

## All at Once or Bit by Bit? How the Serialization of News Affects People's Attitudes Toward Politicians Involved in Scandals

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Journalists tend to serialize political scandals and publish scandalous information bit by bit instead of all at once in a single news article. Disseminating scandalous information in a serialized way may affect readers' perceptions of the scandal and the politicians involved in it independently of the information that is conveyed. To test this assumption, an experiment was conducted. All participants were exposed to identical scandalous information. However, the form of presentation—exposure to one, two, three, four, or five article(s)—was systematically manipulated. Serialization indeed indirectly increased participants' negative attitudes about the politician via the perceived scandal's importance, participants' reading duration, cognitive elaboration, and intensity of negative emotions.

*Keywords: political scandal, serialization, attitudes, negative emotions, media effects*

The number of political scandals has increased in recent years (Allern, Kantola, Pollack, & Blach-Orsten, 2012; Kumlin & Esaiasson, 2012; von Sikorski, 2017), and the news media play a key role in disseminating information about the (alleged) norm transgressions of political actors (Kepplinger, Geiss, & Siebert, 2012; Thompson, 2000). Political scandals have been defined as "intense public communication about a real or imagined defect that is by consensus condemned, and that meets universal indignation or outrage" (Esser & Hartung, 2004, p. 1041). Consumers of news frequently follow stories about the scandalous behavior of political actors (Lull & Hinerman, 1997), and therefore scandals help sell newspapers and increase page views of online news media outlets (Kalb, 1998; Lull & Hinerman, 1997; Tumber & Waisbord, 2004b). In particular, due to increasing competition in the media market, exclusive knowledge and information about a politician's scandalous behavior becomes a valuable commodity.

To capitalize on this valuable information and ensure a return on investment, journalists regularly "serialize" political scandals and publish scandalous information bit by bit (Kepplinger, 2012). On one hand, serialization may occur "naturally" because journalists may intensively investigate a scandal case and new details may emerge over time, resulting in a stepwise presentation of new information (e.g., individual articles published in an online news outlet). On the other hand, a journalist may accumulate and

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withhold relevant information on a particular norm transgression and then publish scandalous information a little at a time. Serialization or presenting information bit by bit instead of reporting all available scandalous information at once can increase the chance of a certain grievance or norm transgression becoming a political scandal (Thompson, 2000) and may contribute to “keeping a scandal running” (Kepplinger, 2012, p. 88; Kepplinger, 2014). In addition to ensuring a return on investment, reporting about a scandal in a serialized way may uphold a journalist’s reputation as a hardworking and persistent investigative reporter disclosing norm transgressions in the public interest. Serialized reporting may increase the attractiveness and general newsworthiness (see Harcup & O’Neill, 2001) of a scandal case, because readers may not want to miss the climax of a case and they might be particularly interested in how a scandal further develops.

A good example for the serialization of scandalous information is the corruption scandal involving former German president Christian Wulff. One of the leading German newspapers (*Bild*) evidently had access to potentially scandalous information by December 12, 2011 (a recorded phone call by Wulff threatening the chief editor of *Bild*). However, this information was not published immediately, but about three weeks later. *Bild* tried to enhance the impact of the scandal around the politician by reporting new scandalous information bit by bit. Wulff eventually resigned in February 2012, and the stepwise and continuous disclosure of scandalous information—along with other aspects of the case—may have contributed to his resignation (see Kepplinger, 2014). Another example is the large 1999–2000 financing scandal of the German Christian Democratic Union Party. According to one of the leading journalists (Hans Leyendecker of the German newspaper *Sueddeutsche Zeitung*) who reported the case, it was necessary to slowly develop the story to ensure the coverage was not in danger of “fizzling out.” When the case first emerged, only parts of the information available were published. Thus, the case was repeatedly “inflamed” (Kepplinger, 2012, p. 88).

Serializing media coverage of political scandals and exposing individuals to scandalous information bit by bit may—independently of the information provided—affect individuals’ perceptions of a scandal. The potential effects of serialization have not been examined previously, and the particular outcomes of presenting information to readers piece by piece remain unknown.

Previous research has extensively analyzed how repeated exposure to mediated stimuli affects people’s perceptions of objects and persons (e.g., Bornstein, 1989; Zajonc, 1968), opinions (e.g., Weaver, Garcia, Schwarz, & Miller, 2007), and perceptions of the credibility of the mediated messages (e.g., Koch & Zerback, 2013). In contrast, the effects of serialization of political information have not been examined thus far and therefore remain unclear. Serialization and repetition of information can be conceptually differentiated. Serialization of scandalous information can be defined as a form of news coverage that exposes readers to a piece of information that is not presented as a whole, but rather bit by bit in a series of presentations (e.g., in three or four articles). In contrast, repetition of information means that a piece of information is presented as a whole in a single presentation and, after some time, the same piece of information is presented again. In other words, in serialization, every piece of information is presented only once, whereas in repetition the same information is presented multiple times (Koch & Zerback, 2013; Weaver et al., 2007).

Clarification of the potential effects of serialization as well as an explanation of the underlying mechanisms of such effects would contribute to a better understanding of the effects of political scandals on readers' perceptions and may provide important insights for journalists, news organizations, and political actors. This study used an experimental design to test the potential effects of serialization in connection with an emerging political corruption scandal. As a first step, we presented participants with a short article about a political candidate (a Wikipedia entry with no information about the scandal) and measured their attitudes toward the politician (baseline attitudes). Participants were then exposed to news coverage of the (alleged) scandalous behavior of the politician. All participants received identical information. However, the form of presentation (serialization) was systematically manipulated and participants were exposed to one, two, three, four, or five news articles containing the scandalous information. Through this study, we aimed to tackle two central questions: First, does serializing a political scandal affect a person's attitudes toward the politician involved in the scandal? Second, what roles do a participant's perception of the importance of the scandal, time spent reading related information, cognitive elaboration on scandalous information, and negative emotions play in the potential effects of serialization?

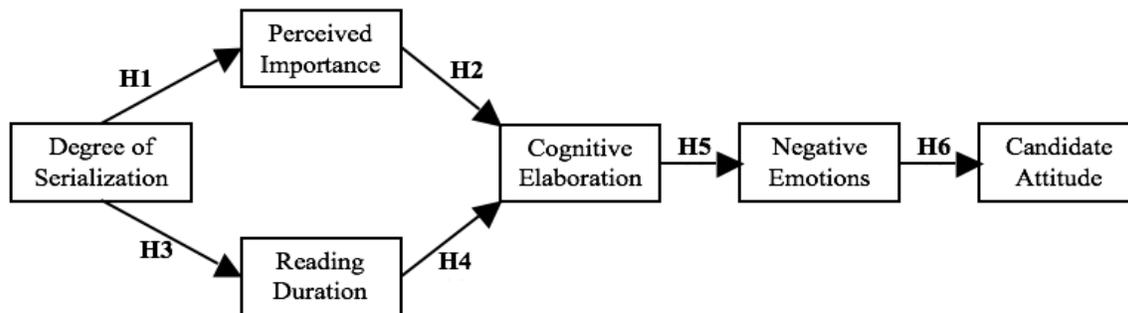
### **Serialization of Political Scandals and Its Effect on News Consumers**

Journalists are increasingly forced to capitalize on exclusive information about scandalous behaviors because the often costly and time-consuming disclosure of political scandals must generate a return on investment (Kalb, 1998; also see Shoemaker & Reese, 1996). The serialization of exclusive information is regarded as one strategy for using scandalous information in a profitable way (Kepplinger, 2012). In contrast to publishing a scandalous story as one piece of news, serializing a political scandal is a specific strategy for building an audience (Tumber & Waisbord, 2004a), increasing the demand (among readers and other media outlets) for the story and exploiting scandalous information over an extended period of time (e.g., to sell newspapers or increase online page visits). In addition, serialized reporting of a new and emerging case increases the probability that a report about a certain norm transgression will turn into a larger scandal (Kepplinger, 2012, 2014).

The serialization of scandalous news may have several influences—as depicted in Figure 1—on media readers' perceptions of a particular case. According to McCombs and Shaw (1972), the mass media have an important agenda-setting function. By selecting and presenting certain issues or by placing them more prominently in a newspaper or on a website, the media may influence people's perceptions of the importance of the issue (Scheufele & Tewksbury, 2007). Furthermore, it has been argued that one aspect of the agenda-setting function of the mass media "is to inform recipients what *other people* believe to be important" (Huck, Quiring, & Brosius, 2009, p. 139; emphasis in original). Thus, readers "may not report their own issue salience but rather their *perception of the media agenda* and/or *their perception of the agenda of other people*" (Huck et al., 2009, p. 141; emphasis in original). Based on this idea, readers may—independently of the positioning, length, or content of an article—regard the degree of serialization, or the number of articles that a news medium devotes to a certain issue, as an indicator of the media's relevance regarding the story (Kim, Scheufele, & Shanahan, 2002), which affects their perception of the issue. More precisely, readers' perceptions of the perceived importance of an issue (e.g., a political scandal) may be affected by serialization of a political scandal because serialization may serve as a subtle cue that elites, such as journalists or decision makers in the newsroom, assign importance to a certain

issue (Miller, 2007). Thus, compared with reporting a scandal in one piece of news, serializing a political scandal and presenting the identical information bit by bit should increase a reader's perception of the importance of the issue. Based on this expectation, we developed the following hypothesis:

*H1: The greater the number of articles (degree of serialization) that report a political scandal, the higher a reader's perception of the importance of the story.*



**Figure 1. Theoretical model.**

According to the limited capacity model of mediated message processing (Lang, 2000), recipients' cognitive processing resources are very limited. People cannot process all available media messages and are forced to select certain information (e.g., messages that appear to be relevant to them) to which they will allocate their available processing resources. In line with this, it can be argued that the higher an individual's perception of the importance of a selected piece of information, the higher his or her cognitive elaboration will be (i.e., intensive scrutiny of an issue). Similar to Lo, Wei, Lu, and Hou's (2015) reasoning, we propose that the role of an issue's perceived importance and its effects on an individual's degree of cognitive elaboration can be explained with the help of the elaboration likelihood model of persuasion (Petty & Cacioppo, 1986). According to the model, an individual may process information through either "central" or "peripheral" routes depending on how relevant the individual perceives a particular message to be. The central route is activated when an individual perceives incoming information to be personally relevant, whereas information or messages that are low in personal relevance activate the peripheral route. Thus, individuals who perceive a message to be (rather) important become motivated to address an issue and scrutinize relevant incoming information. In line with this expectation, we proposed the following hypothesis:

*H2: The higher the perceived importance of a scandal, the more intensive individuals' cognitive elaboration of the scandal will be.*

In addition to increasing the perceived importance of an issue, serialization may affect the duration for which an individual pays attention to media coverage of a topic. The results of experimental research reveal that serialization (i.e., presenting textual information on a computer screen paragraph by

paragraph rather than presenting the whole text at once) significantly increased the period of time for which individuals read an article, or their reading duration (Creed, Dennis, & Newstead, 1988). These results have been corroborated in studies that experimentally varied the number of words displayed on a computer screen (high versus low), finding that reducing the number of words displayed per screen increased participants' reading duration (e.g., de Bruijn, de Mul, & van Oostendorp, 1992; Muter, Latremouille, Treurniet, & Beam, 1982). Thus, exposure to larger amounts of textual information at once increases a person's reading speed. Exposure to different lengths of text can result in fluctuations in individuals' reading speed. First, the length of a text an individual is exposed to can be regarded as a relevant context cue (Sundar, 2008). Exposure to a longer article (rather than a short news story) may result in the acquired behavior of increasing reading speed to complete the entire reading in a timely manner. Second, exposure to a follow-up text dealing with the same issue may decrease reading speed, because one tries to connect the new information to the information provided in the previous news story (Bohn-Gettler & Kendeou, 2014; Just & Carpenter, 1980). Third, readers may perceive a particular text (e.g., a news article) as a "discrete entity" or a "finalized story," and after reading such a story, they may shortly pause and reflect on its contents. This is in line with the findings of Just and Carpenter (1980) that "readers make longer pauses at points where processing loads are greater" (p. 329). According to Just and Carpenter, recipients tend to pause at the end of a sentence or message to process the acquired information. Therefore, exposure to several stories (rather than the same information within one story) can increase a reader's total reading duration because he or she may pause at the end of an article to process the previously read information. Thus, we developed the following hypothesis:

*H3: The greater the number of articles focusing on a topic, the longer an individual's reading duration will be.*

Furthermore, we expected that reading duration will affect people's cognitive elaboration and that individuals with a longer reading duration will more intensively elaborate on a political scandal than will those with a shorter reading duration. The rationale behind this assumption, similar to our earlier reasoning, is that reading duration can be regarded as relevant to an individual's processing of the information in news coverage of an issue. According to the limited capacity model, time plays an essential role in the processing of mediated information, and obstacles such as time constraints can hinder in-depth information processing (Lang, 2000). People who take longer to read a news article (due to serialization) can therefore allocate more mental resources to processing the incoming information. This finding aligns with the results of Dyson and Haselgrove (2001), who found that longer pauses in the reading process and thus increased reading duration have an effect on cognitive elaboration and allow time for information consolidation. We thus created the following hypothesis:

*H4: The longer an individual's reading duration, the more intensive his or her cognitive elaboration on scandals will be.*

Previous research has revealed that negative emotions (e.g., anger, fury) play an essential role in determining a reader's perception of scandals (Jiang et al., 2011; Kepplinger, 2012; Kepplinger et al., 2012; von Sikorski, Knoll, & Matthes, 2017). An emotion can be defined as "an episode of interrelated, synchronized changes in the states of all or most of the five organismic subsystems in response to the

*evaluation of an external or internal stimulus event*" (Scherer, 2001, p. 93; emphasis in original). The organismic subsystems include cognitive, neurophysiological, motivational, motor expression, and subjective feeling components (Scherer, 2005). According to Scherer (2001), the cognitive emotion component assumes that continuous appraisal of stimuli can result in specific changes in the remaining subsystems. Thus, intensively thinking about a political scandal (cognitive elaboration) and reflecting on the scandalous behavior of a political actor can influence one's emotions (subjective feelings) regarding the information. This notion aligns with previous psychological research that revealed that particular emotions, such as fear or anger (Johnson & Multhaup, 1992), "require an extensive involvement of higher level processing" (Mathews & MacLeod, 1994, p. 26). Thus, it may be assumed that thinking more intensively about the (negative) circumstances of a political scandal can influence the level of negative emotions an individual experiences. Therefore, we developed the following hypothesis:

*H5: The more intensively individuals elaborate on a political scandal, the more intensely they will feel negative emotions about the scandal.*

According to Olson and Kendrick (2008), certain emotions can influence the formation of particular attitudes toward an attitude object. Precisely, a negative emotional response may become conditioned to the attitude object (e.g., a political actor), resulting in a psychological tendency to evaluate the political actor rather unfavorably (Eagly & Chaiken, 1993; von Sikorski et al., 2017). Therefore, we expected that the higher the degree of negative emotions that an individual experiences in connection with a political scandal, the more negative his or her evaluations of the political candidate will be. More formally, our final hypothesis is as follows:

*H6: The more intensely people feel negative emotions regarding a political scandal, the more negative their attitudes toward the political actor will be compared with their attitudes before the scandal.*

## **Method**

### ***Participants and Procedure***

We tested the hypotheses by conducting a 1 × 5 between-subjects experiment. In total, 171 students took part in the study. The mean age was 23 years ( $SD = 3.43$ ). Eighty-three percent of the participants were women. Upon arrival at the university's computer laboratory, the students gave informed consent to participate in the study and took a seat at one of eight computers. During the study, participants were separated from one another by opaque noise-absorbing dividers. They were randomly assigned to one of five experimental groups.

First, all participants read a short Wikipedia article about a fictitious social democratic member of the European Parliament. The article contained a short introduction to the politician and presented a picture of him. However, no information on the scandal was provided (see the Experimental Treatment section for more information). Afterward, participants reported their attitude toward the politician. This was done to ensure that the politician was perceived as real as well as to obtain the baseline attitudes for

each experimental group. Participants then answered several Likert-type items on a 7-point scale (e.g., credible,  $M = 5.21$ ,  $SD = 1.43$ ) assessing the overall quality and credibility of the Wikipedia article. As intended, the participants rated the article as credible. Next, participants read one of five versions of an online news story, which served as the experimental treatment. Participants were told that the article had been published recently and that they could take as much time as they wanted reading the article(s). Afterward, participants reported their attitude toward the politician a second time and answered questions related to the news article(s). Finally, participants were thanked and dismissed. They received course credits for taking part in the study.

### ***Experimental Treatment***

In terms of content, all participants were presented with exactly the same online news article. The article reported that a district attorney was currently investigating allegations of corruption involving the politician who was introduced by the Wikipedia article. According to the article, he was suspected to have taken bribes in return for assigning subsidies to certain infrastructure projects in Eastern Europe. The article gave detailed information about the allegations and provided readers with statements from all involved parties.

In line with previous research (e.g., Carlson, Ganiel, & Hyde, 2000; Doherty, Dowling, & Miller, 2011; Funk, 1996; von Sikorski, 2016, 2018; von Sikorski & Hänel, 2016; von Sikorski & Ludwig, 2018), a fictitious scandal was used to ensure that participants did not have any prior knowledge of the case or the politician involved in the scandal. Real scandals are usually extensively covered by the media (Esser & Hartung, 2004), and thus our participants could have known about the case and could have formed a particular attitude toward the political actor in advance. However, this would have undermined the purpose of the study. Therefore, we used a realistic but fictitious case. To ensure authenticity and credibility, the news article(s) was (were) attributed to *Salzburger Nachrichten*, which is a quality news outlet in Austria. The final article mimicked the exact design of the newspaper, including its layout, colors, and typography. The news article contained 654 words.

The only difference between the five experimental groups was whether the news was presented in one, two, three, four, or five articles. Presenting the news in one, two, three, four, or five steps was possible because the story contained five subsections with subheadings. In other words, the single-article group read a longer news article subdivided into five sections, while the five-article group read the same information presented as five articles captioned by the five subheadings. After reading an article, participants had to click on a button to see the next article or questionnaire. As a result, all participants read exactly the same information, and they all read the information once. We presented all the stimulus articles (in the conditions with two or more articles) to the participants consecutively without any time delay. There were two reasons that we chose this procedure. First, since we used a fictitious case (as explained above), exposure to the news articles with time delays (e.g., one article per day) could have caused participants to find out about the fictitious nature of the presented case (e.g., by searching the Internet after leaving the lab). This would have undermined the purpose of the study. Second, in previous studies examining the effects of repeated exposure to news—similar to the present research design—participants have regularly been exposed to media stimuli without any time delays. This line of

research clearly revealed that the time between exposures to different information does not affect the general effect of repetition (for an overview, see Koch & Zerback, 2013). Yet the aforementioned data come from repetition research, and future studies should examine whether results extend to serialization research. As mentioned above, repetition and serialization are different concepts and studying temporally more distributed forms of serialization (while controlling whether participants did any research on a particular scandal in the meantime—e.g., searching the Internet) would be a valuable extension of the present methodological approach in future studies.

### **Measures**

Participants' attitudes toward the politician were measured with a 7-point semantic differential. Six items were adopted from Carlson et al. (2000), including not credible/credible, incompetent/competent, and not trustworthy/trustworthy. Attitude was measured at two points in time: before the experimental treatment (after reading the Wikipedia article) and after the experimental treatment (after reading the online news article). The pretreatment measures were subtracted from the posttreatment measures. Thus, the more negative the resulting difference in attitudes, the more negative participants' posttreatment attitudes were compared with their pretreatment attitudes. The reliability of the resulting difference scale was excellent ( $\alpha = .87$ ,  $M = -2.12$ ,  $SD = 1.19$ ).

The intensity of negative emotions was assessed by four items adapted from Powell, Boomgaarden, De Swert, and de Vreese (2015). Participants indicated the extent to which they felt various negative emotions on a 7-point scale (e.g., anger, fury). The scale ranged from *I fully disagree* to *I fully agree*. The reliability of the four measured items was fine ( $\alpha = .83$ ,  $M = 3.54$ ,  $SD = 1.45$ ).

The extent of cognitive elaboration was measured by three items adapted from Shiv, Britton, and Payne (2004). Again, participants reported their agreement with items according to the established 7-point scale. Items included "I intensively thought about the presented issue" and "I strongly dedicated my attention to the news coverage." Reliability was satisfactory ( $\alpha = .76$ ,  $M = 5.13$ ,  $SD = 1.39$ ).

The perceived importance of the scandal was measured by three items adapted from Miller (2007), and they were measured using the established 7-point scale. The three items were "I think that the journalists perceive the presented issue as important," "I think that the editors attribute high relevance to the presented issue," and "I think that the editors are comprehensively occupied by the issue." Reliability was fine ( $\alpha = .83$ ,  $M = 5.11$ ,  $SD = 1.21$ ).

Finally, reading duration was assessed according to the time it took participants to read their online news article(s). Measures were provided in seconds by the survey software employed in this study (Unipark). The mean reading duration was 259 seconds ( $SD = 75.34$ ; see also Footnote 2).

In addition to assessing the dependent variable, the questionnaire contained one question serving as a treatment check (Sigall & Mills, 1998): "Please try to recall as precisely as possible. How many news articles have you just read?" The possible answers were one, two, three, four, and five articles.

## Results

### *Treatment Check*

The treatment check indicated the success of manipulation of the independent variable. There was a strong correlation between the number of articles participants recalled and the number they actually received ( $r = .77, p < .001$ ). In addition, the experimental groups did not differ in terms of gender,  $\chi^2(4) = 2.03, p = .73$ ; age (all Bonferroni post hoc tests with  $p > .05$ ); or pretreatment attitude (all Bonferroni post hoc tests with  $p > .05$ ).

### *Hypotheses*

We tested the hypotheses by creating a structural equation model using AMOS 23 software (Arbuckle, 2014). Maximum likelihood estimation was used (Byrne, 2010). The variables "degree of serialization" and "reading duration" were both entered as manifest variables. In both cases, there was only one underlying observed variable for degree of serialization and reading duration that was assumed to be measured without error (Borsboom, 2008). All other constructs were entered as latent variables. The zero-order correlations of all constructs are presented in Table 1. The model, which presents standardized path coefficients, is shown in Figure 2. The significance of these coefficients was assessed using 5,000 bootstrap samples. Bootstrapping is a recommended approach when the underlying data deviate from a multivariate normal distribution, as in the present case (Byrne, 2010; Nevitt & Hancock, 2001; West, Finch, & Curran, 1995).

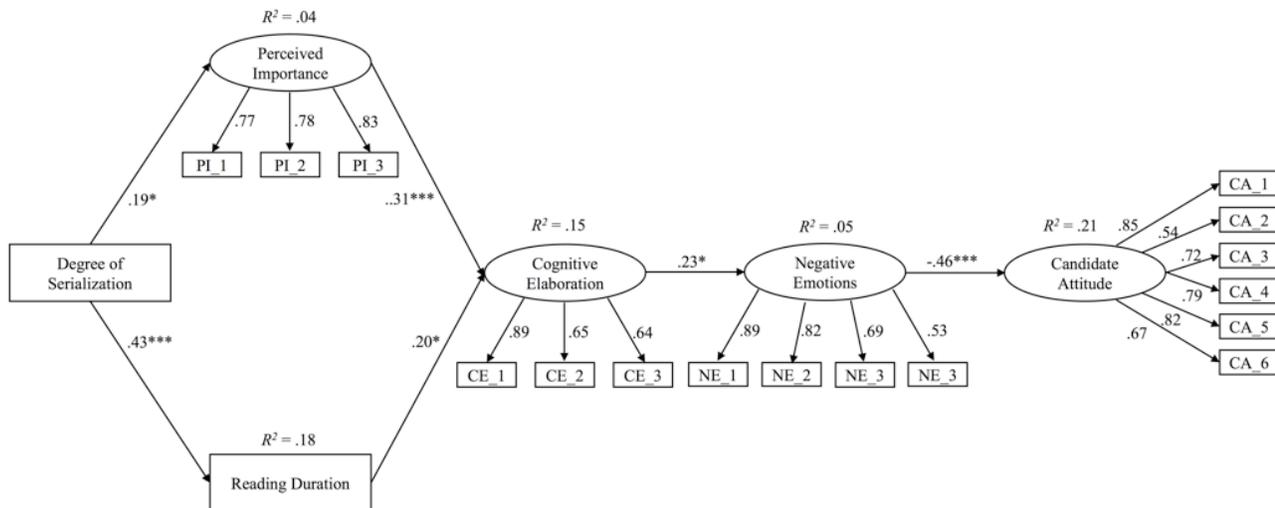
**Table 1. Zero-Order Correlations.**

	1	2	3	4	5	6
1. Degree of serialization	—					
2. Reading duration	.43***	—				
3. Perceived importance	.19*	.01	—			
4. Cognitive elaboration	.05	.19*	.30***	—		
5. Negative emotions	-.03	-.02	.21*	.23*	—	
6. Attitudes toward the politician	.01	.03	-.17	-.13	-.46***	—

Note. \*  $p < .05$ , \*\*\*  $p < .001$ .

The fit indices revealed good overall model fit (Byrne, 1989; Hu & Bentler, 1999): standardized root mean square residual = .07; root mean square error of approximation = .05;  $\chi^2(131) = 178.52, p < .01$ ;  $\chi^2/df < 2$ ; and comparative fit index = .96.

In addition, the Bollen-Stine bootstrap test statistic was calculated. It presents an alternative measure of goodness-of-fit that is not subject to normal distribution assumptions (Bollen & Stine, 1992; Ory & Mokhtarian, 2010). The resulting  $p$  value was insignificant ( $p = .13$ ), indicating good model fit. All the path coefficients appeared to be statistically significant and pointing in the assumed directions.



**Figure 2. The indirect impact of degree of serialization on attitudes about the politician. Note. Path coefficients represent standardized coefficients. Their significance was assessed by 5,000 bootstrap samples. \*  $p < .05$ , \*\*\*  $p < .001$ .**

Specifically, the greater the number of articles participants received, the higher their perceptions of the importance of the scandal ( $\beta = .19, p < .05$ ). Perceived importance, in turn, intensified participants' cognitive elaboration on the scandal ( $\beta = .33, p < .001$ ).<sup>1</sup> Both results support the first two hypotheses. In addition to the mediating process of perceived importance, the degree of serialization influenced cognitive elaboration via reading duration; the greater the number of articles participants received, the longer it took them to read the information ( $\beta = .43, p < .001$ ). Reading duration, in turn, intensified cognitive elaboration ( $\beta = .20, p < .05$ ). Thus, Hypotheses 3 and 4 were supported.<sup>2</sup>

Most importantly, both mediating processes can be regarded as separate since both exerted independent influences on cognitive elaboration yet remained entirely uncorrelated ( $r = .01, ns$ ). It was also confirmed that cognitive elaboration influenced the intensity of participants' negative emotions

<sup>1</sup> The questionnaire also contained various recall measures asking participants to recall specific details of the scandal. Cognitive elaboration was positively correlated to these measures ( $r = .17, p < .05$ ). This supports the validity of the elaboration measurement. Participants who indicated that they thought more intensively about the scandal were also able to recall more details.

<sup>2</sup> Mean values for perceived importance depending on condition are: one article ( $M = 4.81, SD = 1.17$ ), two articles ( $M = 4.92, SD = 1.36$ ), three articles ( $M = 5.05, SD = 1.29$ ), four articles ( $M = 5.42, SD = 1.01$ ), and five articles ( $M = 5.38, SD = 1.06$ ). Mean values for reading duration are: one article ( $M = 205$  seconds,  $SD = 55.9$ ), two articles ( $M = 249$  seconds,  $SD = 86$ ), three articles ( $M = 268$  seconds,  $SD = 55.7$ ), four articles ( $M = 269$  seconds,  $SD = 64.2$ ), and five articles ( $M = 304$  seconds,  $SD = 75.5$ ).

(Hypothesis 5). The more intensely readers thought about the scandal, the more intense were their negative emotions ( $\beta = .23, p < .05$ ).

Negative emotions eventually affected readers' attitudes toward the politician. The more intensely participants felt negative emotions, the more negative their posttreatment attitudes were compared with their pretreatment attitudes ( $\beta = -.46, p < .001$ ). According to these results, Hypothesis 6 was also supported.

In addition to assessing the significance of single-path values, the total indirect effect of degree of serialization on individuals' attitudes was calculated. It was thus possible to test whether the degree of serialization indirectly affected participants' attitudes toward the politician via perceived importance, reading duration, cognitive elaboration, and the intensity of negative emotions. Calculating a bias-corrected 95% confidence interval by means of 5,000 bootstrap samples revealed an interval that was entirely below zero,  $\beta = -.02, 95\% \text{ CI } [-.04, -.003]$ . That is, the degree of serialization indeed indirectly negatively affected participants' attitudes toward the politician via perceived importance, reading duration, cognitive elaboration, and the intensity of negative emotions.<sup>3</sup>

### Discussion

The results of the experiment demonstrate that serializing a political scandal indirectly affected participants' attitudes toward the politician involved in the scandal. Participants who were exposed to serialized coverage of the scandal (compared with nonserialized coverage) thought that editors and journalists in the newsroom perceived the case to be more important, and—independently of this perception—participants took more time to read the scandalous information. Both longer reading duration and increased perception of importance affected participants' cognitive elaboration and made them think more intensively about the presented scandal. Thinking intensively about the case elicited more negative emotions (e.g., anger, fury) among participants and eventually resulted in more negative attitudes toward the politician involved in the scandal.

The findings corroborate and extend previous results showing that scandalous information about political actors may have serious effects on news consumers' attitudes toward those political actors (e.g., Bless, Igou, Schwarz, & Wänke, 2000; Carlson et al., 2000; Funk, 1996; Kepplinger et al., 2012; von Sikorski, forthcoming; von Sikorski et al., 2017). However, previous studies on the effects of political scandals mainly tested how evaluations of a politician were affected after participants were exposed to scandalous political information (compared with participants who were not exposed to scandalous information).

Extending this line of research, the present examination revealed that it is not only the scandalous information per se that may negatively affect a news consumer's evaluation of a political actor

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<sup>3</sup> In addition, we separately calculated the effects of the mediators. The results revealed that both, perceived importance,  $\beta = -.025, 95\% \text{ CI } [-.025, -.001], p = .021$ , as well as reading duration,  $\beta = -.01, 95\% \text{ CI } [-.030, -.001], p = .02$ , independently affected attitudes toward the politician.

but also the way in which the media presents scandalous allegations to news consumers. Independently of the politician's scandalous behavior and the particular scandalous information provided, the presentation of scandalous information in a serialized way (compared with identical information presented in a nonserialized way) indirectly and negatively affected participants' attitudes toward the politician.

As expected, serialization affected both participants' perceptions of the importance of the information and their reading duration. First, this supports the findings of agenda-setting research (Huck et al., 2009) that news recipients may use the degree of serialization or the number of articles devoted to a certain issue as a way to infer the importance journalists or decision makers in the newsroom assign to a certain issue (Miller, 2007). Second, the relationship between serialization and reading duration corroborates the findings of reading research (Creed et al., 1988; Just & Carpenter, 1980) indicating that individuals tend to read shorter texts slower than longer articles. Yet the present data do not allow us to determine the process that led to an increase in reading duration. In the present study, reading duration can rather be conceptualized as a superordinate measure that helped to determine how long participants read and were exposed to the stimulus materials. Put differently, we know *how* much time participants spent reading and exposing themselves to the news article(s), but we do not know *why* they spent more time with the stimulus materials (e.g., reading slower, rereading, scrutinizing at the end of an article). However, individuals obviously used the additional time to process information more thoroughly, because those with a longer reading duration were better able to recall information on the topic and additionally reported that they more intensively elaborated on the information provided than did those with a shorter reading duration.

Furthermore, similar to the findings of Lo et al. (2015), the results revealed that an increase in the perceived importance of the scandal led participants to think more intensively about the case. Increased reading duration, in line with the findings of Dyson and Haselgrove (2001), also positively contributed to cognitive elaboration. Interestingly, both participants' increased perceptions of the importance of the information and the time they took to read the news coverage independently affected their cognitive elaboration on the issue.

The results demonstrate that intensively thinking about a scandal affects individuals' emotional reactions. Again, this finding is in line with previous psychological research (Johnson & Multhaup, 1992; Scherer, 2001) as well as studies of political scandals (Kepplinger et al., 2012; von Sikorski et al., 2017). The more intensively participants thought about the case, the more intensely they had negative emotional reactions to the scandalous information. These negative emotions (e.g., anger, fury) in turn affected participants' attitudes toward the politician involved in the scandal.

These findings underline the important role of the news media in disseminating information about political scandals. As emphasized by Allern et al. (2012), political scandals are not prefabricated, but must be constructed and presented by journalists in a certain way. As noted earlier, serialization may occur "naturally." That is, while doing additional investigating in an ongoing scandal, a journalist may come across new evidence that is then published in subsequent articles, resulting in a stepwise presentation of new scandalous information. Alternatively, a journalist may accumulate and withhold relevant information on a particular norm transgression and then publish scandalous information bit by bit. In the latter case,

journalists may run into a dilemma regarding the presentation of scandals. On one hand, publishing scandalous information in a serialized way can help sell newspapers and may increase the page views of online news sites (Kalb, 1998; Lull & Hinerman, 1997; Tumber & Waisbord, 2004b). From an economic perspective, it is therefore sensible to publish exclusive scandalous information bit by bit (Kepplinger, 2012), thus increasing the return on investment (Shoemaker & Reese, 1996) and “keeping a scandal running” (Kepplinger, 2012, p. 88; also see Kepplinger, 2014). On the other hand, serialization may have several negative consequences. First, as the results of this study reveal, serialization may intentionally and unintentionally negatively affect news consumers’ attitudes toward a politician involved in a scandal. Second, “holding back” relevant information for the sake of economic success raises serious ethical concerns and can be regarded as problematic from a journalism studies perspective (Hanitzsch et al., 2011). Third, similar to studies that have analyzed the effects of news repetition on credibility assessments (Koch & Zerback, 2013), future studies may examine whether the serialization of political scandals triggers a boomerang effect and undermines the credibility of a news outlet (for a similar argument, see Bennett, Rhine, & Flickinger, 2001). This may especially be the case when readers perceive frequent coverage of a political scandal to be excessive and unjustified, because strongly serialized news coverage of a political scandal may cause consumers of news to believe that the news organization or journalist is actively trying to construct a scandal. Future studies could consider examining this assumption.

The results presented here are limited in several respects. First, we used a student sample in the study. Although it has recently been argued that student samples are less problematic than originally thought and do not “intrinsically pose a problem for a study’s external validity” (Druckman & Kam, 2011, p. 41), future studies should use different samples (e.g., older and less educated participants) to test whether the results—as well as the detected mechanism (mediation paths)—can be generalized. Second, the scandal we fabricated focused on corruption. Although political scandals regularly deal with corruption, future studies may use different types of scandals (e.g., a sex scandal) to test whether the results can be replicated. Third, the explained variance of one of the mediator variables—perceived importance of the scandal—was rather low. One explanation for this may be that, in addition to the number of articles, participants may have been influenced, for example, by the length of a particular article (longer articles may be perceived to be more important than shorter ones). Yet, although this is just speculation, we believe that the number of articles an individual is exposed to is a stronger indicator of his or her importance considerations—in the sense that a reader will think the issue is so important that a journalist covers it multiple times. Furthermore, the participants in our study—in the end—were exposed to the exact same amount of information. This may have dampened potential influences of the article length. And the length of an article may be less of an issue in online news. The rationale behind this is that readers have to scroll down when reading online news articles and the actual length of an article is thus less visible than it is in traditional printed news (where a reader can see at the outset, for example, that an article takes up a full page or is continued on multiple pages). Nevertheless, future studies should systematically test the influence of article length in studies on serialization. Fourth, the political scandal used in the present study was allegedly published by a quality media outlet (*Salzburger Nachrichten*), and it remains unclear whether the effects of serialization can be detected when a scandal is reported by a rather low-quality news outlet. Fifth, future studies could use stories presented in different media (e.g., audiovisual media) to test whether the present findings can be corroborated.

### Conclusion

In summary, the results of this study show that news consumers may be significantly influenced by the way scandalous political information is presented in the mass media. Presenting a political scandal bit by bit, or serializing news about (alleged) scandalous behaviors of a political candidate, affected participants' examinations of the case, their perceptions of the importance of the issue, and the intensity of negative emotions regarding the scandal, eventually resulting in more negative attitudes toward the political actor involved in the scandal. Importantly, these influences occurred independently of the specific scandalous information provided by the news. Thus, whether one presents information *at once* or *bit by bit* is just as important as *what* one says and *how* one says it.

### References

- Allern, S., Kantola, A., Pollack, E., & Blach-Orsten, M. (2012). Increased scandalization: Nordic political scandals 1980–2010. In S. Allern & E. Pollack (Eds.), *Scandalous! The mediated construction of political scandals in four Nordic countries* (pp. 29–50). Gothenburg, Sweden: Nordicom.
- Arbuckle, J. L. (2014). *IBM SPSS Amos 23 user's guide*. New York, NY: IBM.
- Bennett, S. E., Rhine, S. L., & Flickinger, R. S. (2001). Assessing Americans' opinions about the news media's fairness in 1996 and 1998. *Political Communication, 18*(2), 163–182. doi:10.1080/105846001750322961
- Bless, H., Igou, E. R., Schwarz, N., & Wänke, M. (2000). Reducing context effects by adding context information: The direction and size of context effects in political judgment. *Personality and Social Psychology Bulletin, 26*(9), 1036–1045. doi:10.1177/01461672002611002
- Bohn-Gettler, C. M., & Kendeou, P. (2014). The interplay of reader goals, working memory, and text structure during reading. *Contemporary Educational Psychology, 39*(3), 206–219. doi:10.1016/j.cedpsych.2014.05.003
- Bollen, K. A., & Stine, R. A. (1992). Bootstrapping goodness-of-fit measures in structural equation models. *Sociological Methods and Research, 21*(2), 205–229. doi:10.1177/0049124192021002004
- Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis of research, 1968–1987. *Psychological Bulletin, 106*(2), 265–289. doi:10.1037/0033-2909.106.2.265
- Borsboom, D. (2008). Latent variable theory. *Measurement, 6*(1–2), 25–53. doi:10.1080/15366360802035497
- Byrne, B. M. (1989). *A primer of LISREL: Basic applications and programming for confirmatory factor analytic model*. New York, NY: Springer.

- Byrne, B. M. (2010). *Structural equation modeling with AMOS. Basic concepts, applications, and programming*. New York, NY: Routledge.
- Carlson, J., Ganiel, G., & Hyde, M. S. (2000). Scandal and political candidate image. *Politics and Policy*, 28(4), 747–757. doi:10.1111/j.1747-1346.2000.tb00798.x
- Creed, A., Dennis, I., & Newstead, S. (1988). Effects of display format on proofreading with VDUs. *Behaviour and Information Technology*, 7, 467–478. doi:10.1080/01449298808901890
- de Bruijn, D., de Mul, S., & van Oostendorp, H. (1992). The influence of screen size and text layout on the study of text. *Behaviour & Information Technology*, 11(2), 71–78. doi:10.1080/01449299208924322
- Doherty, D., Dowling, C. M., & Miller, M. G. (2011). Are financial or moral scandals worse? It depends. *PS: Political Science and Politics*, 44(4), 749–757. doi:10.1017/S1049096511001247
- Druckman, J. N., & Kam, C. D. (2011). Students as experimental participants: A defense of the “narrow data base.” In J. N. Druckman, D. P. Green, J. H. Kuglinski, & A. Lupia (Eds.), *Cambridge handbook of experimental political science* (pp. 41–57). New York, NY: Cambridge University Press.
- Dyson, M. C., & Haselgrove, M. (2001). The influence of reading speed and line length on the effectiveness of reading from screen. *International Journal of Human-Computer Studies*, 54(4), 585–612. doi:10.1006/ijhc.2001.0458
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- Esser, F., & Hartung, U. (2004). Nazis, pollution, and no sex: Political scandals as a reflection of political culture in Germany. *American Behavioral Scientist*, 47(8), 1040–1071. doi:10.1177/0002764203262277
- Funk, C. L. (1996). The impact of scandal on candidate evaluations: An experimental test of the role of candidate traits. *Political Behavior*, 18(1), 1–24. doi:10.1007/BF01498658
- Hanitzsch, T., Hanusch, F., Mellado, C., Anikina, M., Berganza, R., Cangoz, I., . . . Wang Yuen, E. K. (2011). Mapping journalism cultures across nations. *Journalism Studies*, 12(3), 273–293. doi:10.1080/1461670X.2010.512502
- Harcup, T., & O’Neill, D. (2001). What is news? Galtung and Ruge revisited. *Journalism Studies*, 2(2), 261–280. doi:10.1080/14616700118449

- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. doi:10.1080/10705519909540118
- Huck, I., Quiring, O., & Brosius, H.-B. (2009). Perceptual phenomena in the agenda setting process. *International Journal of Public Opinion Research*, 21(2), 139–164. doi:10.1093/ijpor/edp019
- Jiang, J., Kou, Y., Wang, F., Wu, Y., Li, Y.-M., Li, Y., . . . Wang, X. (2011). Emotional reactions to scandals: When does moral character make a difference? *Asian Journal of Social Psychology*, 14(3), 207–216. doi:10.1111/j.1467-839X.2011.01344.x
- Johnson, M. K., & Multhaup, K. S. (1992). Emotion and MEM. In S.-A. Christianson (Ed.), *Handbook of emotion and memory* (pp. 33–66). Hillsdale, NJ: Erlbaum.
- Just, M. A., & Carpenter, P. (1980). A theory of reading: From eye fixations to comprehension. *Psychological Review*, 87(4), 329–354. doi:10.1037/0033-295X.87.4.329
- Kalb, M. (1998, October). *The rise of the "new news": A case study of two root causes of the modern scandal coverage* (Discussion Paper D-34). Cambridge, MA: Shorenstein Center on Media, Politics, and Public Policy, Harvard University. Retrieved from [http://shorensteincenter.org/wp-content/uploads/2012/03/d34\\_kalb.pdf](http://shorensteincenter.org/wp-content/uploads/2012/03/d34_kalb.pdf)
- Kepplinger, H. M. (2012). *Die Mechanismen der Skandalisierung* [The mechanisms of scandalization]. Munich, Germany: Olzog.
- Kepplinger, H. M. (2014). *Wie die Presse Wulff zum Rücktritt zwang* [How the press forced Wulff to resign]. Retrieved from <http://cicero.de/berliner-republik/christian-wulff-und-die-medien-eine-neuaufgabe-des-investiturstreits/56879>
- Kepplinger, H. M., Geiss, S., & Siebert, S. (2012). Framing scandals: Cognitive and emotional media effects. *Journal of Communication*, 62(4), 659–681. doi:10.1111/j.1460-2466.2012.01653.x
- Kim, S. H., Scheufele, D. A., & Shanahan, J. (2002). Think about it this way: Attribute agenda-setting function of the press and the public's evaluation of a local issue. *Journalism and Mass Communication Quarterly*, 79(1), 7–25. doi:10.1177/107769900207900102
- Koch, T., & Zerback, T. (2013). Helpful or harmful? How frequent repetition affects perceived statement credibility. *Journal of Communication*, 63(6), 993–1010. doi:10.1111/jcom.12063
- Kumlin, S., & Esaiasson, P. (2012). Scandal fatigue? Scandal elections and satisfaction with democracy in Western Europe, 1977–2007. *British Journal of Political Science*, 42(2), 263–282. doi:10.1017/S000712341100024X

- Lang, A. (2000). The limited capacity model of mediated message processing. *Journal of Communication, 50*(1), 46–70. doi:10.1111/j.1460-2466.2000.tb02833.x
- Lo, V. H., Wei, R., Lu, H. Y., & Hou, H. Y. (2015). Perceived issue importance, information processing, and third-person effect of news about the imported U.S. beef controversy. *International Journal of Public Opinion Research, 27*(3), 342–360. doi:10.1093/ijpor/edu039
- Lull, J., & Hinerman, S. (1997). The search for scandal. In J. Lull & S. Hinerman (Eds.), *Media scandals: Morality and desire in the popular culture marketplace* (pp. 1–33). New York, NY: Columbia University Press.
- Mathews, A., & MacLeod, C. (1994). Cognitive approaches to emotion and emotional disorders. *Annual Review of Psychology, 45*, 25–50. doi:10.1146/annurev.ps.45.020194.000325
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly, 36*(2), 176–187. doi:10.1086/267990
- Miller, J. M. (2007). Examining the mediators of agenda setting: A new experimental paradigm reveals the role of emotions. *Political Psychology, 28*(6), 689–717. doi:10.1111/j.1467-9221.2007.00600.x
- Muter, P., Latremouille, S. A., Treurniet, W. C., & Beam, P. (1982). Extended reading of continuous text on television screens. *Human Factors, 24*, 501–508. doi:10.1177/001872088202400501
- Nevitt, J., & Hancock, G. R. (2001). Performance of bootstrapping approaches to model test statistics and parameter standard error estimation in structural equation modeling. *Structural Equation Modeling, 8*(3), 353–377.
- Olson, M. A., & Kendrick, R. V. (2008). Origins of attitudes. In W. Crano & R. Prislin (Eds.), *Attitudes and persuasion* (pp. 111–130). New York, NY: Psychology Press.
- Ory, D. T., & Mokhtarian, P. L. (2010). The impact of non-normality, sample size and estimation technique on goodness-of-fit measures in structural equation modeling: Evidence from ten empirical models of travel behavior. *Quality and Quantity, 44*(3), 427–445. doi:10.1007/s11135-008-9215-6
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York, NY: Springer.
- Powell, T. E., Boomgarden, H. G., De Swert, K., & de Vreese, C. H. (2015). A clearer picture: The contribution of visuals and text to framing effects. *Journal of Communication, 65*(6), 997–1017. doi:10.1111/jcom.12184

- Scherer, K. R. (2001). Appraisal considered as a process of multilevel sequential checking. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 92–120). New York, NY: Oxford University Press.
- Scherer, K. R. (2005). What are emotions? And how can they be measured? *Social Science Information*, 44(4), 695–729. doi:10.1177/0539018405058216
- Scheufele, D. A., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication*, 57(1), 9–20. doi:10.1111/j.0021-9916.2007.00326.x
- Shiv, B., Britton, J. A., & Payne, J. W. (2004). Does elaboration increase or decrease the effectiveness of negatively versus positively framed messages? *Journal of Consumer Research*, 31(1), 199–208. doi:10.1086/383435
- Shoemaker, P. J., & Reese, S. D. (1996). *Mediating the message: Theories of influences on mass media content*. White Plains, NY: Longman.
- Sigall, H., & Mills, J. (1998). Measures of independent variables and mediators are useful in social psychology experiments: But are they necessary? *Personality and Social Psychology Review*, 2(3), 218–226. doi:10.1207/s15327957pspr0203\_5
- Sundar, S. S. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. In M. J. Metzger & A. J. Flanagin (Eds.), *Digital media, youth, and credibility* (pp. 73–100). Cambridge, MA: MIT Press. doi:10.1162/dmal.9780262562324.073
- Thompson, J. B. (2000). *Political scandal: Power and visibility in the media age*. Cambridge, UK: Polity.
- Tumber, H., & Waisbord, S. R. (2004a). Introduction: Political scandals and media across democracies, Vol. 1. *American Behavioral Scientist*, 47(8), 1031–1039. doi:10.1177/0002764203262275
- Tumber, H., & Waisbord, S. R. (2004b). Introduction: Political scandals and media across democracies, Vol. 2. *American Behavioral Scientist*, 47(9), 1143–1152. doi:10.1177/0002764203262340
- von Sikorski, C. (2016). The effects of reader comments on the perception of personalized scandals: Exploring the roles of comment valence and commenters' social status. *International Journal of Communication*, 10, 4480–4501.
- von Sikorski, C. (2017). Politische Skandalberichterstattung. Ein Forschungsüberblick und Systematisierungsversuch [Political scandals in the news: A review and systematization of international research]. *Publizistik*, 62(3), 299–323. doi:10.1007/s11616-017-0355-3

- von Sikorski, C. (2018). The effects of darkness and lightness cues in the visual depiction of political actors involved in scandals: An experimental study. *Communication Research Reports*. Advance online publication. doi:10.1080/08824096.2018.1425984
- von Sikorski, C. (Forthcoming). The aftermath of political scandals: A meta-analysis. *International Journal of Communication*.
- von Sikorski, C., & Hänel, M. (2016). Scandal 2.0: How valenced reader comments affect recipients' perception of scandalized individuals and the journalistic quality of online news. *Journalism and Mass Communication Quarterly*, 93(3), 551–571. doi:10.1177/1077699016628822
- von Sikorski, C., Knoll, J., & Matthes, J. (2017). A new look at celebrity endorsements in politics: Investigating the impact of scandalous celebrity endorsers and politicians' best responses. *Media Psychology*. Advance online publication. doi:10.1080/15213269.2017.1378109
- von Sikorski, C., & Ludwig, M. (2018). The effects of visual isolation on the perception of scandalized politicians. *Communications: European Journal of Communication Research*. Advance online publication. doi:10.1515/commun-2017-0054
- Weaver, K., Garcia, S. M., Schwarz, N., & Miller, D. T. (2007). Inferring the popularity of an opinion from its familiarity: A repetitive voice can sound like a chorus. *Journal of Personality and Social Psychology*, 92(5), 821–833. doi:10.1037/0022-3514.92.5.821
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables. Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Thousand Oaks, CA: SAGE Publications.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9(2), 1–27. doi:10.1037/h0025848