and change of individual opinions is driven by the political messages delivered by the elite. In Zaller's model, 'political awareness' (or attentiveness), i.e. the degree of a citizen's knowledge of or interest in politics, plays the key role in the reception and acceptance of communications from the political elite. According to the 'reception' axiom, the greater a person's awareness, the more likely he or she is to 'receive' a given political message and to understand it. According to the 'resistance' axiom, both political predispositions—defined as stable, individual-level traits such as political values or belief systems—and awareness jointly regulate the acceptance or non-acceptance of the political communications to which a person is exposed. More specifically, it is assumed

that individuals tend to resist arguments that are not consistent with their political predispositions, but this only if they possess the contextual information that enables them to assess these arguments in the light of their predispositions. The resistance to change is therefore assumed to increase as a function of political awareness. That is to say, while the poorly-informed citizens tend to accept whatever information they encounter, the well-informed are prone to resist this information if it is not in accordance with their predispositions. Predispositions thus influence opinion change in interaction with political awareness.

In our view, however, predispositions remain under-specified in Zaller's theory. Firstly, his conceptualization of predispositions only takes into account the direction of predispositions (e.g. the basic distinction between Republicans and Democrats), but not their strength, nor their embeddedness in an individual's attitudinal structure. Opinion strength (importance, extremity, etc.) and opinion embeddedness are two central aspects of an individual's 'opinion crystallization', the term most often used to describe the normative (as opposed to cognitive) source of the resistance to change (e.g. Converse, 1964; Eagly & Chaiken, 1993; Petty & Krosnick, 1995, Schuman & Presser, 1981). For this reason, to fully account for the impact of the political predispositions on the resistance to opinion change, it is necessary to take into consideration the effect of opinion crystallization, in addition to that of opinion direction.

Second, in Zaller's model, rather than having a direct impact, the effect of predispositions is filtered through an individual's level of political awareness. We do not dispute the idea of interaction between predispositions and awareness, but we claim that opinion crystallization has an additional and direct impact on the resistance to change. According to our first hypothesis, the more an opinion is 'crystallized' in an individual's mind, i.e. the stronger it is and the more it is integrated in a larger set of beliefs, the less it is likely to change. We also claim that once we control for the crystallization of an opinion, political awareness tends to play a minor role in the likelihood of change. Finally, and again in line with Zaller's work (1992, p. 124f., p. 155), we argue that the stability of individual opinions also depends upon contextual characteristics, and more specifically on the characteristics of the information flow regarding a given issue. We distinguish two aspects of this issue-specific information flow: its intensity and direction. The intensity of this flow, whatever its direction, has far-reaching consequences for the cognitive strategies used by voters. Kahn and Kenney (1999) have shown this for the case of US senate election campaigns. In essence, they argue that an increase in campaign intensity matters not only with respect to the quantity of information delivered to voters, but also with respect to the incentives it offers them. Intense election campaigns lead voters to regard their choice as more important, and encourage them to make more sophisticated decisions about competing candidates. By contrast, when campaign intensity is low, information about the election is scarce and voters have little incentive to make com-

plicated judgments.¹ From this we derive our second general hypothesis: the higher the overall intensity of the information flow, the stronger the likelihood of opinion change.

The direction of the information flow, in turn, regulates the direction of the change. This effect is twofold. Firstly, the direction of the information flow has a direct impact on the overall rate of opinion change: the more one-sided the flux of information regarding a given issue, the more one-sided the rate of opinion change. Second, and somewhat more subtly, the impact of awareness on the resistance to change is expected to vary according to the direction of the information flow. In the case of a one-sided campaign, those individuals whose prior opinion is opposed to the dominant message find themselves in what Zaller (1992, p. 125) calls an 'easy learning' situation. They face a change-inducing message which is easy to receive, even for the least aware among them. Given that the latter tend to uncritically accept the messages they receive, they are particularly likely to change their minds, whereas the highly aware will recognize the dominant message as being inconsistent with their prior opinion and will, therefore, resist it. Thus, the resistance to change is expected to increase with political awareness, among citizens whose prior opinion is opposed to the dominant message.

In contrast, individuals whose prior opinion is in line with the dominant message, will find their opinion reinforced. They are in a so-called 'hard learning' situation, where the countervailing, change-inducing, messages are hard to receive, being of a much weaker intensity than the dominant one. As a result, only the most highly aware supporters have a chance of fulfilling the first requirement for opinion change, i.e. the reception of a relevant message, and among supporters of the dominant message, the likelihood of change is expected to moderately increase as a function of political awareness (Zaller, 1992, p. 155). Finally, the more a campaign regarding an issue is balanced between arguments for and against, the more the effect of awareness on the resistance to opinion change should be symmetric between supporters and opponents.

In summary, our hypotheses are as follows:

Hypothesis 1: The crystallization of opinion has a strong impact on the resistance to change: the more crystallized the opinion, the less it is likely to change.

Hypothesis 2: The higher the intensity of the issue-specific information flow, the stronger its effects on the likelihood of change:

¹ Similarly, but in the context of direct-democratic votes, Bowler and Donovan (1998, ch. 8) suggest that intensive campaigns do not simply convert voters' opinions, but may change the context of their decisions: spending brings more attention to an issue, as it reveals more general information about the beneficiaries of a specific proposition. Gerber and Lupia (1996) also find that campaign spending has an influence on the level of information of the citizens: the higher the spending, the higher their level of information.

- Hypothesis 2a:* If the information flow is intense and one-sided, opinion change in the corresponding direction is more likely;
- Hypothesis 2b:* If the information flow is intense and one-sided, the likelihood of opinion change decreases as a function of political awareness among the opponents of the dominant message and increases as a function of political awareness among its supporters.
- Hypothesis 2c:* If the information flow is intense and evenly balanced between pro and con arguments, the likelihood of change decreases as a function of political awareness among both supporters and opponents.

DATA AND OPERATIONALIZATION

DATA

We analyze the data of a three-wave panel carried out in the context of the Swiss federal elections of 1999. The data include three representative samples for the cantons of Zurich, Lucerne, and Geneva. The samples have been interviewed at the beginning of the campaign in June (June 1 to 22), at the height of the campaign in September (September 6 to 30) and immediately after the elections (October 25 to November 17). The first wave samples included roughly 850 respondents per canton. Approximately 600 respondents per canton or 1,860 persons altogether completed all three waves.²

Note that the sample of persons having answered all three waves is not representative of the Swiss citizens in one important respect: the active voters are strongly overrepresented. Thus, the participation rate in the federal elections of this group reaches 76.4 percent, compared to an official average of only about 45 percent (45.3 percent in Zurich, 52.9 percent in Lucerne and 36.3 percent in Geneva). This overrepresentation of active citizens is partly a panel effect—active citizens being also more ready to participate repeatedly in a study on politics, partly it is attributable to the general selectivity of surveys about political issues in Switzerland.

OPERATIONALIZATION: MOST PRESSING PROBLEMS

We study the stability and change of issue-specific opinions about high priority problems in Swiss politics. The focus on high priority problems is justified by the fact that

²The RDD telephone survey was not documented according to the AAPOR Standard Definition for disposition codes, which prevents us from calculating the AAPOR formula for the response rates (in particular, our documentation does not mention the number of partial interviews). The response rate in our survey was calculated as follows: number of complete interviews divided by the number of complete interviews plus the number of non-interviews (refusal plus non-contacts plus linguistic or health problems) plus unknown eligibility (unknown if household), plus non-eligibility (no voting right). The corresponding response rates are (for the first wave): 39 percent in Geneva, 44 percent in Lucerne, and 38 percent in Zurich.

TABLE 1 Most pressing problems in Switzerland

	<i>Percentage of responses mentioning the problem</i>		
	<i>in June (1st wave)</i>	<i>in September (2nd wave)</i>	<i>in November (3rd wave)</i>
Refugees, foreigners	30.0	26.1	26.4
Unemployment	15.8	19.2	17.8
Europe	8.8	12.5	12.4
Public deficit/debt	4.8	6.5	8.1
Old-age pensions	4.1	4.2	6.7
Health	3.6	3.1	4.6
Environment	3.4	2.2	1.9
Maternity insurance	3.3	0.7	1.4
Drugs	2.7	1.3	0.9
Economic crisis	2.0	2.4	1.6
Miscellaneous	21.4	21.8	18.1
Total	100.0	100.0	100.0
(N)	(3,507)	(3,527)	(3,629)

Note: The percentages are based on the sum of the first and second responses to an open question that inquired about the 'most important problem at this moment'. Problems included in further analyses are shown in bold print.

they were likely to be debated by the party elites during the electoral campaign. As is shown in Table 1, these problems were important to the voters as well. The table is based on the responses to an open question asked during each one of the three waves of the panel, with the problems included in our analysis printed in bold face.

At the outset of our study in June 1999, the problem of asylum and immigration (refugees, foreigners) was mentioned most frequently. For most of the 1990s, unemployment had been considered to be the most pressing problem by the Swiss public. It is only with the improvement of the economy towards the end of the 1990s that it was replaced by the question of immigration. The refugees problem became particularly pressing in Spring 1999, with the influx of asylum seekers from Kosovo. Europe, the public deficits, and old-age pensions were not as salient as immigration or unemployment, but they gained some weight during the campaign. Finally, maternity insurance was not one of the top problems, but it nonetheless ranked high on the short-term public agenda for reasons of the voting calendar: the introduction of a maternity insurance had been adopted by the Swiss Parliament but was attacked by a referendum. It was voted upon in mid-June 1999, together with two proposals on asylum policy (see below) and two on social policy.

OPINION ON ISSUES AND OPINION CHANGES

As Miller and Shanks (1996, p. 327) have argued, one should make a clear distinction between generally 'pressing problems' and conflicts over more

specific 'political issues'. Thus, the list of the most pressing problems presented in Table 1 does not inform us about the specific policies addressing these problems. For this reason we formulated seven policy issues relating to the five most pressing problems (plus maternity insurance), and submitted them to the sample.

For the refugees, the issue chosen concerns the tightening of the criteria for their admission, a proposal close to the one submitted to the voters in a national referendum in mid-June 1999. Similarly, with respect to maternity insurance, we asked respondents whether they supported its introduction. On Europe, both the bilateral treaties with the European Union (EU), to be voted upon in a referendum in spring 2000,³ and the prospect of a full EU membership, were included in the analysis. With respect to the problem of the public deficit, we selected a policy calling for its rapid elimination by the federal government, an issue which has given rise to a protracted public debate and some tough negotiating between the major political parties in the year preceding the elections. For unemployment and old-age pensions, the available policy options were less visible to the public at the time. We formulated issues which had the advantage of being specific, but which did not constitute the only existing policy options: For unemployment, the policy selected proposed a general reduction of the working time as a means to reduce unemployment, a policy similar to the 35-hour week legislation favored by the left in France. For old-age pensions, the proposition submitted asked for an increase in value-added tax (VAT) in order to guarantee the financial health of the old-age insurance scheme.

The coding used for the responses ranges from 1 (strongly disagree) to 5 (strongly agree), with 'no opinion' being the intermediary position (3). For each of the seven issues, the data cover all three waves. Based on these responses, we calculate the opinion change, which is the dependent variable in our analysis. Our theoretical concern is not just with any change along the five-point scale, but with change of sides (from 'agree' to 'disagree' and vice-versa), including 'half-way' changes in and out of the 'no opinion' category. In our analysis, we use two distinct indicators of opinion change: the first is an indicator of overall change and shows whether or not respondents changed their opinions in the course of the entire period of the study; the second indicator is period-specific, and indicates a change in opinion between the first and the second waves of the panel, and between the second and the third.

INDEPENDENT VARIABLES

There are two sets of independent variables, one concerning political predispositions and one concerning the level of political awareness.

³The bilateral treaties comprise seven issues: public procurements, technical barriers to trade, research, road transportation, air transportation, agricultural trade, and the free movement of persons.

As indicators of *predispositions*, we use the direction and the crystallization of the prior, issue-specific opinion. The indicator for direction does not need any lengthy explanation. It corresponds to the distinction between supporters, opponents, and people holding no opinion with regard to a given issue. The indicator for crystallization is more sophisticated, since it not only takes into account the strength of the original opinion ('strongly agree/disagree'), but also its embeddedness in a broader ideological structure. The measure of opinion strength is straightforward: we use a dummy variable that distinguishes people who are 'strongly' in favor or against a given proposal from those who are 'rather' in favor or against it, or indifferent. The measure of the ideological structure is more complex. We first define empirically the possible sets of crystallized beliefs in the Swiss public, then we test for each individual whether he or she fulfilled the criteria for any one of these sets.

To define the crystallized sets, we begin by reducing the multiplicity of parties to three party 'families': the conservative Right (Swiss People's Party and other parties of the radical right), the moderate Right (Christian Democrats, Radicals, Independents), and the Left (Social Democrats, Greens, and other small and regional left parties). Next, we attribute each respondent to a party family based on his probabilities of voting for each one of the major parties in a given canton.⁴ Third, we identify the issues that belong to the 'core beliefs' of each of the three political families. To this end, we select the core policy proposals for each party family. The selection criterion is a 70 percent support or rejection rate among the respondents attributed to a given family in the previous step. The core proposals of the three party families turn out to be as follows:

- For the conservative Right: the tightening of the asylum policy, the rejection of EU membership, the rapid elimination of public deficits and the rejection of maternity insurance;
- For the moderate Right: the tightening of the asylum policy, the support of both EU membership and the bilateral treaties, and the rapid elimination of public deficits;
- For the Left: the support of EU membership, the bilateral treaties, the reduction of working time and the introduction of maternity insurance.

Fourth, we identify the respondents who display a pattern of opinions matching one of these three 'ideal-types' of core proposals. They are the ones who hold

⁴ As a result of the fragmentation of the Swiss party system, only five parties out of seven (the four governing parties at the national level and the Greens) are identical across cantons. A respondent is coded as belonging to a given political family if his/her probability to vote for a party of this family exceeds 7 on a 10-point scale. Note that this coding does not prevent a person from belonging to two ideological camps at the same time, which incidentally occurs relatively frequently, especially among the Conservatives and moderate Right (44 percent of the Conservatives also belong to the moderate Right, and 21 percent of the moderate Right also belong to the Conservatives). However, this is not problematic at this stage.

a consistent structure of attitudes, all the others do not. Finally, we combine the resulting dummy variable of ideological structure with our measure of opinion strength to create the scale of 'opinion crystallization'. This scale ranges from 0 to 3, with 0 standing for no crystallization (no attitudinal structure–weak opinion), 1 for low crystallization (attitudinal structure–weak opinion), 2 for some crystallization (no attitudinal structure–strong opinion), and 3 for high crystallization (attitudinal structure–strong opinion).

Our indicator of an individual's level of political *awareness* is based on a series of questions posed during the first wave of the panel and measuring his general knowledge of Swiss politics and elections. Respondents were asked to provide the number of parties represented in the Swiss federal government, the name of the current president of the federal government, the number of signatures required to launch a popular initiative at the federal level, and the number of seats attributed to their canton in the National Council (the lower chamber of the Swiss parliament). The resulting scale ranges from 0 (lowest level of awareness) to 4 (highest level of awareness). In addition, and in line with Zaller's conceptualization, we create two sets of indicators (four dummies) to operationalize the interaction between the direction of the previous opinion and awareness. For both supporters and opponents, we introduce a dummy indicator for each level of awareness, with the lowest level serving as a joint base category for both sides; supporters and opponents in the lowest category are distinguished on the basis of the indicator for direction. This coding procedure allows the relationship between direction and awareness to take any possible form—the curvilinear form predicted by Zaller, or the more linear forms as found in other studies of the Swiss context (Kriesi, 2000; Marquis & Sciarini, 1999; Sciarini, 2000; Sciarini & Marquis, 2000).

CONTEXTUAL VARIABLES: INTENSITY AND DIRECTION OF THE ISSUE-SPECIFIC INFORMATION FLOW

To measure the intensity and direction of the issue-specific information flow, we analyzed the campaign-related publicity in the major newspapers and magazines of the three cantons under consideration (Geneva, Lucerne, and Zurich) during the six months prior to the election.⁵ In this period, the parties spent an estimated overall amount of roughly 5 million Swiss francs for publicity in the press of the

⁵Our dataset includes fourteen daily newspapers (*Blick*, *Corriere del Ticino*, *Der Landbote*, *Der Zürcher Oberländer*, *Le Temps*, *Le Courrier*, *La Tribune de Genève*, *Le Matin*, *Neue Zürcher Zeitung*, *Luzern Heute*, *Tages-Anzeiger*, *Zürichsee-Zeitung*, *Neue Luzerner Zeitung*, *Willisauer Bote*), three Sunday papers (*Le Matin Dimanche*, *Sonntagsblick*, *Sonntags Zeitung*), and six weeklies (*Die Weltwoche*, *Genève Home Informations*, *Die Region*, *Wochenzeitung*, *l'Hebdo*, *Facts*).

TABLE 2 Campaign expenditures on the pressing problems under consideration

<i>Issue</i>	<i>Expenditure (in percent)</i>
Refugees	41
Europe	24
(Bilateral treaties)	(13)
(EU membership)	(11)
Unemployment	19
Public deficits/public debt	11
Old age pension	6
Maternity insurance	0
Total	100
(Expenditure in 1000 SFR)	(1,158)

three cantons. The bulk of this sum (86 percent) was spent in the Canton of Zurich, which is not only the most populous Swiss canton (with the largest number of seats in the National Council (34), but also the home of the German-speaking newspapers with the largest circulation and, correspondingly, the highest advertising costs. The rest of the publicity was roughly evenly divided between Lucerne (8 percent) and Geneva (6 percent), two medium-sized cantons with respectively 10 and 11 seats in the National Council.

Based on the coding of the newspaper ads, we are able to calculate the total amount of campaign expenditures for the most pressing problems. We use this amount as a measure of the intensity of the information flow regarding these problems during the electoral campaign (Table 2).

The publicity expenditures on the six problems under consideration amounted to only one fourth (23 percent) of the estimated total expenditures for campaign-related publicity in the press. This suggests that issues/problems were not the main element of parties' campaign activities. As a matter of fact, a majority of ads focused on slogans and publicity for the parties and candidates themselves, without any explicit reference to political issues. Moreover, and as is shown by Table 2, most of the 1.16 million was spent on the three top problems only—refugees, unemployment, and Europe (bilateral treaties and EU membership).⁶ By contrast, the three other problems (public deficits, pension system, and maternity insurance) display a lower level of campaign intensity. Thus, a twofold classification emerges from Table 2 with respect to the intensity of the information flow. If our assumption regarding the effect of campaign intensity holds (hypothesis 2), the

⁶ It should be added that the two linguistic regions differ from each other with respect to the weight of these three problems. In the two German-speaking cantons (Zurich and Lucerne), the campaign was dominated by the question of refugees, whereas in the French-speaking canton of Geneva, this problem was hardly debated. Furthermore, the European issue was addressed differently by the campaign in the two linguistic regions: in the German-speaking cantons, bilateral treaties were the dominant theme. In Geneva, in contrast, the issue of EU-membership played the crucial role, and was the most publicized issue by far.

TABLE 3 Distribution of ads by issues and political camps (in percent)

<i>Party family</i>	<i>Asylum/ refugees</i>	<i>EU membership</i>	<i>Bilateral treaties</i>	<i>Unemployment</i>	<i>Public deficits</i>	<i>Old age pension</i>
Left	2	12	11	56	—	53
Moderate right	31	74	88	37	61	21
Conservative right	68	13	1	7	39	26
Total	100	100	100	100	100	100
(Expenditure in 1000 SFR)	(575)	(167)	(240)	(121)	(129)	(73)

Note: We exclude maternity insurance from this table since no ad addressed this issue.

two categories of issues should significantly differ from each other in regard to the rate of opinion change and the determinants thereof.

As mentioned before, however, these differences also depend on the direction of the information flow. We use the origin of the messages, i.e. the party that has paid for a given newspaper ad, as an indicator of the direction of the information flow for each issue.

As is shown by Table 3, refugees constituted the preferred mobilizing terrain for the Conservatives. Spending two-thirds of the more than half a million francs attributed to this key issue, the Conservatives called for a tightening of the admissions policy. Spending most of the remaining third, the parties of the moderate right did their best not to be outflanked by the Conservatives on this issue. The popular vote on the asylum policy held in June 1999 provided the Conservatives with another opportunity to exploit the issue in their favor: the Swiss Parliament had adopted proposals that led to a tightening of the asylum policy; these proposals were attacked by a referendum of the left and, therefore, submitted to the voters, who accepted them by a large margin (71 percent). The implication of this is straightforward: the political messages sent to Swiss citizens during the electoral campaign were strongly biased in favor of a tightening of the asylum policy.

With respect to EU membership, the figures suggest that the two camps with the clearest profile on the issue (the Left in the 'yes' camp and the Conservatives in the 'no' camp) hardly voiced any opinion at all. The overwhelming majority of messages on EU membership came from parties of the moderate Right. Given that these parties were in fact strongly divided on this issue, it is likely that they sent mixed signals to the voters.

Parties of the moderate Right were also the main protagonists in the case of the bilateral treaties with the EU. But unlike EU membership, they unambiguously supported the bilateral treaties. The main party of the Conservative Right (the Swiss People's Party), which had not clarified its preferences yet, refrained from addressing that issue during the electoral campaign. The direction of the

communication flow was also one-sided on the issue of budget deficit: the parties of the moderate and conservative Right monopolized the debate.

For the reason mentioned above, there are difficulties in interpreting the messages regarding unemployment and the old-age pension. While the Left clearly took the lead on unemployment, it did not focus on the specific policy option—the reduction of the working time—we formulated in our study. Similarly, an increase in VAT was but one of several ideas put forward during the electoral campaign to secure the financing of old-age insurance. Moreover, the VAT increase found supporters and adversaries on both the left and the right: While the Left agreed on the goal—the defense of old-age pensions belongs to its ‘core values’—the suggested means—a VAT increase—was met with resistance; on the right, only the Christian Democrats seemed to back the proposal, whereas the Conservatives strongly rejected it. Thus, for two issues (unemployment and the old-age pension) we lack a clear measure of the direction of the information flow and are, for that reason, uncertain about its effects. Finally, Table 3 provides no information about maternity insurance, but we know from the referendum campaign of spring 1999 that it was strongly supported by the Left, and strongly rejected by the Conservatives and a majority of the moderate Right.

The issue of maternity insurance highlights the limits of our indicator for information flow. While not an issue of the electoral campaign, maternity insurance was intensely debated in the context of the referendum campaign at the outset of our study. By focusing on the publicity in the electoral campaign, our indicator captured only a share of the issue-specific messages delivered in the public space. Due to ‘external’ events, that is, to events occurring independently of the electoral campaign, some issues were subject to intense media coverage during the period under consideration. In some cases, these events simply reinforced our characterization of the information flow. Thus, with regard to the asylum issue, the information flow was perhaps even more intense and one-sided than suggested by Tables 2 and 3, as a result of the war in Kosovo and the inflow of asylum seekers in the spring of 1999, and of the popular vote of mid-June. In two cases, however, we cannot be sure that the figures presented in Table 3 accurately reflect the intensity and direction of the information flow. Besides the case of maternity insurance, there is also a measurement problem with the bilateral treaties: in the latter case, the direction of the messages was presumably less one-sided than our measure suggests. Indeed, up to the ratification debate that took place in Parliament in the late summer of 1999, there was a certain amount of uncertainty regarding the outcome of the process. In addition to the opposition of the extreme right, the major threat to the treaties came from the left (left-wing parties and trade-unions), who asked for side-payments in the field of labor policy, to fight ‘social dumping’ (Fischer, 2002; Fischer, Nicolet, & Sciarini, 2002). The Greens did the same with regard to road transportation: They asked for additional subsidies for the railways, to reduce road traffic across the Alps

TABLE 4 Characteristics of the issue-specific information flows (intensity and direction)

<i>Issues</i>	<i>Intensity</i>	<i>Direction</i>
Tightening of the asylum policy	Strong	In favor
EU membership	Strong	Balanced/in favor
Bilateral treaties	Strong	In favor/balanced
Maternity insurance	Strong in the short-term Weak in the long-term	Balanced/against
Elimination of budget deficits	Weak	In favor
Reduction of working time to reduce unemployment	Weak	Uncertain
Increase of VAT to finance old-age pensions	Weak	Uncertain

and to encourage its transfer to the rail. The adoption of these ‘flanking measures’ constituted one of the last acts of the outgoing Parliament in the fall of 1999, and a stepping stone towards the consensus reached among the elite on the bilateral treaties—in the Swiss Parliament only the small far-right parties (the Swiss Democrats and the Lega dei Ticinesi) opposed them. But for our present purposes, it is important to note that the treaties met with strong reservations during the electoral campaign, reservations that are not captured by our indicator.

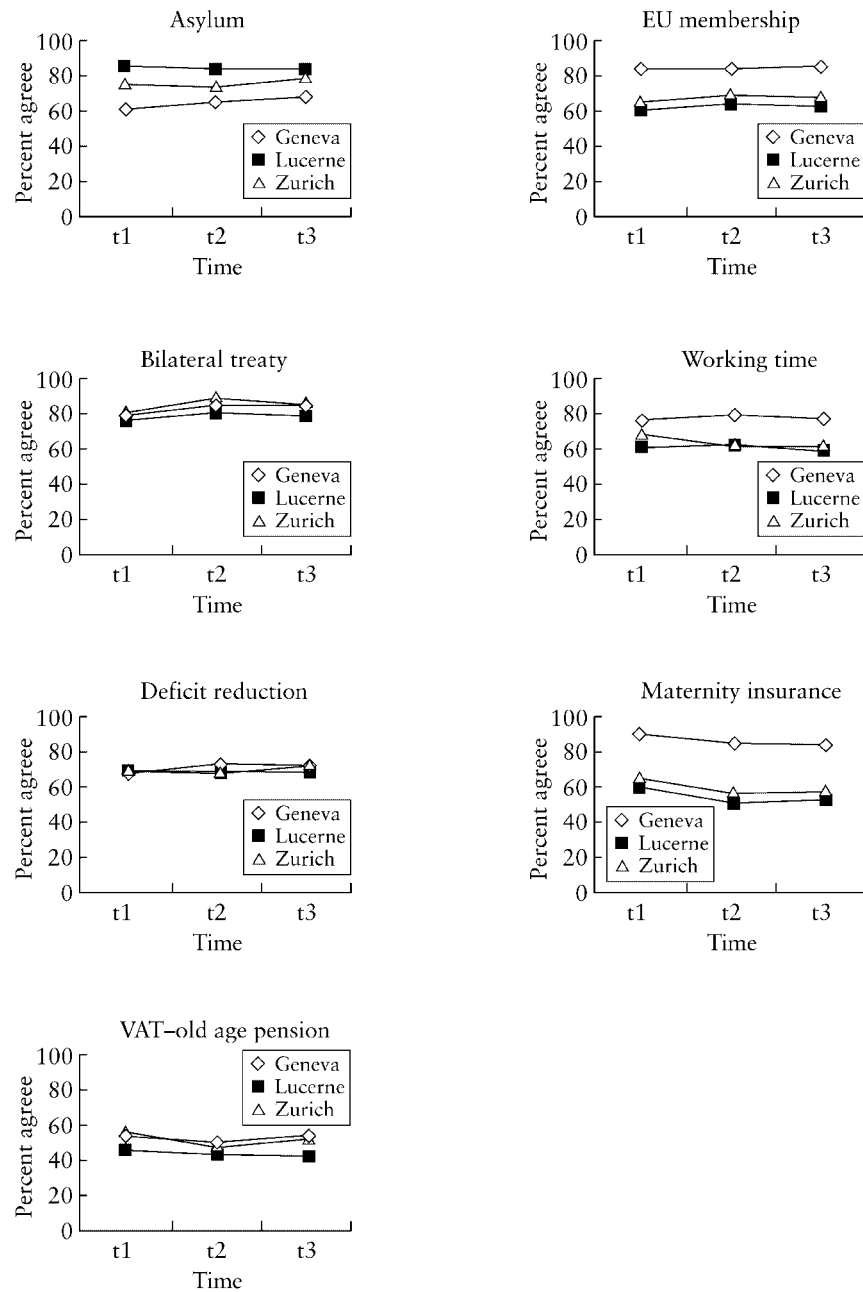
Table 4 summarizes our classification of issues with respect to the intensity and direction of information flow.

RESULTS

AGGREGATE LEVEL CHANGE

At the outset of the study in June 1999, the sample overwhelmingly supported two out of the seven policy measures: the bilateral treaties and the rapid elimination of public deficits. Two issues (EU membership and maternity insurance)⁷ were strongly supported in Geneva, but less so in Lucerne or Zurich. Conversely, the tightening of the asylum policy was supported in the two German-speaking cantons, but less so in Geneva. Finally, the respondents of all three cantons were split on a VAT increase to finance old-age pensions. More important for our present purposes, we can see from Figure 1 that, at the aggregate level, the support for each one of the seven issues remained fairly stable throughout the three waves of the study.

⁷ In the three cantons, support for maternity insurance is slightly higher (between 4 percent and 10 percent) than the actual outcome of the popular vote of June 1999. Two reasons may account for this difference. First, the fact that our sample is not absolutely representative of the Swiss voters (overrepresentation of active voters). Second, following the reasoning of some politicians on the right, a considerable number of voters may have voted against the proposed version of the insurance, although they were not against the principle of such an insurance.



N: Geneva = 614; Lucerne = 645; Zurich = 601

FIGURE 1 Aggregate support for the seven issues across time, in three cantons

TABLE 5 Rate of individual opinion change during the study (in percent)

<i>Number of changes</i>	<i>EU membership</i>	<i>Maternity insurance</i>	<i>Asylum</i>	<i>Bilateral treaties</i>	<i>Working time</i>	<i>Old age pension</i>	<i>Deficit reduction</i>
No change	77	75	75	72	71	63	59
1 change	15	16	16	20	20	26	28
2 changes	7	9	9	8	9	11	13
Total	100	100	100	100	100	100	100

Note: *n* varies between 1,833 and 1,852.

OVERALL INDIVIDUAL OPINION CHANGE

The dominant pattern of opinion stability at the aggregate level goes hand in hand with a high degree of instability at the individual level. The reason for this is that numerous individual changes of opinion in one direction are largely offset by equally numerous changes in the opposite direction. As is shown in Table 5, between roughly one-fourth and two-fifths of the respondents changed their opinion at least once during the electoral campaign. These figures are consistent with the results of a similar study concerning Swiss energy policy (Hill & Kriesi, 2001).⁸

We now turn to the analysis of the individual level opinion change, starting with the overall change. Given that the dependent variable is a dichotomous indicator of opinion change we rely on logistic regressions. All independent variables (direction, strength and crystallization of prior opinions, and awareness) are treated as categorical variables, i.e. as a series of dichotomous indicators with a base category. We also include dummy variables representing the cantons, in order to control for any possible contextual effects.

Several important results emerge from Table 6. First and foremost, one can see that the political predispositions, that is the prior direction of opinion and opinion crystallization, are strong predictors of opinion change in all estimations. Starting with opinion crystallization, Table 6 demonstrates that this variable plays a crucial role in the resistance to change: in all cases, the more crystallized the original opinion, the less it is likely to change. Opinion direction also has a strong effect. First, we observe that people who originally had no opinion are more likely to change than people who originally were in favor or against a given proposal. This means that most of those holding no opinion at the outset of the study subsequently formed an opinion, at least temporarily. In only one case, i.e. on the issue of refugees, the effect is not significant, but this is mainly due to the

⁸The overall level of opinion change was slightly higher than in the present study (between one-third and one half). However, this study was based on a four-wave panel, and covered a longer time-span (almost two years).

TABLE 6 Determinants of overall individual opinion change for all seven issues: logistic regression coefficients (standard error in parenthesis) and estimated R^2

<i>Variable</i>	<i>Asylum</i>	<i>Bilateral agreements</i>	<i>European Union</i>	<i>Maternity insurance</i>	<i>Public deficits</i>	<i>Working time</i>	<i>VAT</i>
Direction of opinion:							
For	*** -1.73*** (.33)	*** -1.35*** (.34)	*** -94** (.31)	*** .33 (.30)	*** -51 (.29)	*** -53 (.29)	*** -1.67*** (.31)
No opinion	6.22 (5.39)	1.30** (.36)	3.55*** (.96)	3.83*** (.80)	2.34*** (.52)	3.99** (1.32)	3.95*** (.63)
Crystallization:							
1	*** -43*** (.15)	*** -23 (.15)	*** -30* (.15)	*** -50*** (.16)	*** -08 (.12)	*** -40*** (.12)	.03 (.12)
2	*** -1.32*** (.19)	*** -1.34*** (.29)	*** -1.53*** (.20)	*** -1.28*** (.18)	*** -70*** (.20)	*** -1.00*** (.18)	*** -69*** (.18)
3	*** 1.67*** (.20)	*** -1.47*** (.27)	*** -2.06*** (.23)	*** -1.44*** (.17)	*** -1.12*** (.21)	*** -1.67*** (.20)	*** -85*** (.18)
Awareness supporters:							
1	—	*** -71** (.23)	*** -25 (.27)	*** -69** (.23)	—	.13 (.21)	*** -62* (.29)
2	*** -43 (.25)	*** -93*** (.25)	*** -73* (.29)	*** -47* (.23)	*** -59** (.20)	.06 (.22)	*** -1.11*** (.29)
3	*** -25 (.28)	*** -1.22*** (.29)	*** -47 (.31)	*** -96*** (.29)	*** -79*** (.23)	*** -10 (.26)	*** -1.10*** (.30)
4	*** -32 (.32)	*** -1.60*** (.41)	*** -94* (.43)	*** -99** (.36)	*** -34 (.27)	*** -20 (.32)	*** -87** (.34)
Awareness opponents:							
1	*** -1.02*** (.32)	*** .42 (.37)	*** .11 (.26)	*** -41 (.28)	*** -01 (.29)	*** -56* (.27)	*** .19 (.22)
2	*** -1.09*** (.32)	*** .44 (.39)	*** -47 (.28)	*** -64* (.29)	*** -16 (.29)	*** -24 (.27)	*** .46* (.22)

<i>Variable</i>	<i>Asylum</i>	<i>Bilateral agreements</i>	<i>European Union</i>	<i>Maternity insurance</i>	<i>Public deficits</i>	<i>Working time</i>	<i>VAT</i>
3	-1.27*** (.35)	.67 (.48)	-.60 (.31)	-.91** (.32)	.03 (.32)	-.98** (.31)	.00 (.27)
4	-1.54*** (.43)	1.19 (.83)	-.95* (.43)	-.77 (.41)	-.31 (.28)	-.64 (.37)	.26 (.34)
Cantonal context:	—	—	—	—	—	—	—
Zurich	-.15 (.15)	.30 (.17)	.26 (.17)	.20 (.16)	.03 (.13)	.24 (.14)	.02 (.13)
Lucerne	-.13 (.16)	.26 (.17)	.21 (.17)	.18 (.16)	.06 (.13)	.24 (.14)	-.05 (.13)
Constant	1.16*** (.29)	.34 (.32)	-.02 (.26)	-.24 (.28)	.41 (.25)	-.11 (.25)	-.94 (.21)
Estimated <i>R</i> ² (Nagelkerke)	.27	.46	.30	.24	.19	.13	.16
N	1814	1816	1836	1831	1802	1837	1829

Significance levels *** = .001; ** = .01; * = .05

Base categories:

- Direction of opinion: against;
- Crystallization: no crystallization;
- Awareness supporters and opponents: least aware;
- Cantonal context: Geneva.

very small size of the 'no opinion' group. Second, the differences in the rate of opinion change between supporters and opponents are in line with hypothesis 2a. Thus, for refugees and the bilateral treaties, the rate of opinion change is significantly higher among the original opponents than among the original supporters. This is what was expected, given that the communication flow was both highly intense and biased in favor of the respective policy proposal. A similar effect, but of lower magnitude, holds for EU membership. This is compatible with an information flow that was more balanced than the flow concerning the refugees and the bilateral treaties, but nevertheless leaned towards the supporting side. By contrast, but again as expected, the rate of change does not differ between supporters and opponents when the information flow is low (public deficits, working time) or fairly balanced (maternity insurance).

Next, the seven issues under consideration also differ considerably from one another with respect to the impact of awareness on the resistance to change. Overall, these differences are again consistent with our theoretical expectations. That is, they can at least partly be explained by the differences existing across issues in the intensity and direction of the information flow. First, the effect of awareness is generally higher when the issue-specific campaign is highly intense (refugees and EU membership). Second, in line with hypotheses 2b and 2c, the effect of awareness turns out to be very sensitive to the direction of the information flow. The issue of refugees is a case in point. Given the strong consensus in favor of a tightening of the asylum policy, the opponents of this proposal found themselves in an 'easy learning situation' (hypothesis 2b), keeping in mind that in this situation, even the least aware opponents can receive the messages. They are, therefore, expected to display a higher rate of change than the highly aware. Among the original supporters, by contrast, only the most aware are supposed to receive the weak, countervailing, message, and to update their preferences accordingly. These expectations are at least partly born out in our results: among the original opponents, the resistance to change increases substantially as a function of the level of awareness; among the original supporters, an increase of awareness has no such impact, but nor does it result in a significant decrease in the rate of opinion change.

At a first glance, the results regarding the bilateral treaties run counter to our hypothesis. Given the dominance of the campaign messages supporting these treaties, we expected a similar pattern of influence as in the case of asylum. The figures of Table 6, however, tell a different story: the resistance to change decreases with awareness among supporters and does not vary significantly as a function of awareness among opponents. In our view, these results do not necessarily discredit our theoretical expectations but, rather, they confirm the weakness of our indicator of the information flow in this specific case. As already mentioned, the information flow with regard to the bilateral treaties was not as one-sided as is suggested by our measure of newspaper ads. During the ratification process strong reservations against the treaties were raised from both sides of the political

spectrum. This presumably resulted in a somewhat weaker resistance among the least aware supporters of the treaties, whereas the most aware supporters resisted the change-inducing information.

On the EU membership issue, awareness has a significant—albeit weak—impact on both the initial supporters and, to a lesser extent, the initial opponents: the higher the level of awareness, the lower the likelihood of opinion change. This result is in line with an information flow that was overall favorable to EU membership, but contained also strong messages in the opposite direction (hypothesis 2c). Conversely, on the issue of maternity insurance, where the flow of information leaned slightly towards rejection, awareness has, as expected, a stronger effect among original opponents. The fact that awareness has far less of an impact on the other issues supports our hypothesis that awareness hardly plays a role in the resistance to change when the information flow is low.

Figure 2 illustrates our findings for four issues: the three issues with the most intense information flows (asylum, EU membership and bilateral treaties), and one issue with a low information flow (public deficits). The figure presents the predicted probabilities of opinion change as a function of awareness for a few combinations of direction of original opinion (for and against), and opinion crystallization (no crystallization, high crystallization). As an example, we present the results for a citizen of Zurich. The predicted probabilities are calculated on the basis of the coefficients presented in Table 6. Given the absence of differences across cantons, the picture would be very similar for the cantons of Geneva and Lucerne.

Figure 2 highlights the overriding importance of crystallization (see for each direction of the prior opinion and for each level of political awareness the differences between the lowest and highest levels of crystallization). It also confirms that the rate of change is always higher among the original opponents than among the original supporters, this being especially true among the citizens without crystallized opinions. Furthermore, while the effect of awareness is lower than that of the political predispositions (crystallization and direction), it is nevertheless important in two cases (asylum and bilateral treaties)⁹ and is far from nil on the issue of EU membership. By contrast, awareness has almost no effect in the case of public deficits, which is presumably due to the low level of the corresponding campaign intensity.

In sum, these results provide strong support for our hypotheses regarding the effects of political predispositions, and more specifically that of opinion crystallization. Furthermore, our results provide encouraging support for our hypotheses regarding the circumstances under which awareness is likely to play a role in the reception/acceptance mechanisms.

⁹ Given the lack of significance of the coefficients on which the predictions are based (small number of cases), the upwards trend among prior opponents of the bilateral treaties should be considered with caution.

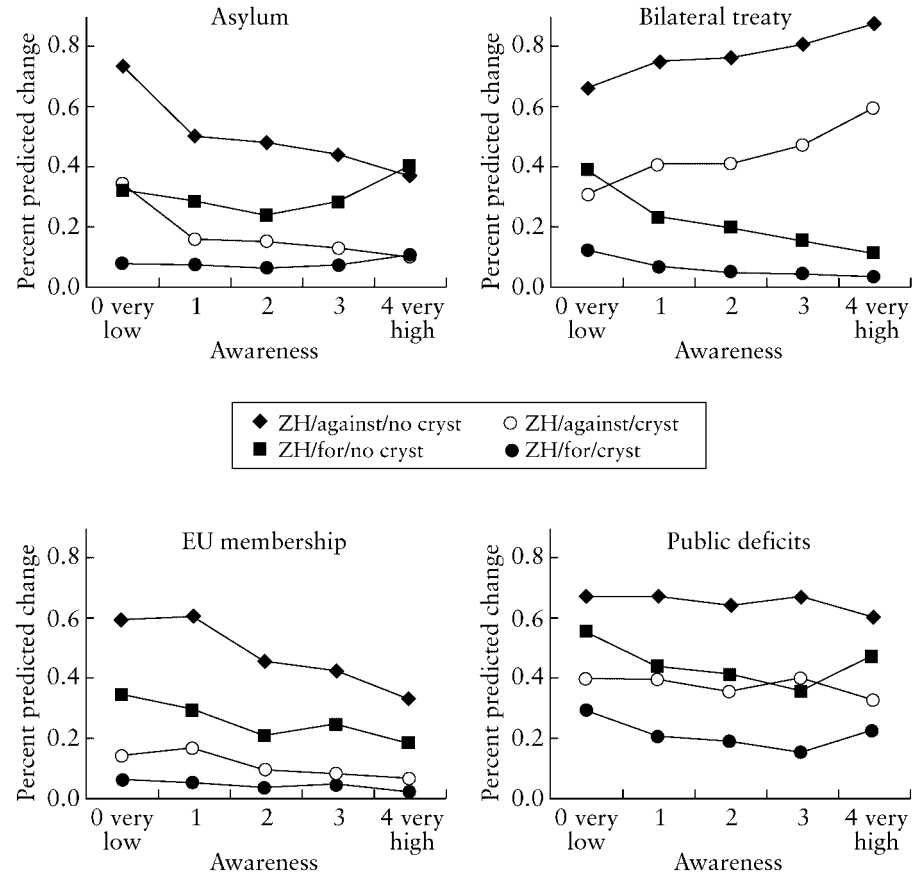


FIGURE 2 Predicted probability of overall individual opinion change by awareness for selected groups on four issues

INTERVAL-SPECIFIC OPINION CHANGE

Up to this point, we have focused on the analysis of overall individual opinion change. But our hypotheses hold up well to additional tests, not reported here, that are based on the period-specific opinion change.¹⁰ In particular, opinion crystallization has the same massive effect on the likelihood of change during both the first and second sub-periods, as it had on the overall change. Similarly, the impact of awareness on the likelihood of period-specific change also looks very much like the impact it had overall, i.e. it is significant with respect to the issues subject to intense information flows (asylum, EU membership, bilateral treaties, maternity

¹⁰ Due to limited space, we have refrained from presenting the results of these additional tests, which are available from the authors upon request.

insurance), but otherwise almost absent. In addition, this impact does not substantially differ from one sub-period to the next. The exception of maternity insurance deserves being mentioned, however: here, the impact of awareness on the likelihood of change decreases significantly both among supporters and opponents between the first and the second sub-period. This is consistent with the short-term salience of this issue and its decline after the popular vote in June. Finally, the performance of our model, as measured by the estimated R^2 , is higher for the first sub-period, than for the second one. This is presumably due to a general 'panel effect': It is well-known that respondents in a panel survey clarify their preferences in the course of the study and get closer to their 'true opinion' (Jagodzinski, Kühnel, & Schmidt, 1987; McGuire, 1960; Saris & van den Putte, 1987); this panel effect typically occurs between the first two waves of a panel study.

CONCLUSION

In this paper we have applied a model of opinion stability and change on panel data from the 1999 Swiss national elections. This model builds on Zaller's work on opinion formation and change. Arguing that Zaller's model suffers from a cognitive bias, we have elaborated on the normative source of the resistance to change. We have introduced two additional elements into the conceptualization of predispositions—strength of opinion and the embeddedness of an opinion in an individual's ideological structure—i.e. its 'crystallization'. The empirical tests highlight the usefulness of this elaboration, which improves the explanatory power of Zaller's model. As expected, crystallization appears as a strong and consistent predictor of the likelihood of change: the more crystallized an opinion, the less it is likely to change.

Controlling for opinion crystallization severely limits the influence of political awareness on the resistance to change. Still, our results confirm the relevance of Zaller's claim that awareness plays a filtering role in the reception and acceptance mechanisms, and that this filtering role varies according to the characteristics of the information flow. Here, we have tried to further clarify the effect of the intensity and direction of the information flow. We found encouraging support for our hypotheses that an intense, issue-specific information flow has a strong effect on the likelihood of change, and that the direction of this effect depends on the direction of the political messages. More specifically, our tests show that the direction of the information flow influences the likelihood of change both directly and indirectly. First, the direction of the opinion change is a function of the direction of the information flow: a strongly one-sided flow of information will result in a higher rate of change in the corresponding direction. Second, the direction of the political messages mediates the impact of awareness on the reception/acceptance mechanisms. When the information flow is one-sided, the likelihood of change decreases as a function of political awareness only among the opponents of the dominant message. The asylum issue exemplifies this subtle pattern of opinion

change. By contrast, when the information is fairly balanced between the yes and the no camps, the likelihood of change decreases as a function of political awareness among both original supporters and opponents. Maternity insurance and EU membership illustrate this effect neatly.

While our results are promising overall, we would again like to mention the limits of our indicator of the information flow. The reliance on newspaper ads pertaining explicitly to the electoral campaign turned out to be sub-optimal, especially in the cases of maternity insurance and bilateral treaties. This is certainly a limitation of our study, which we would like to address in future research. However, we do not believe that the use of a more fine-grained measure of the electoral campaign (for example, one that includes the articles in the press), will be enough to solve this problem. Indeed, our study suggests that the opinions formed on particular issues do not only depend on political parties' campaign activities. Opinion formation also, and presumably to a greater extent, depends on external events—in our case the massive inflow of asylum seekers from Kosovo, or the referendum campaign on maternity insurance—that a study of the electoral campaign alone can hardly hope to capture.

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BIOGRAPHICAL NOTES

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