Who is driving whom
The media, voters and the bandwagon
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Appendices

Appendix B

Equation

An example of the multilevel regression equation for the total amount of articles referring to a party on average per day in an outlet following a poll would be:

\[ \text{Amount} = \beta_0 + \beta_1 \text{Poll Change} + \beta_2 \text{Dependent Variable}_\text{Past} + \beta_3 \text{Poll Change}_\text{Past} + \beta_4 \text{TV Debate} + \beta_5 \text{Party} + \beta_6 \text{Outlet} + \beta_7 \text{Poll List} + \epsilon \]

Where subscript “i” denotes the specific party, subscript “j” the specific outlet and subscript “k” denotes the specific poll list publication, and “c” denotes the constant. The lagged dependent variable “past total amount” is party, outlet and poll list publication specific, as is the change in poll rating. The effect of changes in poll ratings is estimated separately for the front runner, challenger and smaller parties. The time trend is likewise estimated separately for these three party categories. The “TV debate”-variable is related to party as it only applies to the two parties partaking in the debate (CDU and SPD) and related to poll list as it only refers to specific lists published right before or after the debate.

While poll change is a first difference variable, lagged dependent variables are used for amount of (positive/negative/neutral) coverage. These two different ways to account for change are used together because using first difference variables presupposes the coefficient of the lagged dependent variable to be equal to one, which is the case for polls, but not for amount as can be seen in the results (Table 3). Using a lagged variable for polls would be substantially difficult to interpret as absolute poll levels are strongly party related, in addition to causing high multi-collinearity with the current poll level.\(^61\)

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\(^{61}\) This study has not looked at the reverse effect of media coverage on polls. This relation appears intuitive and is found in earlier studies (e.g., Box-Steffensmeier, Darmofal & Farrell, 2009; Vliegenthart & Van Aest, 2009). However, the surveys of German polling agencies are fielded over a period of multiple days and their results are not published directly, but after a time lag. Depending on the specific poll and polling agency it can take up to a week after the last survey is filled out before its results are published (see www.wahlrecht.de for field and publication dates). It is likely that such delays are also present outside the German context and therefore might have biased the results of earlier studies reporting the effect of media content on polls. In this study we only have access to the aggregate poll rating and have no knowledge of how respondents within a poll’s sample slot differed over time. This makes it difficult to determine what specific media content should logically relate to each subsequent poll in the analysis. The difference between the date respondents fill out a poll’s survey and the date of its publication has one important advantage: it makes it less likely that party performance is a confounder of the relation found in this paper between polls and coverage. If performance explains both media coverage and changes in polls, these changes in coverage would likely coincide with changes in poll ratings. However, due to the delay, such coverage would then precede the publication of that poll. The analyses in this paper are centered around these publication dates and preceding coverage is included as a control. Therefore, it is unlikely that party performance confounds our findings.