Who is driving whom

*The media, voters and the bandwagon*

Stolwijk, S.B.

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Bandwagon effects continue to inspire debate among scholars, journalists, politicians, and the general public. Politicians complain about undue influences on their electoral results, journalists scrutinize their accuracy, voters suspect large effects and scholars try to establish their existence, conditions and exact dynamics. This dissertation has focused on the mechanism behind the bandwagon effect by investigating how opinion polls influence political party coverage, and how poll coverage influences campaign interest, emotions towards parties, turnout and voting. Its results highlight the many dependencies at work behind the bandwagon effect. Journalists interpret the results of polls and may use them to focus attention to a party, but so do campaign teams and other interested groups. As a consequence, the net effect of polls on party coverage differs per party, with smaller parties being neglected and larger parties being treated depending on their position in the electoral horse race. Increasing poll ratings do not translate automatically into more or more favorable media coverage. This might help explain why the overall effects found of poll coverage on voting and turnout are relatively small. Perhaps, if media coverage had responded stronger and more positively to polls, the effect of polls on turnout and voting would have been correspondingly larger. Still, in line with the bandwagon hypothesis, exposure to poll coverage was found to increase interest and turnout in the Dutch 2014 elections for the European Parliament. In addition, when the tone of that poll coverage was more positive towards a party, this reduced negative emotions and enhanced positive emotions leading to increased electoral odds for this party.

The introduction outlined how the three chapters in this dissertation each aim to explain a specific aspect of the mechanism behind the bandwagon effect. Here, the relevance of their results will be discussed for the bandwagon effect and on how they relate to Slater’s (2007; 2015) Reinforcing Spirals Model (RSM). The normative implications of these findings will be described, and it will be argued that polls played a beneficial role in election campaigns from the viewpoint of participatory democracy. In the pursuit of these results, the studies have proposed various methodological innovations that are relevant for future research. Examples are the use of a multilevel design to evaluate the influence of polls by different polling firms for each party in each outlet within one model, the incorporation of a covariate balancing propensity score (CBPS)
within a structural equation model (SEM) to model both the antecedents and consequences of media selection, and the use of an exposure index of poll coverage, rather than poll ratings, when investigating effects on vote choice. The contribution of each of these innovations will be further elaborated below. Obviously, these designs still had their limitations, which will be discussed before making recommendations for further research.

Theoretical implications

This dissertation has added a communication science perspective to the study of the bandwagon effect, by evaluating how poll ratings influence party coverage, and how exposure to poll coverage across a campaign influences a voter’s campaign interest, emotions about parties, turnout and vote choice. It shows how party coverage of a front runner party increases with a decrease in its poll ratings, that exposure to poll coverage increases campaign interest and turnout, and that exposure to more favorable poll coverage about a party increases the odds of voting for this party, partly because of the rise of enthusiasm and decrease of anxiety felt about this party. The combined results of the studies in this dissertation suggest two extensions of Slater’s (2015) Reinforcing Spirals Model: media agenda building and emotions. Media coverage plays an important and active role in the bandwagon effect, but so do voters’ (emotional) responses to that coverage. In line with the goals of participatory democracy, the effect of polls on elections is shaped by the strategic interactions of all parties involved.

Each of the chapters in this dissertation represents a separate study with its own focus and conclusions, but when combined they also yield some additional insights, both for the mechanism behind the bandwagon effect and for the RSM. The studies investigated whether media coverage played an active role in the mechanism behind the bandwagon effect. The influence of media coverage on the bandwagon effect will be interpreted as a form of media agency. Media coverage was not a mere reflection of other causes, like poll ratings, but made its own independent contribution to the causal chain from polls to vote choice. Like media coverage, voters themselves also actively contributed to the effects that polls had on their vote choice. Polls influenced them differently depending on whether they avoided exposure to poll coverage or not, and, when exposed,
it mattered how they reacted emotionally to that coverage. Both media and voter agency will be further elaborated below, followed by a discussion of their implications for the bandwagon effect and the RSM.

**Media agency.** The analyses in chapter 1 examined whether party coverage merely follows the bandwagon, or whether this coverage plays a more active role within the bandwagon mechanism. Notwithstanding the arguments on economic incentives outlined by Hamilton (2004) and on indexing by Bennett (1990), the results showed that media coverage of parties does not automatically follow the bandwagon. This chapter built on the generic horse race storylines framework developed by Patterson (1993) to explain the conditions under which polls can have different effects on party coverage. Its results show that, when poll results do not support the storylines of gaining ground or losing ground, their effect on party coverage follows a different logic. For the front runner party, negative changes in poll results were found to be more newsworthy and generated additional coverage. For the trailing challenger party, positive poll changes did little for their coverage, and the additional attention they received tended to be negative.

This finding suggests that either the media built their own storyline to deal with the low volatility in poll ratings, or other actors, like the CDU campaign team and other CDU proponents, were successful in countering poll decreases with more positive campaign news. This finding did not support Hamilton’s (2004) market forces perspective, when it is interpreted as saying that media outlets should follow the (small changes in) party preferences of their audience. Still, maybe the audience did not want to see/read party preference consistent stories and were more interested in what the media had to say about the front runner.56 Whatever the exact causes for this result, it shows how media coverage does not automatically support a bandwagon effect and can play an active role within its mechanism or even counteract it. This illustrates the importance of studying how polls shape media coverage to explain the conditions that favor a bandwagon effect in vote choice, and might help account for null findings or even underdog effects in other studies. The results presented in chapter 1 similarly show how media coverage plays an active role. The way poll results

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56 However, additional analyses in study 2 on the drivers of selection to poll coverage showed that voters preferring a party that did well in the polls (such as D66) were more likely to report to have been exposed to poll coverage than voters preferring other parties. If applied to study 1, this would thus contradict the relevance of Hamilton’s market forces theory to explain the findings.
are described and interpreted by journalists is more important with respect to influencing vote choice, than the poll rating by itself (also see Van der Meer, Hakhverdian, & Aaldering, 2016). Thus, the way poll results are reported on, forms another entry point from which media can influence the occurrence of a bandwagon effect. It appears that chapters 1 and 3 complement each other in this respect and it would be interesting to seek to combine their findings. However, combining the results of both these studies to give a fuller account of media agency has some complications. Chapter 1 presents effects of polls on party coverage, but does not include effects on vote choice. The analyses presented in chapter 3 investigate the effects of poll coverage on vote choice, but do not model how poll coverage is related to poll ratings. Extrapolating the results on party coverage from chapter 1 to those on vote choice in chapter 3 is thus not straightforward.

Still, when judging the available evidence, it appears that the effects of party coverage and poll coverage were working in tandem to influence vote choice. Overall, the poll index in chapter 3 is positively related to changes in poll ratings across the campaign. As poll ratings were, for example, found to be negatively related to party coverage of CDU, it appears poll coverage and party coverage had an opposite influence for this party. However, when examining the relation between the poll index and changes in poll ratings per party, a different impression emerges. When looking only at the parties whose coverage was found to be related to poll changes in chapter 1, the average poll index in chapter 3 was in line with the effects of their polls on party coverage. While poll ratings of CDU declined across the campaign, the average poll index for this party was positive, and exposure to CDU poll coverage had a positive effect on voting for CDU. Likewise, results in chapter 1 show that CDU coverage increased in response to decreases in its poll ratings. This additional CDU coverage can similarly be expected to have a positive effect on voting for CDU. Likewise, results in chapter 1 show that CDU coverage increased in response to decreases in its poll ratings. This additional CDU coverage can similarly be expected to have a positive effect on voting for CDU. The same holds for SPD, the poll index for SPD was negative while its poll ratings increased across the campaign. The negative poll index decreased the odds of voting for SPD. Its positive poll ratings led to increased negative coverage, which can similarly be expected to decrease the odds of voting for SPD.

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57 The poll index correlated with changes in poll ratings when all parties are examined together ($r = 0.12, p < 0.001, N = 6384$).
As the expected effects of the poll index and changes in party coverage for these parties are in the same direction, it could either be that the results found in chapter 3 of the poll index on vote choice were actually a spurious consequence of the effect of party coverage, or that each had an independent influence. It is likely that the effects of exposure to poll coverage and party coverage on vote choice are independent from each other for three reasons. First, the overall tone of CDU media coverage was negative, while its poll index was positive. This shows that if poll coverage and party coverage would have a similar effect on voters, these effects would presumably counteract each other. Second, the effect that was found of the poll index on vote choice was controlled for the amount of general media exposure, which would include party coverage. Third, a study on the same 2013 German election campaign, by Zerback, Reinemann and Nienierza (2015) found that both the perceived tone of party coverage and recalled poll results made an independent contribution to the perceived party popularity and expected vote share of a party. Suggesting that each played a (different) role in the bandwagon effect. It is thus more likely that both aspects of coverage made their own independent contribution to the bandwagon. Taken together, these findings support the argument of this dissertation that the bandwagon effect is driven for an important part by the interpretations of polls by the media.

**Voter agency.** Voters themselves are the second active contributor to the mechanism behind the bandwagon effect considered in this dissertation. Voters’ behavior and attitudes might have an influence on the effects that polls have on their vote choice in various ways, two of which were investigated here. Chapter 2 shows how voters use media selectively, and chapter 3 shows how the change in their individual emotional reactions towards parties helps shape the effect of poll exposure on vote choice.

Starting with voter selection of media, chapter 2 evaluated the personal characteristics that predicted poll exposure. Previous exposure to news, negative emotions felt towards parties, internal efficacy, and talking about politics with others were each among the main contributors to increase the

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58 This was done through controlling for the number of polls to which an individual was exposed. As noted in chapter 3, the poll index was found to be unrelated to total media exposure after controlling for this variable.
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The effect of internal efficacy and negative emotions felt towards parties indicate that personal characteristics are important determinants of whether an individual is exposed to poll coverage or not. By avoiding poll coverage, or not, voters play an active role in the mechanism behind the bandwagon effect. In addition, both the effect found of previous exposure to news on the likelihood of being exposed to polls, and the effect of talking about politics with others on this likelihood, support the notion that exposure has a social component. This illustrates how the bandwagon effect is an interdependent process between many actors, including the news media, the voters themselves as well as their social environment.

The emotional reactions of those exposed to poll reports form another active link within the effects of polls in the bandwagon mechanism. Even when measured with a considerable time lag, i.e. after the election, changes in emotions felt towards parties correlated with changes in vote choice. This effect held up even after controlling for changes in vote intention observed in polls across the campaign, the overall tone of poll coverage for this party, and the individual attitudes toward this party as expressed in a feeling thermometer. This implies that the observed effect of emotions is no spurious consequence of, for example, campaign events, and also that it is no mere reflection of (cognitive) attitudes. It is likely that the effect of emotions plays out most succinctly on a much shorter timescale, as emotions and cognitive attitudes coevolve (Marcus, Neuman, & MacKuen, 2000). Emotions may influence changes in attitudes towards a party. In turn, the changed attitudes might translate in changes in poll ratings, both of which are used as controls in the model. This makes it all the more noteworthy that, in chapter 3, an independent effect of emotions is still found. Taken together, voters thus had an important influence on the effects of polls on their vote choice through their media selection and personal (emotional) responses to poll coverage.

The bandwagon effect. These findings on media and voter agency have direct bearing on the mechanism behind the bandwagon effect. It was argued in

59 Additional analyses showed that partisan selective exposure was also present in the data, as supporters of parties that were doing well in the polls were more likely to report having seen polls compared to supporters of other parties with otherwise similar background characteristics.

60 In addition, voter agency can be illustrated by the differences in the effects of poll exposure for individuals with different characteristics. Neither the analyses in chapter 2 nor those in chapter 3 investigated whether the effect of exposure to polls was different depending on individual characteristics, but additional analyses, as well as much other research, indicates that they are (e.g. Mutz, 1998).
the introduction that little is known about how the bandwagon effect develops over time within an election campaign. The studies in this dissertation have evaluated various possibilities, pertaining to effects of polls on party coverage, campaign interest, turnout, emotions towards parties and vote choice. In line with previous research, their results show that bandwagon effects are no iron law that determine the attitudes and behavior of all potential actors involved in an election campaign. Whether or not, and to what degree a bandwagon effect materializes appears to depend on actions and reactions by each of the actors involved, as exemplified by the findings on media and voter agency.

When the combined results of this dissertation are placed amidst the large body of previous findings on the effects of polls on electoral outcomes, they support a broader, more interactive and contingent, model of bandwagon effects. Various actors can interfere with the process of polls changing vote intentions and electoral outcomes. Media can select polls and interpret them in their coverage, voters can select coverage and voters’ emotional reactions to the coverage influence the effect this coverage has on their vote choices.

Extrapolating on these findings suggests that the influence of polls on election outcomes appears to depend on their fit with the multitude of other factors shaping a campaign. Campaign context, electoral system and media system, for example, are each proposed in this dissertation as factors that might affect the influence of polls. If a campaign is less salient, such as in EP elections, poll coverage might suggest to voters that the campaign is important, and so generate interest in and attention to the campaign. In first order elections, on the other hand, attention from both the media and voters to the campaign is already larger and the public reactions to the polls are likely stronger. In addition, if the media system is characterized by journalists having an interventionist stance towards politics, it is not clear that media will reinforce the effects of polls. Asch (1951) showed the importance of unanimity for group pressure to be effective. Consequently, the unanimity of poll interpretations might be important for their effect. Indeed, if societal actors, like journalists, political parties and interest groups interpret polls in a non-bandwagon way, bandwagon effects might be small, less likely to arise or even become underdog effects.

**The RSM.** In the introduction to this dissertation, the study of the mechanism behind the bandwagon effect was proposed as a potential practical application of Slater’s (2007, 2015) Reinforcing Spirals Model (RSM). People are
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not passive bystanders awaiting the media’s influence, but actively select which
media outlets and content they look at or read. When they are exposed to
media, this exposure might influence their future media selection. Indeed, the
results presented in this dissertation support the RSM. Being exposed to polls
increased one’s interest in the campaign as well as future media use. However,
when taking a closer look, the dynamics between media/poll exposure and
selection into poll coverage are somewhat more complex than a direct spiral. In
line with the RSM, selection to poll exposure was driven by previous exposure to
news, but other factors like the negative emotions felt towards parties, internal
efficacy and most prominently talking about politics with others, were also
important. Slater’s (2007, 2015) hypothesized importance of threat to stimulate
a reinforcing spiral was confirmed, but personal characteristics and the social
environment also play a role. Politics is a highly social phenomenon, so it is not
surprising that campaign involvement has a social component. These findings
highlight how the working of the RSM, like that of the bandwagon effect, is
dependent on many cross-cutting influences. If people talk more about politics
they are more likely to subsequently self-select into poll coverage, which in
turn increases their chances of turnout beyond their turnout intention from
before the campaign. In the introduction, three potential contributions to
the RSM were proposed: two extensions in the form of emotions and media
agency, and one explanatory mediator in the form of campaign interest. Each
will be discussed in turn.

As argued above, the findings in chapter 2 and 3 support the role of
emotions in both driving media selection as well as influencing media effects.
These results suggest that emotions play an active role not only in triggering
a reinforcing spiral, but also in sustaining it. Similarly, the results presented
suggest that media agency plays an important role in the causal part from
selection to exposure to future selection. Especially the results of chapter
1 support adding media agency to the RSM. These results show that media
coverage does not automatically align with changing party preferences.
Decreases in party support do not automatically lead to a decrease in the
amount of positive coverage nor of total coverage. This makes it probable
that voters, who withdraw their support from a party, were consequently
confronted with increased counter-attitudinal media coverage. Incorporating
the way media respond to shifting voter attitudes may help the RSM to better
explain when spirals escalate towards more extreme attitudes and patterns of
media use, and when they have a tendency to return to their former levels or even de-escalate.

Chapter 2 presented some analyses relevant to the relation between exposure and selection in the RSM, and the potential explanation offered by interest for this relation. The chapter examined the effect of poll exposure on turnout, and both posited and found a mediating effect for campaign interest. Interest in the campaign, measured at the start of the campaign, predicted poll exposure during the campaign, and poll exposure, in turn, influenced subsequent campaign interest. This finding supports the proposed combination of Slater’s (2007, 2015) Reinforcing Spirals Model (RSM) with the growing body of literature on the reciprocal relation between interest and media exposure (Atkin, Galloway, & Nayman, 1976; Boulianne, 2011; Hillygus, 2005; Strömbäck & Shehata, 2010). Together, interest, selection and exposure seem to form a spiral conforming to the RSM. However, upon closer inspection, the results in chapter 2 provide a more detailed account of the mechanism behind the RSM. Interest is no longer a significant predictor of selection, when controlling for other variables. In addition, some of these other variables, such as internal efficacy, previous exposure to news, searching for and sharing information about the campaign, negative emotions towards parties and talking about politics, were found to predict selection of poll coverage, as well as be influenced by it. Each of these variables might, consequently, provide an even better explanation of the RSM spiral than interest does. Taken together, the results in this dissertation thus suggest alternative explanations for the mechanism behind the RSM and support the addition of media agency and emotions to the RSM, as proposed in the introduction.

Normative implications

The findings presented in this dissertation relate directly to the normative discussion around polls. It was argued in the introduction that the main normative arguments leveled against the influence of polls in election campaigns are that poll exposure might lead to herd behavior, divert from rational deliberation in favor of emotional processing, and that they reduce meaningful participation. The findings presented in this dissertation lend little support to either of these claims. In fact, the effect of polls on election
outcomes is found to be a participatory act, resulting from the influence of various actors including politicians, pollsters, journalists, campaign teams and voters themselves. In addition, polls can stimulate interest, information search and talking about politics. They do incite emotions, which in turn influence attitudes towards parties. However, as emotions and cognition are strongly intertwined, this is more likely an indication that voters are actively responding to campaign information, rather than that they are mindlessly following their herd instinct. Two specific findings will be discussed in some more detail as they represent the two most specific contributions of this dissertation to the normative debate: the effect found of poll exposure on campaign interest rather than cynicism, and the size of the effects found of polls in this dissertation.

**Interest versus cynicism.** The importance of campaign interest rather than cynicism as a mediating variable between poll exposure and turnout in chapter 2 contradicts fears of a demobilizing effect of polls (Cappella & Jamieson, 1997). Poll exposure was not found to increase cynicism and decrease political involvement, but rather the opposite. This finding might be explained by the focus of the present study on poll coverage, rather than strategic coverage as emphasized by Cappella and Jamieson (1997). Aalberg, Strömbäck and de Vreese (2011) already suggested that the effects of poll coverage might be different from other aspects of the strategy frame. It might also be that in a complex election like those for the European Parliament, which receives little media coverage in general, any easily understandable bit of information can help young voters to set their first steps in becoming interested in the campaign and turnout. Alternatively, a single campaign could be too short to inspire cynicism in young voters and cynicism will only develop later in their life. Still, such negative predictions are far from inevitable. Low participation is already a problem among this group of voters and turnout tends to be a habit, so the positive effect of poll exposure can just as likely be expected to increase participation throughout their life.

**Effect size.** A second qualification to the normative critique on polls relates to the size of their effects found. Notwithstanding the sizeable societal fears surrounding the effects of polls, the general effect size found in bandwagon studies tends to be small. Asch’s (1951) original study on group conformity already showed that the effects of group pressure strongly diminish as soon as even a single group member (other than the participant) breaks the unanimity of the group opinion. Polls never show 100% support for a party or candidate,
so expectations for very strong effects resulting from group pressure are unrealistic. When looking specifically at polls and elections, Herbert Simon (1954), also already in the 1950s, provides further arguments why small effects should be expected. When polls in a two-candidate race accurately reflect the voting preferences of the electorate, then the majority candidate already has the majority support. So a bandwagon effect can only change the votes of those who not already supported this candidate. As it is unlikely that poll results would fully persuade all these voters, the net effect would be a (small) increase of support for the majority candidate. Simon notes that this would not change the election result. In those cases, the majority candidate would already have won without the additional bandwagon votes. Mutz (1998) adds that, on top of this, small net effects can result from simultaneously occurring bandwagon and underdog effects.

The studies in this dissertation have examined multi-party rather than two-party elections. In such elections, the share of voters not previously intending to vote for any single party is larger. Consequently, bandwagon effects could potentially influence a larger share of voters in multi-party elections. In addition, the additional bandwagon votes have more direct implications in elections with proportional representation. Such systems tend to form coalition governments and additional votes mean additional seats in parliament. These additional seats improve a party’s negotiation position in the coalition formation process. This means that bandwagon effects have a potential larger effect size and a greater potential to alter the outcome of such elections.

Even under these more favorable conditions, the size of the effects reported in this dissertation is modest and in line with previous research. It must be noted, however, that the potential full effect of polls on vote choice is not necessarily as modest as reported in this dissertation. For example, in multi-party elections strategic voting can play an important role in vote choice, but, as explained in chapter 3, such effects of polls were not specifically analyzed here (see Meffert, Huber, Gschwend, & Pappi, 2011). Still, such effects would speak in favor of the normative contribution of polls to participatory democracy, as they would be an example of how voters rationally use polls to arrive at a better informed vote choice (see Mutz, 1998).

Taken together, it can be expected, both on the basis of previous research and on the evidence presented in this dissertation, that in most situations
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Polls do not lead to automatic, and unreasoned, bandwagon-driven electoral victories. There might, however, potentially be exceptions, for example, when all actors reinforce each other. Still, even under such conditions, polls would appear to have a positive influence from the viewpoint of participatory democracy, as their effects are the result of the participation of all these actors.

Methodological implications

As described in the introduction, the designs of the studies in this dissertation have presented several methodological contributions that are relevant for future studies. The main methodological problems that the designs of the studies sought to solve were those of how to aggregate data, and of which variables should be examined. Having multiple measurements of the same unit increases precision. However, it should be assumed that each measurement actually measures the same thing. Aggregation is one method to enhance precision. When data are aggregated over a longer time frame, more precise measures can be obtained of overall effects. However, this accuracy comes at a cost: short term effects can no longer be detected. Likewise, when data is aggregated over multiple actors, overall effects across actors are measured more precisely, but differences between them are lost. For example, aggregating content analysis data of campaign coverage across an election campaign yields a more precise estimate of the average campaign coverage, compared to what could be obtained for any individual day during that campaign. However, this accuracy comes at the cost of neglecting day-to-day variation. Likewise, aggregating coverage over multiple outlets gives a more precise estimate of the overall coverage, but at the cost of neglecting between outlet variation. Whether such aggregation helps or hurts a specific analysis can be, partly, an empirical question of whether meaningful variation exists, for example, between days in the campaign or between outlets.

Three specific design solutions have been developed in the studies of this dissertation, to aggregate data in a way that is still sensitive to variation between units, and to test whether previous studies were correct in neglecting some specific variables. The first chapter presents a multilevel model of party coverage. This allows taking account of such coverage being different for each party in each outlet. The model also accounts for differences in polling
methods across polling firms by strictly comparing each poll prediction with its predecessor by the same polling firm. The second chapter presents the Covariate Balancing Propensity Score (CBPS) integrated within a structural equation model, to capture the causes and consequences of media selection. The third chapter proposes a structural equation model based on a party stacked dataset to acknowledge the potential influence of poll coverage of each of the various parties competing in a multiparty election.

Multiparty election campaigns are found to be contingent affairs in which different parties are treated differently by different media outlets, in which certain voters are more likely to encounter campaign coverage than others, and in which effects of the same poll report can be positive for multiple parties at the same time. Any research design must make choices on which variables to focus and which to assume to be independent. A good research design is aware of which background variables are important to acknowledge, and which can safely be disregarded. The results of this dissertation show that emotions, selection effects and differences in methodology across polling agencies are three variables that have received too little attention in the design of previous studies.

Incorporating the influence of processes over time within election studies is hampered by the difficulty of obtaining continuous data across time for all relevant variables. Consequently, all data in this dissertation are both sampled and aggregated in some way. Either it is the aggregate change in emotions for each individual across the duration of the campaign, or it is the average tone of party coverage on a specific day in a specific outlet, or it is the exposure to poll coverage across all outlet at any point during the campaign. Results in chapter 1 show that the way poll data was aggregated in some previous studies might have been misleading. The findings show, for example, that aggregating polls across polling agencies might be a mistake as differences in methodologies, rather than actual fluctuations in party support, might be the cause of differences in predictions of two consecutive polls by different agencies.

Results in chapter 1 also show that the sample used to determine party coverage can have important effects as different outlets differ strongly in their amount and tone of party coverage. This illustrates the importance of either using a broad sample of media outlets, as is done in chapter 3, or relying on self-reported exposure across outlets, as is done in chapter 2, rather than relying on
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general media use indicators which only specify the (type of) outlet. Additional analyses for chapter 1 showed that party coverage varied per outlet, but that this variation could not be explained by outlet type, i.e. differences between online, TV or newspaper outlets, or even outlet ownership. For example, coverage in *Bild Zeitung* differed significantly from that on their website www.bild.de. These findings indicate that the differences between outlets are outlet specific.

The influence of selection effects found in chapter 2 further stresses the problematic nature of estimating the effects of exposure to an outlet type. Common research designs that compare, for example, the effects of the general (amount of) social media use with TV news consumption or newspaper readership likely fail to account sufficiently for selection effects. Even when such studies control for effects of self-selection by including lagged values of exposure, they are likely to (strongly) underestimate the effects of selection. The CBPS score showed that selection is predicted, for an important part, by many other variables besides lagged values of exposure. The difference between selection effects as measured by CBPS and lagged exposure variables was found to have a substantial influence on the media effects evaluated in the model.

Limitations

The three separate studies in this dissertation each have their own limitations, as discussed in each empirical chapter above in greater detail, but some limitations warrant some extra attention here. Besides the obvious limitation of each study addressing one specific aspect, rather than proposing and testing a single comprehensive model, they relate to three key areas: emotions, relations over time, and the context of the studies. These three more general limitations are elaborated on as they pertain to the larger goals of this dissertation to investigate the mechanism behind the bandwagon and RSM.

**Emotions.** The studies in this dissertation have been among the first to explicitly analyze the role of emotions in the bandwagon effect and RSM. Obviously, much more research is needed to accurately define their effects. Within the study of emotions, their measurement presents an especially poignant challenge. Conceptually, emotions are distinguished from cognitive
processes, but they are measured, here and elsewhere, through survey questionnaires. Emotions might be difficult to measure when asked cognitively and retrospectively, and panel survey questions referring to the (longer) period of time between the lags might fail to measure their larger and more varied short term effects (see Neuman, Marcus, Crigler & MacKuen, 2007).

Perhaps it is due to the delayed measurement of emotions that no distinction is found between anger and anxiety in chapter 3. Emotions were measured there with a large battery of indicators. These items separately tapped the extent to which fear, anger, indignation, disgust, worry, hope, enthusiasm and pride were felt towards each party. In line with Marcus, Neuman and MacKeun’s (2000) Affective Intelligence Theory (AIT), the responses to these items are clustered in two factors: enthusiasm and anxiety. Although an increasing body of research differentiates aversion from anxiety, no such difference was found among the indicators of negative emotions used in the confirmatory factor analysis for chapter 3 (e.g., Lerner & Keltner, 2001). It could still be that aversion had a different effect from anxiety, but it appears that over the timeframe of this election campaign such responses blended together. This might not be surprising as being fearful of the election forecast of a party might translate into aversion about it over time and vice-versa. Marcus, MacKuen, Wolak and Keele (2006) argue that only if aversion is strongly elicited during a campaign does it maintain sufficient distinctiveness from anxiety to be picked up after the campaign.

Although delayed, the measures used in chapter 3 were very sensitive, compared to earlier studies, as they consisted of a large number of items. The measures used in chapter 2 were much coarser. In fact, there were only five items in each wave of the questionnaire: respondents could indicate which emotion they associated most with each of five parties. More than five parties competed in this election, and such a measure is unable to detect to what degree an emotion is felt. Also, this measure does not allow a factor analysis to explore whether, for example, aversion would load on a different factor from anxiety. Consequently, the number of parties to which positive, or negative, emotions were felt were used as indicators. Results in chapter 2 showed that the number of parties to which positive emotions were felt did not significantly contribute to the selection of poll coverage. It could very well be that positive emotions did play a role within poll selection, but that this measure was just too crude to detect it. This makes it all the more noteworthy that, in line with
AIT, an effect of negative emotions was detected using this measure (see also Obermaier, Haim, & Reinemann, 2014).

**Relations over time.** These issues with emotion measurement directly highlight the second area of limitations of this dissertation: relations over time. The subject of this dissertation is about how, over the course of a campaign, poll ratings influence election results. Tracking such dynamics requires longitudinal data. However, as explained in the introduction, practical constraints in resources for the current project required a trade-off between the number of time points at which each individual was measured and the number of individuals included in the panel surveys. Consequently, each of the studies in this dissertation has some issues with the limited number of time points included and with delayed measurement. Chapter 1 aggregates party coverage over the periods between poll publications, rather than per day. Chapter 2 used a four wave panel survey, but polls were only published between the last two waves, so the analysis essentially focusses on the effect of the campaign as a whole. Chapter 3 employed only two waves, so had no option but to likewise consider the effects of the campaign as a whole.

The issue of aggregation, as explained above, is especially relevant as, for example, the results of chapter 1 on the differences between polling firms, and on differences between outlets in their coverage of parties, show that commonly used ways to aggregate data can be misguided. In addition, and as alluded to above in the context of emotions, delayed measurement of short term effects might obscure (part of) their effect. More generally, Slater (2015) explains that different effects might materialize over different time lags and studies need to take account of that. He argues that while the effect of media exposure on attitudes can be relatively fast and should be measured at short time intervals, the influence of changing attitudes on media consumption can be a slower process, as media use tends to be habitual, and should be measured across a longer time interval.

Consequently, using data with many more time points would require less aggregation and could help disentangle the various cross-influences between, for example, the behavior and attitudes of politicians, journalists, voters and other actors. Two examples will illustrate this point. First, the model used in chapter 3 controlled for aggregate changes in poll ratings across the campaign, and thus potentially missed many effects that, for example, mid-campaign polls and behavior of other actors had on vote choice which were already
picked up in consecutive poll ratings. Second, the relation found between poll ratings and party coverage in chapter 1 is likely related to many other forms of campaign coverage, most especially poll coverage. Although the sample used for the content analysis of this study was large in comparison to other studies, it still only included the main media outlets. It was a-priori unlikely that polls are discussed that prominently for each party on each day of the week in each outlet. Consequently, the poll coverage detected in the data tended to be infrequent and varied strongly per outlet, with many days without poll coverage in a specific outlet. This irregular daily distribution of poll coverage across outlets formed the main obstacle against including it in the analyses for chapter 1.

Context. The third main limitation is the context provided by the two campaigns that were studied. As argued at several points in this dissertation, context factors like media system, electoral system, the degree of poll volatility, and whether an election is first or second order might make a difference for the results found. Although the studies in this dissertation extended the literature by investigating contexts which have previously received less attention, they still only include two specific contexts. It is argued throughout this dissertation that, based on the larger literature, the results of the studies presented here are likely to be generalizable. Still, using a comparative design would enable a much stronger test of this assumption. Especially with regard to the theoretical additions of the role of emotions and campaign interest in the bandwagon effect and the RSM, comparative research can shed further light on the influence of context.

Campaigns with much more poll volatility might influence media coverage, voter preferences, and strategic responses by politicians to a much larger degree than the effects reported in this dissertation. It might very well be that effects of polls on media coverage, voters and politicians only really take off if Patterson’s (1993) storyline of gaining ground presents itself sufficiently. As the effects of each actor is more likely to reinforce the other, resulting in a strong effect over time (see Henshel & Johnston, 1987). Comparative studies between campaigns with different poll dynamics might help uncover the conditions for such escalating effects to take place.

Another important aspect of context is the group of voters examined. Chapter 2 looked at young voters of only 18 or 19 years old, it was argued that these voters are especially relevant to the future of democracy. There is no
obvious reason why the results found in chapter 2 on the role of campaign interest and turnout would not be generalizable to other voters, as they are in line with other research based on general population samples, and the model included strong controls for selection effects through the CBPS. In fact, Möller and de Vreese (2015) find that the positive influence of media use on political involvement of adolescents becomes stronger over time. Still, the results presented in chapter 2 also show that background characteristics play a strong role in the selection of poll coverage, and much research shows that young voters differ systematically from older voters in, for example, political efficacy, cynicism, interest and knowledge (f.e. see Kaid, McKinney, & Tedesco, 2007). In addition, psychological studies show that emotional experiences differ between younger and older adults (e.g. Charles & Carstensen, 2010). Comparative studies between younger and older voters can help uncover differences in the effect of these variables across these groups of voters.

Future research

The discussion on limitations already highlights some aspects that might warrant further study. Comparative multi-country studies, content analyses incorporating social media trends, investigations on the motivations of journalist in using polls to build the media agenda, each were mentioned at some stage of this dissertation as potential ways to extend the findings. In this paragraph, however, three specific extensions relating to the core theme of this dissertation will be further elaborated: using the concept of emotional flow to study the effects of emotions over time, further application of the typology of media responses developed in chapter 1, and the role of interest versus selection and attention in the study of media effects. Each will be shortly elaborated upon in turn. In addition, some short suggestions will be given on how the study of the bandwagon effect might further benefit from communication science theories in addition to the insights presented in this dissertation.

\textbf{Emotional flow.} Robin Nabi (2015) proposed the concept “emotional flow” to study the effects of how different emotional experiences follow upon one another during exposure to a health message. Her concept highlights that the influence of emotions likely depends on path dependent factors. Fear after
hope is different from hope after fear, in fact they might have quite opposite
effects in terms of behavior (Nabi, 2015). This emphasis on the temporal
ordering over time relates to a point made in the discussion of the limitations
of this dissertation above. It is argued that aversion and anxiety might become
conflated over time as one might induce the other. In line with the main aim
of this dissertation to emphasize over-time effects, studying how consecutive
emotions in response to campaign coverage influence its persuasive effects,
could make an important addition to political communication scholarship.
As argued above, the effects found of emotions in this dissertation are likely
underestimations, due to the cognitive and delayed form of measurement
used. Still, even with these limitations, their influence was demonstrated.
Studying emotions with increased precision and over time can be the next step
in this line of research.

**Typology.** Chapter 1 presents a typology of media responses to poll
changes, when those poll changes are small. The typology illustrates how
different strands of communication science scholarship have developed
separately in different directions, but are not often integrated within one
perspective and applied along each other to help explain a single case.
Chapter 1 makes a first step to compare predictions made on the basis of
different perspectives. Results show, for example, that news values, media
systems, and the search for a horse race storyline by journalists each appear
to make their own contribution to the observed party coverage. Future studies
can disentangle under which conditions which perspective offers the better
explanation. Alternatively, or concurrently, future studies can aim to integrate
the different perspectives into a single, more general, theoretical framework.
The results presented in chapter 1 suggest the potential of such a framework,
as they suggest that magnification, counteracting and ignorance each played
a role in this campaign.

**Selection, attention and interest.** The third recommended area for
further research refers to the relation between selection, attention and
interest in explaining media effects. It is argued in chapter 2 that the effects
of selection are currently underappreciated within many model specifications
in communication science. Although the focus in chapter 2 is on field (panel)
survey studies, this critique applies equally well to much experimental
research, as forced exposure makes it difficult to determine selection effects
(see Arceneaux & Johnson, 2013). In addition, most media effects research
investigates exposure, while a growing body of work points to the importance of attention (e.g. Liu & Eveland, 2005; Möller & de Vreese, 2015; Moy, Torres, Tanaka, & McCluskey, 2005; Shehata, 2014; Strömbäck & Shehata, 2010). Chapter 2 extends this debate with a call for more interest in interest. When looking closely to the predictors of turnout in the regression equation for this part of the SEM (see Table 1 in appendix C), it appears that, when controlling for campaign interest, attention to campaign news has no effect on turnout. Interest and attention are, of course, related, as interest is likely to lead to attention. They differ, however, in their implications for media effects. General interest in a topic is conceptually closer related to an inclination for action as it implies a positive attitude towards this topic. Attention might, on the other hand, merely be a consequence of a person being alarmed by a headline and on the lookout for potential threats. The two concepts also differ in that attention implies exposure, while interest can rather be seen as a motivation to be exposed and attentive. Further research can study how selection, attention and interest work together to produce media effects.

Communication science theories

It was argued in the introduction that the study of bandwagon effects could be aided by insights from communication science, as polls tend to be communicated via the media over the course of a campaign. This dissertation has touched on several of them. Still, there are many more communication theoretical insights that could be of value (e.g. Zerback, Reinemann, & Nienierza, 2015). The agenda building literature can help develop a fuller account of the influence of polls on campaign coverage (Weaver & Elliot, 1985). Framing theory (Entman, 1993) can inform studies on how the same poll result might be described differently and how this influences voters, and the literature on selective exposure can help investigations on the effects of individual differences that drive which poll information different people actually receive from the media (Mills, Aronson, & Robinson, 1959). Each of these theories have received some (implicit) attention in this dissertation and their potential for further research will be discussed in turn.

**Agenda building.** Chapter 1 essentially studied the role of poll ratings within the agenda building process. However, it only investigated party
coverage, while the agenda building literature stresses that many more forces are at work behind media selection, and that effects on coverage might be expressed in different ways than through the tone of party coverage alone (f.e. see Wahl-Jorgensen & Hanitzsch, 2009). Future studies can investigate whether polls influence the supply of news stories to journalists by outside actors, such as campaign teams staging events. Another possibility would be to examine whether polls change the perceptions of journalists about the parties in question, which then colors their reporting on these parties. A third possibility would be to examine whether economic incentives and news values steer party coverage through newsroom directives, incentives and routines. In addition, as noted in chapter 3, polls can influence media coverage in many other ways, such as through the reporting of polls, the style of reporting in general or through the polls being the object of discussion themselves (Aalberg, Strömbäck & de Vreese, 2012; Frankovic, 2005). Studying the agenda building process can shed a more comprehensive light on the mechanism through which polls influence campaign coverage and thus directly extend the results of this dissertation and point to other aspects of campaign coverage that might play a part in the bandwagon effect.

**Framing.** Chapter 3 looked at the effects of how polls were interpreted in the media, which can be seen as a framing effect. Reminiscent of the famous equivalency framing studies, the arguments in chapter 3 suggest, for example, that journalists have some leeway to present the same poll in a “gain frame” or “loss frame” depending on the reference point chosen (Druckman, 2001; Kahneman & Tversky, 1979). Combining this argument with the finding of chapter 1 that the coverage of a frontrunner party is more sensitive to losses than to gains in the polls, provides an interesting research avenue for evaluating the role of decreasing polls within the bandwagon effect. The results presented in chapter 1 highlight the potential of studying the effects of poll losses in addition to the effects of poll gains. They show how the leader in the horse race might be decreasing in its lead, but still be leading. This allows journalists to frame their polls as losses or wins depending on the reference point. The theoretical work describing the bandwagon effect emphasizes the attraction of the winning side, so much research is focused on the effects of poll increases. However, decreasing polls might have their own role to play. Future studies could incorporate the concept of loss aversion more explicitly in studies of the effects of polls, especially on highly committed people like
campaign team members, politicians, journalists and committed supporters alike (see Mutz, 1998).

**Selective exposure.** Finally, selective exposure can be an interesting avenue for further research. Most contemporary studies in this area relate to partisan selective exposure (see Stroud, 2010). Indeed, additional analyses done in relation to the analyses for chapter 2 of this dissertation showed that pre-campaign supporters of parties that did better in the polls (D66, PVV) were somewhat more likely to report to have seen polls, compared to supporters for other parties, controlling for the other predictors of selection into poll exposure mentioned in chapter 2. However, the results of chapter 2 suggest a wider research program for selective exposure. They highlight three other factors important in this context: predictors of media exposure other than partisanship, the effects of attention to media content when exposed, and most particularly the influence of interest in the topic of exposure. Partisanship might not be the only variable causing divisions in society. Chapter 2 argues for example about the importance of the divide between young and old, between those interested and not interested in politics, between those who develop political resources and those that are left out of the participatory democratic process. Internal efficacy, searching for and sharing information about the campaign, and talking about politics all were important predictors and consequences of poll exposure. Over time these factors might thus reinforce each other creating a divide between those who get more and more involved and those that feel incapable of participating (see also Möller, de Vreese, Esser, & Kunz, 2014). Further research can explore the relevance of this divide and how the media might help create it over time in more detail and in other contexts.

Each of these possibilities for further research illustrates the limitations as well as the accomplishments of this dissertation. Even in the longstanding research tradition of investigating the bandwagon effect, much is left to be explored. This dissertation has provided a communication science perspective, and results show that polls do not influence party coverage in a straightforward bandwagon way. Who is driving whom? Media coverage of polls has its own dynamics and effects. Some voters avoid poll exposure, while others seek it. Some are emotionally affected by it, while others care little. Various actors, like political parties, campaign teams, journalists, and voters, each play an active role in the mechanism behind the bandwagon effect. Overall, the findings support a rather positive contribution of polls to participatory democracy.