

Effects of issue and poll news on electoral volatility: conversion or crystallization?

Sabine Geers^{1,2} · Linda Bos¹ · Claes H. de Vreese¹

Published online: 9 May 2018
© Macmillan Publishers Ltd., part of Springer Nature 2018

Abstract In the last decades, electoral volatility has been on the rise in Western democracies. Scholars have proposed several explanations for this phenomenon of floating voters. Exposure to media coverage as a short-term explanation for electoral volatility has yet been understudied. This study examines the effect of media content (issue news and poll news) on two different types of vote change: conversion, switching from one party to another, and crystallization, switching from being undecided to casting a vote for a party. We use a national panel survey ($N=765$) and link this to a content analysis of campaign news on television and in newspapers during national Dutch elections. Findings reveal that exposure to issue news increases the chance of crystallization, whereas it decreases the chance of conversion. Conversely, exposure to poll news increases the chance of conversion, whereas it decreases the chance of crystallization.

Keywords Media effects · Voting behavior · Election campaign · Panel survey data · Content analysis

Electronic supplementary material The online version of this article (<https://doi.org/10.1057/s41269-018-0089-x>) contains supplementary material, which is available to authorized users.

✉ Sabine Geers
S.Geers@uva.nl

¹ University of Amsterdam, Amsterdam, The Netherlands

² Amsterdam School of Communication Research ASCoR, University of Amsterdam, Postbus 15791, 1001 NG Amsterdam, The Netherlands



Introduction

The number of floating voters in Western democracies has risen over the past decades. Not only do voters change their party preference from election to election, but also during election campaigns. This development has been particularly noteworthy in the Netherlands, where the electorate has changed from one of the least to one of the most volatile electorates in Western Europe since the 1960s (Mair 2008). Understanding the impact of the media on electoral volatility is important in order to judge whether it weakens or rather strengthens democratic processes.

Most research has studied volatility at an aggregate level, looking at the overall shift in party support in society (e.g., Drummond 2006; Mair 2008; Tavits 2008). The studies that address electoral volatility at the individual level are scarce. Yet, it is only at this level that individual predictors of volatility, such as political interest and media use, can be studied. Furthermore, media as a short-term explanation for volatile voting behavior has received little research attention. In this paper, we do study volatility at the individual level, focusing in particular on the influence of the media on vote switching during campaign time.

Moreover, this study distinguishes between different types of volatility that media may affect. One of the first studies on voter behavior already differentiated between different types of vote changes during the campaign (Lazarsfeld et al. 1948): conversion, crystallization, and reinforcement. In this study, we only focus on the first two, since the latter one does not refer to actual *change* in vote, but to the “effect of reinforcing the original vote decision” (Lazarsfeld et al. 1948, p. 87). Thus, the first type of volatility we will study is conversion, which means “switching from one party to another in response to campaign exposure.” The second is crystallization: when a voter’s latent support for a party changes into an actual vote in response to campaign information. In the current study, we examine how both types of volatility are influenced by exposure to media coverage in the campaign period, which is an important element of campaign exposure. Campaign exposure might also include other aspects, such as exposure to party canvassing, campaign advertising, or exposure to political campaign messages on social media. Yet, mass media exposure is one of the most important elements of campaign exposure.

While Lazarsfeld et al. (1948) already mentioned presumed media influences on voting behavior five decades ago, the studies that have focused on media exposure as a possible explanation of electoral volatility are limited (e.g., Baker et al. 2006; Dassonneville 2011; Van der Meer et al. 2015). In addition, recent research on electoral volatility in Western Europe has not differentiated between the different types of vote change that Lazarsfeld et al. (1948) initially laid out. Scholars either focus solely on conversion (Dassonneville and Stiers 2017; Van der Meer et al. 2015) or study conversion and crystallization together without differentiating between them (Takens 2013). We argue that media may influence crystallization in a different way than it influences conversion, depending on the specific news content that voters are exposed to. However, the influence of specific news content has not been incorporated in previous studies (exceptions included,



Adriaansen et al. 2012; Takens 2013). Therefore, we not only study the effect of media exposure on volatility in general, but also study which specific aspects of media content, namely, news on issues and news on polls, induces which type of vote switching. In this way, we are able to examine the link between media and volatility more closely.

Understanding the impact of media content on electoral volatility is important for assessing whether citizens are mostly influenced by media logic or political logic. Poll news, as an important aspect of horse race coverage, is a clear indicator of media logic, which refers to the storytelling techniques media use to compete for people's attention (Strömbäck 2008). A political (or public) logic, on the other hand, refers to the needs of the political system and is expressed in more substantive issue coverage. Especially the latter is recognized to contribute to a healthy democratic process (Brants and Van Praag 2006). Examining how these types of media content, and thus these logics, influence vote switching, provides important insights into the ability of voters to make a well-informed voting decision (Takens 2013).

This study provides a comprehensive understanding of the effect of media exposure on electoral volatility in two ways. First, this study contributes to the understanding of (limited) campaign effects by distinguishing between two types of vote change that might be influenced by media: conversion and crystallization. Second, it studies the effect of news exposure in an extensive way by incorporating the exposure to specific aspects of media content into the analysis (issue news and poll news), while controlling for other important predictors of volatility.

Media and electoral volatility

Electoral volatility is generally defined as “the changes in party preferences within an electorate” (Crewe 1985, p. 8). Previous studies have explained the rise in volatility by the decline of cleavages and voter loyalties, which implies that the attachment between parties and voters has weakened (Dalton 2000). More recent research has related electoral volatility to the process of voter emancipation (Dassonneville et al. 2015; Van der Meer et al. 2015), implying that voters are making more informed political choices instead of relying on traditional loyalties. Considering the fact that social characteristics as a long-term account for the stability of voter preferences have lost much of their predictive power, one would expect that voting behavior is at least to some degree dependent on short-term factors, such as exposure to media coverage of the election campaign (Dalton 2000). As a consequence, we only focus on vote changes *within* the election campaign, so-called campaign volatility.

In early studies on the role of media in voting behavior, scholars were convinced that campaigns only have minimal effects (Klapper 1960; Lazarsfeld et al. 1948) and only conversion, due to persuasion by campaign messages, was regarded as an effect. Today, more and more scholars argue that campaigns do matter, in part because they have broadened the definition of campaign effects beyond the focus on persuasive effects (Brady et al. 2006; Farrell and Schmitt-Beck 2002). Besides persuading voters to change their party choice, and *convert* to a different party, campaigns may have an informational role helping the increasing share of undecided voters to make



up their mind and crystallize their vote choice (Arceneaux 2005; Gelman and King 1993; Hillygus and Shields 2009; Hillygus 2010).

The idea of crystallization was already introduced by Lazarsfeld et al. (1948), who stated that “what the campaign does is to *activate* [voters’] political predispositions” (p. 73). This idea of activation was further developed by Finkel (1993), who suggested that campaign information is more likely to bring voters’ party preferences in line with their own predispositions, rather than *changing* their attitudes. In line with this, campaign information might *activate* voters’ ideological predispositions. Since ideological differences between parties in the Netherlands are quite small, multiple parties might match an individual’s activated ideological attitude. Therefore, it is not immediately clear which party is to be preferred at the end of this crystallization process. From this perspective, voters who switch from being undecided to decided, or in other words “crystallize”, can be regarded as volatile voters too.

At present, studies rarely distinguish between these different campaign effects and different types of volatility (exceptions included, Dilliplane 2014; Strömbäck 2008). In this study, we contribute to the understanding of campaign effects by distinguishing between conversion and crystallization and by studying the effect of exposure to media content.

The influence of specific media content on electoral volatility

In Western Europe, the effect of media exposure on electoral volatility has been understudied, let alone the effect of exposure to specific media *content*. However, for a deeper understanding of why media exposure has an effect on electoral volatility, one should examine the *content* to which an individual is exposed: Whether voters change their voting intentions, and in what way (i.e., whether they crystallize or convert), is more likely to depend on the kind of news than merely the degree of news exposure.

To our knowledge, the effect of specific media content on volatility has only been studied by Adriaansen et al. (2012) and Takens (2013). Both studies investigated how exposure to issue news and strategic news can induce volatile voting behavior, but come to diverging conclusions. According to Adriaansen et al. (2012) issue news can induce electoral volatility, whereas strategic news decreases volatile voting behavior. In contrast, the study by Takens (2013) showed that issue news rather leads to stable voting behavior, while contest news increases electoral volatility. These diverging conclusions could be explained by their different approach in operationalizing strategic news as well as volatility. This study bridges the differences between the two studies by first of all departing from the operationalization of strategic news that both previous studies have in common, which is poll news. Secondly, we argue that the distinction between two types of electoral volatility might help us to understand the different results with regard to the effects of issue news.

What both Adriaansen et al. (2012) and Takens (2013) include in their operationalization of strategic news is the media’s coverage of polls. Poll coverage is a key aspect of strategic news (Jamieson 1992) and is closely related to Patterson’s (1993)



game frame or a horse race frame. Since one can expect that specifically poll news can induce vote switching, because of the volatile nature of polls, we do not focus on other aspects of strategic news, such as language of war, games, and competition. In this paper, we are particularly interested in issue news and poll news, and will examine their effect on both conversion and crystallization.

Issue news is generally defined as providing information about present and future policies, about political stands of parties, and about ideologies and ideas (Van Praag and Van der Eijk 1998). The basis on which votes are cast depends on the degree of issue news. According to agenda setting and priming theory, issues that are more salient in the news are more central in voters' considerations when evaluating a party (McCombs and Shaw 1972; Iyengar and Kinder 1987; Zaller 1991). Voters may choose or switch to the party that performed well on the issue in focus, leading to retrospective voting (e.g., Söderlund 2008); or they may vote for the party whose issue position is most in line with their own, leading to prospective voting (Lockerbie 1992). Either way, the party to which a voter switches depends on the media's coverage of issues and the coverage of parties' positions and performances on these issues.

As explicated above, previous research on the effect of issue news on electoral volatility has yielded inconclusive findings. Adriaansen et al. (2012) found that issue coverage can induce voter uncertainty, which was particularly the case for highly sophisticated voters. Contrarily, Takens (2013) found a negative effect from two types of issue coverage on volatility. This suggests we should study the relationship between issue news and volatility more closely and focus on the mechanism at work. The distinction between crystallization and conversion volatility is useful in that regard. Issue news might especially have an informational function for undecided voters, helping them to make up their mind and eventually crystallize their vote choice. Based on motivated reasoning literature, we assume that voters *without* a prior preference are guided by different motivational goals than voters *with* a prior preference when processing information (Kunda 1990; Nir 2011). Undecided voters are more likely to be driven by accuracy goals than directional goals, because of an absent or weaker prior preference, and thus invest more effort in processing issue-relevant information (Kunda 1990). They may use issue news to learn about parties' performances and stances on issues, to get their party choice in line with their pre-existing attitudes (Arceneaux 2005) and as a consequence crystallize their vote choice. On the other hand, voters *with* a prior preference are more likely to be driven by directional goals and thus use issue information to confirm their prior view, which reinforces their original preference instead of converting to another party. We, therefore, expect that:

H1a Exposure to issue news has a positive effect on crystallization, in that voters without a prior party preference acquire a party preference in response to issue news exposure.

H1b Exposure to issue news has a negative effect on conversion, in that voters with a prior party preference stick to that party preference in response to issue news exposure.



Poll news may lead to vote switching in several ways. Extant research has shown that poll news can lead to a so-called bandwagon effect (e.g., Farnsworth and Lichter 2006; Kleinnijenhuis et al. 2007a, b). The bandwagon effect refers to the tendency of voters to vote for successful parties. Furthermore, polls provide voters with information about possible future coalitions, which may prompt voters to cast a strategic vote (Meffert and Gschwend 2011). Regardless of whether poll exposure invokes a bandwagon effect or prompts strategic voting, in both cases it may lead to more volatility due to the dynamic nature of polls. Parties' stances in the polls fluctuate over the course of the campaign, and media's coverage on potential winners and losers of the election is often based on these polls. This fluctuation in who is winning or losing according to the media possibly also leads to fluctuations in a voter's party preference (Ansolabehere and Iyengar 1994; Kleinnijenhuis et al. 2007a, b). Accordingly, it is imaginable that voters with a prior party preference will convert to another party in response to poll news. Yet, poll news might also help individuals without a prior preference to crystallize their vote choice. For instance, undecided voters might wait for additional information, like poll news, until the last moment, in order to cast an informed strategic vote (Irwin and Van Holsteyn 2008). We thus argue that poll news might lead to both types of electoral volatility.

H2a Exposure to poll news has a positive effect on crystallization, in that voters without a prior party preference acquire a party preference in response to poll news exposure.

H2b Exposure to poll news has a positive effect on conversion, in that voters with a prior party preference end up with a preference for another party in response to issue news exposure.

Method

The Dutch case

The Dutch situation is an interesting case to study in this regard, as the Netherlands has had some of the most volatile elections within Western Europe since the 1960s (Mair 2008). Previous research has shown that Dutch voters tend to switch to ideologically similar parties within one of the two party blocks: a block of left-wing parties and a block of right-wing parties (Van der Meer et al. 2012). Furthermore, the Netherlands is a multi-party system with a high number of parties and small ideological differences between parties, making voters more likely to rely on the media when they change their vote intention. Hence, in this study, we focus on the Dutch 2012 elections. At the start of the campaign of the Dutch 2012 elections, the Socialist Party and the Liberal Party were the largest parties in the polls. However, in the last weeks of the campaign the support for the Labour Party increased. Eventually, the Liberal Party won the elections, and the Labour Party became second at the expense of the Socialist Party. This change suggests that a share of the voters



indeed switched, most notably within the block of left-wing parties (Van der Meer et al. 2012).

A longitudinal linkage study

Most campaign studies are based on cross-sectional data (Iyengar 2001), which inhibit conclusions about causal order since they measure both cause and effect at one point in time (Bartels 2006). In order to properly study media effects on vote switching, panel surveys are required, since they allow for the measurement of *changes* in voting behavior. Furthermore, in contrast to experimental studies, panel survey studies are conducted in a real-world setting, leading to a higher external validity and generalizability (Kinder 2007). Even considering the trade-off with a panel survey approach, such as less internal validity in comparison to an experimental approach, the nature of a survey approach is more suitable for this study. Whereas experimental studies involve forced exposure to specific news content, news exposure in the real world varies considerably among individual citizens, depending on the specific media outlets that citizens use. Therefore, exposure to the available media content should be analyzed at the individual level, which “entails content analyses of media outlets and media specific measures of exposure” (Druckman 2005, p. 517). Especially, since linking content analysis data to individual media exposure measures is the state-of-the art in media effects research (Scharnow and Bachl 2017). Therefore, we use a panel dataset and link this to a substantive content analysis of campaign news on television and in newspapers during the Dutch 2012 election campaign. In this way we are able to assess the impact of exposure to media content on individual-level volatility.

Panel data

The panel survey dataset we used was collected by TNS NIPO in collaboration with University of Amsterdam and de Volkskrant using computer-assisted self-interviewing. These data were gathered in the campaign period of the 2012 Dutch parliamentary elections of September 12. The first respondents were approached on May 17, 2012 (t-4: $N=1537$), and recontacted on June 21 (t-3: $N=1239$; recontact rate: 81%), August 16 (t-2: $N=1206$; recontact rate: 97%), August 30 (t-1: $N=1187$; recontact rate: 98%), and September 14 (t: $N=1162$; recontact rate: 98%). In this study, we only included those respondents that have participated in all waves ($N=765$).¹ We only used the data of last two waves (t-1 and t), since we are interested in the influence of the media’s campaign coverage which only started *after* t-2. The media coverage on the election campaign is limited in the period before t-2.

¹ Panel attrition does not seem to affect our findings. Most respondents dropped out between May and June. Those are probably the respondents who found it too much effort to participate in the whole panel survey. In the other waves, the recontact rate is very high. The respondents that we finally included in our study did not differ a lot from the drop-outs on the most important variables, such as political interest and media use.



Therefore, content analysis data before t-2 are not available in this study. Since the influence of media content on electoral volatility is the main interest of this study, we only use the panel survey data collected in the last two waves for which also content analysis data are available.² Our data are by and large representative of the Dutch population.³

Measures

The dependent variable is based on one variable in the panel dataset measured at two points in time.⁴ At t-1, respondents were asked which party they would vote for if elections were held today. At t, the post-election wave, respondents were asked which party they ended up voting for in the elections. We constructed a dependent variable with four possible outcomes: (1) stable: staying loyal to same party between t-1 and t, (2) abstention: abstaining from voting at t, (3) crystallization: changing from not voting or being undecided to a party choice between t-1 and t, (4) conversion: changing party choice between t-1 and t.⁵ Of the 765 respondents, 66% stayed with the same party in both waves, 8% crystallized their vote choice, 16% switched their party preference, and 10% eventually did not turn out on Election Day.

We also included several control variables, starting with the usual socio-demographic variables, measured at t-4: age ($M=51$, $SD=17$), sex (49.7% male, 50.3% female), education (measured in seven categories ranging from “no education” to “bachelor degree or higher,” $M=4.07$, $SD=1.81$). In addition, we controlled for various individual predispositions measured at t-2.⁶ First, political interest, which is measured with an item that asked respondents how interested they are in politics on a 7-point scale (1 = not at all interested and 7 = very interested, $M=4.35$, $SD=1.66$).

² One could argue that media effects on volatility already occur earlier in the campaign. Therefore, we tested whether voters also converted or crystallized between t-2 and t-1 after 1 week of exposure to campaign news. Yet, no significant results were found. This implies that voters change their vote intention only later in the campaign when they have been exposed to a certain degree of campaign news.

³ A representative sample (1537 persons) was selected. The respondent data of the 765 persons who completed the survey in all waves mirror census data by and large in terms of age, gender (49.5% male in census data, compared to 49.7% male in the sample), and education (maximum deviation of the sample from census data of 2% per education category). Older respondents (65–80) are slightly overrepresented in our sample (15.8% in census data, compared to 21.1% in the sample).

⁴ Volatility on the individual level can be operationalized in several ways. A common method is to construct dummy variables based on whether a voter changes party choice (“1”) or not (“0”). Yet, studies differ in which responses they regard as a change (Dassonneville 2011; Dilliplane 2014; Van der Meer et al. 2015).

⁵ For both the conversion and the crystallization outcome, respondents were only assigned a “1” if they actually voted for a party at t. A switch from or to “other, namely...” from or to another party is treated as a conversion switch. For the crystallization variable, we treat a switch from “don’t know,” “blank,” “abstain,” and “refuse” to a party choice as a crystallization switch. Only “refuse” in the last wave and “no right to vote” were treated as missing.

⁶ We also wanted to include political cynicism as a control variable, as several studies found that this is an important predictor of volatile voting behavior (e.g., Dassonneville 2011; Adriaansen et al. 2012). Yet, due to missing values on this variable, we decided to not include political cynicism in the analyses. When we do include political cynicism in the analyses, we find no effects of political cynicism on either crystallization or conversion.



Second, ideology, which is measured with a variable tapping left–right placement (1 = left and 10 = right, $M = 6.39$, $SD = 2.28$). Third, ideological extremity, by recoding ideology 1 through 5, where “1” denotes being in the middle of the political spectrum, and “5” being either at the left or right extreme end.⁷

Content analysis

We used a content analysis of the last 3 weeks of the election campaign for the television programs and newspapers (August 22 to September 12, 2012).⁸ All items with political content were coded in collaboration with the Dutch public broadcasting agency (NPO), by a team of four coders. In this study, we only included those media outlets for which media exposure was tapped in the panel dataset (i.e., the most used media outlets in the Netherlands). Those are the news programs of the public broadcaster *NOS Journaal*, and two commercial stations *RTL Nieuws* and *Hart van Nederland*, the current affairs programs *Eén Vandaag* and *Nieuwsuur*, the talk show *Knevel and van den Brink* (all public broadcasts), and the infotainment programs *De Wereld Draait Door*, *Pow News*, and *RTL Boulevard* (only the latter is a commercial broadcast). For the newspapers, we included two broadsheet/elite newspapers: *de Volkskrant* and *NRC Handelsblad*, two semi-tabloid newspapers: *de Telegraaf* and *Algemeen Dagblad*, and two (popular) free dailies: *Sp!ts* and *Metro*. Items were coded that satisfied the conditions of campaign news, in the sense that the story was about the elections, party leaders, or about the government. Items were identified based on content and form.⁹ Information about the coding procedures is included in Online Appendix A.

Measures

In the content analysis, we coded indicators of issue news and poll news for each item. Issue news was coded with the following dummy variables: “Is the story mainly about substantial policy issues, problems and solutions?,” “Does the story describe the content or details of (proposed) legislation or other government policy?,” “Does the story describe the position or standpoints of the actor on substantial policy issues?,” “Does the story describe the consequences or effects of (proposed)

⁷ Recent research has found that people in the middle of the political spectrum are most volatile (Van der Meer et al. 2015).

⁸ Although we only look at vote switching from $t-1$ to t , it is likely that respondents were already influenced by campaign news that appeared before $t-1$. Therefore, we include campaign news as from August 22. Since the election campaign started later due to summer recess, we only use content analysis of the last 3 weeks of the campaign.

⁹ The unit of analysis are separate news articles in newspapers or news items in television programs. This approach does not take into account the length of an article or item, nor does it provide the opportunity to identify specific issues or actors at the sentence level. One could argue that this could lead to an under- or overestimation of the presence of content characteristics. However, since we are interested in the overall presence of issue and poll news, and not so much in the presence of specific issues or actors, selecting full articles or news items as the unit of analysis is a suitable approach for this study.



legislation for the public?” Poll news was coded with “Does the story pay attention to (the results of) polls?” and “Does the story pay attention to the position of politicians or parties in the polls?” In both cases “1” indicated the presence of the type of news. The intercoder reliability was sufficient, with an average Krippendorff’s Alpha of 0.74 for both the coding of issue and poll news. We checked whether the different items indeed constitute a scale by using a Mokken scale. The Mokken scale is a probabilistic version of the better-known Guttman scale (Mokken 1971) and is used for dichotomous items. The Mokken scale analysis showed that the four items measuring issue news together form a strong scale ($H=0.748$, $p=0.000$), and the two items tapping poll news also form a strong scale ($H=0.564$, $p=0.000$). We used an average score to tap the presence of each type of news in each item or article.

Linking survey data to content data

To link media content to the individual-level data, we asked respondents about their exposure to the various media outlets included in the analysis: “Can you indicate how often you read the following newspapers?,” “Can you indicate how often you watch the following television programs?” These media exposure variables were measured on a 5-point scale ranging from never (0) to (almost) daily (4).¹⁰

For each respondent, exposure to media content was weighted on the basis of the issue news and poll news variables, computing individual exposure to the two types of news, see Eq. 1 (following e.g., Schuck et al. 2016).

$$\text{Type of news}_i = \frac{\sum \text{Type of news}_{\text{medium}_i} \times \text{Media exposure}_{\text{medium}_i}}{\sum \text{medium}}. \quad (1)$$

These weighted media exposure variables were thus determined by the media outlets each respondent uses and the average attention to issue news and poll news in each outlet.¹¹ The total exposure to issue news and poll news in newspapers and television programs was divided by the total amount of media outlets included in the analysis.¹² For example, a respondent reads the newspaper *NRC Handelsblad* on a daily basis (media exposure=4) and the average presence of issue news in *NRC Handelsblad* is 0.34. We link this presence of issue news to the respondent by multiplying the issue news score with the respondent’s media exposure score for *NRC Handelsblad*, resulting in an issue news exposure score of 1.36. This step is repeated for each newspaper (total of 6 outlets) and each television program (total of 9 outlets). Subsequently, we computed an average issue news exposure score for

¹⁰ For newspaper reading, we also included exposure to newspaper websites.

¹¹ Although scholars are still debating on the most reliable and valid measure of media exposure, they agree that this measure of exposure per medium overcomes at least some of the limitations of conventional news exposure measures (for a more elaborate discussion see, Dilliplane et al. 2013; Slater 2007).

¹² By employing the average exposure to media content instead of the sum, we control for potential over-reporting of news exposure (see criticisms on self-reported news exposure measures, Prior 2009).



newspapers and television separately.¹³ For newspapers, the issue news exposure score is first summed for all 6 newspaper outlets and then divided by 6 to obtain an average issue news exposure score. For television, the issue news exposure score is first summed for all nine television outlets and then divided by 9. A similar procedure is conducted to obtain average poll news exposure scores.

Results

Table 1 shows the average amount of issue coverage and poll coverage in television programs and newspapers, as well as the average media consumption per media outlet. In general, media cover more on issues than on polls. However, there are some differences between the various media outlets. Overall, newspapers pay more attention to issue news than television programs; and on television, current affair programs and talk shows feature more issue news than infotainment programs. Conversely, television programs pay more attention to poll news than newspapers. Infotainment programs generally pay little attention to both issue and poll news, suggesting that other (campaign) news is probably more present in these programs.

The effect of issue news and poll news on conversion and crystallization is tested with multinomial logistic regression analyses, since the dependent variable has four possible outcomes. In multinomial logistic regression, the impact of predictors on the outcome is compared relative to the impact of the predictors on the base category. For theoretical reasons, the impact of the variables on the outcome “conversion” is compared relative to the base category “stable.” The impact of the variables on the outcome “crystallization” is compared relative to the base category “abstention.”¹⁴

¹³ We computed issue news exposure and poll news exposure separately for newspapers and television for two reasons. First, the content analysis for newspapers differs from the content analysis for television programs in its design. Whereas the unit of analysis for newspapers is clearly distinguished by separate news articles, the unit of analysis for television programs is decided upon for each television program based on content and form. Some television programs, like the news, clearly switch between topics. In other television programs, the distinction between topics is less clear, and items can be identified by devised interruptions like, for instance, a commercial break. Secondly, to test whether television programs differ from newspapers in the amount of attention they pay to issue news and poll news, an independent samples *t* test was performed. The results show that the average attention to issue news was significantly higher [$t(13) = -2.22, p = 0.045$] in newspapers ($M = 0.39, SD = 0.05$) than on television ($M = 0.25, SD = 0.15$). The average attention to poll news is higher on television ($M = 0.24, SD = 0.14$) than in newspapers ($M = 0.14, SD = 0.03$), yet this difference is not statistically significant [$t(13) = 1.68, p = 0.116$]. However, since we find a significant difference for issue news, and taking into account that the unit of analysis was different for both media, we decided to compute issue news exposure and poll news exposure for newspapers and television separately.

¹⁴ As robustness check, we also estimated a multinomial regression model in which the dependent variables are constructed slightly different, with ‘stable’ and ‘abstention’ being collapsed into one category. In this model, the effects of issue and poll news on crystallization were largely similar, yet marginally significant. The effects of issue and poll news on conversion hold. Furthermore, the effect of issue news in newspapers on conversion was positive and significant in this model. As a second robustness check we also estimated the effects on crystallization and conversion in binary logistic regression models. The results were largely similar to the ones reported in Table 2, except the effect of poll news in newspapers on crystallization was marginally significant in the binary logistic regression model.



Table 1 Overview issue coverage, poll coverage, and media use per medium

	<i>N</i>	Issue coverage		Poll coverage		Average media consumption (<i>N</i> =765)	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
TV news							
NOS journaal	36	0.22	0.33	0.24	0.35	3.03	1.35
RTL nieuws	28	0.34	0.41	0.39	0.44	2.51	1.52
HvNL (vroeg editie)	19	0.42	0.25	0.24	0.42	1.59	1.53
Current affair programs							
Eén Vandaag	57	0.31	0.32	0.46	0.42	1.52	1.48
Nieuwsuur	85	0.39	0.34	0.26	0.37	1.16	1.34
Talk show							
Knevel & vd Brink	39	0.36	0.36	0.05	0.15	0.99	1.33
Infotainment programs							
DWDD	46	0.15	0.28	0.28	0.44	1.43	1.46
RTL Boulevard	12	0.00	0.00	0.04	0.14	1.16	1.38
Pownews	21	0.04	0.12	0.17	0.24	0.41	0.91
Broadsheet newspapers							
Volkskrant	109	0.41	0.35	0.17	0.32	0.44	0.92
NRC Handelsblad	145	0.34	0.35	0.16	0.31	0.29	0.74
Tabloid newspapers							
Telegraaf	109	0.45	0.34	0.12	0.28	0.93	1.30
Algemeen dagblad	77	0.44	0.35	0.08	0.22	0.57	1.06
Free dailies							
Metro	50	0.37	0.32	0.16	0.29	0.47	0.68
Sp!ts	36	0.35	0.33	0.14	0.33	0.42	0.65

Average media consumption shows the average value of the media consumption variables in the panel dataset. *N*=765. Scale runs from 0 to 4 where 0 denotes “never” and 4 “(almost) daily.” Newspaper consumption includes offline and online (websites) newspaper use

Hypothesis 1a stated that exposure to issue news has a positive effect on crystallization. Indeed, we find a significant positive effect of issue news in newspapers on crystallization. However, the effect of televised issue news on crystallization is insignificant.¹⁵ Hence, hypothesis 1a is partly confirmed. Figure 1 shows the predicted probability of crystallization for different values of issue and poll news exposure. The graph illustrates that among respondents with an average level of exposure to issue coverage (*M*=0.21, *SD*=0.21) the predicted probability of crystallization

¹⁵ We also estimated multinomial regressions models including general newspaper and television exposure variables (instead of content exposure variables). Neither newspaper exposure, nor television exposure had an effect on either crystallization or conversion. We can thus assume that the media effects we find can be ascribed to the differences in content and not to the differences in media.



Table 2 The impact of media content on crystallization and conversion

	Crystallization (vs abstention)		Conversion (vs stable)	
Sex	0.430	(0.382)	0.357	(0.212)
Education	0.049	(0.114)	-0.129	(0.065)*
Age	-0.023	(0.012)*	-0.001	(0.007)
Ideology	0.000	(0.109)	-0.141	(0.054)**
Ideological extremity	-0.132	(0.171)	-0.342	(0.091)***
Political interest	0.528	(0.134)***	0.008	(0.080)
Issue news				
In newspapers	11.648	(5.026)*	3.910	(2.252)
On television	6.476	(3.962)	-5.357	(2.025)**
Poll news				
In newspapers	-30.835	(15.597)*	-11.093	(7.014)
On television	-5.675	(4.125)	5.448	(2.124)*
Intercept	-1.979	(1.170)	0.064	(0.741)
Log Likelihood	-658.463		-658.463	
Nagelkerke R^2	0.288		0.288	

Entries are unstandardized regression coefficients from multinomial logistic regression models. Standard errors are reported in parentheses. $N = 765$

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

was 0.10. By comparison, among respondents whose exposure to issue news was two standard deviations above the mean, the predicted probability of crystallization was 0.28. This means that more exposure to issue news in newspapers leads to a higher chance that people eventually crystallize their vote choice. So, for voters who are undecided in the last weeks of the election campaign, exposure to issue coverage helps them make up their mind. Hypothesis 1b stated that exposure to issue news has a negative effect on conversion. We indeed find a significant negative effect of issue news on conversion. Figure 2 illustrates the predicted probability of conversion for different values of issue and poll news exposure. Voters who are exposed to issue news are less likely to convert, i.e., switch between parties, but rather remain stable. Hence, hypothesis 1b is supported. We also find effects for political interest and age on crystallization. The more politically interested are more likely to crystallize than to abstain from voting. And older voters are more likely to abstain from voting than to crystallize their vote choice.

Hypothesis 2a stated that exposure to poll news has a positive effect on crystallization. We actually find the opposite effect: exposure to poll news in newspapers *decreases* the chance of crystallization, and leads undecided voters to abstain from casting a vote. Hence, hypothesis 2a is not supported. Hypothesis 2b stated that exposure to poll news has a positive effect on conversion. Indeed, we find a significant positive effect of exposure to televised poll news on conversion. However, the effect of exposure to poll news in newspapers on conversion is insignificant. Hypothesis 2b is thus partly supported. Figure 2 illustrates that voters who



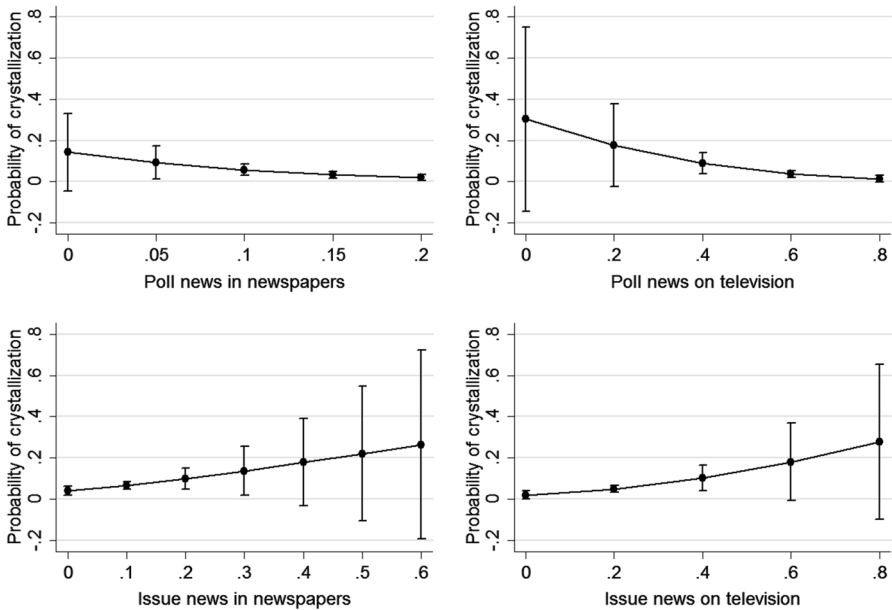


Fig. 1 The predicted probability of crystallization for different values of issue and poll news exposure. Note: The graphs show the predicted probability for respondents with average level of news exposure and the predicted probability for respondents with one and two standard deviations above and below the mean. Estimates are calculated while keeping the other variables at observed values

are exposed to poll news on television are more likely to switch between parties.¹⁶ For the other predictors, we find an effect of education, ideology, and ideological extremity on conversion. Voters who are lower educated, left-wing, and ideologically less extreme are more prone to convert from one party to another during the campaign than to remain stable.¹⁷

¹⁶ We also estimated multinomial regression models in which issue news exposure and poll news exposure are not separated for newspapers and television. In these models we still find a significant positive effect for issue news on crystallization. However, we find no effects of poll news and on conversion, which is not that surprising as our results show that the effects of both media are contradictory.

¹⁷ Since we know that there can be individual-level variation in the way media influences voters (Valkenburg and Peter 2013; Zaller 1991), we ran an additional analysis to test the interaction effect between political interest and the media exposure variables. The findings revealed a marginally significant effect of issue news and poll news on conversion for moderately interested voters. Voters with moderate levels of political interest remain when exposed to issue news, but convert to another party when exposed to poll news.



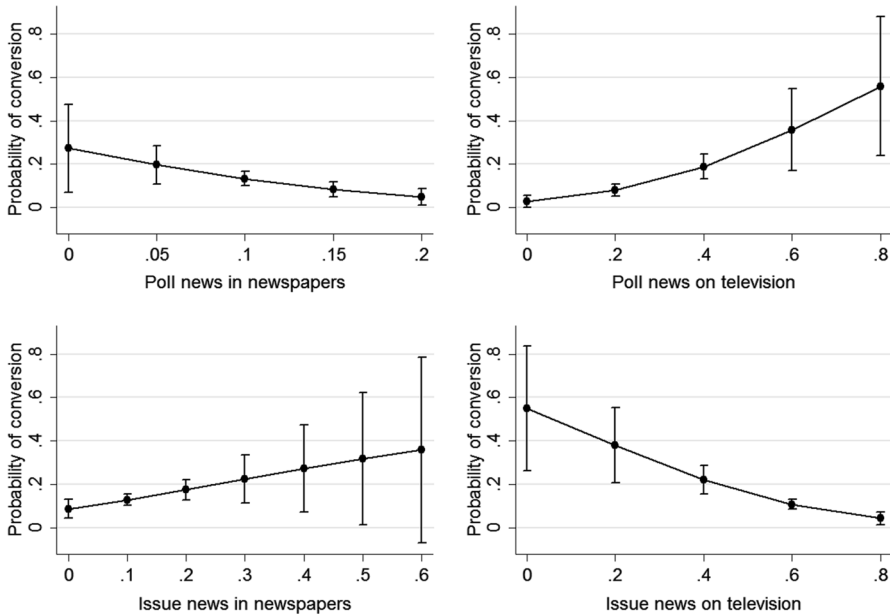


Fig. 2 The predicted probability of conversion for different values of issue and poll news exposure. Note: The graphs show the predicted probability for respondents with average level of news exposure and the predicted probability for respondents with one and two standard deviations above and below the mean. Estimates are calculated while keeping the other variables at observed values

Discussion

The increase of electoral volatility over the past decades has inspired many scholars to explain this phenomenon. However, little research has focused on short-term explanations of electoral volatility. Especially the effect of specific media coverage on vote switching has been understudied. This study examined how exposure to specific media content, issue news and poll news, affects vote change at the individual level. In addition, we distinguished between different types of volatility (conversion and crystallization). The study showed that different kinds of news can lead to different voting decision patterns.

First of all, we find an effect of issue news for both types of vote switching. Whereas issue news exposure decreases conversion, it increases crystallization. Thus, voters with an existing preference rather remain stable than switch their preference when exposed to issue news. Undecided voters eventually crystallize their vote choice in response to issue news exposure. It thus seems that exposure to issue news has a reinforcing role for voters with an existing preference and informational role for undecided voters. Voters who are undecided at the start of the campaign learn about parties' performances and stances on issues in order to get their party choice in line with their attitudes (Arceneaux 2005; Gelman and King 1993). However, we should note that the effects for issue and poll news are not across the board for the different types of media. For example, the positive effect of issue news on



crystallization is found for newspapers, but not for television. This can partly be explained by the fact that the differences in type of media content are related to the medium, in the sense that Dutch newspapers pay more attention to issue news than Dutch television news programs (Kleinnijenhuis et al. 2007a). Nevertheless, the results provide support for the argument that scholars should adopt a broader definition of campaign effects, including also the informational role of media, when studying the impact of media on voting behavior (Hillygus 2010).

Secondly, we find a positive effect of exposure to poll news on conversion and a negative effect on crystallization. Thus, exposure to poll news either induces voters to switch parties or to abstain from voting. The finding that poll news increases the chance of conversion is in line with work by Takens (2013), who found that strategic news enhances electoral volatility. Future, experimental research should examine whether this can be explained by the bandwagon effect or by strategic voting (Meffert and Gschwend 2011). As for the impact of poll news on crystallization, our results show that poll news does not provide undecided voters with additional information helping them to crystallize their vote choice by casting a strategic vote. Instead, poll news leads to abstaining from voting. One explanation for this result is that voters might decide not to turn out when their favorite party is performing poorly in the polls, and will not have an impact on the election results anyway. Another possible explanation is the fact that poll news, as a part of strategic and game news, might induce political cynicism (Adriaansen et al. 2010), which in turn leads to demobilization (Cappella and Jamieson 1997) or frustrated vote switching (Zelle 1995). Future research should further explore these findings, by examining the underlying mechanisms of media effects on electoral volatility.

We also find an effect of political interest on crystallization. The more politically interested voters are more likely to crystallize, and are not more likely to convert. Yet, we did find that highly educated voters are more likely to remain loyal to the same party than to convert to another party. These results are in line with Zaller (1991), who argues that highly politically sophisticated individuals are more apt and motivated to absorb information during campaigns, but not very likely to accept the new information and to consequently change their existing beliefs and preferences. Yet, highly interested voters who are still undecided at the start of the campaign do crystallize their vote choice. They might be searching for additional information until the last moment in order to cast an informed vote (Irwin and Van Holsteyn 2008).

Understanding the impact of media content on electoral volatility is important for assessing whether it is positive or negative for democracy. It is often argued that electoral volatility leads to an unstable democracy and complicates governability. However, volatility can also be positively interpreted, as a sign of voter emancipation (see Van der Meer et al. 2015). On the one hand, vote switching could be positive if it is based on an informed decision driven by substantive considerations: when voters crystallize in response to issue news. On the other hand, volatility motivated by peripheral cues, such as polls, could be a signal of indecisive and uninformed voting, leading to arbitrary election outcomes. Still, it is difficult to judge whether the effect of polls, used as a peripheral cue, on vote switching is inherently positive or negative. The influence of polls is often regarded as the latter, as it induces



“heuristic” information processing leading to a bandwagon effect based on irrational considerations (see Hardmeier 2008) or induces political cynicism leading to frustrated vote switching (Zelle 1995). However, poll reports can also be used as a guidance for strategic considerations to cast an informed vote. This may lead to volatile voting behavior, which is not per se negative, but also implies voter emancipation.

This study is obviously not without a few shortcomings. First, we only focus on a sample of the information sources available, excluding online sources (although we do include exposure to newspaper websites). Yet, most people tend to visit only the online news sources of the traditional news media, often combined with using the offline counterpart (Trilling and Schoenbach 2015). We are, therefore, confident that including online sources would lead to similar conclusions, because of similar news content. Second, we are restricted to self-reported measures of news exposure, of which accuracy has been questioned (e.g., Prior 2009). Yet, our study is one of the few that measures news exposure on an individual level, differentiating between different media outlets, which has shown to be a reliable and valid approach (see Dilliplane et al. 2013).

Of course, future longitudinal and comparative research is important to substantiate the conclusions of this study. Meanwhile, this study provides support for the idea that scholars should go beyond estimating *the* effect of campaigns and instead investigate in what ways, which campaign news influences vote choice or vote change (Hillygus 2010). In particular, this study shows that different kinds of campaign news can have different effects on different types of voting behavior. Whereas some campaign coverage, i.e., poll news, might persuade voters to alter their party choice, other campaign content, i.e., issue news, can affect voting behavior in a more indirect way. Our findings also demonstrate that volatile voters are not necessarily uninterested and ignorant. Electoral volatility might also be a result of a continuing process off voter emancipation, with voters using campaign news as input for substantial deliberation to come to an informed vote choice.

References

- Adriaansen, M.L., P. Van Praag, and C.H. De Vreese. 2010. Substance matters: How news content can reduce political cynicism. *International Journal of Public Opinion Research* 22 (4): 433–457.
- Adriaansen, M.L., P. Van Praag, and C.H. De Vreese. 2012. A mixed report: The effects of strategic and substantive news content on political cynicism and voting. *Communications* 37 (2): 153–172.
- Ansolabehere, S., and S. Iyengar. 1994. Of horseshoes and horse races: Experimental studies of the impact of poll results on electoral behavior. *Political Communication* 11 (4): 413–430.
- Arceneaux, K. 2005. Do campaigns help voters learn? A cross-national analysis. *British Journal of Political Science* 36 (1): 159–173.
- Baker, A., B. Ames, and L.R. Renno. 2006. Social context and campaign volatility in new democracies: Networks and neighborhoods in Brazil’s 2002 elections. *American Journal of Political Science* 50 (2): 382–399.
- Bartels, L.M. 2006. Three virtues of panel data for the analysis of campaign effects. In *Capturing campaign effects*, ed. H.E. Brady, and R. Johnston, 134–163. Ann Arbor: University of Michigan Press.
- Brady, H.E., R. Johnston, and J. Sides. 2006. The study of political campaigns. In *Capturing campaign effects*, ed. H.E. Brady, and R. Johnston, 1–26. Ann Arbor: University of Michigan Press.
- Brants, K., and P. Van Praag. 2006. Signs of media logic half a century of political communication in the Netherlands. *Javnost-The Public* 13 (1): 25–40.



- Cappella, J.N., and K.H. Jamieson. 1997. *Spiral of cynicism: The press and the public good*. New York: Oxford University Press.
- Crewe, I. 1985. Introduction: Electoral change in western democracies: a framework for analysis. In *Electoral change in western democracies: Patterns and sources of electoral volatility*, ed. Ivor Crewe, and David Denver, 1–22. Kent: Croom Helm Ltd.
- Dalton, R.J. 2000. The decline of party identification. In *Parties without partisans: Political change in advanced industrial democracies*, ed. Russell J. Dalton, and M.P. Wattenberg, 19–36. Oxford: Oxford University Press.
- Dassonneville, R. 2011. Electoral volatility, political sophistication, trust and efficacy: A study on changes in voter preferences during the Belgian regional elections of 2009. *Acta Politica* 47 (1): 18–41.
- Dassonneville, R., A. Blais, and Y. Dejaeghere. 2015. Staying with the party, switching or exiting? A comparative analysis of determinants of party switching and abstaining. *Journal of Elections, Public Opinion and Parties* 25 (3): 387–405.
- Dassonneville, R., and D. Stiers. 2017. Electoral volatility in Belgium (2009–2014). Is there a difference between stable and volatile voters? *Acta Politica*. <https://doi.org/10.1057/s41269-016-0038-5>.
- Dilliplane, S. 2014. Activation, conversion, or reinforcement? The impact of partisan news exposure on vote choice. *American Journal of Political Science* 58 (1): 79–94.
- Dilliplane, S., S.K. Goldman, and D.C. Mutz. 2013. Televised exposure to politics: New measures for a fragmented media environment. *American Journal of Political Science* 57 (1): 236–248.
- Druckman, J.N. 2005. Does political information matter? *Political Communication* 22 (4): 515–519.
- Drummond, A.J. 2006. Electoral volatility and party decline in Western democracies: 1970–1995. *Political Studies* 54 (3): 628–647.
- Farnsworth, S.J., and S.R. Lichter. 2006. The 2004 new Hampshire democratic primary and network news. *The Harvard International Journal of Press/Politics* 11 (1): 53–63.
- Farrell, D.M., and R. Schmitt-Beck. 2002. *Do political campaigns matter? Campaign effects in elections and referendums*. London: Routledge.
- Finkel, S.E. 1993. Reexamining the ‘minimal effects’ model in recent presidential campaigns. *The Journal of Politics* 55 (1): 1–21.
- Gelman, A., and G. King. 1993. Why are American presidential election campaign polls so variable when votes are so predictable? *British Journal of Political Science* 23 (4): 409–451.
- Hardmeier, S. 2008. The effects of published polls on citizens. In *The Sage handbook of public opinion research*, ed. W. Donsbach, and M.W. Traugott, 505–514. Thousand Oaks, CA: Sage.
- Hillygus, D.S., and T.G. Shields. 2009. *The persuadable voter: Wedge issues in presidential campaigns*. Princeton: Princeton University Press.
- Hillygus, S.D. 2010. Campaign effects on vote choice. In *The Oxford handbook of American elections and political behavior*, ed. J.E. Leighley, 326–345. Oxford: Oxford University Press.
- Irwin, A., and J.J.M. Van Holsteyn. 2008. What are they waiting for? Strategic information for late deciding voters. *International Journal of Public Opinion Research* 20 (4): 483–493.
- Iyengar, S. 2001. The method is the message: The current state of political communication research. *Political Communication* 18 (2): 225–229.
- Iyengar, S., and D.R. Kinder. 1987. *News that matters: Television and American opinion*. Chicago, IL: University of Chicago Press.
- Jamieson, K.H. 1992. *Dirty politics: Deception, distraction, and democracy*. New York: Oxford University Press.
- Kinder, D.R. 2007. Curmudgeonly advice. *Journal of Communication* 57 (1): 155–162.
- Klapper, J.T. 1960. *The effects of mass communication*. Glencoe: Free Press.
- Kleinnijenhuis, J., O. Scholten, and W. Van Atteveldt. 2007a. *Nederland vijfstromenland: De rol van media en stemwijzers bij de verkiezingen in 2006*. Amsterdam: Bert Bakker.
- Kleinnijenhuis, J., A.M.J. Van Hoof, D. Oegema, and J.A. De Ridder. 2007b. A test of rivaling approaches to explain news effects: News on issue positions of parties, real-world developments, support and criticism, and success and failure. *Journal of Communication* 57 (2): 366–384.
- Kunda, Z. 1990. The case for motivated reasoning. *Psychological Bulletin* 108 (3): 480–498.
- Lazarsfeld, P.F., B. Berelson, and H. Gaudet. 1948. *The people’s choice: How the voter makes up his mind in a presidential campaign*. New York: Columbia University Press.
- Lockerbie, B. 1992. Prospective voting in presidential elections, 1956–1988. *American Politics Research* 20 (3): 308–325.



- Mair, P. 2008. Electoral volatility and the Dutch party system: A comparative perspective. *Acta Politica* 43 (2): 235–253.
- McCombs, M.E., and D.L. Shaw. 1972. The agenda-setting function of mass media. *Public Opinion Quarterly* 36 (2): 176–187.
- Meffert, M.F., and T. Gschwend. 2011. Polls, coalition signals and strategic voting: An experimental investigation of perceptions and effects. *European Journal of Political Research* 50 (5): 636–667.
- Mokken, R. 1971. *A Theory and procedure of scale analysis with applications in political research*. New York: De Gruyter.
- Nir, L. 2011. Motivated reasoning and public opinion perception. *Public Opinion Quarterly* 75 (3): 504–532.
- Patterson, T.E. 1993. *Out of order*. New York: Alfred A. Knopf.
- Prior, M. 2009. The immensely inflated news audience: Assessing bias in self-reported news exposure. *Public Opinion Quarterly* 73 (1): 130–143.
- Scharnow, M., and M. Bachl. 2017. How measurement error in content analysis and self-reported media use leads to minimal media effect findings in linkage analyses: A simulation study. *Political Communication* 34 (3): 323–343.
- Schuck, A.R.T., R. Vliegthart., and C.H. de Vreese. 2016. Matching theory and data: Why combining media content with survey data matters. *British Journal of Political Science* 46 (1): 205–213. <https://doi.org/10.1017/S0007123415000228>.
- Slater, M.D. 2007. Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. *Communication Theory* 17 (3): 281–303.
- Söderlund, P. 2008. Retrospective voting and electoral volatility: A Nordic perspective. *Scandinavian Political Studies* 31 (2): 217–240.
- Strömbäck, J. 2008. Mobilization, crystallization and voting intention change—Campaign effects during the 2006 Swedish election campaign. In *Public opinion research focus*, ed. L.O. Petrieff, and R.V. Miller, 37–59. New York: Nova Science Publishers.
- Takens, J. 2013. *Media logic and electoral democracy*. Amsterdam: Vrije Universiteit.
- Tavits, M. 2008. On the linkage between electoral volatility and party system instability in Central and Eastern Europe. *European Journal of Political Research* 47 (5): 537–555.
- Trilling, D., and K. Schoenbach. 2015. Investigating people's news diets: How online news users use offline news. *Communications* 40 (1): 67–91.
- Valkenburg, P.M., and J. Peter. 2013. The differential susceptibility to media effects model. *Journal of Communication* 63 (2): 221–243.
- Van der Meer, T.W.G., E. Van Elsas, R. Lubbe, and W. Van Der Brug. 2015. Are volatile voters erratic, whimsical or seriously picky? A panel study of 58 waves into the nature of electoral volatility (the Netherlands 2006–2010). *Party Politics* 21 (1): 100–114.
- Van der Meer, T.W.G., R. Lubbe, E. Van Elsas, M. Elff, and W. Van der Brug. 2012. Bounded volatility in the Dutch electoral battlefield: A panel study on the structure of changing vote intentions in the Netherlands during 2006–2010. *Acta Politica* 47 (4): 333–355.
- Van Praag, P., and C. Van der Eijk. 1998. News content and effects in an historic campaign. *Political Communication* 15 (2): 165–183.
- Zaller, J. 1991. Information, values, and opinion. *The American Political Science Review* 85 (4): 1215–1237.
- Zelle, C. 1995. Social dealignment versus political frustration—Contrasting explanations of the floating vote in Germany. *European Journal of Political Research* 27 (3): 319–345.

