PART 4: CONSUMPTION AND RECEPTION OF NEWS PRODUCTS

THE CONTEXT OF CONTENT: THE IMPACT OF SOURCE AND SETTING ON THE CREDIBILITY OF NEWS

Tom Bakker, Damian Trilling and Luzia Helfer[1]

Twitter, blogs and alternative news sites play an increasingly important role in the realm of news and journalism. Journalists often use Twitter to survey the public opinion and to gather information for their articles. At the same time, there has been an explosive growth of non-journalistic websites that have started to compete with professional news organizations for the attention from the audience. What do these trends mean for the credibility of news that citizens consume? In a survey-embedded experiment (N=1,979) we address this question by investigating argument credibility within news articles, varying the sources that are cited, the type of news outlet and the style of information gathering by the journalist. Confirming our hypothesis, the results show that arguments are more credible when experts are cited instead of random citizens. However, it appears that the credibility of arguments is judged the same, regardless of the type of online outlet (either the website of an interest group or the website of an independent quality newspaper). Further, arguments based on information from Twitter and based on face-to-face interviews are judged differently under specific conditions. The apparent indifference of citizens towards the origin and interests of information sources has significant democratic implications.

---

1   Tom Bakker is a PhD Candidate at the Amsterdam School of Communications Research (ASCoR). Damian Trilling is an Assistant Professor at the Department of Communication Science. Luzia Helfer is a PhD Candidate at the Institute of Political Science at the University of Leiden.

The context of content:
The impact of source and setting on the credibility of news

Content from participatory media like Twitter and weblogs has found its place in mainstream news sources. Participatory media have made it easier for journalists to find opinions of experts now that academics, politicians and other elite figures have started to use media like Twitter and blogs. Participatory media have also made it much easier for journalists to tap into public opinion by providing convenient access to a range of 'citizen' opinions. The emergence of the Internet and the increased possibilities for citizens to participate in the news has led to various questions regarding the credibility of news content and online information. Although participatory media have been applauded because they could bring more authentic, unmediated and diverse voices to the public debate (Gillmor, 2004; Bowman & Willis, 2003), it has been argued that the increased possibilities for the public to participate have also changed the traditional process of gatekeeping (Bruns, 2005). With the presence of websites, blogs, Twitter and social networks, the number of possible news and information sources available to the public are endless. Obviously, such profound changes do not come without consequences for the public. For communication scholars, one of the most intriguing questions is therefore to assess the strategies and heuristics the audience uses to cope with the abundance of online news and information sources.

Nowadays, people increasingly rely on online news sources (Tewksbury & Rittenberg, 2012), and also social networks and Twitter are used for delivering news. Knowledge about how citizens evaluate all these new information sources, particularly in comparison with traditional sources, is therefore relevant. How credible do citizens perceive information that is coming from Twitter, from random citizens and from non-journalistic sources? And do citizens still rate articles as more credible when they originate from trusted traditional sources like newspapers?

Communication scholars have always been interested in the conditions under which communication is most effective. Various studies have shown that the more credible people judge information, the larger the effects are on attitudes and behaviour (Chaiken & Maheswaran, 1994; Miller & Krosnick, 2000; Nan, 2009). The degree of credibility people attribute to a message or piece of information largely depends on the characteristics of the message, the source of the information and

the context in which information is presented. Now that the Internet has introduced myriad new information sources and news environments, the issue of credibility has received renewed attention in recent years (Stavenuiter *et al.*, 2012). As Eastin (2001) already noted more than a decade ago: "The Internet's free and unregulated flow of information and information providers creates many possible hazards to those who seek and trust online information. (...) As the Internet's information seekers and providers continue to increase, it becomes important that researchers gain an understanding of how this information is being perceived"

Theory

Under which circumstances do people believe information? Historically, both the concepts of credibility and trust have been central in studies that have addressed this question. The choice for either one of the concepts can often be attributed to scholarly tradition or language, but in many cases the concepts are used interchangeably (Hellmueller & Trilling, 2012). However, Kohring and Matthes (2007) and Jackob (2010) have also pointed to the inconsistency in not only measurements, but also the theoretical distinction of the two concepts.

In this paper, the focus is to untangle the circumstances under which people believe certain arguments they read. Credibility is therefore the central concept here, following the observation by Wathen and Burkell (2002) who note that "at its simplest, credibility can be defined as 'believability'" (p. 135). Also, it has been noted that credibility usually precedes trust. Thus, the attributed argument credibility may eventually impact the degree of trust in a certain medium (e.g., Kohring & Matthes, 2007; Jackob, 2008, 2010). Judgements of argument credibility can thus not be seen as independent of credibility of or trust in the medium or source of the message.

Various studies have focused on the issue of credibility with regard to the Internet (e.g., Franklin & Carlson, 2010; Johnson & Kaye, 2004; Kaye & Johnson, 2011; Metzger *et al.*, 2003). For example, studies have examined the credibility of online health information (e.g., Hu & Sundar, 2010) – but there are few studies addressing the credibility of online news. And despite the longstanding tradition of comparing credibility across media types (Kohring, 2004), not much is known about the attributes that actually explain why some arguments are perceived more credible than others. It has been found that people judge

media differently, but not much is known about the attributes of news articles (the medium it appears in, the sources that are cited) that impact argument credibility. Some hints exist, though, what type of cues matter in the case of online media: Ease of use, absence of technical errors, and frequent updates increase credibility (Fogg *et al.*, 2000), as well as a good design and a clear information structure (Fogg *et al.,* 2003).

Social judgment theory (Sherif & Hovland, 1961) and the assumptions underlying heuristic and peripheral processing of information (as opposed to systematic and central processing) suggest that people use various cues to evaluate the credibility of information. These cues are often unrelated to the actual information content, but are based on evaluations of authority or expertness for example. Also the elaboration likelihood model (ELM) by Petty and Cacioppo (1984) assumes that situational factors may – often unconsciously – play a role in processing information.

Whether arguments are judged credible or not may thus depend on various factors. Using identical messages in an experimental setup, Sundar (1998) found that people attribute greater credibility to certain messages when some information in these messages is presented as a direct quotation. It is also argued that recipients may actually use their own credibility perception of a medium, presenter, source or TV program as a heuristic for judging the credibility of the message they are confronted with (Hovland & Weiss, 1951; Schweiger, 2000).

In the experiment presented in this paper, we therefore expect the factors outlined in the following paragraphs to influence whether or not arguments are judged as credible.

Amateurs and experts

In credibility research there has traditionally been much focus on the role of expertness of sources when credibility is evaluated (e.g., Hovland *et al.*, 1959; Nan, 2009; Tormala & Petty, 2004). Given the fact that the emergence of participatory media has led to an increase of citizen voices in the news, there has been a renewed interest in how people process and perceive news content and to what extent they find the content credible. It has been argued that citizens' opinions would be perceived as being more authentic than those of experts' opinions (Gillmor, 2004; Bowman & Willis, 2003). Weblogs have long been the primary channel for such non-expert opinions, and therefore, their credibility has been investigated in numerous studies (Johnson & Kaye,

2004; Johnson *et al.*, 2007; Kim, 2006). While it is generally found that many people rate blogs as relatively credible, it remains largely unclear what the characteristics of that medium are that make it being evaluated as credible. Regular citizens may be seen as credible because they are authentic or because of source homophily (e.g., Wang *et al.*, 2008; Wright, 2000). With regard to online health information, Hu and Sundar (2010) observe: "It is indeed an open question whether professional expertise or lay expertise is given more weight by users while evaluating online health information credibility" (p. 113).

Mediated and unmediated sources

Different ideas exist as to whether the absence of professional gatekeeping in citizen media results in higher or lower credibility ratings. In a mediated communication environment, ideally, a trained professional – the journalist – has already assessed the credibility of his source before publishing the information given by the source. In contrast, in an unmediated communication environment, all information is accessible directly, without any filter that blocks non-credible sources. As Hu and Sundar (2010), referring to work by Haas and Wearden, state: "Researchers have seen a shift in gatekeeping functions on the Internet, where responsibility for judging the content and accuracy of information transfers from editors to online information users" (p. 110).

While some argue that exactly these journalistic filter processes lead to higher credibility (see next paragraph), others argue the opposite. Blog users themselves, for example, seem to judge blogs as highly credible – probably not despite, but just because they do not adhere to journalistic standards (Johnson & Kaye, 2004). In case recipients believe that media are biased, they might see gatekeeping as a disadvantage rather than an advantage. Kaye and Johnson (2011) listed three reasons why some people consider blogs as more credible than mediated sources: Their ability to highlight uncommon and new perspectives and stories, their closeness to the sources (for example, blogging soldiers), and their outspokenness.

Journalistic and partisan sources

Another point of interest in credibility research is the difference between journalistic sources and partisan sources. Those who see

weblogs as less credible than newspapers or television news usually do so because they see the former as potentially biased or partisan.

And indeed, several studies agree that blogs are judged as less credible than journalistic mainstream media (Johnson *et al.*, 2007). Results from an experiment even suggest that blogs are not only judged less credible than traditional news articles: Blog credibility seems to match the credibility of clearly opinionated news formats – which score very low on credibility (Meyer *et al.*, 2010). Yet, as Johnson and his colleagues (2007) show, this is not the case for users that are highly interested in politics: This group even judges blogs as the most credible news source of all. Also, the importance of the 'journalistic' character of a source might be overrated. For example, it has been found that partisan media content like broadcasting video news releases without any journalistic editing is not necessarily considered non-credible – even if the name of the partisan source is clearly displayed on the screen (Tewksbury *et al.*, 2011). In this case, the context might play a role, as the credibility of the news broadcast context might be transferred to that specific item. But also the opposite may happen: A newspaper article, embedded in a non-credible, partisan and uncivil blog-context, can even enjoy especially high credibility rating due to the high contrast (Thorson *et al.*, 2010).

Still, the prevalent idea is that traditional offline media enjoy higher credibility than online sources. One reason for this is that studies of media credibility often treat online media as one entity, while among offline media, newspapers, television, and radio are treated differently (Stavenuiter *et al.*, 2012). These studies neglect that the credibility of newspaper websites, online-only news sites, partisan websites, and blogs might differ substantially. The reasoning for the lower online credibility ratings in those studies is often that 'the Internet' does not adhere to the same – high – journalistic standards as for example newspapers do. Flanagin and Metzger (2000) for instance, discuss the problem of using an overarching construct like *Internet credibility*, but that does not withhold them from writing about the "possibility of misinformation on the Internet" and claim it is "arguably the least critical medium" (p. 529).

Differing credibility ratings of offline and online media are, interestingly, not based on factual content difference: Publishing identical information on a newspaper's website and on their Twitter account, however, has been shown to result in significantly lower credibility ratings for Twitter – although both sender and content

were identical (Schmierbach & Oeldorf-Hirsch, 2012). Thus, even if the content of an argument presented in the news is the same, the source context seems to matter a lot. Schweiger (2000) in this respect notes: "Recipients use the credibility of a medium or media product as a (heuristic) indicator for the credibility of a single news story or programme" (p. 41).

Need for Cogniton and the effect of cues

So far, we have outlined which cues may influence people's judgment of how credible an argument is. However, these cues might not affect everyone to the same extent. For example, it has been argued that people with a high Need For Cognition (NFC) tend to engage in central processing and use less peripheral cues – which means that in our case, NFC can be expected to moderate the effects of cues on perceived credibility (Cacioppo & Petty, 1982; Nan, 2009). This is because NFC can be described as a personality trait that refers to people's tendency to enjoy thinking. People with a high NFC usually prefer complex tasks to simple ones, while people with a low NFC try to avoid cognitive challenges. Accordingly, people with a higher NFC are more influenced by the quality of an argument itself (Martin *et al.*, 2003) – and in turn, those with a lower NFC should be more influenced by cues rather than the argument itself.

Hypotheses

Based on the literature review and theoretical considerations outlined above, we propose the following set of hypotheses.

H1: Messages on professional news sites are rated more credible than messages on partisan websites.

H2: Messages by experts are rated more credible than those by citizens.

H3: Messages cited from face-to-face (F2F) settings are rated more credible than tweets.

H4: The difference in credibility between messages by experts and messages by citizens is larger in the Twitter condition than in the F2F condition.

H5: The differences hypothesized in H1, H2 and H3 are higher for people with a lower Need for Cognition.

Method

To test our hypotheses, a survey-embedded experiment was conducted in Austria to achieve a big sample size, while at the same time ensuring that participants were as representative as possible of the Austrian population. This is crucial as a convenience sample of students might evaluate the credibility of both social media and experts, which in our experiment where university professors, significantly different from other members of society.

Research design

The experiment was designed as a 2x2x2 post-test-only between-subjects experiment. After answering a number of media use questions, participants were asked to read the stimulus material: A news article. Finally, the dependent variables were measured and participants were debriefed.

Participants were randomly assigned to one of eight conditions. In each condition, participants were asked to read an article about a possible taxation on meat. The writer of the article presented an argument in favour of this taxation. We varied the context in which the argument was presented (based on a face to face interview versus taken from a Twitter account), the source giving the argument (a citizen versus an expert) and the medium in which the stimulus material was said to be published (website of a national quality paper versus an activist group website). Only these aspects were changed between the articles, the wording of both the argument given and the body copy remained the same.

The article was presented as a short news article. It started with a brief announcement of a possible taxation on meat in the European Union. At the time of the experiment and before, it has not been on the political agenda in Austria, which ensured that the participants were unlikely to hold strong opinions on the topic. Still, the topic is very realistic, as it was discussed in other member states of the European Union. Beside the factual information, and depending on the condition, a quote was given by either a citizen or an expert, either on Twitter or in a conventional face-to-face interview setting. The argument read in all cases: "Introduce it immediately. To my knowledge, Austrians eat 100kg meat pear year, almost twice as much as 50 years ago. That is bad for the environment", and then, after a bridging sentence, "In

other countries, this tax has decreased meat consumption considerably. And less meat means less CO_2 in the atmosphere". The exact question wording in German was chosen in a way that ensured the quotes could stem from a Tweet as well as from a face-to-face interaction.

Originally, a control condition in which the argument was not attributed to any source was included. For the sake of clarity and because it remains unsure how respondents interpreted the source of the information, this group is excluded from the presentation of our results. Table 1 provides an overview of all conditions.

Condition	Environment	Source	Medium
X1	Offline	Citizen	Journalistic
X2	Offline	Expert	Journalistic
X3	Online	Citizen	Journalistic
X4	Online	Expert	Journalistic
X5	Offline	Citizen	Non-journalistic
X6	Offline	Expert	Non-journalistic
X7	Online	Citizen	Non-journalistic
X8	Online	Expert	Non-journalistic

Table 1. Overview of the research design

Measurement

As control variables, gender, age, and education were measured. Age was measured as a continuous variable, education on a 7-point-scale. To measure the moderator Need for Cognition, we shortened a scale provided by Cacioppo, Petty, and Kao (1984) (Cronbach's α = .85). Our dependent variable, argument credibility, was measured in two ways: First, we asked the respondents straightforwardly to rate the credibility of the argument on a ten-point scale. Second, we used a five-item measure to tap into different dimensions of credibility: the degree to which respondents thought the argument was elaborate, clear, accurate, truthful and substantiated. A factor analysis revealed that all items loaded on one single factor. Cronbach's alpha of the scale is .93. Both the one-item and the five item measure measure the same concept, as they are highly correlated, r = .85. We report the results from models using the 5-item scale. Results from the single item were similar.

Data collection

From a panel with 201,000 members, a sample was drawn using the stratified-sampling technique to match age, gender, education and region of residence with the Austrian population. The survey was in the field in November 2010 and a response rate of 17% was achieved, resulting in a sample size of N=2,954 cases after removal of invalid cases. Although this response rate is lower than desired, the sample is still suitable for the purpose of this study – and better than the convenience (student) samples often used in experimental research.

An analysis of the time respondents spent reading the stimulus material revealed that a substantial part of the respondents did not read the article at all, but clicked immediately on "continue" at the bottom of the page. Running the analyses for this group independently confirmed that the stimulus material did not have any influence on the dependent variables. To exclude these non-readers, the cutoff point was determined empirically. To this end, a convenience sample (N=61) was recruited and participants were told that the researchers are interested in average reading times of news stories and were instructed to read the stimulus material "speedily, but thoroughly" and click "continue" as soon as they finished. Reading time was the only variable measured. For a normally distributed variable, approximately 97.7% of all values are higher than two standard deviations below the mean. Thus, only very few participants should be capable of reading the stimulus material in even less time. We therefore decided to set the final cutoff point to M (33.72) minus 2SD (2*10.73), resulting in 12.26 seconds. Because of the topic, we also removed vegetarians (n=88) from the sample. This group is, firstly, likely to hold a much stronger opinion on this topic and, secondly, would not be affected directly by the proposed law, as they would not have to pay the tax. After excluding this group and applying the cutoff point for the minimum reading time, the final sample size was N=1,979.

Results

An independent samples t-test shows no significant difference in the credibility of the argument in a partisan website setting as opposed to the online newspaper setting when comparing raw scores of the two experimental groups, $t(1977)=.142$, $p = .887$. Results did not change when we controlled for the other experimental stimuli and gender,

age and education. In a partisan website setting, the credibility of the argument presented is evaluated not significantly lower compared with an online newspaper setting (b=-.06, p=.511). Hypothesis 1 is rejected.

As expected, a higher level of credibility is attributed to arguments that are presented by experts as opposed to those by citizens (hypothesis 2). On a scale from 1 to 10, an argument presented by an expert is on average attributed a score of 3.53, whereas the same argument presented as originating from a citizen is evaluated significantly lower (p=.034) with 3.33. Also when including control variables, we found that arguments from citizens were evaluated .20 points lower (p=.033) than when the same argument was presented by an expert. Hypothesis 2 is supported.

We further checked whether the style in which the journalist obtained the argument affected the credibility of the argument. There is no significant difference between the credibility of an argument presented as a quotation obtained from Twitter compared to a 'real' (face-to-face) interview (b=-.12, p=.207). Hypothesis 3 is rejected.

In order to test hypothesis 4, an interaction effect between citizen/ expert source and the Twitter/F2F setting was introduced into the model. We expected that the difference in credibility between messages from experts and messages by citizens would be larger in the Twitter condition than in the F2F setting. The interaction is not significant (b=- .15, p=.432) and the model does not improve (likelihood ratio test, p=.431). However, when we restrict our sample to respondents only aged 40 years or younger, we find a significant interaction effect of the setting and source (b=-.55, p=.049). For this subsample, hypothesis 4 is supported. In a Twitter setting, messages from experts are rated as significantly more credible than those of citizens compared with a F2F setting where there is no difference in credibility for arguments from citizens or experts as results of the conditional effect showed (b=-.01, p=.953). Although we have to reject hypothesis 4 for our whole sample, we cannot do so for a subsample aged 40 years and younger.

We expected from hypothesis 5 that a higher NFC would decrease the impact of all our conditions. When we introduce NFC to the previously used model, it does not have a significant effect at first (b=.01, p=.736). However, when we also introduced interaction effects with our condition variables, NFC (b=.15, p=.047) some of the interactions become significant (Table 2). Both the Twitter/F2F and the citizen/expert condition have a significant interaction with the level of NFC.

	b	SE	p
Gender	-0,31	0,09	0,001
Age young	1,17	0,13	0,000
Age old	-0,58	0,17	0,001
Education	0,09	0,03	0,002
Journalistic condition	-0,15	0,34	0,663
Twitter condition	0,56	0,33	0,092
Citizen condition	0,48	0,34	0,153
Need for Cognition (NFC)	0,15	0,07	0,047
Journalistic * NFC	0,02	0,07	0,769
Twitter * NFC	-0,15	0,07	0,033
Citizen * NFC	-0,15	0,07	0,033
Constant	2,69	0,37	0,000

R^2: .06

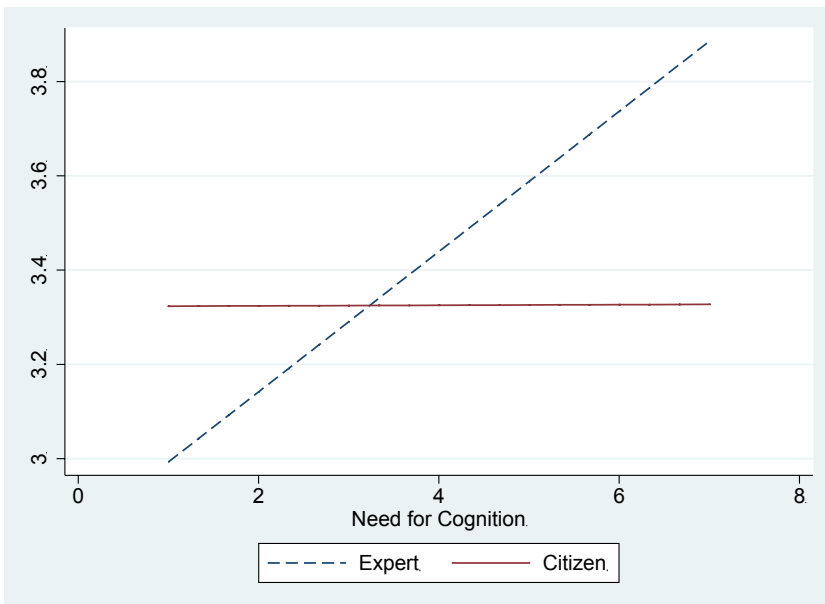**Table 2**. Final model to predict credibility. Unstandardized b-coefficients from an OLS regression.

Figure 1. Expected message credibility, depending on Need for Cognition and whether the message was communicated by a citizen or an expert.

Respondents with a high NFC rate an argument coming from an expert much higher than respondents with a low NFC (Figure 1). NFC, however, does not influence the credibility of an argument presented by a citizen. The positive relationship between NFC and level of education can be ruled out as a possible explanation for our findings as the models had always controlled for the latter. Thus, regardless of the educational level, NFC was found to affect positively the evaluation of an argument presented by an expert; the higher the NFC the more credible an expert's argument is evaluated.
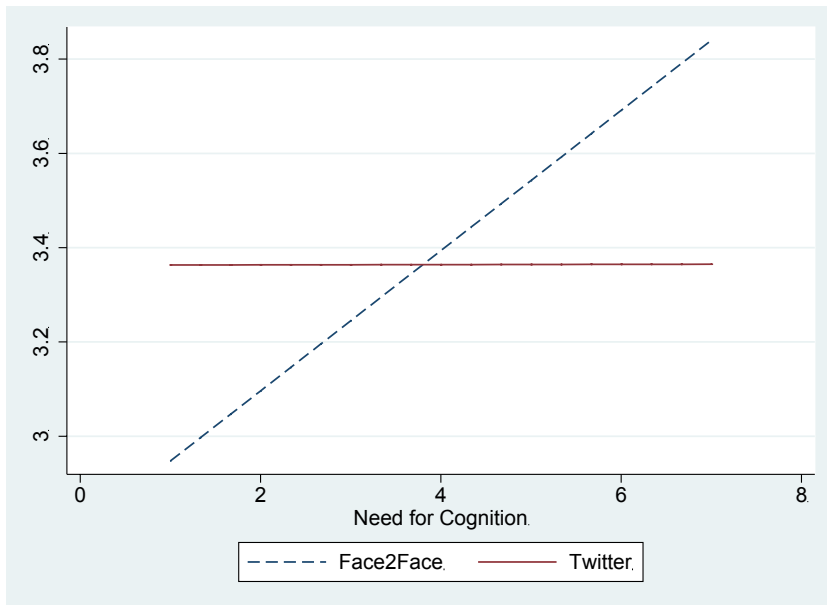

Figure 2. Expected message credibility, depending on Need for Cognition and whether the message was communicated on Twitter or in a F2F setting.

A very similar relationship is found between NFC and Twitter and F2F interview settings (Figure 2). Whereas NFC affects the credibility attributed to arguments stemming from a F2F setting, NFC does not affect the credibility of an argument that journalist obtained via Twitter.

H5 is not supported: The differences hypothesized in H2 and H3 are *larger* for people with a high NFC, while there is no difference regarding H1.

Conclusion

Our findings sketch a mixed picture of the influence of context, source and setting on argument credibility. We argued that partisan websites should be judged less credible than journalistic sites, and that this judgment would also influence the credibility of arguments given in these contexts – even if the argument itself is identical. However, we did not find any evidence that arguments from clearly partisan websites are perceived as less credible. One possible explanation is that partisan sources are believed to have specific knowledge on the topic at hand. In our example, an environmental interest group might actually know more about environmental topics than a journalist, and can therefore compensate for the journalist's assumed credibility bonus. People might also assume that the interest group would not take the risk of publishing obviously wrong information, as the interest group's image might suffer huge damage in case this is revealed. Therefore, the interest group might do thorough research and strive for accurateness in a similar way as journalists do. This might lead to a high reputation of the interest group, and explain why arguments presented by the interest group, in spite of being obviously partisan, are not per se judged non-credible.

We also find settings in which journalists themselves may be able to increase the credibility of an argument. At least among the younger population, a journalistic face-to-face interview can increase an ordinary citizen's credibility to the level of an expert – something that does not happen on Twitter, where the citizen is less credible than an expert. Of course, the question arises as to why this effect does not occur among older citizens. One possible explanation is that (a lower) age might serve as a proxy for familiarity with Twitter or social media in general. Future research would have to address the question whether this is really the case. An important practical implication of this finding is that journalists should always make sure to include information on how they have obtained a quotation – especially important in the ongoing debate on transparency and accountability. It does matter for consumers' evaluation of the presented information and is not just a mere question of journalistic style.

Social media offer journalists excellent opportunities for crowdsourcing and for getting in contact easily with important sources. In addition, access to these sources is done quickly from behind the journalist's desk. Our results suggest, however, that journalists should

realize that their audience still might judge the interview with an expert as more credible than vox pop from the Web. And although the contextualization journalists provide might help citizens assess the credibility of an argument, and although journalists still seem to be trusted, journalists also should realize that they no longer are the only trusted source: People do not necessarily judge first-hand information from partisan sources as information they should not believe. This might be connected to increased media literacy and also the possibility to verify and cross-check information quickly on the web. But in a media environment, in which journalists no longer are the only trusted source, it is important to keep analyzing which other sources might take over the role of providing the public with credible political information.

The elaboration likelihood model assumes that Need for Cognition (NFC) plays a central role in the way people process information. And indeed, we found different effects for people with a high and a low NFC. While people with a low NFC would perceive a face-to-face interview as incredible, those with a high NFC would judge it very credible. They seem, in other words, to trust that the journalist will select a credible source. Those with a lower NFC seem to be more skeptical – as they are about experts: Believing arguments by experts more than those by fellow citizens seems to be something which is more common for individual with a high NFC.

Taking into consideration that credibility is a key prerequisite for communication effects to take place, we call for a deeper investigation of how different contexts influence argument credibility. Given the fact that credible information is far more likely to lead to attitude and behavioral change, more scientific inquiry is needed into the impact of sources and settings on credibility. As social media are becoming a primary source for information, it becomes crucial to better understand how individual process this information.

References

Bowman, B. S., & Willis, C. (2003). *We Media: How Audiences are Shaping the Future of News and Information*. Retrieved from http://www.hypergene.net/wemedia/download/we_media.pdf

Bruns, A. (2005). *Gatewatching: Collaborative Online News Production*. New York: Peter Lang Publishing.

Cacioppo, J. T., & Petty, R. E. (1982). The Need for Cognition. *Journal of Personality and Social Psychology*, *42*(1), 116–131. doi:10.1037//0022-3514.42.1.116

Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The Efficient Assessment of Need for Cognition. *Journal of Personality Assessment, 48*(3), 306–307. doi:10.1207/s15327752jpa4803_13

Chaiken, S., & Maheswaran, D. (1994). Heuristic Processing Can Bias Systematic Processing: Effects of Source Credibility, Argument Ambiguity, and Task Importance on Attitude Judgment. *Journal of Personality and Social Psychology*, *66*(3), 460–473.

Eastin, M. S. (2001). Credibility Assessments of Online Health Information: The Effects of Source Expertise and Knowledge of Content. Journal of Computer-Mediated Communication, *6*. doi: 10.1111/j.1083-6101.2001.tb00126.x

Flanagin, A. J., & Metzger, M. J. (2000). Perceptions of Internet Information Credibility. *Journal & Mass Communication Quarterly*, *77*(3), 515–540.

Fogg, B. J., Marshall, J., Osipovich, A., Varma, C., Laraki, O., Fang, N., Treinen, M. (2000). Elements that Affect Web Credibility: Early Results from a Self-report Study. In: *CHI '00 Extended Abstracts on Human Factors in Computing Systems* (pp. 287-288). New York, NY: ACM. doi: 10.1145/633292.633460

Fogg, B. J., Soohoo, C., Danielson, D. R., Marable, L., Stanford, J., Tauber, E.R. (2003). How Do Users Evaluate the Credibility of Web Sites? A Study with Over 2,500 Participants. In: *DUX '03 Proceedings of the 2003 Conference on Designing for User Experiences* (pp. 1-15). New York, NY: ACM. doi:10.1145/997078.997097

Franklin, B., & Carlson, M. (Eds.). (2010). *Journalists, Sources and Credibility: New Perspectives*. New York, NY: Routledge.

Gillmor, D. (2004). *We the Media. Grassroots Journalism By the People, For the People.* Sebastopol, CA: O'Reilly.

Hellmueller, L.C., Trilling, D. (2012, June) The Credibility of Credibility Measures: A Meta-analysis of Credibility Research in Communication Journals, 1951 to 2011. *Paper presented at the World Association of Public Opinion Research Conference, Hongkong*.

Hovland, C. I., Janis, I. L., & Kelly, H. (1959). *Communication and Persuasion. Psychological Studies of Opinion Change*. New Haven, CT: Yale University Press.

Hovland, C. I., & Weiss, W. (1951). The Influence of Source Credibility on Communication Effectiveness. *The Public Opinion Quarterly*, *15*(4), 635–650.

Hu, Y., & Shyam Sundar, S. (2010). Effects of Online Health Sources on Credibility and Behavioral Intentions. *Communication Research*, *37*(1), 105–132. doi:10.1177/0093650209351512

Jackob, N. G. E. (2008). Credibility Effects. In Donsbach, W. (Ed.). *The International Encyclopedia of Communication*. Oxford: Blackwell, pp. 1044–7.

Jackob, N. G. E. (2010). No Alternatives ? The Relationship between Perceived Media Dependency, Use of Alternative Information Sources, and General Trust in Mass Media. *International Journal of Communication*, *4*, 589–606.

Johnson, T. J., & Kaye, B. K. (2004). Wag the Blog: How Reliance on Traditional Media and the Internet Influence Credibility Perceptions of Weblogs among Blog Users. *Journalism & Mass Communication Quarterly*, *81*(3), 622–642.

Johnson, T. J., Kaye, B. K., Bichard, S. L., & Wong, W. J. (2007). Every Blog Has Its Day: Politically-interested Internet Users' Perceptions of Blog Credibility. *Journal of Computer-Mediated Communication*, *13*(1). Retrieved from http://jcmc.indiana.edu/vol13/issue1/johnson.html

Kaye, B. K., & Johnson, T. J. (2011). Hot Diggity Blog: A Cluster Analysis

Examining Motivations and Other Factors for Why People Judge Different Types of Blogs as Credible. *Mass Communication and Society*, *14*(2), 236–263. doi:10.1080/15205431003687280

Kim, D. (2006). *Abandoning Traditional News? Examining Factors Influencing the Displacement Effects of Online News on Traditional News Media*. Unpublished dissertation, Southern Illinois University.

Kohring, M. (2004). *Vertrauen in Journalismus*. Theorie und Empirie [Trust in journalism. Theoretical and empirical investigations]. Konstanz, Germany: UvK.

Kohring, M., & Matthes, J. (2007). Trust in News Media: Development and Validation of a Multidimensional Scale. *Communication Research*, *34*(2), 231–252. doi:10.1177/0093650206298071

Martin, B.A.S., Lang, B., & Wong, S. (2003). Conclusion Explicitness in Advertising: The Moderating Role of Need for Cognition (NFC) and Argument Quality (AQ) on Persuasion. *Journal of Advertising, 32*(4), 57–65.

Metzger, M. J., Flanagin, A. J., Eyal, K., Lemus, D., & McCann, R. (2003). Credibility for the 21st Century: Integrating Perspectives on Source, Message, and Media Credibility in the Contemporary Media Environment. *Communication Yearbook*, *27*, 293–335.

Meyer, H. K., Marchionni, D., & Thorson, E. (2010). The Journalist Behind the News: Credibility of Straight, Collaborative, Opinionated, and Blogged "News." *American Behavioral Scientist*, *54*(2), 100–119. doi:10.1177/0002764210376313

Miller, J. M., & Krosnick, J. A. (2000). Media Impact on the Ingredients of Presidential Evaluations: Politically Citizens are Guided. *American Journal of Political Science*, *44*(2), 301–315.

Nan, X. (2009). The Influence of Source Credibility on Attitude Certainty: Exploring the Moderating Effects of Timing of Source Identification and Individual Need for Cognition. *Psychology & Marketing*, *26*(4), 321–332. doi:10.1002/mar

Petty, R. E., & Cacioppo, J. T. (1984). Source Factors and the Elaboration Likelihood Model of Persuasion. *Advances in Consumer Research*, *11*(Llm), 668–673. Retrieved from http://www.acrwebsite.org/volumes/display.asp?id=6328

Schmierbach, M., & Oeldorf-Hirsch, A. (2012). A Little Bird Told mMe, So I Didn't Believe It: Twitter, Credibility, and Issue Perceptions. *Communication Quarterly*, *60*(3), 317–337. doi:10.1080/01463373.2012.688723

Schweiger, W. (2000). Media Credibility – Experience or Image? A Survey on the Credibility of the World Wide Web in Germany in Comparison to Other Media. *European Journal of Communication*, *15*(1), 37–59. doi:10.1177/0267323100015001002

Sherif, M., & Hovland, C. I. (1961). *Social Judgement: Assimilation and Contrast Effects in Communication and Attitude Change*. New Haven, CT: Yale University Press.

Stavenuiter, R., Trilling, D., Bakker, T.P. (2012, February). The Same Old Song? Reviewing Factors that Predict Credibility of Offline and Online Media. *Paper presented at the Etmaal van de Communicatiewetenschap*, Leuven, Belgium.

Sundar, S. S. (1998). Effect of Source Attribution on Perception of Online News Stories. *Journalism & Mass Communication Quarterly*, *75*(1), 55–68. doi:10.1177/107769909807500108

Tewksbury, D., Jensen, J., & Coe, K. (2011). Video News Releases and the Public: The Impact of Source Labeling on the Perceived Credibility of Television News. *Journal of Communication*, *61*(2), 328–348. doi:10.1111/j.1460-2466.2011.01542.x

Tewksbury, D., & Rittenberg, J. (2012). *News on the Internet: Information and Citizenship in the 21st Century*. New York, NY: Oxford University Press.

Thorson, K., Vraga, E., & Ekdale, B. (2010). Credibility in Context: How Uncivil Online Commentary Affects News Credibility. *Mass Communication and Society*, *13*(3), 289–313. doi:10.1080/15205430903225571

Tormala, Z. L., & Petty, R. E. (2004). Source Credibility and Attitude Certainty: A Metacognitive Analysis of Resistance to Persuasion. *Journal of Consumer Psychology*, *14*(4), 427–442. doi:10.1207/s15327663jcp1404_11

Wang, Z., Walther, J. B., Pingree, S., & Hawkins, R. P. (2008). Health Information, Credibility, Homophily, and Influence via the Internet: Web Sites versus Discussion Groups. *Health communication*, *23*(4), 358–68. doi:10.1080/10410230802229738

Wathen, C. N., & Burkell, J. (2002). Believe It Or Not: Factors Influencing Credibility on the Web. *Journal of the American Society for Information Science and Technology, 53*(2), 134–144. doi:10.1002/asi.10016

Wright, K. (2000). Perceptions of Online Support Providers: An Examination of Perceived Homophily, Source Credibility, Communication and Social Support Within Online Support Groups. *Communication Quarterly*, *48*(1), 44–59. doi:10.1080/01463370009385579

Appendix

Question wordings

Need for Cognition (NFC)
- I would prefer complex to simple problems
- I really enjoy a task that involves coming up with new solutions to problems
- I would prefer a task that is intellectual and difficult to one that requires less thought

One-item measure of credibility
- How credible do you think the arguments given for an introduction of a tax on meat are?

Five-item measure of credibility
- How well thought-through do you think the arguments given for an introduction of a tax on meat are?
- How clear do you think the arguments given for an introduction of a tax on meat are?
- How accurate do you think the arguments given for an introduction of a tax on meat are?
- How substantiated do you think the arguments given for an introduction of a tax on meat are?
- How truthful do you think the arguments for an introduction of a tax on meat are?