Issue Ownership, Issue Convergence or Spatial Proximity?

Explaining the 1998-2012 Dutch election results from

Issue Salience and Issue Positions in the Media

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Abstract

Recent research suggests that an integration of issue saliency approaches to electoral competition (issue ownership, issue convergence) with spatial proximity approaches based on issue positions is worthwhile. The current paper develops each of the three models – ownership, convergence and proximity – to arrive at full models to explain electoral support at the macro-level from issue emphasis and issue positions of parties according to newspapers and television programs used by individual voters. These are tested by means of autoregressive longitudinal models for subsequent national elections in the Netherlands from 1998-2012. For each election campaign survey data were commissioned with regard to the voters’ issue agreement with parties and their perceptions of parties’ issue emphasis, as well as content analysis data with respect to issue emphasis and issue positions of parties according to the media. The results show that depictions of spatial proximity, issue ownership and issue convergence according to the media systematically affect perceptions of voters, which in turn systematically affect the vote. The results are a step forwards towards an integrated theory of electoral competition that comprises successful components of each of the three models.

Keywords: Campaign, Catch-all, Cleavages, Elections, Media, Political Competition, Political Methodology, Voting

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According to issue ownership as developed by Budge and Farlie (1983) and Petrocik (1996), a party will win at the elections if the issues it ‘owns’ dominate the media, and become the criteria by which voters make their choice. A party ‘owns’ an issue if it has the reputation of handling the issue better than its opponents. Voters associate parties with specific issues (Associative Issue Ownership) and evaluate parties differently on their ability to solve these issues (Competence Issue Ownership) – see Walgrave, Lefevere, and Tresch (2012). Budge and Farlie (1983: 27) assume that owned issues relate to social cleavages that have shaped the party landscape. Issue ownership theory is therefore a theory about competitive democracy in which party elites act and citizens react, rather than a theory of procedural democracy, participatory democracy or deliberative democracy (Strömbäck, 2005). Both parties and citizens depend on a social contract with journalism (Strömbäck, 2005). Issue ownership theory assumes a social contract in which journalists raise the public interest for the owned issues of parties who beat their competitors in the struggle for the attention of journalists, and in which parties who lose this struggle still promote the freedom of the press. Numerous studies show the electoral rewards for parties of emphasizing owned issues (e.g. Van der Brug (2004), Bellucci (2006), Kleinnijenhuis, Van Hoof, Oegema, and De Ridder (2007), Bélanger and Meguid (2008) and Walgrave, et al. (2012) for the individual voter level and Budge and Farlie (1983), Kleinnijenhuis and de Ridder (1998), Blomqvist and Green-Pedersen (2004) and Green and Jennings (2012) for the aggregate voter level).

Conversely, Issue Convergence theory as developed by Sigelman and Buell (2004) maintains that parties will not always emphasize their own issues but rather ‘ride the waves’ of the dominant issues in the media. Although parties may prefer to speak about their own issues, issues that become important in a campaign just cannot be ignored and must be discussed (Green & Hobolt, 2008). Parties need to be seen as informed, concerned and responsive about ‘the major issues of the day’ (Ansolabehere & Iyengar, 1994, p. 337). When
competing parties discuss the same issues during an election campaign, we speak of issue convergence. Issue Convergence Theory rests on a social contract (Strömbäck, 2005) in which journalists are assumed to have superior knowledge of the issues that should dominate the campaign according to voters, and in which politicians who contribute to the debate about these issues will be rewarded with media attention. Extant research amply shows that parties often converge on the same issues indeed (Damore, 2005; Sigelman & Buell, 2004). This is particularly the case with popular parties that do not have to worry about their small core of traditional voters not voting for them (Wagner & Meyer, 2014). Correlational evidence suggests that parties who did not converge on issues of relatively high saliency are unpopular (Green, 2011). However, systematic evidence to show the electoral benefits of issue convergence is almost absent (but see Arndt, 2014).

Spatial theories of electoral competition assume that parties do not compete on separate issues, e.g. not both on leftist issues and on rightist issues, but rather on overarching ideological dimensions, most notably on the left-right axis (Downs, 1957; Sanders, Clarke, Stewart, & Whiteley, 2011; Van der Eijk, Schmitt, & Binder, 2005) and on a cultural GALTAN-dimension (green, alternative and libertarian versus traditional, authoritarian and nationalist, cf. Hooghe, Marks, & Wilson, 2002, also labeled as cosmopolitan versus parochial, progressive versus conservative, or permissive versus orthodox). Although theories of issue ownership and issue convergence may acknowledge that the persistence of the issue positions of parties, or their divergence, is crucial for democracy, they still maintain that parties compete primarily with their emphasis on issues rather than with their positions. Spatial theories of electoral competition are supported by empirical evidence showing that parties compete also directly with issue positions (Arndt, 2014; Dolezal, Ennser-Jedenastik, Müller, & Winkler, 2014; Kriesi et al., 2008). Lachat (2014) shows for example that voters dislike associative issue owners with whom they disagree more than other parties with whom
they disagree. An elementary spatial hypothesis is that parties holding issue positions that are shared by many voters but not many competitors tend to win seats at elections (Adams, 2012; Kriesi, et al., 2008; Laver & Sergenti, 2012; Muis, 2010; Sanders, et al., 2011). It’s not proximity to voters what counts for a party, but relative proximity as compared to competing parties.

Issue ownership theory and issue convergence theory have in common that elections are decided by parties’ associations with issues in the voter’s mind. Moreover, the two theories have in common that the mass media are regarded as partners in a social contract to inform the voters about their perception of the most important issues in politics (Sjøvaag, 2010; Strömbäck, 2005). Extant research focused mainly on these common elements, thus on associations of parties with issues (e.g. Lachat, 2014; Stubager & Slothuus, 2012; Van der Brug, 2004; Walgrave, et al., 2012), and on the role of the media in establishing associations between parties and issues (e.g. Aalberg & Jenssen, 2007; Kleinnijenhuis & Walter, 2014; Walgrave & De Swert, 2007; Walgrave, Lefevere, & Nuytemans, 2009), rather than on the differential effects of issue ownership and issue convergence on voters. Researchers who started from spatial theories however focused precisely on effects of voter perceptions on the vote that could be predicted from variants of the basis theory, e.g. directional theory versus proximity theory (Lewis & King, 1999; Tomz, Van Houweling, & Sniderman, 2006; Westholm, 1997), rather than on the origins of voter perceptions in media reports (but see Green-Pedersen & Stubager, 2010; Thesen, Green-Pedersen, & Mortensen, 2014).

Therefore we address the research question whether parties win more electoral support when they focus on their owned issues, when they converge on dominant campaign issues in the media, or when the media attribute positions on overarching issue dimensions to them that come close to the positions of the voters on these dimension. This is a relevant
question, since parties cannot focus entirely on owned issues, while also riding the waves of other dominant campaign issues, and also remaining close to voters’ issue positions.

The three theories disagree however on the assumptions about the rationale for voters to be susceptible to issue appeals – in short, whether voters care about a party’s owned issues, about issues that arouse debate between competing parties, or about their personal issue positions. Recently spatial theories and issue ownership theories were already combined (Bellucci, 2006; Green, 2011; Green & Hobolt, 2008; Green & Jennings, 2012; Hobolt & Spoon, 2012; Sanders, et al., 2011), but often on the assumption that issue ownership is not or far less important for position issues than for valence issues, and without a straightforward examination of the influence of the media on ownership and proximity. Many studies that offer support for issue ownership but in which ownership is conceptualized or operationalized as the strength of short-term associations between parties and issues actually do not discriminate between issue ownership and issue convergence (Walgrave, et al., 2012). To my knowledge this is the first study to integrate the three theories in a single empirical study, with double-layered hypotheses with regard to the influence of issue depictions in the media on voter perceptions, and with regard to the influence of the latter on the vote. The study contributes to the election campaign research literature by testing the three theories by combining data about issue saliency and issue positions from media content analysis and public opinion surveys for successive Dutch national election campaigns in the period 1998-2012. These longitudinal data allow to take into account the theoretical assumptions with regard to the stability across campaigns, although the opinion surveys in successive election years were based on new respondents. The research starts from issue saliency and issue positions of parties according to the media that individual voters actually used, but to take full advantage of the longitudinal data the hypotheses will be tested with campaign-party-issue-
combinations and campaign-party-combinations as aggregated units of analysis, that allow for autoregression tests.

We find that issue ownership theory and issue convergence theory, notwithstanding their different assumptions, predict electoral support quite well, but that they tend to fail when parties strategically alter their issue positions to attract voters in line with spatial proximity theories.

*From Associative Issue Ownership in the Media to a Party’s Share of Votes*

One of the main concepts of this study is associative issue ownership, defined as:

“… the spontaneous identification of parties with issues in the minds of voters, regardless of whether voters consider the party to be the most competent to deal with these issues; it is the consequence of long-term party attention to the issue” (Walgrave, et al., 2012, p. 772).

The core component of this definition is the *identification of parties with issues*. The theoretical assumption which distinguishes issue ownership from issue convergence is that a *long-term party attention to the issue* underlies this identification. Issue ownership theory expects parties to emphasize issues on which they are advantaged because of the long-term relationship between a party’s issues and the social, economic, religious, regional, ethnic or linguistic characteristics of its supporters. Campaigns set the issues owned by a party as the criteria for voters to choose between parties (Budge & Farlie, 1983; Petrocik, 1996).

The long-term attention of a party to an issue is relative to the attention of competing parties and relative to earlier campaigns. It is relative to other parties because parties’ issue ownership is often disputed in campaigns (Geys, 2012), which may seem plausible in multiparty systems (Arndt, 2014), but which happens to be the case also in majoritarian party systems (Green & Hobolt, 2008). An assumption of issue ownership theory is that a party will
profit from associations with an issue especially when its issue associations are stronger than those of competitors. Issue ownership is relative to the previous campaign, because parties win or lose when their owned issues gain more or less attention than in the previous campaign, which is largely outside the control of parties (Budge & Farlie, 1983, pp. 40, 129). Which issues dominate the campaign in the media may depend on key events (e.g. 9/11, Katrina), on real-world conditions (e.g. unemployment, immigration) and on the strategies of competing parties. In addition to the association of a party with an issue, and relative ownership as compared to other parties, the assumption that media attention for owned issues as compared to the previous campaign matters is therefore included as the third component of associative issue ownership.

Earlier research already established the effect of associations of parties with issues according to the media on party-issue specific associations of voters (Aalberg & Jenssen, 2007; De Bruycker & Walgrave, 2013; Walgrave & De Swert, 2007). The founders of issue ownership theory and issue convergence theory have already looked at issue ownership and issue convergence according to the media, either because the appearance or disappearance of issues in campaigns is considered to be largely outside the control of parties (Budge & Farlie, 1983, pp. 40, 129), or because the media were considered as the battlefield to win votes:

“The headlines in the newspaper and the lead stories on the evening news provide a lot of the material for candidate appeals and campaign advertising, while candidate speeches and political advertising generate a considerable proportion of the news and play a role in making some issues more salient” (Petrocik, 1996, p. 829).

Additionally, earlier research showed the effect of voters’ party-issue specific associations on their vote (Lachat, 2014; Van der Brug, 2004; Walgrave, et al., 2012). The a-part and the b-part of hypothesis H1 below propose that these two findings still hold if associative issue
Ownership includes both a party’s attention to owned issues as compared to competing parties and media attention for owned issues as compared to the previous campaign.

H1a: The stronger a party’s associative issue ownership according to the media, the stronger the voters’ association of that party with that issue.

H1b: The stronger a party’s associative issue ownership across issues according to voters, the more that party’s vote share increases.

The double-layered nature of Hypothesis H1 with two partial hypotheses H1a and H1b reflects that associative ownership according to the media is expected to influence associations of parties with issues in the minds of voters, which in turn make up the core component of associative ownership according to voters. The latter is expected to affect the vote. We expect that hypotheses H1a and H1b will hold, notwithstanding the forces that lead to a large degree of stability of their dependent variables in successive elections. To put it in statistical terms, we expect that they will hold on top of autoregression. This double-layered nature of the hypotheses is visualized in Figure 1.

<Insert Figure 1>

From Persistence Issue Ownership towards a party’s share of votes

Issue positions are not considered in the associative issue ownership variant of issue ownership theory. The variant of issue ownership that reckons with (previous) issue positions is labelled here as persistence issue ownership. Issue ownership theory assumes that spatial issue dimensions such as ‘left-right’ are divided into issues that are either owned by leftist parties (e.g. social services) or rightist parties (e.g. taxes). Owned issues can be considered as valence issues on which voters share a common issue position (e.g. increasing social services, but also tax reduction). If owned issues are isolated valence issues, then association should
ensure voter agreement (Sanders, et al., 2011). Walgrave, et al. (2012) found this to be the case indeed.

Issue ownership theory assumes that voters will agree with consistent and firm issue positions across campaigns since parties need to confirm their reputation for particular concerns. “They are the politically organized face of the religious, economic, ethnic, linguistic, and regional conflicts endemic to all societies” (Petrocik, 1996, pp. 827-828).

We define persistence issue ownership as a party having firm and consistent issue positions in successive campaigns on an issue for which it is considered to be the associative issue owner. Hypotheses H2a and H2b maintain that persistence issue ownership in the media affects a party’s share of votes through its direct influence on voters’ agreement with issue positions of parties. H2 has its double-layered nature in common with H1 (cf. Table 1).

H2a: The stronger a party’s persistence issue ownership according to the media, the stronger the voters will agree with that party on that issue.

H2b: The stronger a party’s persistence issue ownership according to voters, the more that party’s vote share increases.

Hypothesis H2a explains voter agreement from persistence issue ownership rather than from competence issue ownership, defined as a party’s perceived ability to handle an issue and to deliver on earlier promises (Green & Hobolt, 2008; Petrocik, 1996; Walgrave, et al., 2012). We did not gather data on competence issue ownership. Competence perceptions are often not issue-specific (Bellucci, 2006), and they matter less for positional issues than for valence issues (Green & Hobolt, 2008; Sanders, et al., 2011).

From Issue Convergence in the media towards a party’s share of votes

In the introduction to their seminal study Sigelman and Buell (2004) state:

“To be sure, knowing which issues a candidate had chosen to emphasize could itself convey useful information to voters, but informed decision making presupposes, at the
very least, an ability to compare the candidates’ positions across the same set of issues. A pronounced tendency on the candidates’ part to avoid issues that their opponents were emphasizing could only undermine that capacity. This aspect of a campaign has come to be known as ‘dialogue’, though we refer to it here as ‘issue convergence’ because ‘dialogue’ has so many denotations and connotations that extend beyond paying attention to the same issues.” (Sigelman & Buell, 2004, p. 650).

The core component of issue convergence is clearly the degree to which other parties pay attention to the same issues. Issue convergence theory assumes that attention to the same issues generates positional conflict that enables a dialogue between diverging issue positions. Media coverage of issue convergence would enable awareness of parties’ opposing issue positions and, moreover, discussion, deliberation and dialogue among voters. Voters are assumed to neglect both issues that do not yield discussion and parties that do not engage in discussions. Lipsitz (2013) criticises the equation of dialogue with issue convergence as measured merely by attention to the same issues. The latter is not always accompanied by dialogue but rather with vague and ambiguous valence statements or with negativity and attacks, which cannot be relied on to boost voters’ issue position knowledge (Lipsitz, 2013).

Here we will include debate and dialogue, as measured by the degree to which parties take diverging issue positions, or alternatively, by their degree of positional conflict, as a second component of issue convergence. Thus, we test whether a party will gain electoral support if it addresses the issues of the campaign provided that other parties address these issues with opposing issue positions.

H3a: The more a party converges on a dominant campaign issue on which parties are in positional conflict according to the media, the stronger voters associate the party with that issue.
H3b: The more a party converges on a dominant campaign issue on which parties are in positional conflict according to voters, the more that party’s vote share increases.

To our knowledge this is the first study to investigate not only whether issue convergence occurs in the media, but also whether it affects the vote through its impact on associations of parties with issues (cf. Figure 1). Van der Pas and Vliegenthart (forthcoming), however, found evidence that media attend more to an issue if parties are in positional conflict over that issue, which is only one step away from hypothesis H3a rephrased as the hypothesis that voters care more about an issue if the media report that parties are in positional conflict over the issue.

From Issue Positions according to the media and proximity towards a party’s share of votes

From the seminal study by Downs onwards the central idea of proximity theory has been that voters will vote for a party that is least distant on overarching dimensions (H4b). The hypothesis that the proximity between voters and a party affects the party’s vote share (H4b) has often been confirmed (Tomz, et al., 2006; Westholm, 1997), but this study adds the longitudinal dimension and compares its explanatory power with the explanatory power of competing theories.

The distance to a party is derived from the issue positions of the voter, but also from the perceptions of the issue positions of parties. The role of the media is often neglected in spatial theories of party competition, but here we will test also whether perceptions of party positions depend on strategic shifts in the issue positions of parties that are reported in the media (H4a).

H4a: Issue positions attributed to a party in the media on overarching issue dimensions result in corresponding voter perceptions of the party’s issue positions.

H4b: The greater the proximity between voters and a party on overarching issue dimensions, the more that party’s vote share increases.
Data and Method

The Dutch Case

The Dutch electoral system is one of the most proportionally representative systems in the world, with a large number of competing political parties (Lijphart 1998). Due to the numerous parties, parties will compete intensely with one another to get their owned issues onto the media agenda, which is limited in terms of space (Aalberg and Jenssen 2007). Dutch electoral campaigns are mainly fought out in the mass media, with a minor role for political advertisements. In addition, the Netherlands is one of the most electorally volatile countries in Western Europe, due, among other things, to the relative openness of the party system (Mair, 2008). This ensures considerable variation in electoral party support, which is the dependent variable in the b-part of the hypotheses.

We examine the Dutch parliamentary elections from 1998 until 2012, with the exception of the 2003 elections just one year after the 2002 elections, as we do not have survey data on issue ownership for this campaign. With a few exceptions, all parties that were part of the Dutch Lower House after the elections are included. The parties included are CU (Christian Union), CDA (Christian Democrats), SGP (Christian Theocrats), D66 (Progressive Liberals), GL (Green Left), LPF (List Pim Fortuyn), PvdA (Labour Party), PVV (Freedom Party), SP (Socialist Party), VVD (Liberal Party) and PvdD (Animal Rights Party).\(^1\)

Data Collection: Content Analysis and Panel Survey Data

This study uses content analysis data derived from newspaper and television coverage for each of the five election campaigns. The content analysis data is used to measure the

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\(^1\) Insufficient survey data were available in 2002 for LN (Livable Netherlands) in 2002, in 1998 for the CD (Centre Democrats), the SGP and the Christian Union, and in 2012 for 50+. None of these parties obtained more than five seats in the Dutch Parliament. The LPF and the PVV entered parliament in 2002, respectively 2006. The LPF was dissolved before 2006. The PvdD entered Parliament in 2010.
frequency with which specific parties addressed specific issues with specific issue positions.\(^2\)

In addition, survey data for these five election campaigns were used to measure voters’ perceptions of associative issue ownership and the degree to which voters agree or disagree with the parties on these issues.\(^3\) Issues were aggregated to twelve different issue categories that were used in this study and a remainder category that was only used for the calculation of issue attention percentages. These issues are listed in Table 1.

**Levels of Data Analysis**

Since voters are only affected by the news content of the media that they are actually exposed to, the content of newspaper and television news was only assigned to a respondent in those cases where a specific medium was actually used.\(^4\) Next, the data were averaged over respondents, which resulted in party-issue dyads for each campaign, and in 531 combinations of parties, issues and campaigns, which serve to test H1a, H2a, H3a. To test the hypotheses

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\(^2\) Human coders made use of automated tools for content analysis (e.g. van Atteveldt, 2008) to obtain core sentences from news items in national newspapers (AD, NRC Handelsblad, Trouw, De Telegraaf, de Volkskrant) free dailies (Spits, Metro) and prime time television news (NOS, RTL4, SBS6) according to the Core Sentence Approach (Dolezal, et al., 2014; Helbling & Tresch, 2011; Kleinnijenhuis & de Ridder, 1998; Kleinnijenhuis, de Ridder, & Rietberg, 1997; Kriesi et al., 2006; Kriesi, et al., 2008; Osgood, Saporta, & Nunally, 1956). This resulted in 4828, 5297, 4996, 4797 and 3467 issue statements for the election campaigns of 1998, 2002, 2006, 2010 and 2012 respectively. Issue positions attributed to a party were measured on a pro-con scale (-1..+1) for long lists of detailed sub-issues, which were recombined for the purpose of this paper to 12 main issues and a remainder category. Intercoder reliability has been measured for almost every election campaign. The scores on measures such as Krippendorf’s alpha for interval data were satisfactory (in the range of 0.67-0.8, with a few exceptions upwards and downwards). The length of the media coverage data collection differs across election campaigns and depended on the length of the actual campaign. In 1998 and 2002, almost 8 months were examined, but in 2012 only 2 months, 4 months in 2006 and 3.5 months in 2010 respectively.

\(^3\) In each election campaign, collaboration with a market research firm was established to run a panel survey study in which the same set of questions was posed about media use, issue ownership and issue agreement. Panel survey data retrieved from random samples of respondents were delivered by market research firms TNS NIPO in 1998 (n=1045), Blauw Research in 2003 (n=926), NetPanel Ruigrok in 2006 (n=1196), and IntomartGfK in 2010 (n=1362) and 2012 (n=1344, number of respondents in the last panel survey wave that included issue ownership questions included in brackets).

\(^4\) Each content analysis measure at the aggregate level is based on the content of the media to which individual media consumers were exposed, based on their answers to questions about the use of specific newspapers and television news magazines. For each respondent, a personal news package was re-constructed. To illustrate, a voter who reads a newspaper NP4 with 7 statements on a specific party-issue pair and watches television news programme TV1 with 3 statements on the same pair will receive a 10, which will be divided by the sum of all statements about all party-issue pairs in his or her personal news package, to arrive at a measure of relative attention for this party-issue pair. Issue positions in different media are combined with the formula for weighted sums, weighted means and weighted variances to arrive at measures of the total direction, the (averaged) issue position of a party with regard to an issue and the divergence of issue positions across parties.
about electoral results of parties (H1b, H2b, H3b, H4b) the data were totalled over issues to arrive at 44 combinations of parties and campaigns. Thus, to test H1b, H2b, H3b and H4b we predict a parties’ electoral result for the 44 party-campaign combinations in the dataset.

Hypothesis H4a was tested for 2 issue dimensions, thus on 2 x 44 = 88 party-campaign-dimension combinations. The data allow for tests of autoregression hypotheses with lagged dependent variables regarding the same units of analysis as in the previous campaign.\(^5\)

Issue dimensions rather than separate issues are at the heart of spatial theories. Weighted MultiDimensional Scaling (WMDS, Heiser, 1981), with weights based on party-issue associations, was used to obtain a representation of the shifts in parties’ issue positions on issue dimensions from one campaign to another. WMDS guarantees minimal distortion of especially the distances between parties and issues that are based on highly salient issue positions of parties (Kleinnijenhuis & Pennings, 2001; Kriesi et al., 2006; Kriesi et al., 2008).

Regression analysis was used to test each of the hypotheses separately. The lagged independent variable is included in each regression equation as an independent variable to account for the long-term influence of class, education, religion, and so on (cf. Figure 1). Each variable was standardized (z-scores) to enable a comparison of the strength of regression coefficients. Panel-corrected standard errors are appropriate because the subsequent election campaigns result in short time panels for each party (H1b, H2b, H3b, H4b) and for each combination of parties and issues (H1a, H2a, H3a) or issue dimensions (H4a).

Separate tests per hypothesis will be applied since the independent variables share common components by definition, such as the associations of specific parties with specific issues,

\(^5\) The issue of European integration was not included in the 1998 and 2002 survey data, which results in 3x12+2x11=58 campaign-issue combinations. SGP and CU were not included in the 1998 survey data either. LPF entered Parliament only in 2002, the PvdD in 2010, which results in n=44 campaign-party combinations and in 513 campaign-party-issue combinations. The first cases in each time series had to be sacrificed to compute lagged dependent variables and aspects of issue ownership that relate to a party’s past.
which means that a multivariate regression analysis to disentangle their effects statistically would be inappropriate.\(^6\)

**Operationalisation of Dependent Variables**

The dependent variable in H1b, H2b, H3b and H4b is a *Party’s Electoral Support* expressed in *seats*. The Dutch Lower House has a total of 150 seats.

*The Association between a Party and an Issue* according to voters is the dependent variable in H1a and H3a, and the core component of the independent variables in H1b and H3b (cf. Figure 1). It is measured on the basis of survey data. Respondents were asked: ‘Which of the issues below comes to your mind first if you think about *party i*? And which issue next?’ (Kleinnijenhuis & Pennings, 2001; Walgrave, et al., 2012). Respondents could choose from a list of predefined newsworthy issues and were also able to add other issues. The variable is then the proportion of respondents that linked a party to an issue, and ranges between 0 and 1.

The *Agreement of voters with a party on an issue* is the dependent variable in H2a, and the core component of H2b. It registers the average agreement across all respondents that associated a party with a given issue. Respondents that associated a party with an issue according to their answers to the question asking which issue comes to mind first, or next, when thinking about that party, were also asked: ‘To what degree do you agree or disagree with *party i* with regard to *issue j1 | issue j2>*. A 5-point scale was used (disagree completely, disagree, neither agree nor disagree, agree, agree completely), which was linearly transformed to a -1..+1 value range. This procedure guarantees that the agreement of voters

\(^6\) H1a and H3a share the same dependent variable, as do H1b, H2b and H3b, which allows for multivariate analysis. However, a multivariate analysis with independent variables that share components by definition results in a high multicollinearity, and in a lower \(R^2_{adj}\). \(R^2_{adj}\) is indeed lower for the model with H1a and H3a combined than for the H3a-model, as well as for a model with H1b, H2b and H3b combined than for the H3b-model.
with a party on an issue is not conflated with the judgements of voters that do not associate that party with that specific issue.

*Operationalisation of Independent Variables*

The independent variables associative issue ownership, persistence issue ownership, and issue convergence, either according to the voters’ media or according to voters, are comprised of many components (cf. Figure 1) that will be briefly discussed here. The appendix provides an elaborate description of the composition of the independent variables.

*Associative Issue Ownership* according to the media is measured on the basis of the association between a party and an issue according to the media, which is measured through the proportion of news statements about the issue position of a party in the media that were used by respondents (see footnote 5). Additional components are (a) whether a party was more often associated with an issue than competing parties in the previous and current campaigns; and (b) whether the issue at hand received more news coverage than in the previous campaign.

*Associative Issue Ownership* according to voters comprises the same three components as associative issue ownership according to the media. Associative issue ownership of a party according to voters is defined across all issues by summation over separate issues.

Two variants of *persistence issue ownership* according to media are employed: one is based on the media portrayal of the *firmness* of the issue positions of a party in the current and previous campaign, and the other is based on the portrayal of the *consistency* of a party’s issue positions as compared to the previous campaign. Both measures are defined on top of a party’s associative issue ownership.

*Persistence issue ownership* according to voters comprises the same components as persistence issue ownership according to the media, but it is aggregated over issues.
Issue Convergence, given the degree to which parties are in positional conflict regarding that issue according to the media is measured as the degree to which a party is associated with an issue that is also addressed by other parties, in combination with the degree of positional conflict – or, alternatively, the divergence of issue positions – according to the media. The latter is measured as the weighted variance of issue positions of parties, with weights reflecting the associations between parties and an issue.

The convergence of a party on an issue, given the degree to which parties are in positional conflict regarding that issue according to voters has similar components to that of the dependent variable in H3a, but it is aggregated across issues. Divergence of issue positions is now measured as the weighted variance of the agreement with different parties, with weights reflecting associations between parties and issues once more.

Positions attributed to parties on overarching issue dimensions by the press and by voters as measured by WMDS (weighted multidimensional scaling) are the independent variable, respectively dependent variable, in H4a. In the case of issue positions as reported in the press the amount of news about them serve as their weights. The weights matrices that underlie the WMDS estimations are sparse matrices with an overwhelming amount of zero’s, since neither journalists nor voters associate many parties with many issues. The positions of individual voters on overarching issue dimensions are estimated with a metric WMDS per election campaign in which the associations of parties with specific issue positions as well as the total amount of issue associations with specific parties serve as weights for respectively the distance of voters to the positions of specific parties on the twelve issues and the distance to parties. A single WMDS could be fitted for all election campaigns on the assumption that the meaning of, and the interrelationships between the twelve issues did not change from 1998 to 2012. Distances between voters and specific issue positions of specific parties are obtained by a negative linear transformation of agreement or disagreement as measured (from -1..+1 to
Distances of voters to parties are obtained from the average agreement with a party on issues with which the party was associated. Only the latter distances are important for the tests of the hypotheses. For each campaign a separate WMDS was applied since issue positions of parties are not considered constants over campaigns. We opted for two-dimensional solutions because the left-right-axis and the cultural GAL-TAN dimension have been described widely and because most variance could be explained by two-dimensional solution. To obtain the left-right-dimension as the first dimension, the MDS solution was rotated to guarantee that the estimated positions of parties on leftist and rightist issues varied maximally along the newly obtained left-right dimensions (based on the computation of the angle between the vector that minimizes the variance in leftist and rightist issue positions with the x-axis, which was the first eigenvector). It’s noteworthy that for media coverage and for the electorate in 1998 the angle of rotation was almost negligible, indicating that the first dimension of politics actually was the left-right-dimension. For voters in later years a substantial rotation was required, indicating that voters believed that the principal political cleavages resulted from a mixture of the left-right-dimension and the GAL-TAN-dimension.

The relative proximity of voter to a party is the independent variable in H4b. Obviously the relative proximity between a voter and the various competing parties should be based on intrapersonal rather than on a interpersonal utility comparison (Westholm, 1997). The proximity based probability to vote for a party becomes very small, but not completely negligible, in case that party is more distant from a voter than another party (cf. Appendix).
Results

Before testing the hypotheses on issue ownership and issue convergence, the data will be described with reference to Table 1 on issue saliency and Figures 2 and 3 on issue positions.

Associations with Issues and Agreement on Issues

Table 1 provides an overview of media attention for issues, associative issue ownership, and persistence issue ownership. First, the numbers in Table 1 show the media attention for the twelve issues during these election campaigns. Without consequences for the tests of the hypotheses, the issues are presented here as either belonging to the left-right dimension (cuts in government expenditures and taxes versus social services), the cultural dimension (crime, immigration, norms and values, administrative reforms and European cooperation) or to the category of valence issues. The six valence issues in Table 1 are not neutral, but their owner is less fixed. Health and education, for example, may be captured by centre-right parties (Arndt, 2014).

<Insert Table 1>

Table 1 illustrates how the presence and prominence of issues in election campaign news is related to parties’ electoral gains and losses, shown in Figure 4 for the six largest parties. For example, after the 2002 Dutch elections, the Dutch political landscape changed dramatically. The new anti-immigration party LPF entered Parliament with 26 seats. The Christian Democrats (CDA) became the biggest party with 43 seats. This may have been the result of the emergence of a cultural dimension (libertarian/cosmopolitan versus orthodox/authoritarian/nationalist) after 9/11. The 2002 campaign shows a substantial increase in media attention for the cultural dimension (from 27.7% to 51.9%), which supports earlier findings on the importance of cultural issues in the 2002 Dutch election campaign (Koopmans & Muis, 2009; Kriesi, et al., 2006; van der Brug & Mughan, 2007).
The hypotheses tests will be based on the issue profiles of all parties with regard to all twelve issues, but Table 1 offers a first overview of associative issue ownership by simply showing which party was associated most often with an issue according to the media and according to voters. Table 1 lists with which party voters agreed most. The three ownership types often point to the same issue owner, with associative ownership according to the media being the most volatile type. For the issue of cuts in government expenditures, and taxes, the VVD was the issue owner according to all three measures of issue ownership in each election year. The Social Democrats (PvdA) experienced the more radical leftist party SP capturing the social services and health care issues. The Christian Democrats’ long-standing ownership of norms and values was challenged by a more orthodox Christian party (CU) in 2012. Issue ownership is rather unstable for crime and education. Ownership of crime fluctuates between the VVD and the anti-immigration parties LPF and PVV, while education ownership fluctuates almost across the entire political landscape (PvdA, CDA, D66, SP).

Sigelman and Buell (2004) argue that issue convergence leads to dialogue between parties that are in positional conflict. Voters are expected to reward parties who ride the waves of these issues. Table 1 suggests indeed that increased attention for an issue may facilitate the emergence of a new issue owner. Table 1 shows that ownership befalls on Pim Fortuyn’s LPF in 2002 after the increase of media attention for immigration and crime and to the SP in 2006 after the increase of media attention for social services, education and health care.

*Issue Positions depicted in the media*

From associations with issues, we now turn to issue positions according to the media (Figure 2) and to the issue positions of voters and their perceptions of the issue positions of parties (Figure 3). Figure 2 shows a two-dimensional representation of the issue positions of political
parties according to the media (Heiser, 1981; Kleinnijenhuis & Pennings, 2001; Kriesi, et al., 2006, 2008). The two-dimensional fit is good but not perfect \( R^2 = 0.895 \).

The two-dimensional representation seems to represent two familiar orthogonal dimensions indeed: the socio-economic left-right dimension and the cultural dimension (libertarian, agnostic and cosmopolitan versus traditional, authoritarian, orthodox, parochial and nationalist). Two questions can already be answered on the basis of Figure 2. First of all, do parties stick to their previous issue positions, as is assumed by issue ownership theory? Second, do parties engage in positional conflict that enables dialogue once they converge on the issues?

<Insert Figure 2>

**Issue Positions and Persistence Issue Ownership**

One would expect issue owners to persist on their issue positions to address their core voters. However, Figure 2 shows that parties shift their issue positions from election to election, at least according to the media. Only the SP, which has never participated in a coalition government, remains faithful to its original issue positions.

The Social Democrats, for example, take moderately leftist positions on the left-right axis, but they shifted sides in 2010 to cope with the financial crisis. They really zigzagged on the cultural dimension. In 2002 the PvdA shifted to a conservative stand on the cultural dimension to prevent its voters from switching to the LPF. Eight years later, the PvdA took a libertarian position close to D66 to fight the populist party PVV (Walter, 2014). In a television debate in which each party leader could choose one opponent, PvdA leader Cohen chose PVV leader Wilders as his opponent after Wilders had already chosen Cohen as his opponent. Another example is D66, which is often assumed to be a centrist party. D66 has made huge leaps in the political landscape over the years. Figure 2 portrays only D66’s
recent shifts to keep it simple. In 2010 D66 moved from a fairly left-wing orientation to an extreme multicultural position on the cultural axis.

Clearly these apparent shifts in issue position can not be accounted for by persistence issue ownership.

**Issue Positions and Issue Convergence**

Figure 2 provides evidence of positional conflict over issue positions, but also raises doubts as to whether convergence on issues is always associated with a dialogue between opposing political views (Lipsitz, 2013). In 2002 the parties converged on the cultural dimension (51.9% media attention, see Table 1). However, they converged also on the issue positions of the LPF. In fact, almost every party moved to a more conservative position on the cultural dimension. The LPF itself is not extremely conservative in our representation, as a few weeks before his assassination, Pim Fortuyn surprisingly spoke out in favour of asylum seekers who had lived in the Netherlands for more than five years being allowed to stay. In 2010 the parties converged on the issues of the euro crisis, especially on cuts in government expenditures, of which the VVD holds ownership (23% of attention, see Table 1). The PvdA and D66 made a large swing to the right side of the left-right axis, presumably to avoid a defeat against the issue owner. Thus, convergence on the issues does not always co-occur with more positional conflict (Arndt, 2014).

**Issue Positions of voters and parties’ issue positions perceived by voters**

The contour plots in Figure 3 shows for each election campaign the distribution of the positions of voters in a two-dimensional space with the left-right dimension as the horizontal axis and the GAL-TAN dimension as the vertical axis. Blue signifies the near absence of voters, mixtures of blue and white show the presence of increasing numbers of voters, and mixtures of white and red highlight huge concentrations of voters. The perceived position of the party is plotted as a party name, together with a dashed arrow for the trajectory of the
party given its perceived position in the previous campaign (although not for 1998, which is the first campaign in line), and together with a blue arrow for the distance towards the position of the party as depicted in the media during the current campaign.

A constant in the distribution of voters across the issue dimensions landscape is the bulk of voters with traditional, authoritarian and nationalist positions on the GAL-TAN axis, which is in line with the strong position in The Netherlands from the sixteenth century onwards of orthodox Christians, labelled as “preciezen”, in their resistance against the cosmopolite urban latitudinarians, labelled as “rekkelijken”. Most remarkably is the random walk of these authoritarian voters along the left-right-axis: centre-right in 1998, extreme right in the Fortuyn-elections of 2002, moderately left in 2006 when the Socialist Party could win at the elections, and back to centre-right in 2010, and centrist in 2012.

The distribution of voters is not unimodal, as assumed in Downsian conceptions of the median voter, but bi-modal (2012), three-modal (1998, 2006, 2010, see also Kriesi, et al. (2006, 2008)), or even four-modal (2002) with blue holes in the centre. Empirical studies showing a hub in the centre relied on self-placements of voters on issue dimensions, in which voters without clear preferences for whom the issue is not salient place themselves in a centrist position. The holes in the centre according to this study result from the fact that only issue positions of parties are taken into account that were deemed salient by individual voters.

The strongest concentrations of voters opposed to the bulk of authoritarian TAN-voters occurs in 2002, presumably due to Pim Fortuyn who claimed the existence of a “leftist church” of vested parties that dared to attack him: PvdA, D66 and GroenLinks. This homogenous leftist church of alternative GAL-voters gradually became dispersed in 2006 and 2010. By 2012 the strongest concentration of voters opposing the traditional bloc of voters was even located at a centre-right rather than a left-wing or centre-left position.
Figure 3 shows suggests support for hypothesis H4b since parties who could win at the elections (see Figure 4) often tuned in to the issue preferences of voters, e.g. the LPF in 2002, the SP in 2006, the PVV in 2010, and PvdA and VVD in 2012. Figure 3 shows also counterexamples of parties who lost at the elections in spite of their agreement with voters on the issues (CDA and D66 in 1998, VVD in 2006), as well as counterexamples of parties who shifted from popular positions towards positions that were disliked by voters (CDA in 2010).

Figure 3 shows many examples of perceived party positions that appear to be in the middle of the perceived party position in the previous campaign (dashed arrows) and the current depiction of party positions in the media (cyan arrows), which is in line with hypothesis H4a. Figure 3 shows also examples of perceived party positions that are not in line with media coverage. The PVV, for example, was in 2012 perceived by the voters as a rightist party on the left-right axis, but as a leftist party in the media. D66 is still perceived as a centre-leftist party in 2010 and 2012, although media reports indicate that D66 is a centre-rightist party. According to the media the PvdA made an enormous shift towards the right on the left-right axis and towards the GAL-side of the cultural dimension, but the majority of voters still perceived the PvdA as a leftist party with weak GAL-preferences. Figure 3 shows also intriguing examples of parties who should have lost at the elections if their perceived issue positions would have been taken into account, but whose electoral victory is consistent with the hypothesis that voters rely more on the depictions of party positions in the media more than their own perceptions (VVD in 1998, CDA in 2002, PVV in 2010 and 2012).

**Hypotheses Tests**

Table 2 presents standardized regression coefficients to enable a direct comparison of their strength, for example of the strength of coefficient $\beta_2$ for the independent variable with the strength of coefficient $\beta_1$ for the lagged dependent variable. Standardization neither affects
the explained variance ($R^2_{adj}$), nor the $t$-ratio of the regression slope coefficient ($\beta$) to its panel-corrected standard error (PCSE), which underlies the test of statistical significance.

The regression results show that the stronger a party’s associative issue ownership according to the media in the current campaign, the more voters associate this party with that issue (H1a: $\beta_2 = 0.09, p_{H0} < 0.05$), and the more that party’s vote share increases (H1b: $\beta_2 = 0.28, p_{H0} < 0.05$). Both H1a and H1b are confirmed, including the assumption that party-issue associations will especially be fostered when a party gets more attention for its issues than its rivals and more attention than in the previous campaign. Although most voters remain loyal to their party (H1b: $\beta_1 = 0.60, p_{H0} < 0.001$) the constraining effects of pre-existing party preferences are surpassed by the effects of media reports about associative issue ownership. Apparently, persistent news coverage is required, since such surpassing effects could not be established after a one-shot exposure to fabricated news items in a survey-embedded experiment (cf. Walgrave, Lefevere, & Tresch, 2013). The tests of H1a and H1b offer a strong confirmation of the explanatory power of associative issue ownership (Walgrave, et al., 2012).

Hypothesis H2b is also supported. If voters believe that a party persistently kept its issue positions, then agreement with the issue positions of a party on its owned issues in the current campaign is a strong predictor of the number of seats in Parliament (H2b: $\beta_2 = 0.32, p_{H0} < 0.05$), on top of the previous number of seats (H2b: $\beta_1 = 0.68, p_{H0} < 0.001$). However, hypothesis H2a has to be rejected. H2a stated that more voters agree with the issue positions of a party if the media reported that the party consistently kept its issue positions with regard to owned issues in successive campaigns. That said, the results also show that firm positions on associatively owned issues within the current campaign foster agreement with a party’s issue positions, but this effect is moderated by the number of voters who already agreed with that party in the previous campaign (H2a’: $\beta_2 = 0.28, p_{H0} < 0.01$). H2a’
implies that increased media attention for firm issue positions on owned issues does not lead to an increase of agreement in the case of already unpopular issue positions. Associative ownership according to the media, which is the independent variable in H1a, is one of the components of persistence issue ownership, but it does not result in such a strong effect, neither by itself, nor in combination with this number of voters who already agreed with a party’s issue positions ($\beta' = 0.06$ only, $p_{H0} > 0.05$).

The data also lend support to the hypotheses about issue convergence. A party usually gains seats in Parliament when voters believe that the party converges on issues that are deemed so important by them that they associate other parties with the same issues as well, provided that the voters diverge in their agreement or disagreement with these parties ($H3b: \beta = 0.42, p_{H0} < 0.001$). To summarize then, gaining seats in Parliament depends on voters’ perceptions that a party rides the waves of issues that evoke discussion and debate between parties. The data also lend support to the assumptions of issue convergence. Voters associate a party with an issue if media reports indicate that a party converges on newsworthy issues on which parties are in positional conflict ($H3a: \beta = 0.14, p_{H0} < 0.05$). Leaving out diverging issue positions from the measure, which then would reduce merely to convergence on the issues, shows indeed a weaker effect ($\beta' = 0.09, p_{H0} < 0.05$).

The data offer also support for relative proximity based spatial voting. The positions of parties on the left-right dimension and the GAL-TAN dimension according to the press exert an influence on the perceived positions of parties ($H4a: \beta = 0.14, p_{H0} < 0.001$), on top of their previously perceived positions ($H4a: \beta = 0.71, p_{H0} < 0.001$). Thus, voters become partly aware of the strategic shifts in the issue positions of parties that are reported in the media, although they also bolster previous perceptions. The number of seats for a party is partly determined by the proximity between perceived party positions and own positions in
the current campaign (H4b: $\beta_2 = 0.26, p_{H0} < 0.05$) and partly by the previous number of seats (H4b: $\beta_1 = 0.71, p_{H0} < 0.001$).

Is there a winner?

We will now concentrate on an answer the Research Question which of the three theories is superior in explaining electoral support for parties. The explained variances in the regression table – Table 2 – suggests that issue convergence outperforms both variants of issue ownership, which in turn outperforms spatial proximity. Figure 4 presents a straightforward comparison of the number of seats in Parliament (in black) with predictions of the number of seats in line with issue convergence (green), spatial proximity (blue) and the best variant of issue ownership – persistence issue ownership (red) rather than associative issue ownership. Note that the red lines start in 2002 rather than in 1998 since the 1998 data had to be included in the 2002 issue ownership predictions. Figure 3 focuses on the six parties that obtained the highest number of seats in the 1998-2012 period. We focus on gains or losses rather than on the numbers of seats gained or lost.

<Insert Figure 3 here>

Figure 3 confirms at a glance that each of the theories accounts indeed for gains and losses of seats. Whether a party gained or lost as compared to the previous election campaign for which data are available can be understood from issue convergence in 74% of the cases, from spatial proximity in 70% of the cases, and from issue ownership in 64% of the cases. A statistical multivariate analysis to show how the models add to each other’s explanation would be erroneous since the independent variables from issue ownership theory, issue convergence theory and proximity theory share some components by definition (cf. footnote 6).

Figure 3 shows however that only the election gains for the SP in 2002 and for the VVD in 2012 can not be explained by any theory. Issue ownership and issue convergence predict the spectacular victory of the VVD in 2010, but both theories fail to predict that the
VVD of incumbent Prime Minister Mark Rutte would win once more in 2012. The relative strengths of the three theories appear to be party specific. Issue ownership theory predicts correctly whether the two leftist parties PvdA and SP win or lose at the current elections as compared to the previous and/or next elections. For example, issue ownership theory correctly predicts the electoral defeat of the PvdA in 2010 in which the party shifted to a centrist position of the left-right axis, as well as to a liberal position on the cultural dimension (see Figure 2). The predicted defeat was even heavier than the actual defeat. Issue convergence theory is however superior in predicting whether D66, CDA, LPF/PVV and the VVD win or lose. Issue ownership theory fails to explain the huge defeat of the CDA and the enormity of the victory of the PVV in the year 2010 in which the PVV rather inconsistently shifted to a centrist position on the left-right axis, which was formerly occupied by the CDA. These two electoral results are explained by spatial proximity. Spatial proximity offers a very good account of the electoral results for the PVV and the LPF, which is in line with findings by Van der Brug that the best explanation for the victory of the LPF in 2002 is simply that voters came to agree with the LPF (van der Brug & Mughan, 2007).

Conclusion and Discussion

Are gains and losses at elections better explained by issue convergence (Sigelman & Buell, 2004), issue ownership (Budge & Farlie, 1983; Petrocik, 1996) or spatial proximity (Downs, 1957; Westholm, 1997)? This question was addressed by linking content analysis data of media coverage during Dutch election campaigns in the period 1998-2012 to survey data about voter opinions in these campaigns. The electoral benefits of issue ownership versus issue convergence on electoral success were contrasted by focusing on their unique theoretical assumptions, mostly about – the persistence and divergence – of issue positions, that underlie the two theories. The article adds to the literature in other ways, for example by taking into
account only issue news in the media that individual voters actually used, and by showing strong support for the indirect effect of issue news in the media on parties’ vote shares.

The data support issue ownership theory, including its assumptions that it is electorally rewarding for parties to attain more media attention on its owned issues than its competitors for issues that gain more media attention than in the previous campaign (H1a). A party increases its number of seats in Parliament when voters acknowledge the latter (H1b). Firm issue positions on owned issues according to the media help to obtain agreement among voters with issue positions that are already popular (a revised version of H2a). Persistence issue ownership according to voters leads to electoral success (H2b). Effects of firm issue news in the media surpass the constraining effects of former party choice. The assumption that firm and consistent issue positions matter was confirmed.

The data lend even slightly more support for issue convergence theory (Damore, 2005; Sigelman & Buell, 2004), which predicts that more voters associate a party with an issue if the party converges on issues of the campaign on which parties are in positional conflict (H3a). The assumption that the degree of positional conflict matters indeed was clearly confirmed. A party’s number of parliamentary seats increases when voters acknowledge that a party is associated strongly with issues that dominate the campaign and on which parties hold diverging views (H3b).

In short, both theories offer predominantly correct predictions of electoral gains and losses (see Figure 3). Discussion between diverging issue positions of parties according to the media helps to explain why convergence on issues is potentially a winning strategy in election campaigns.

Incorrect predictions of both theories are associated with strategic shifts of the parties’ issue positions in the political space, for example with the 2010 shifts on the left-right axis of
the PVV to a more leftist position nearby the CDA. Spatial proximity theory shows to be able to explain the election outcomes after such shifts in strategic positions.

The research results suggest that an integrated theory of issue competition can be built from successful components of issue ownership theory (e.g. more media attention for issues than competing parties for issues that were more newsworthy than in the previous campaign), issue convergence theory (e.g. discussion, debate and disagreement between parties according to media and voters) and spatial proximity theory (e.g. reckoning with the relative proximity of competitors). An integrated theory of party competition should also incorporate components from spatial theories (Kriesi, et al., 2008; Laver & Sergenti, 2012; Muis, 2010), as was already argued by Green and Hobolt (2008) and Sanders, et al. (2011).

Theories of issue ownership, issue convergence and spatial proximity rest on a social contract between journalists and parties (Sjøvaag, 2010; Strömbäck, 2005) in which journalists are expected to raise the voters’ interest for politics and in which politicians will deliver newsworthy statements about their issues, their issue positions and their performance. This study shows that the competition for the attention of journalists may result in very different major issues in subsequent elections and in a high electoral volatility. The social contract forbids politicians to blame journalists for this volatility, but journalists themselves could be more critical about their collective performance. Several media in the Netherlands installed a complaints box or appointed an Ombudsman after the 2002 political earthquake, but this has resulted in discussions about errors in specific news reports about specific news items rather than in questioning the herding behaviour of journalists in election campaigns.

A limitation of our study specifically and most studies on issues in general is the level of abstraction. All issues were grouped into 12 issue categories. One robustness test showed that splitting up issues and the inclusion of campaign-specific issues weakened the effects, but all but one remained significant. Future work should also consider different electoral systems.
For example, does the issue owner in a majoritarian party system leave enough crumbs for his opponents as in the case of the issue owner in a multiparty system – as indicated by the explanatory power of positional conflict with regard to issues on which the parties converge? In which political systems will issue owners benefit especially from more media attention for their issues than in the previous campaign and in which political systems will they benefit from more media attention for their issues than their political competitors?
APPENDIX – Operationalisation of Independent Variables

The independent variables in hypotheses H1a, H2a and H2b refer to party-issue-campaign-specific media content that was actually used. The independent variables in H1b, H2b and H3b refer to party-campaign-specific voter beliefs that are aggregated over issues. The parts a and b share the same concept, respectively associative issue ownership (H1a, H1b), persistence issue ownership (H2a, H2b) and issue convergence in combination with the degree of positional conflict between parties (H3a, H3b). More than one component is involved in each of the variables (cf. Figure 1). Below, subscripts are used for parties \( i \) and issues \( j \), and superscripts for campaigns \( t \).

In Hypotheses 1a and 1b

Associative Issue Ownership (\( assoc\text{ssown}_{ij}^{(t)} \)) applies both to media and voters 

\[
assoc\text{ssown}_{ij}^{\text{media}(t)} \text{ and } assoc\text{ssown}_{ij}^{\text{voters}(t)}
\]

with basically the same operationalisation. The concept is measured on the basis of the strength of the association between a party and an issue (\( association_{ij}^{t} \), abbreviated below as \( p_{ij}^{t} \)), which derives in the case of media from the proportion of news statements about \( i \) and \( j \) and in the case of voters from the proportion of voters that associate \( i \) with \( j \). The measure also takes into account whether a party was more often associated with an issue than other parties in the previous and current campaigns. The parts within the first two pairs of brackets in equation (1) entail that the actual proportion of associations between a party and an issue should be discounted with expected proportions in the case that the party was relatively equally often associated with this issue as its competitors. Expected proportions can be calculated as the product of the proportion of attention for party \( i \) by the proportion of attention for issue \( j \), thus as \( p_{i}^{t}p_{j}^{t} \) and \( p_{i}^{t-1}p_{j}^{t-1} \), in line with the calculation of expected proportions in the chi-square test.

\[
(1) \quad assoc\text{ssown}_{ij}^{t} = \left( p_{ij}^{t} - p_{i}^{t}p_{j}^{t} \right) \left( p_{ij}^{t-1} - p_{i}^{t-1}p_{j}^{t-1} \right) \left( \frac{p_{i}^{t}}{p_{i}^{t-1}} / \frac{p_{j}^{t}}{p_{j}^{t-1}} \right)
\]
Since issue ownership theory makes no further distinction between parties that are not issue owners at all, the bracketed results \((p_i^{t} - p_i^{t+1})\) and \((p_j^{t-1} - p_j^{t+1})\) were set to 0 where an expected proportion exceeded the actual proportion. In the case of new parties, \(p_{ij}^{t+1}\) was assumed to be equal to \(p_{ij}^{t}\) and \(p_i^{t-1}\) to \(p_i^t\).

The part within the third pair of brackets in formula (1) adds that an issue owner will win votes especially when an issue with which a party is more strongly associated than its rivals gains more attention in the current campaign \(p_j^t\) than in the previous campaign \(p_j^{t-1}\). Whether this is the case can be expressed as the ratio of the first to the latter. Division by \(p_j^{t-1}\) did not result in extremely huge numbers since all twelve issues were important throughout the complete research period.

The independent variable in \(H1a\) is \(assoc\_issown_{ij}^{media(t)}\). To obtain the independent variable in \(H1b\), the analogous measure for voters is totalled over issues \(j\) to obtain 
\[\sum_j assoc\_issown_{ij}^{voters(t)}\], which is the degree to which a party is an associative issue owner according to voters across all issues. (cf. Figure 1).

In Hypotheses 2a and 2b

Persistence issue ownership applies both to the media and to voters, albeit with a slightly different operationalisation. The operationalisation of persistence issue ownership according to the media is either solely based on the firmness of the issue positions of a party in the current campaign \(firm\_assoc\_issown_{ij}^{media(t)}\) or it is also based on the consistency of a party’s issue positions as compared to the previous campaign, both according to the media.

The measures multiply \(assoc\_issown_{ij}^t\) either with the absolute value of \(i\’s\) issue position on \(j\) in campaign \(t\) according to the media so as to obtain \(firm\_assoc\_issown_{ij}^t\), or with the
product of this issue position with the corresponding issue position in the previous campaign
\( t - 1 \) so as to obtain \( \text{consistent}_i \text{assoc}_i \text{own}_{ij}^t \).

\[
(2) \quad \text{firm}_i \text{assoc}_i \text{ssown}_{ij}^\text{media}(t) = |\text{issuePosition}_{ij}^\text{media}(t)| \times \text{assoc}_i \text{ssown}_{ij}^\text{media}(t)
\]

\[
(3) \quad \text{consist}_i \text{assoc}_i \text{ssown}_{ij}^\text{media}(t)
\]

\[
= \text{issuePosition}_{ij}^\text{media}(t-1) \times \text{issuePosition}_{ij}^\text{media}(t) \times \text{assoc}_i \text{ssown}_{ij}^\text{media}(t)
\]

In the case of new parties, the issue positions in the previous campaign were assumed to be
equal to current issue positions. They were multiplied by \( \frac{1}{2} \) since new parties are often
initially distrusted. Formula (3) takes a negative value if a party is inconsistent.

The operationalisation of persistence issue ownership according to voters is based on the
definition of an owned valence issue, which entails that voters already agreed with the issue
position of the issue owner in the previous campaign. The consistency of agreement with an
associative issue owner can be operationalised as the product of the proportion of voters who
already agreed with a party on a specific issue in the previous campaign, the proportion of
voters who agree with the party on this issue in the current campaign, and associative issue
ownership.

\[
(4) \quad \text{consist}_i \text{Assoc}_i \text{ssown}_{ij}^\text{voters}(t)
\]

\[
= \sum_j \text{agreement}_{ij}^\text{voters}(t-1) \times \text{agreement}_{ij}^\text{voters}(t) \times \text{assoc}_i \text{ssown}_{ij}^\text{voters}(t)
\]

Equation (3) represents the independent variable in H2a. To obtain the independent variable
in hypothesis H2b, the analogous measure was aggregated over issues in equation (4).

**In Hypotheses 3a and 3b**

The convergence of a party on an issue, given divergence with regard to the issue positions of
parties (\( \text{Conv}_i \text{iss}_{ij} \text{Div}_i \text{iss}_{j}^\text{voters}(t) \)) is measured slightly differently for media and voters.

In both measures this variable is operationalised as the product of the convergence of a party \( i \)
on issue \( j \) with the divergence of issue positions of all parties for issue \( j \), or alternatively, with
the degree of positional conflict between parties. \textit{Convergence} of a party \( i \) on issue \( j \) is
measured as the product of \( \text{association}_{ij}^t \) with a measure of riding the waves of dominant
issues, operationalised as the combined association of all parties with issue \( j \).

\[
(5) \quad \text{ConvISS}_{ij} \text{DivISSPos}_{j}^t = \left( \text{association}_{ij}^t \times \sum_i \text{association}_{ij}^t \right) (\text{divISSPos}_{j}^t)
\]

The \textit{Divergence of Issue Positions} of parties with regard to issue \( j \), denoted as \( \text{divISSP}_{j}^t \), is
defined differently for media and voters. For the media, divergence is measured as the
weighted standard deviation of \textit{issue positions attributed to parties in the media} that were
selected by the voters. For voters, this measure is defined as the weighted standard deviation
of the \textit{agreement of voters with a party} on issue \( j \). Weights are based on associations between
parties and issue \( j \), either according to the media or according to voters.

\[
(7) \quad \text{divISSPos}_{j}^\text{voters(t)} = \sqrt{\sum_i \text{association}_{ij}^\text{voters(t)} \left( \text{agreement}_{ij}^t - \text{agreement}_{ij}^\text{voters(t)} \right)^2 / \sum_i \text{association}_{ij}^\text{voters(t)}}
\]

The \textit{ConvISS}_{ij} \text{DivISSP}_{j}^t \text{ measure (5) for media} is the independent variable in H3a. After
aggregation over issues, the measure for voters is the independent variable in hypothesis H3b.

The \textit{relative proximity of voter to a party} is the independent variable in H4b. Obviously the
relative proximity between a voter and the various competing parties should be based on
intrapersonal rather than on a interpersonal utility comparison (Westholm, 1997). The
proximity based probability to vote for a party becomes very small, but not completely
negligible, in case that party is more distant from a voter than another party. The proximity
based probability \( p_{ij} \) that voter \( i \) in a one-dimensional political landscape will vote for a specific party \( j \) given his or her perceived distance \( d_{ij} \) to this party and his or her perceived distances \( d_{ik} \) to other parties \( k \) can be expressed as a proportion, calculated as the division of the inverse of the perceived distance perceived \( d_{ij} \) by the sum of the inverse distances to \( j \) and the inversed distances to other parties \( k \).

\[
p_{ij} = 1 \frac{1}{d_{ij}^r} + \sum_{k \neq j} 1 \frac{1}{d_{ik}^r}
\]

The exponent \( r \) determines how this proximity voting probability depends on the distances towards the parties. The probability boils down simply to the inverse of the number of parties in case \( r=0 \). With \( r=1 \) the probability is inversely related to distance, without any additional advantage for the most nearby party. With \( r \rightarrow \infty \) the probability to vote for the most nearby party or most nearby parties approaches one, with a negligible probability to vote for a somewhat more distant party. The same happens regardless of the precise value of \( r \) when the distance of one or more parties towards the voter is almost zero (in which case \( d_{ij} \) is assumed to be as small as 100 times the machine precision, but still larger than zero). Here we opted for the Euclidean value \( r=2 \) because this choice reflects a multiparty party system in which parties who are close to a voter but still more distant than another party have a reduced chance, but still a chance, to get elected. With \( r=2 \) a voter with distances 1, 2 and 3 to three parties would arrive at proximity based vote probabilities of 73%, 18% and 8% respectively.

From an empirical perspective \( r=2 \) predicted the vote slightly better than \( r=4 \) (resulting in probabilities of 93%, 6% respectively 1% in this example), presumably because voters already partly incorporated the expected non-optimal returns of a vote for nearby but relatively distant parties in relatively negative evaluations of such parties (Westholm, 1997).
Literature


Table 1: Media Attention and Three Perspectives on Issue Ownership between 1998 and 2012

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
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<td></td>
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<td>cuts gov expenditures and taxes</td>
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<td>9.4%</td>
<td>23.0%</td>
<td>20.7%</td>
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<td>VVD</td>
<td>VVD</td>
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<td>voters: associative issue ownership</td>
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<td>VVD</td>
<td>VVD</td>
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<td>voters: persistence issue ownership</td>
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<td>VVD</td>
<td>VVD</td>
<td>VVD</td>
<td>VVD</td>
</tr>
<tr>
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<td>13.6%</td>
<td>8.6%</td>
<td>8.1%</td>
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<td>PvdA</td>
<td>PvdA</td>
<td>PvdA</td>
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<td>PvdA</td>
<td>PvdA</td>
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<td></td>
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<td>crime and unsafety</td>
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<td>5.1%</td>
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<td>VVD</td>
<td>Pvv</td>
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<td>Pvv</td>
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<td>LPF</td>
<td>?</td>
<td>Pvv</td>
<td>VVD</td>
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<td>VVD</td>
<td>CU</td>
<td>VVD</td>
<td>?</td>
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<tr>
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<tr>
<td>employment</td>
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<td>PvdA</td>
<td>CDA</td>
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<td>voters: persistence issue ownership</td>
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<td>PvdA</td>
<td>SP</td>
<td>D66</td>
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<td>8.7%</td>
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<td>2.6%</td>
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<tr>
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<td>VVD</td>
<td>VVD</td>
<td>CDA</td>
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<tr>
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<td>CDA</td>
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<td>environment, ecology</td>
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<td>4.9%</td>
<td>4.5%</td>
</tr>
<tr>
<td>media: associative issue ownership</td>
<td>PvdA</td>
<td>PvdA</td>
<td>GL</td>
<td>PvdD</td>
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<td>GL</td>
<td>PvdD</td>
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<td>PvdD/Gl</td>
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<td>GL</td>
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</tr>
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<td>other issues</td>
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<td>7.3%</td>
<td>13.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>media: total attention for issues</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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</tr>
</tbody>
</table>

Reading example: 27.5% of the media attention for issues in 1998, with media weighted according to their usage, was concerned with cuts in government expenditures and taxes (16.2%) and social security (11.3%). The VVD is associated more strongly with cuts in expenditures than any other party, both according to the media and according to voters. More voters agree with the VVD on this issue than with any other party. In short, the VVD is the issue owner in all respects.
Table 2: Regression Equations in rows to Test the Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Dependent variable</th>
<th>$= \beta_1 \text{lagDep}^{a,b} + \beta_2 \text{independent variable}$; $R^2_{adj}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a:</td>
<td>association party→issue</td>
<td>$0.72 \text{lagDep}^{(0.06***)} + 0.09 \text{media: associative issue ownership}^{(0.04*)}$; $0.67$</td>
</tr>
<tr>
<td>H1b:</td>
<td>seats for party</td>
<td>$0.60 \text{lagDep}^{(0.13***)} + 0.28 \text{voters: associative issue ownership}^{(0.11**)}$; $0.57$</td>
</tr>
<tr>
<td>H2a':</td>
<td>agreement party→issue</td>
<td>$0.66 \text{lagDep}^{(0.09***)} + 0.19 \text{interaction of media: firm positions (given associative ownership)}^{(0.07**)}$ with voters: lagged agreement party→issue; $0.55$</td>
</tr>
<tr>
<td>H2b:</td>
<td>seats for party</td>
<td>$0.68 \text{lagDep}^{(0.12***)} + 0.32 \text{voters: persistence issue ownership}^{(0.12*)}$; $0.61$</td>
</tr>
<tr>
<td>H3a:</td>
<td>association party→issue</td>
<td>$0.70 \text{lagDep}^{(0.06***)} + 0.14 \text{media: issue convergence (given positional conflict)}^{(0.04**)}$; $0.68$</td>
</tr>
<tr>
<td>H3b:</td>
<td>seats for Party</td>
<td>$0.64 \text{lagDep}^{(0.10***)} + 0.42 \text{voters: issue convergence (given positional conflict)}^{(0.08***)}$; $0.72$</td>
</tr>
<tr>
<td>H4a:</td>
<td>Perceived position party</td>
<td>$0.55 \text{lagDep}^{(0.09***)} + 0.32 \text{media: issue position attributed to party on issue dimensions}^{(0.07***)}$; $0.54$</td>
</tr>
<tr>
<td>H4b:</td>
<td>seats for Party</td>
<td>$0.71 \text{lagDep}^{(0.11***)} + 0.26 \text{voters: proximity perceived position party to own position}^{(0.11*)}$; $0.62$</td>
</tr>
</tbody>
</table>

Notes:
a. OLS regression coefficients ($\beta_1$ and $\beta_2$) are based on standardized variables with Panel-Corrected Standard Errors (in brackets).
* $p<0.05$, ** $p<0.01$, *** $p<0.001$ (two-sided tests).
b. Abbreviations: lagDep lagged dependent variable (previous campaign); “media:” according to the media that voters used; “voters:” according to voters
Figure 1: Expected impact of issue ownership and issue convergence

Note: Hypotheses H1b, H2b and H3b specify how the number of seats for a party is expected to depend on the voters’ summated issue beliefs across all issues. Hypotheses H1a, H2a and H3a lay down how the voters’ association between a party and an issue, and moreover the voters’ agreement with a party on an issue, are expected to depend on associative issue ownership, persistence issue ownership and issue convergence according to the media. The curved arrows represent controls for autoregression.
Figure 2: Shifts in Parties’ Issue Positions along the Left-Right and Libertarian-Communitarian Dimensions (on the basis of Weighted Proximity Scaling)

Note: The explained variance of the two-dimensional Weighted Proximity Scaling amounts to 89.6%. All political parties were part of the computation, but for the sake of visual clarity only major parties and major issues are plotted in Figure 1.
Figure 4: Left-Right and GAL-TAN Density of voters, current and previous Positions of Parties, and media attributions of positions of parties

Legend: Blue=almost no voters, red = hub of voters. Text in the figures: perceived party positions according to voters. Dashed line: where the party came from as compared to the previous elections campaign. Cyan line: discrepancy between party position as depicted in the press and as perceived by voters.
Figure 3: Parliamentary Seats predicted by Issue Ownership, Issue Convergence and Issue Proximity

Note: To enable a visual comparison across parties and across election years, a linear minimum-median transformation was applied to issue ownership and issue convergence variables to prevent a negative number of predicted seats but to allow for positive outliers in predictions.