Incumbency Dominance in Letters to the Editor: Field Experimental Evidence

Markus Dertwinkel-Kalt* Anna Kerkhof† Johannes Münster‡

Accepted for publication at *Political Communication*

September 2018

Abstract

This paper reports the results of a randomized field experiment conducted three weeks before the 2017 federal election in Germany. Four different versions of a letter to the editor were sent to all the German daily newspapers that handle letters to the editor independently. The versions differed in the subject matter of the letter, the chancellor Angela Merkel versus the main challenger Martin Schulz, and in the evaluation of this subject, positive versus negative. The experiment was designed to test for three different types of media bias: *political bias*, *negativity bias*, and *incumbency dominance*. We find no political bias in the decisions to print letters, and no statistically significant negativity bias. We do observe incumbency dominance: letters about the chancellor were 40% more likely to be printed.

JEL-Classification: D72; H41; L82; P16.

Keywords: Gatekeeping, Incumbency dominance, Media Bias, Negativity.

*Frankfurt School of Finance & Management. Email: m.dertwinkel-kalt@fs.de

†University of Cologne. Email: anna.kerkhof@wiso.uni-koeln.de

‡University of Cologne. Email: johannes.muenster@uni-koeln.de

1 Introduction

Free and unbiased media are important prerequisites for democracy, as media inform, set the agenda and influence both voters and politicians. The neutrality of the media can be compromised, however, by biases of the media themselves, as well as by the outside interference of actors such as advertisers, lobbyists, domestic or even foreign governments (Shoemaker and Reese 1996).

While the theoretical literature has singled out many different reasons for media bias (for an overview see Lichter 2017), its manifestations fall into one of two categories: the way bits of information are *culled* and *crafted* by gatekeepers into media messages (Shoemaker and Vos 2009). In other words, media content can become distorted through newsmakers choosing "which events or information to cover, and how to cover them" (Groeling 2013). Similarly, Gentzkow, Shapiro, and Stone (2016) differentiate between *filtering* and *outright distortion*. The latter refers to a distorted representation of facts whereas the former refers to a partisan omission of facts in news coverage. According to Gentzkow et al. (2016) and Puglisi and Snyder (2016), filtering—the strategic selection of facts to be reported—is more pervasive than an outright distortion of given facts.[1]

In order to test for the filtering of media content, we conducted a randomized field experiment in Germany three weeks before the federal election in 2017. In the experiment, we wrote four different versions of a letter to the editor. The versions differed in the subject the letter was about, the chancellor Angela Merkel versus the main challenger Martin Schulz, and in the evaluation of this subject, positive versus negative. In all other respects, the letters were identical. We sent one randomly drawn version of the letter to each of over 200 German daily newspapers and observed whether the letter was published or rejected.

The goal of the experiment is to test whether different theories about filtering media content

[1]Filtering has been documented, for instance, by Larcinese, Puglisi, and Snyder (2011). They unveil a significant correlation between the endorsement policy of newspapers and the differential coverage of bad/good economic news as a function of the president's political affiliation.

apply to the selection of letters to the editor: *political bias*, *negativity bias*, and *incumbency dominance*. We compare the acceptance rates of politically left-leaning versus right-leaning letters, of negatively framed versus positively framed letters, and of letters about the incumbent versus the main challenger, defining biases as unequal acceptance rates of different types of letters.[2] The experiment uses a between-subjects design: every newspaper received exactly one of our letters. Therefore, our study focuses on investigating whether the German newspaper system as a whole has a systemic or structural bias, while we do not test for biases of individual outlets. In an additional analysis, however, we investigate whether newspapers are more or less likely to accept a letter with a political message that is close to their own political position.

Gatekeeping of media messages has long been studied in the communications literature (Shoemaker and Vos 2009). Moreover, a large literature has studied the news factors (which are intrinsic properties of potential news items) and the news values (their importance for gatekeepers) shaping media content (Galtung and Ruge 1965; see also O'Neill and Harcup 2009 for a literature review and Harcup and O'Neill 2017 for a recent contribution). Our study contributes to this literature in two ways. First, letters to the editor are "an important but poorly understood form of voluntary political participation" (Cooper, Knots, and Haspel 2009, p. 131). We study how central topics in political communication - gatekeeping, political biases, and news values - play out in the newspapers' selection of letters. Second, the field experimental approach allows for clean tests of several types of media bias by leveraging the methodological benefits of randomized controlled trials.

Not much is known about biases in letters to the editor even though they belong to the most read sections of editorial pages (Hynds 1994). They may sometimes even directly influence politicians' behavior; for example, it has been argued that Barry Goldwater overestimated his chances of winning with a conservative platform partly because of the conservative tone of many letters to the editor (Converse, Clausen, and Miller 1965). Moreover, Richardson and Franklin

[2]This concept of bias is related to "gatekeeping bias" as defined in D'Alessio and Allen (2000) and "selection bias" as defined in Groeling (2013).

(2004) present evidence that, in election races, political parties orchestrate letter campaigns. Research on letters to the editor has mostly studied their content, the demographic characteristics of letter writers, and whether the published letters adequately gauge public opinion (Cooper et al. 2009). The process of selecting letters for publication as well as the news values that guide editorial decisions have been studied by qualitative methods such as in-depth interviews with letter editors (Wahl-Jorgensen 2007, Raeymaeckers 2005). Closest related to our study is the field experiment by Butler and Schofield (2010) who compare whether a letter supporting McCain or Obama was more likely to be published during the 2008 US presidential election. Our experiment adds an additional dimension of comparison: the positive versus negative evaluation of the respective candidate. Hence, unlike Butler and Schofield (2010), our study allows to disentangle political bias from incumbency dominance as well as to test for negativity bias.

Germany is an ideal country for our experiment because of its comparatively high number of independent newspapers (Noam 2016). It is also an interesting case from a media systems perspective. Germany is a multi-party democracy with a democratic-corporatist media system (Hallin and Mancini 2004). In contrast, previous field experimental work on letters to the editor has studied newspapers in the USA (Butler and Schofield 2010), and the comparative political communication literature has demonstrated that results concerning the liberal media system of the USA do not necessarily carry over to other media systems (see de Vreese 2017 for a survey).

Empirical studies of media bias face the methodological challenge that the researchers cannot observe the population of all possible news items from which the media select what they publish. Therefore, it is hard to establish any systematic tendencies or biases in the mapping from all possible news items to actual media content. Groeling (2013) calls this the *Problem of the Unobserved Population*. One research strategy to overcome this problem consists of narrowing down the set of possible news items to a specific subset, such as press releases (e.g. Grimmer 2013, Haselmayer, Wagner, and Meyer 2017), war fatalities (Aday 2010), or official economic statistics (Larcinese et al. 2011, Soroka 2012), where all items in the subset are known to the researchers (see Groeling 2013, p. 144 for a review of further studies of this type). Alternatively,

researchers can create the population of news items themselves. As Groeling (2013, p. 145) puts it, "Perhaps the ultimate way to observe the unobserved population is to actually create it." For instance, field experiments in economics that use the well-established *correspondence method* follow this approach. Here, fictitious CVs are sent in order to study discrimination in the labor market (Bertrand and Mullainathan 2004, Bartos, Bauer, Chytilova, and Matejka 2016, Bertrand and Duflo 2017, Riach and Rich 2002, Guryan and Charles 2013). Relatedly, King, Pan, and Roberts (2014) generated social media posts in order to study censorship in China in a field experiment. In order to study filtering, our study also follows the approach of generating the otherwise unobserved population of news items the newspaper has to select from, which are in our case letters to the editor.[3]

Most of the research on letters to the editor has focused on the printed letters, without observing the population of all letters sent to the media. A few studies (Schuyler, Foster and Friedrich 1937, Renfro 1979) compared the population of all letters received by specific newspapers with all letters they printed.[4] Unfortunately, data on the population of all letters received by all newspapers in a country are not available. It is difficult, moreover, to entirely eliminate confounding factors in such observational studies of the relation between the content of potential items for publication and their actual coverage in the media (see Grimmer 2013, p. 129). The experimental research design of Butler and Schofield (2010) offers a clever way to address both the unobserved population problem and confounding effects by experimentally creating the population. In our randomized controlled trial, the population is the set of letters that we have sent, and the different versions of the letters are randomly assigned, alleviating concerns about confounding.

[3]In particular, our paper therefore adds to the literature on field experiments using the media (Panagopoulos and Green 2008, Gerber, Karlan, and Bergan 2009, Butler and Shofield 2010; see Green, Calfano, and Aronow 2014 and Green, Carnegie, and Middleton 2017 for surveys), and to a small experimental literature on the content selection of newspapers (Butler and Schofield 2010, Helfer and Van Aelst 2016).

[4]Perrin and Vaisey (2008) also observe all letters received by one newspaper within a three-month period, and focus on the content of these letters.

2 Design and hypothesis

The aim of the experiment is to test for three different potential manifestations of media bias, that is, *political bias*, *negativity bias*, and *incumbency dominance*. We therefore designed four versions of a letter to the editor that could be classified as (1) pro chancellor Merkel, (2) contra challenger Schulz, (3) pro challenger Schulz, and (4) contra chancellor Merkel. For brevity, the Appendix contains only the translations of the letters (2) and (3) into English.

First, we would like to know whether newspapers are biased, on aggregate, toward the right or left, when comparing Merkel and Schulz. More precisely, we ask whether letters praising Merkel or criticizing Schulz are more or less likely to be accepted than letters criticizing Merkel or praising Schulz.

There are several competing theories about *political bias* or *partisan bias* in the media (see Gentzkow et al. 2016, and Lichter 2017, for surveys). Since many newspapers are profit-maximizing firms, one might conjecture that their political position is more in line with the center-right and the comparatively business-friendly Merkel. If this is the case, and newspapers tend to select letters to the editor that are in line with their own political position, the right-leaning versions of our letter (i.e., positive letters about Merkel and negative letters about Schulz) should have a better chance of publication than the left-leaning versions (i.e., positive letters about Schulz and negative letters about Merkel). On the other hand, many journalists in Germany are themselves more politically left leaning, and therefore the left-leaning letter might have a better chance of being published (Kepplinger 2011). Moreover, newspapers might counterbalance their own political position by prefering letters expressing different political opinions (Butler and Schofield 2010), or they might adjust their content to the political opinions of their readers (Gentzkow et al. 2016, Haselmayer et al. 2017). We therefore have no strong prior expectation whether left-leaning or right-leaning letters are published more often.

Hypothesis I (Political Bias). *The acceptance rate of letters "pro Merkel" and "contra Schulz" is different from the acceptance rate of letters "pro Schulz" and "contra Merkel."*

Next we ask whether newspapers are more likely to publish positive letters (stating that one candidate is clearly better, with an optimistic outlook in case this candidate wins), or negative letters (stating that one candidate is clearly worse, with a pessimistic view of the future in case this candidate wins).[5]

Galtung and Ruge (1965) argued that negativity is one of the important news factors in the selection of news (see also O'Neill and Harcup 2009). Psychological studies document a *negativity-bias* (Ito, Larsen, Smith, and Cacioppo 1998, Rozin and Royzman 2001, Soroka and McAdams 2015) whereby people pay more attention and react more strongly to bad news than to good news. Similarly, Trussler and Soroka (2014) show that politically interested news consumers have a preference for negative content. In line with this, studies on media content have found that newspapers are more likely to cover negative news. For example, Heinz and Swinnen (2015) show that German newspapers report 20 times as much about downsizing firms than about firms creating an equal number of new jobs. Relatedly, Niven (2001) and Garz (2014) find a dominance of negative reports on unemployment in the United States and Germany, respectively. Baumgartner and Bonafont (2015) document a strong negativity bias in general political coverage so that partisan media focus on the opponent's failures instead of the own party's virtues. We test for a negativity bias among letters to the editor by investigating whether a negative, critical letter stating a worried outlook for the future is more likely to be published than a positive and optimistic letter.

Hypothesis II (Negativity Bias). *Letters "contra Schulz" and "contra Merkel" are more often printed than letters "pro Schulz" and "pro Merkel."*

The third type of media bias that we test for is *incumbency dominance* whereby incumbents obtain more media coverage than their challengers. Incumbency dominance describes the phenomenon that politicians in the government obtain more media coverage than those in

[5]By changing as little as possible only between the positively and the negatively connotated letter, we can be confident that differences in print probabilities can be traced back to the use of the positive and the negative connotation, and not to differences in the content of the letter, for instance.

the opposition (see Vos 2014 for a survey of the correlates of the media coverage of individual politicians, and Vos and Van Aelst 2017 for a recent contribution). Schoenbach, de Ridder, and Lauf (2001) documented incumbency dominance in TV news in Germany in the 1990s. More recently, Holtz-Bacha, Langer, and Merkle (2014) found that the press coverage of the 2009 general election in Germany concentrated on the two main candidates, with more coverage of the chancellor than of the challenger.

Different explanations for incumbency dominance have been proposed. On the one hand, it can be explained by referring to the "universal news value of political power" (van Dalen 2012) according to which incumbents have a higher news value than their competitors due to the political power they wield. In particular, in the German political system, the chancellor has a powerful position, which makes him or her comparatively newsworthy (Hopman, de Vreese, and Albaek 2011). On the other hand, incumbency dominance can be explained by the "watchdog role of the media" (Green-Pedersen, Mortensen, and Thesen 2017) whereby media make societal problems a subject of discussion and therefore put an emphasis on the responsibility of those that design policy—the incumbents.

Not all of this coverage is positive, however; incumbency dominance often also means more critical coverage (Green-Pedersen et al. 2017).[6] In contrast to a political bias, incumbency dominance would predict that a letter about Merkel is more likely to be published than an otherwise identical letter about Schulz, irrespective of whether these letters denounce or applaud their subject.

Hypothesis III (Incumbency Dominance). *Letters "pro Merkel" and "contra Merkel" are more often printed than letters "pro Schulz" and "contra Schulz".*

We test Hypotheses I to III using the non-parametric Fisher's exact test. In a robustness check, we control for circulation as Butler and Schofield (2010) have found that larger newspapers were less likely to publish their letters. One possible explanation is that bigger newspapers

[6] In the literature, the term *incumbency bonus* is widespread. We instead speak of *incumbency dominance* as this highlights that coverage does not have to be a bonus for the incumbent, but can be positive or negative.

receive more letters and can thus be more selective. Controlling for circulation might therefore improve the accuracy of our estimates. Similarly, national newspapers may handle letters in a different way than regional newspapers. We therefore also perform a regression analysis that controls for national (as opposed to regional) newspapers. In a further robustness check, we control for the state in which a newspaper is published. Finally, we run a regression where we weight each newspaper by its circulation.

Ethical issues. The experimental design may raise ethical concerns since the methodology does not allow us to obtain informed consent by the experimental subjects. These concerns apply similarly to audit and correspondence studies, which represent established and widely accepted methodologies for studying discrimination (see Riach and Rich 2002, Guryan and Charles 2013, Bertrand and Duflo 2017 for surveys). By one count, there are 117 studies from 17 different countries using this approach (Salganik 2017). In this literature, four conditions are pointed out that jointly justify forgoing informed consent (Riach and Rich 2004, Pager 2007, Salganik 2017): (i) any potential harm to subjects is minimal, (ii) the study generates socially valuable insights that (iii) cannot be achieved with other empirical methods, and (iv) the experiment takes place in a context where some forms of deceptions are not unheard of, so that it does not "pollute an already pristine ethical landscape" (Salganik 2017, p. 304).

We believe our experiment fulfills these requirements.[7] We consciously designed the experiment to minimize any potential harm for the newspapers' readers and the wider public. The number of letters that we sent is small in comparison to the overall number of letters in German newspapers.[8] Sending equal numbers of letters supporting and criticizing Merkel and Schulz ensures that our experimental intervention is politically balanced, although a biased selection

[7] At the time of writing, the faculty of economics and social sciences at our university is establishing an ethics commission. At the time of our experiment, however, no such internal review board had been established, so we could not have asked it for approval.

[8] To give a rough estimate, 1604 letters have been published in our study period (September 5 to 24, 2017) in newspapers that make the letters to the editor available on Nexis; 12 of them (or about 0.7%) stemmed from our experiment. Note that these are not all letters published (see Section 3 for details on our data collection).

of the letters by the newspapers might result in an unbalanced effect on voters. The letters do not contain any wrong or misleading statement of facts. They contain an expression of a personal opinion about which candidate is better or worse, but do not contain an argument supporting that opinion—after all, the text had to fit all four versions of the letter equally well. All letters call for fairness in reporting and high participation in the election; these are widely shared democratic values to which we fully subscribe ourselves.

Potentially adverse effects of our study for newspapers could comprise the time required to read and process our letter, or the opportunity cost of newspaper space when printing our letter. We believe these costs to be minimal. The decision to print the letter is, after all, the newspaper's decision. Dealing with letters to the editor is a typical everyday activity both for newspapers and readers. Our experiment does not expose anyone to a harm or discomfort greater than those ordinarily encountered in daily life, and thus meets the appropriate standard for minimal risk (Morton and Williams 2010, pp. 479-483).

One might also be concerned that a newspaper might suffer a loss of reputation when it becomes known as biased. Our study is not, however, designed to test for discrimination by individual newspapers. Indeed our method does not allow this type of inquiry, which would require sending different letters to the same newspaper. We test for the prevalence of biases across the newspaper landscape, and no newspaper can be identified from our research as biased, as this would require sending different letters to the same newspaper.

To summarize, we designed and executed the experiment to ensure minimal harm (condition i). Media bias is a hotly debated topic both in academia and the public more generally. Our study contributes scientifically to this debate, generating socially valuable insights (condition ii). As mentioned in the introduction, any study of media bias faces the unobserved population problem, and creating the population in a field experiment is a unique way to overcome this challenge (condition iii). Finally, given the recent debates about media bias, the media are rarely perceived as a "pristine landscape" that our experiment might pollute (condition iv).

3 Implementation and data collection

Between September 5 and 8 in 2017—in the third week before the general elections—we sent out letters to the editor to over 200 daily German newspapers.[9] Our letters were highly topical as we referred to the reporting of the TV debate between chancellor Merkel and her challenger Schulz that took place shortly before, on September 3. According to election forecasts, the study period was quite representative of the last few months before the election, with no major swings for the biggest parties.[10]

For the selection of newspapers in the study, we relied on a compilation of German daily newspapers published by the Federation of German Newspaper Publishers (Bundesverband Deutscher Zeitungsverleger).[11] We visited the websites of all these newspapers to find out whether there is an online form or an e-mail address for submitting letters to the editor. If no form and no specific e-mail address for letters to the editors was presented, we used the e-mail address of the editors. Many newspapers in Germany have common owners, common publishing houses, or share one and the same section on federal politics. To prevent interference between experimental units, we submitted only one letter to different newspapers that handle letters to the editor through one and the same online form or e-mail address. On the other hand, when newspapers that have common owners or different local editions handle letters to the editor by independent editorial departments, we treated them as independent experimental units.[12]

One of our four different letters was sent to each newspaper, either via the contact form of the homepage or via e-mail. In addition, we provided the contact details of a fictitious sender, "Annamarie Richter." We wanted to use a common name that would not raise any suspicions, while at the same time making sure we would not accidentally write a letter with the name and

[9] Our randomization ensures that the version of the letter is independent of the time the letter was sent.

[10] See, for example, `http://www.wahlrecht.de/umfragen/allensbach.htm` (accessed on Dec. 9, 2017).

[11] `http://www.bdzv.de/maerkte-und-daten/zeitungslandschaft` (accessed on Aug. 9, 2017).

[12] This leaves us with about two thirds of the 333 newspapers that are registered in Germany according to BDZV.

address of an actual person. We chose a common German family name, "Richter," and combined it with a comparatively rare first name, "Annamarie," which is a version of the more common first name "Annemarie." On online telephone books, such as `dastelefonbuch.de`, no person with the name *Annamarie Richter* can be found. Her address was always the same, except for the city she lived in. For each newspaper we chose the address *Hauptstr. 14*, in or near the city where the newspaper has its headquarters, and the respective postal code.[13,14] *Hauptstrasse* is by far the most common street name in Germany ('main street') and can be found in most cities and communities.[15] If requested on the online form, we also provided the mobile number of one of the co-authors, but we did not answer any phone calls. Mobile numbers in Germany cannot be ascribed to particular locations or cities. We answered e-mails that asked for further contact details (such as the telephone number) with one standard e-mail providing the requested details. All letters to the editor and all e-mails included the statement that we would appreciate receiving a notification of whether the letter would be printed as we would not be reading the newspaper in the following weeks due to a vacation.[16]

To find out which newspapers did publish our letter, we collected notifications by e-mail and telephone from the newspapers as to whether our letter had been printed or rejected. In addition, we searched newspapers' websites and the Internet using the general search engines *Google* and *Bing*, for the name "Annamarie Richter."[17] We also made use of the Nexis and

[13]If the contact form did not indicate that the address was obligatory we did not provide it.

[14]As most daily newspapers are regional newspapers we had to vary the postal code and the city of the address across newspapers to avoid suspicions.

[15]`http://www.strassen-in-deutschland.de/die-haeufigsten-strassennamen-in-deutschland.html` (accessed on Aug. 9, 2017).

[16]Vote shares of the two main parties differ significantly across the German Bundeslaender (states). We therefore stratified on the state level from BDZV 2017, which reports the newspapers' state by merging the city-states of Berlin, Bremen, and Hamburg with the surrounding territorial states, so that there are 13 different states.

[17]German newspapers typically publish letters to the editor with the full name. As "Annamarie" is very similar to the more common name "Annemarie," we also searched for "Annemarie Richter." We also searched for "A.

the Genios newspaper databases, which contain about one half of the newspapers in our study. The coverage of letters to the editor in these databases, however, is not 100% complete: some newspapers that are available in Nexis or Genios had published our letter, but it was impossible to find our letter in these databases. Therefore, we contacted the remaining newspapers—those that had not informed us directly and where our search had not shown positive proof that the letter had been published—by e-mail and telephone after the federal election. For two newspapers, the status of our letter remained unclear, and we had to leaf through their print issues in order to learn whether our letter had been printed or not.[18]

4 Results

Out of 214 letters in our data set, 89 (i.e., 41.6%) were printed.[19] Table 1 gives an overview of the data. When submitting letters we supplied all the information asked for by the newspaper. Conditional on this information, 28 newspapers (13.1%) asked for further information by e-mail or by calling the phone number we provided. Out of these 28 newspapers, seven eventually

Richter," and for snippets from the text of the letter, but this did not result in additional information.

[18]We cannot rule out that some newspapers realized that the letter had already been published elsewhere and therefore rejected the letter. This would have reduced the number of printed letters. Importantly, the probability of a newspaper discovering the letter elsewhere should be independent of the treatments. Moreover, it seems plausible to assume that a newspaper that discovers any version of our letter published in another newspaper will reject our letter, no matter what version itself has received. Under this assumption (which is unfortunately not testable with our data), such cases of interference would bias our results towards zero and thus render our tests conservative as the treatment effects might have been stronger absent the interference.

[19]Among the newspapers we initially selected for our study, one turned out to be out of business and one was strikebound. We used defunct e-mail addresses for two further newspapers. In addition, some newspapers informed us that they had forwarded our letter to a central editorial board dealing with letters to several newspapers, potentially inducing interference between the corresponding experimental units. This eliminated 24 further newspapers from our sample. In a robustness check, we included these 24 newspapers as not having published the letter. Our results from the non-parametric tests on Hypotheses I to III remain largely unaffected in the sense that we do not find evidence of a political bias or a statistically significant negativity bias, but for incumbency dominance ($p = 0.047$, one-sided).

printed the letter. Moreover, four newspapers informed us that they would print the letter if they could reach us by telephone, but did not print it finally since we never answered their phone calls.[20]

4.1 Nonparametric tests

In order to test our three hypotheses we use the Fisher's exact test. The subject pool in our experiment is not a sample from some bigger population, but rather the population of all German daily newspapers that handle letters to the editor independently. Therefore, a test which relies on the randomization distribution for inference is appropriate.

First, as we are agnostic about the direction of a potential political bias, we used a two-sided test to test Hypothesis I. We do not find a political bias: out of 104 pro-Merkel and contra-Schulz letters 45 (43.3%) were printed, while out of the 110 contra-Merkel or pro-Schulz letters 44 (40.0%) were printed ($p = 0.678$). Thus, publications in our data set do not seem to be biased toward the political left- or right-wing.[21]

Second, we test for negativity bias. Since we had a clear prediction that negative letters were more likely to be printed, we use a one-sided test here. Out of 109 negatively connotated letters 49 (45.0%) were printed; out of 105 positively connotated letters only 40 (38.1%) were printed. Thus, negatively connotated letters are more likely to be printed, but this effect is not statistically significant ($p = 0.190$).[22]

[20] As a randomization check, we regressed newspaper circulation and the left-right score by Garz et al. (2017) on the three main indicator variables. None of the coefficients is significant, so our randomization seems to have worked. Moreover, there is no significant difference in the acceptance rate of letters submitted via online form or via e-mail. The former were accepted in 40.8%, the latter in 42.9% of the cases.

[21] Using Butler and Schofield's (2010) result of a 26% acceptance rate as a baseline, a power calculation shows that given our sample size and a desired power of 80%, the minimal effect size for a political bias that we would have been able to detect on a significance level of 5% would have been 0.19 (0.17 on the 10%-level). Our estimate, however, is close to zero (0.033).

[22] Using, as before, a 26% acceptance rate as a baseline, the minimal effect size for negativity bias (i.e., the difference in acceptance rates of negative and positive letters) that we would have been able to detect on a

Third, we find a significant effect of incumbency dominance ($p = 0.026$, one-sided) whereby letters about Merkel were more likely to be printed than letters about the challenger. Out of 107 letters about Merkel, 52 (48.6%) were printed, while only 37 out of 107 letters (34.6%) about the challenger were printed. Hence, a letter about Merkel had a $48.6/34.6 - 1 \approx 40.5\%$ higher chance of publication. Thus, newspapers were more likely to publish letters about Merkel than about Schulz. This indicates a higher newsworthiness of the Merkel letters.

Notably, testing three hypotheses on the same sample may increase the false discovery rate. To take this into account, we conduct a Bonferroni correction by multiplying the p-values by the number of hypotheses, that is, $n = 3$. Although this is a very conservative correction, incumbency dominance stays (weakly) significant ($p = 0.078$).

4.2 Regression Analysis

As argued in Section 2, larger newspapers or national newspapers might have a different approach to handling letters to the editor than smaller newspapers or regional newspapers, for example, because they may receive more letters and can thus be more selective. Controlling for these covariates might thus improve the precision of our estimation. For ease of interpretation, we estimate the linear probability model[23]

$$Print_i = \beta_0 + \beta_1 Left_i + \beta_2 Negative_i + \beta_3 Incumbent_i + \beta_4 X_i + \varepsilon_i. \quad (1)$$

The dependent variable $Print_i$ is a dummy variable that equals 1 if newspaper i has printed the letter. $Left_i$ is an indicator variable for the left-leaning letters (the versions pro Schulz and contra Merkel), $Negative_i$ is an indicator variable for the negative letters (contra Merkel and contra Schulz), and $Incumbent_i$ is an indicator for letters about the incumbent chancellor Merkel (the versions pro Merkel and contra Merkel).[24] X_i contains the control variables. We

significance level of 5%, with a desired power of 80% and our given sample size, would have been 0.17 (0.15 on the 10%-level). Our estimate, however, is considerably smaller (0.069). To obtain a statistical significance of 5% for that effect size, we would have needed a sample of more than 1000 newspapers.

[23] We also ran a logistic regression and the results are similar.

[24] Note that the three dummy variables $Left_i$, $Negative_i$, and $Incumbent_i$ are not perfectly collinear.

use quarterly circulation (measured in 1,000 units, as reported in BDZV 2017), a dummy for national newspapers, and dummies for the state (Bundesland) where the newspaper is published. The ε_i is mean zero noise.

It is straightforward to see that β_1 gives the expected difference between the average acceptance rates of a left-leaning and a right-leaning letter. Similarly, β_2 is the expected difference between the average acceptance rates of a negative and a positive letter. Finally, β_3 is the expected difference between average acceptance rates of a letter about Merkel and Schulz.

Table 2 reports the results. The dependent variable is an indicator of whether the newspaper printed the letter. Column 1 does not control for any covariates and basically reproduces our results above: only the incumbent dummy is statistically significant (at the 5% level), and indicates that the probability of a letter on Merkel being accepted is 13.9 percentage points higher than for a letter on Schulz.[25] Next, we control for circulation and for national newspapers. We do not enter these control variables simultaneously, since they are highly correlated: national newspapers have a higher circulation. As expected, larger newspapers were less likely to publish our letter. The dummy for national newspapers is statistically significant, while circulation is not. Finally, we add state dummies to these regressions. None of the state dummies are statistically significant. The estimation results for the parameters of interest remain basically unchanged. In particular, across all specifications, the coefficient of the incumbent dummy is estimated between 13.6 and 15.8 percentage points.

We conclude that our results are robust when controlling for the covariates. Our results are also robust to different choices of standard errors, that is, classical standard errors and

[25] Apart from being based on a different statistical method, this test differs in a minor detail from the nonparametric tests discussed above. The OLS estimator of, for example, β_1 can be shown to be equal to the difference between (i) the unweighted average of the acceptance rates of versions pro Schulz and contra Merkel, and (ii) the unweighted average of the acceptance rates of versions pro Merkel and contra Schulz. In contrast, the test statistic for Hypothesis I used above considers the differences between the respected weighted averages, with weights equal to their share of observations. This also explains why the coefficients in Table 2, column 1, are slightly different from the raw differences used in the non-parametric tests. Since we have an almost equal number of versions, this difference is minor.

bootstrapping. Furthermore, our results are robust to running separate regressions for the three hypotheses. One further robustness check concerns the publishing houses. Newspapers within the same publishing house may not decide independently whether to print the letter. As argued in Section 3, we only sent one letter per publishing house if the associated newspapers' editorial departments are not independent. To account for potential non-independent decisions in the few cases where we sent more than one letter per publishing house, we clustered standard errors at the publishing house level and our results are unaffected.

Weight by newspaper circulation. So far, all observations are given equal weight in the analysis, but typically only a handful of newspapers shape the whole market. For an equal number of right- and left-leaning letters being printed, our preceding analysis would not indicate a political bias, even if the newspapers that print the left-leaning letter have a much higher readership than those printing the right-leaning letter. As a consequence, it might be more natural to use $\frac{c_i}{\sum_j c_j} \cdot Print_i$ as the dependent variable, where c_j gives the circulation of newspaper j. Whereas our above regression answers whether the average newspaper has certain biases, the weighted regression answers whether the newspaper of the average reader has these biases.[26] Table 3 shows our results. While the signs of the coefficients are analogous to our findings from Table 2, their magnitudes are not directly comparable. We can, however, compare the effect sizes in terms of standard deviations of the dependent variables. For instance, according to our main regression (Table 2, Column 1) a letter on Merkel leads to a change that corresponds to 0.28 standard deviations, while the change corresponds to 0.32 standard deviations if we weight by circulation (Table 3, Column 1). Hence, our results are robust to weighting the newspapers by their share of circulation.

Exploring the role of previously published letters. To put our findings into perspective, we investigated how many letters to the editor about Merkel, Schulz, or both of them had been

[26]Note that this analysis differs from weighting the squared residual for each observation with its respective circulation. The latter leads to similar results as our main regression.

published in the three months before our experiment. We relied on the coverage of letters to the editor in all German newspapers available on Nexis.[27] The search resulted in 270 letters about Merkel and 158 about Schulz, so there were 70.9% more published letters about Merkel than Schulz. Another 62 letters contained references to both candidates. Our finding that letters about Merkel have a 40% higher chance getting published can partially explain the higher number of published letters on Merkel.[28]

4.3 Additional findings: Do newspapers prefer letters that oppose their political position?

Our study also allows us to test whether newspapers are more likely to print a letter to the editor that reflects a political view which is opposite to the political orientation of the newspaper. The German Press Code, a voluntary ethical agreement among German publishers, explicitly encourages the publication of such letters. It states under Guideline 2.6: "The Press Code must be observed when publishing readers' letters. It is in the interest of informing the public to allow opinions not shared by the editorial team to be expressed in the Readers' Letters section."[29] Moreover, Butler and Schofield (2010) found evidence of such a balancing behavior in the context

[27] We searched Nexis for publications containing the key words "Merkel" and "Schulz" in combination with the German word for letter to the editor ("Leserbrief"), in the time period June 1 to August 31, 2017. A research assistant read through all the results in order to count only those letters that were really about the respective candidates, as opposed to, e.g., letters about (or written by) some other person named Merkel or Schulz.

[28] Our estimation results are conditional on the given supply of other letters to the editor reaching the newspapers. To explore whether the acceptance decisions depend on the number of letters concerning Merkel or Schulz that have already been published in a newspaper, we had a closer look at all letters published in the three weeks prior to our study in a convenience sample of 21 newspapers in our data, which make the letters available on Nexis. The letters were coded as *pro Merkel*, *contra Merkel*, *pro Schulz*, *contra Schulz*, and *other* by two student research assistants (intercoder reliability as measured by percent agreement of 96%). Dissenting codings have been decided by discussion between the students. In this sample, we found evidence for incumbency dominance ($p < 0.05$), but no effects of previously published letters on the printing decision.

[29] See `presserat.de/fileadmin/user\_upload/Downloads\_Dateien/Pressekodex13english\_web.pdf` (accessed on Dec. 8, 2017).

of the 2008 US presidential election.

German newspapers do not publish election endorsements, however, which makes it harder to determine their political positions. Nevertheless, Garz, Sörensen, and Stone (2017) have ordered a number of German newspapers according to their relative political position. They rely on an automated text analysis comparing word frequencies in media outlets and party programs. Using their left-right scores, we obtain the political position of 46 of the newspapers used in our study. Since Garz et al. (2017) selected the media outlets for their study by audience reach, this subsample represents newspapers with a larger audience.[30]

Table 4 reports regression results with the left-right score of the respective newspapers and an interaction term as regressors. The estimation equation is[31]

$$Print_i = \beta_0 + \beta_1 Left_i + \beta_5 Score_i + \beta_6 Score_i \cdot Left_i + \varepsilon_i. \tag{2}$$

A higher score indicates a more conservative newspaper. The coefficient of interest is that of the interaction term. It shows that conservative newspapers are more likely to publish a left-leaning letter. The effect size is substantial. Consider two newspapers that differ by one standard deviation in their left-right score, which is about 0.014. Then the estimated difference across the two newspapers, between the differences in acceptance rates of left- and right-leaning letters, is about $23.91 \cdot 0.014 \cdot 100 \approx 33$ percentage points.[32] In summary, our data support the hypothesis that newspapers tend to publish letters that oppose their own political position.[33]

[30]The average quarterly circulation of a newspaper in the subsample is 177,566 copies as opposed to 68,071 copies for the whole dataset.

[31]Alternatively, we ran a logistic regression and the results are similar.

[32]This result is partly driven by one observation with an extreme score, that is, the self-proclaimed "socialist" newspaper Neues Deutschland. When removing this observation from the sample, the estimated coefficient still has the same sign, but it is about 30% smaller in absolute value and loses statistical significance.

[33]The results in this section also show that the regression in the main results section do not capture all relevant explanatory variables. Given random assignment, however, the estimates of (1) should nevertheless be unbiased. Moreover, controlling for newspapers' political position in a test of political bias of the newspapers' landscape as a whole would control for too much: the object of interest is the average reactions of newspapers, not the average reactions conditional on their political leanings.

5 Discussion and Concluding Remarks

This study reports results from a field experiment on letters to the editor in order to test for different implications of media bias. In particular, it allows us to test for three different manifestations of filtering bias with respect to media coverage of political content, that is, political bias, negativity bias, and incumbency dominance. Our between subjects design allows for a test of systemic biases of the German newspapers as opposed to individual outlet bias. We found no political bias among German newspapers with respect to the publication of letters to the editor. Moreover, the newspapers seem to follow the recommendation in the German press code to print letters that oppose their own political position. Indeed, we find that letters that oppose a newspaper's political position have a higher chance for publication in this newspaper. In line with the literature, we observed that our negatively connotated letters were printed more often than positively connotated ones. They were not statistically significantly more likely to be printed, however. Finally, we observed a strong effect of incumbency dominance, which gives a relation to the literature on incumbency advantages in elections. Incumbents are more likely to win elections, and the effect that the incumbent gets more media attention may contribute to this fact. Some care needs to be taken when interpreting the incumbency dominance we found, however, since we cannot control for other differences between the candidates.

We stay agnostic with respect to the reasons for media bias. When testing for political bias, negativity bias, and incumbency dominance, we did not impose any assumptions on whether these effects should be driven by the intrinsic preferences of the journalists or by readers' demand for biased media coverage, for instance. While we document significant support for incumbency dominance, the reasons for the occurrence of this effect need to be addressed in future research.

Our study was inspired by Butler and Schofield (2010) who conducted a similar experiment in the US in 2008 with letters to the editor that were either supportive of McCain or Obama. Our 2×2 design has various advantages over the design of the original study. If we had sent only supporting versions for either of the candidates (Versions 1 and 3), we might have observed a political bias as the pro-Merkel-letter would have been printed more often. By including the

criticizing versions, however, we see that in fact we do not have a political bias, but an effect of incumbency dominance: Not only letters supportive of Merkel, but also those that criticize Merkel are more likely to be printed. The original study could also neither elicit this effect nor test for negativity bias as only supportive letters were sent. Finally, it could not test for incumbency dominance as none of the candidates—neither Obama nor McCain—were incumbents. Our data also have advantages over those by Butler and Schofield (2010). While we count publications, they treated publications and contacts made by the newspaper equivalently. Just making a contact by the newspaper, however, does not necessarily indicate that the newspaper wants to print the letter. Furthermore, our sample is much larger as we included all the German daily newspaper that handle letters to the editor independently. Altogether, our study has various advantages over the original study with respect to the experimental design and the data set.

Finally, our study contributes to the debate on the manipulation of user-generated content (see, e.g., Mayzlin, Dover, and Chevalier 2014). We have observed that it is relatively easy to place a fictitious letter in a newspaper. While our experiment was balanced with respect to the political message (as we sent roughly equal numbers of all versions of the letter), our findings raise the question whether it is possible to affect the press and therefore also public opinion through fake letters that are less balanced in the aggregate.

References

[1] Aday, S. (2010). "Chasing the bad news: An analysis of 2005 Iraq and Afghanistan war coverage on NBC and Fox News Channel." Journal of Communication 60.1: 144-164.

[2] Baumgartner, F. R., and Bonafont, L. C. (2015). "All news is bad news: Newspaper coverage of political parties in Spain." Political Communication 32.2: 268–291.

[3] Bartos, V., and Bauer, M., and Chytilova, J., and Matejka, F. (2016). "Attention Discrimination: Theory and Field Experiments with Monitoring Information Acquisition." American Economic Review 106.6: 1437–1475.

[4] Bertrand, M., and Duflo, E. (2017). "Field Experiments on Discrimination." In: Duflo, E., and Banerjee, A., eds. Handbook of Field Experiments, Vol. 1, Elsevier.

[5] Bertrand, M., and Mullainathan, S. (2004). "Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination." American Economic Review 94.4: 991–1013.

[6] Bundesverband Deutscher Zeitungsverleger BDZV (2017). Zeitungen 2017/18. ZV Zeitungsverlag.

[7] Butler, D. M., and Schofield, E. (2010). "Were newspapers more interested in pro-Obama letters to the editor in 2008? Evidence from a field experiment." American Politics Research 38.2: 356–371.

[8] Converse, P. E., Clausen, A. R., and Miller, W. E. (1965). "Electoral myth and reality: the 1964 election." American Political Science Review 59.2: 321–336.

[9] Cooper, C., Knotts, H. G., and Haspel, M. (2009). "The content of political participation: Letters to the editor and the people who write them." Political Science & Politics 42.1: 131–137.

[10] D'Alessio, D., and Allen, M. (2000). "Media bias in presidential elections: A meta-analysis." Journal of Communication, 50.4, 133-156.

[11] de Vreese, C. H. (2017). Comparative political communication research. In: Kenski, K., and Jamieson, K. H., eds. Oxford Handbook of Political Communication, Oxford University Press.

[12] Galtung, J., and Ruge, M. H. (1965). "The structure of foreign news: The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers." Journal of peace research 2.1: 64-90.

[13] Garz, M. (2014), "Good news and bad news: Evidence of media bias in unemployment reports." Public Choice 161: 499–515.

[14] Garz, M., Sörensen, J., and Stone, D. (2017). "Congeniality and News Demand: Evidence from Facebook." Mimeo.

[15] Gentzkow, M., Shapiro, J. M., and Stone, D. (2016). "Media Bias in the Marketplace: Theory." In: Anderson, S. P., Waldfogel, J., and Stromberg, D., eds. Handbook of Media Economics, Vol. 1B. Elsevier.

[16] Gerber, A. S., Karlan, D., and Bergan, D. (2009). "Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions." American Economic Journal. Applied Economics 1.2: 35–52.

[17] Green, D. P., Carnegie, A. J., and Middleton, J. (2017). "Political Communication: Insights from Field Experiments." In: Kenski, K., and Jamieson, K. H., eds. Oxford Handbook of Political Communication, Oxford University Press.

[18] Green, D. P., Calfano, B. R., and Aronow, P. M. (2014), "Field Experimental Designs for the Study of Media Effects", Political Communication 31.1: 168-180.

[19] Green-Pedersen, C., Mortensen, P. B., and Thesen, G. (2017). "The incumbency bonus revisited: Causes and consequences of media dominance." British Journal of Political Science 47.1: 131–148.

[20] Grimmer, J. (2013). "Representational style in Congress : what legislators say and why it matters." Cambridge University Press.

[21] Groeling, T. (2013). "Media bias by the numbers: Challenges and opportunities in the empirical study of partisan news." Annual Review of Political Science 16: 129–151.

[22] Guryan, J., and Charles, K. K. (2013). "Taste-based or Statistical Discrimination: The Economics of Discrimination Returns to its Roots." Economic Journal 123: 417–432.

[23] Hallin, D. C., and Mancini, P. (2004) Comparing media systems: Three models of media and politics. Cambridge university press.

[24] Harcup, T., and O'Neill, D. (2017). "What is news? News values revisited (again)." Journalism Studies 18.12: 1470-1488.

[25] Haselmayer, M., Wagner, M., and Meyer, T. M. (2017). "Partisan bias in message selection: Media gatekeeping of party press releases." Political Communication 34.3: 367-384.

[26] Heinz, M., and Swinnen, J. (2015). "Media slant in economic news: A factor 20." Economics Letters 132: 18–20.

[27] Helfer, L., and Van Aelst, P. (2016). "What makes party messages fit for reporting? An experimental study of journalistic news selection." Political Communication 33.1: 59–77.

[28] Holtz-Bacha, C., Langer, A. I., & Merkle, S. (2014). "The personalization of politics in comparative perspective: Campaign coverage in Germany and the United Kingdom." European Journal of Communication, 29(2), 153-170.

[29] Hopmann, D. N., de Vreese, C. H., & Albæk, E. (2011). "Incumbency bonus in election news coverage explained: The logics of political power and the media market." Journal of Communication, 61.2, 264-282.

[30] Hynds, E. (1994). "Editors at Most U.S. Dailies See Vital Role for Editorial Page." Journalism Quarterly 71: 573–82.

[31] Ito, T. A., Larsen, J. T., Smith, N. K., and Cacioppo, J. T. (1998). "Negative information weighs more heavily on the brain: The negativity bias in evaluative categorizations." Journal of Personality and Social Psychology 75: 887–900.

[32] Kepplinger, H. M. (2011): "Journalismus als Beruf." Wiesbaden, Germany: VS Verlag für Sozialwissenschaften.

[33] King, G., Pan, J., and Roberts, M. E. (2014). "Reverse-engineering censorship in China: Randomized experimentation and participant observation." Science 345.6199: 1251722.

[34] Larcinese, V., Puglisi, R., and Snyder, J. M. (2011). "Partisan bias in economic news: Evidence on the agenda-setting behavior of US newspapers." Journal of Public Economics 95.9: 1178–1189.

[35] Lichter, S. R. (2017). "Theories of media bias." In: Kenski, K., and Jamieson, K. H., eds. Oxford Handbook of Political Communication, Oxford University Press.

[36] Mayzlin, D., Dover, Y., & Chevalier, J. (2014). "Promotional reviews: An empirical investigation of online review manipulation." The American Economic Review 104.8: 2421-2455.

[37] Morton, R. B., and Williams, K. C. (2010). "Experimental political science and the study of causality: From nature to the lab." Cambridge University Press.

[38] Niven, D. (2001). "Bias in the News: Partisanship and Negativity in Media Coverage of Presidents George Bush and Bill Clinton." International Journal of Press/Politics 6: 31–46.

[39] Noam, Eli M. (2016). "Who owns the world's media?: Media concentration and ownership around the world." Oxford University Press.

[40] O'Neill, D., and Harcup, T. (2009). "News values and selectivity." In: The Handbook of Journalism Studies (2009): 161-174.

[41] Pager, D. (2007). "The use of field experiments for studies of employment discrimination: Contributions, critiques, and directions for the future." The Annals of the American Academy of Political and Social Science 609.1: 104-133.

[42] Panagopoulos, C., and Green, D. P. (2008). "Field experiments testing the impact of radio advertisements on electoral competition." American Journal of Political Science 52: 156–168.

[43] Perrin, A. J., and Vaisey., S. (2008). "Parallel public spheres: Distance and discourse in letters to the editor." American Journal of Sociology 114.3: 781-810.

[44] Puglisi, R., and Snyder, J. M. (2016). "Empirical Studies of Media Bias." In: Anderson, Simon P., Joel Waldfogel, and David Stromberg, eds. Handbook of Media Economics, Vol 1B. Elsevier.

[45] Raeymaeckers, K. (2005) "Letters to the editor: A feedback opportunity turned into a marketing tool: An account of selection and editing practices in the Flemish daily press." European Journal of Communication 20.2 : 199-221.

[46] Renfro, P. C. (1979). "Bias in selection of letters to editor." Journalism Quarterly, 56(4), 822-826.

[47] Riach, P., and Rich, J. (2002). "Field experiments of discrimination in the market place." Economic Journal 112: 480–518.

[48] Riach, P., and Rich, J. (2004). "Deceptive field experiments of discrimination: are they ethical?" Kyklos 57: 457–470.

[49] Richardson, J. E., & Franklin, B. (2004). "Letters of intent: Election campaigning and orchestrated public debate in local newspapers' letters to the editor." Political Communication, 21.4, 459-478.

[50] Rozin, P., and Royzman, E. B. (2001). "Negativity bias, negativity dominance, and contagion." Personality and Social Psychology Review 5: 296–320.

[51] Salganik, M. J. (2017). "Bit by bit: Social research in the digital age." Princeton University Press.

[52] Schuyler Foster, H., and Friedrich, C. J. (1937). "Letters to the Editor as a Means of Measuring the Effectiveness of Propaganda." American Political Science Review 31.1: 71-79.

[53] Schoenbach, K., De Ridder, J., & Lauf, E. (2001). "Politicians on TV news: Getting attention in Dutch and German election campaigns." European Journal of Political Research, 39.4, 519-531.

[54] Shoemaker, P. J., and Reese, S. D. (1996). "Mediating the Message: Theories of Influences on Mass Media Content." Longman USA.

[55] Shoemaker, P. J., and Vos, T. P. (2009). "Gatekeeping Theory." Routledge.

[56] Soroka, S. N. (2012). "The gatekeeping function: distributions of information in media and the real world." Journal of Politics 74, 514–28.

[57] Soroka, S., and McAdams, S. (2015). "News, politics, and negativity." Political Communication 32.1: 1-22.

[58] Trussler, M., and Soroka, S. (2014). "Consumer demand for cynical and negative news frames." The International Journal of Press/Politics 19.3: 360-379.

[59] van Dalen, A. (2012). "Structural bias in cross-national perspective: How political systems and journalism cultures influence government dominance in the news." International Journal of Press/Politics 17.1: 32-55.

[60] Vos, D. (2014). "Which politicians pass the news gates and why? Explaining inconsistencies in research on news coverage of individual politicians." International Journal of Communication 8: 2438–2461.

[61] Vos, D., & Van Aelst, P. (2017). "Does the Political System Determine Media Visibility of Politicians? A Comparative Analysis of Political Functions in the News in Sixteen Countries." Political Communication, forthcoming.

[62] Wahl-Jorgensen, K. (2007). "Journalists and the public: Newsroom culture, letters to the editor, and democracy." Cresskill, NJ: Hampton Press

Appendix

In the following we provide translations of the letter that favors the challenger (top) and that gives a negative perspective on the challenger (bottom). The letters on the chancellor are analogous, with the only difference that "Schulz" is replaced by "Merkel."

Dear Sir or Madam,

I herewith refer to your news coverage of the local Bundestag election campaign and of Sunday's TV debate.

Let me be forthcoming in saying that I think Schulz is definitely the better candidate for our country and for the region where we live. For precisely this reason I would urgently ask you to stop pretending between the lines as if the election result had already been determined. What if your editorials were to demobilize important voters!

The region where we live is facing immense challenges: an ailing infrastructure, a lack of day-care centers, the integration of refugees. Under a Schulz administration, I as a young mother could be more confident of the future for my children and my home. Hence: Fairplay in news coverage for a high voter turnout!

Yours sincerely,

Annamarie Richter

PS: As we are on vacation from Friday on, I would kindly ask you to inform me via e-mail whether and when you publish the letter to the editor (it is rather difficult to reach me via mobile phone). Thank you!

Dear Sir or Madam,

I herewith refer to your news coverage of the local Bundestag election campaign and of Sunday's TV debate.

Let me be forthcoming in saying that I think Schulz is definitely the worse candidate for our country and for the region where we live. For precisely this reason I would urgently ask you to stop pretending between the lines as if the election result had already been determined. What if your editorials were to demobilize important voters!

The region where we live is facing immense challenges: an ailing infrastructure, a lack of day-care centers, the integration of refugees. Under a Schulz administration, I as a young mother would have look with great worry into the future of my children and my home. Hence: Fairplay in news coverage for a high voter turnout!

Yours sincerely,

Annamarie Richter

PS: As we are on vacation from Friday on, I would kindly ask you to inform me via e-mail whether and when you publish the letter to the editor (it is rather difficult to reach me via mobile phone). Thank you!

	Sent	Printed	Printed (%)
Version 1 (*pro Merkel*)	51	24	47%
Version 2 (*contra Schulz*)	53	21	40%
Version 3 (*pro Schulz*)	54	16	30%
Version 4 (*contra Merkel*)	56	28	50%

Table 1: Overview of the data. Column one gives the number of observations in each treatment. Column two states for each treatment how many letters were printed. Column three gives the share of printed letters in percentages.

	Print	Print	Print	Print	Print	Print
Left Letter	-0.0353	-0.0373	-0.0406	-0.0511	-0.0540	-0.0607
	(0.0672)	(0.0674)	(0.0671)	(0.0670)	(0.0671)	(0.0666)
Negative Letter	0.0647	0.0702	0.0644	0.0561	0.0622	0.0548
	(0.0672)	(0.0677)	(0.0671)	(0.0676)	(0.0679)	(0.0672)
Incumbent Letter	0.139**	0.136**	0.139**	0.156**	0.153**	0.158**
	(0.0672)	(0.0675)	(0.0671)	(0.0673)	(0.0676)	(0.0668)
Circulation		-0.000209			-0.000282*	
		(0.000132)			(0.000146)	
National Newspaper			-0.263*			-0.425**
			(0.151)			(0.164)
State dummies				X	X	X
Constant	0.332***	0.345***	0.342***	0.391	0.432	0.397
	(0.0672)	(0.0692)	(0.0676)	(0.339)	(0.361)	(0.342)
N	214	214	214	214	214	214
R^2	0.026	0.029	0.034	0.112	0.117	0.129

Table 2: Robust standard errors in parentheses. $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. The dependent variable is a dummy variable equal to 1 if newspaper i has printed the letter. Left Letter is an indicator variable for left-leaning letters, Negative Letter an indicator for negative letters, and Incumbent Letter an indicator for letters on Merkel. Control variables include the quarterly circulation of a newspaper in thousands, a dummy variable equal to 1 if newspaper i is a national newspaper, and state dummies.

	Print(W)	Print(W)	Print(W)	Print(W)	Print(W)	Print(W)
Left Letter	0.000398	0.000452	0.000376	0.000304	0.000342	0.000249
	(0.000456)	(0.000443)	(0.000456)	(0.000435)	(0.000429)	(0.000435)
Negative Letter	0.000798*	0.000652	0.000797*	0.000536	0.000457	0.000528
	(0.000456)	(0.000425)	(0.000456)	(0.000417)	(0.000405)	(0.000414)
Incumbent Letter	0.00109**	0.00116**	0.00109**	0.00121***	0.00125***	0.00122***
	(0.000456)	(0.000445)	(0.000456)	(0.000427)	(0.000425)	(0.000425)
Circulation		0.00000553			0.00000367	
		(0.00000468)			(0.00000385)	
National			-0.00108*			-0.00242***
			(0.000625)			(0.000832)
State Dummies				X	X	X
Constant	0.000548	0.000184	0.000590	0.00711	0.00658	0.00714
	(0.000456)	(0.000495)	(0.000459)	(0.00566)	(0.00543)	(0.00569)
N	214	214	214	214	214	214
R^2	0.044	0.089	0.046	0.219	0.237	0.231

Table 3: Robust standard errors in parantheses. $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. The dependent variable is a dummy variable equal to 1 if newspaper i has printed the letter weighted by i's share of overall newspaper circulation. Left Letter is an indicator variable for left-leaning letters, Negative Letter an indicator for negative letters, and Incumbent Letter an indicator for letters on Merkel. Control variables include the quarterly circulation of a newspaper in thousands, a dummy variable equal to 1 if newspaper i is a national newspaper, and state dummies.

	Print	Print	Print	Print
Left Letter	-0.00469	-0.00586	-0.0152	-0.0752
	(0.139)	(0.149)	(0.153)	(0.155)
Score	-22.18***	-22.38***	-21.45***	-27.25***
	(2.982)	(4.451)	(4.520)	(4.624)
Left Letter x Score	22.85***	23.76***	22.97***	23.91***
	(5.840)	(6.909)	(7.043)	(6.514)
Negative Letter		0.0602	0.0680	0.0282
		(0.160)	(0.162)	(0.159)
Incumbent Letter		0.0446	0.0348	0.0388
		(0.160)	(0.163)	(0.155)
Circulation			-0.000155	
			(0.000118)	
National Newspaper				-0.425***
				(0.138)
Constant	0.390***	0.336**	0.368**	0.452**
	(0.0958)	(0.151)	(0.163)	(0.174)
N	46	46	46	46
R^2	0.103	0.110	0.115	0.176

Table 4: Robust standard errors in parentheses. $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. The dependent variable is a dummy variable equal to 1 if newspaper i has printed the letter. Left Letter is an indicator variable for left-leaning letters, Negative Letter an indicator for negative letters, and Incumbent Letter an indicator for letters on Merkel. Score represents the political position of newspaper i on a left-right score and ranges from -1 (extremely left) to +1 (extremely right). Control variables include the quarterly circulation of a newspaper in thousands and a dummy variable equal to 1 if newspaper i is a national newspaper.