

## **Incivility, Source and Credibility: An Experimental Test of News Story Processing in the Digital Age**

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The "civility crisis" has been a big concern in the U.S. and abroad at least since the 1990s. Evidence suggested that uncivil attacks in political discourse have a negative impact on political trust. Administering an online survey with an experiment embedded in it, the study seeks to find out whether source and uncivil commentary in a news story have an effect on the level of credibility of a news story. A 3 (Source: newspaper, blog, student's class writing) x 2 (Incivility: civil and uncivil) mixed subjects design online survey was administered via Qualtrics on a sample of students (N = 438) in a large Midwestern State University. The data suggested incivility was a significant predictor of news credibility, including message credibility and news organization credibility. A negative association was found between perceived incivility and news credibility.

Keywords: Incivility, source, credibility, digital journalism

The literature increasingly suggests that a lack of civility in news, in politics and in ordinary life is a negative challenge to the democratic functions of societies. The "civility crisis" has been a big concern in the U.S. and abroad at least since the 1990s: "Across America and increasingly around the world, from campuses to the halls of Congress, to talk radio and network TV, social and political life seem dominated today by incivility." (D. C. Mutz & B. Reeves, 2005; Rodin, 1996). Scholars worry about the increasing nasty political debate would turn the electorate away from public life (Carter, 1998; Patterson, 2009).

Civility is regarded as an indicator of a functional democratic society (Papacharissi, 2004), incivility is considered one of the biggest obstacles for a democratic society. In a civil society, norms of interpersonal communication played a key role in a democratic, inclusive and productive public sphere (Phillips & Smith, 2003). In the cyberspace, anyone can post comments in any manner on any topic. Unconstrained expression triggered acrimonious debate and is damaging the deliberative discourse (Dahlberg, 2001). As argument became an American culture (Tannen, 2012), "hyperbole and venomous or invective comments" became common talk, uncivil attacks on in a televised political communication turned into a big threat and has detrimental effects on political trust (D. C. Mutz & B. Reeves, 2005).

News credibility has been a historical topic in journalism since the field's earliest days because of the widespread belief that audiences are more interested in news stories

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with sources they trust. “Credibility” is regarded as a variable “attributed to communicators by recipients” (Schweiger, 2000, p. 39). The work of Mitchell V. Charnley on the accuracy of newspaper reporting and the work of Yale group on the believability of sources are considered the two primary ancestors of credibility studies. Later on, another dimension - “channel credibility” or “media credibility” - was added to “credibility” when television and printing press became modern mass media (Newhagen & Nass, 1989). “Perceived credibility” is a contemporary issue that has attracted researchers’ interest since the late 1980s (Rimmer & Weaver, 1987). Defined as recipients’ subjective cognition, “perceived credibility” is regarded as “primarily a function of both source and channel characteristics” (Kiousis, 2001, p. 388). No matter which element functions in the audiences’ cognition process, in the end, it is believed that “perceived credibility” matters for the public’s involvement in political activities.

In the digital and social journalism age, whether sources affect news credibility rose as a hot issue again. Will uncivil attacks in political news stories affect the credibility of the news story and the news credibility of the news organization that carries the story? How will the audiences process news stories with uncivil commentaries? Are there any associations between incivility and credibility? Administering a 3x2 mixed factors design experiment, the study examines whether the source that reports an event (newspaper, blog, a student’s writing sample) influences how uncivil interactions impact the credibility of the news itself, and the source that carries the news story.

## Literature Review

### Incivility

The term civility originates from “civil society,” a concept that can be traced back to Aristotle (Schmidt, 1998) and rests on the idea of “public sphere” and the expression of “public opinion”. At the personal level, in an interpersonal communication context, civility usually refers to good manners such as respectfulness, politeness and self-control, and regard for others (Annenberg Public Policy Center, 1997; Papacharissi, 2004). At the social level, civility goes far beyond the manner of an individual and is regarded as the way to reach the function of a civil public space. As a virtue of the meaning of citizenship democracy, and public discourse, civility is an integral part of a democratic society and the lack of which carries detrimental implications for a democratic society (Papacharissi, 2004).

Incivility means a sense of cultural decline, such as breaking social norms, disrespect, impoliteness or bad manners that do harm to a civil society. Incivility can be defined as “negative collective face; that is, disrespect for the collective traditions of democracy” (Papacharissi, 2004). The immoral behavior of an individual seems not serious, but a collective immoral manner could result in a civility crisis, which is becoming more and more common in the digital age. Civility crisis in modern society is the partial consequence of morality decline. Incivility involves individuals or groups breaking some type of social norm with inappropriate behavior (Strachan & Wolf, 2012). Regarding the rise of the collective incivility wave in the virtual sphere in contemporary society, Papacharissi proposed to “move away from a definition that relies on vocabulary, morality and simple good manners” and develop a definition that “survive the test of time” in the “public sphere” or “civil society” (Papacharissi, 2004, p. 265).

In this study, incivility is examined in an interpersonal communication and computer-mediated communication context. Jamieson and colleagues’ (Annenberg Public Policy Center, 1997) seven categories of incivility, “name-calling, aspersion, hyperbole, synonyms

for ‘lie’, non-cooperation, pejorative words for speech, and vulgarity”, was utilized to test verbal incivility. Non-verbal manners, which are considered an important dimension of incivility, were not investigated in the experiment.

## Credibility

Credibility is a multi dimensional concept. “Reporting accuracy” (Charnley, 1936) and “source dimension” (Hovland, Janis, & Kelley, 1953) are two fundamental dimensions of “credibility”. Hovland and his colleagues identified “trustworthiness” and “expertise” as the two main components of source credibility (Hovland & Weiss, 1951). Later on, researchers developed more dimensions based on the two forerunners’ work. Whitehead Jr included competency and objectivity into the components of credibility (Whitehead Jr, 1968). Berlo et al. found safety, qualifications and dynamism, are important factors that affect credibility judgment (Berlo, Lemert, & Mertz, 1969). Johnson & Kaye’s study demonstrated that credibility is connected to objectivity, fairness and balance (Johnson & Kaye, 2004). More recently, researchers found media message features and characteristics were considered important factors influencing readers’ perceptions of credibility (Austin & Dong, 1994; Wathen & Burkell, 2002). Besides source and medium credibility, channel credibility is another important dimension of credibility. Hovland and his colleagues acknowledged the connection between source and message and stated, “the impact of a message probably depends also upon the particular publication channel through which it is transmitted” (Hovland et al., 1953, p. 19). Despite the early findings, only “a small amount of attention has been dedicated to channel credibility” (Kiouisis, 2001; Westley & Severin, 1964). Later on, Hovland & Weiss’s six levels of reference objects for credibility attributions— presenter (the first person of a recipient), actors or authors of messages, editorial units, media products, subsystems of a media type, and media type— added more dimensions to the concept (Hovland & Weiss, 1951).

An interaction effect between source and message credibility was found in several studies. Kiouisis recognized a likely multi-directional effect between source and channel credibility and proposed, “in some cases, people’s impressions of channel credibility may drive their opinions about source credibility, but in other situations, opinions about source credibility may drive impressions of channel credibility” (Kiouisis, 2001, p. 388). Moreover, Slater and Rounder found there is an association between internal characteristics of messages, such as their aesthetic presentation or their actual content, and perceptions of source credibility (Kiouisis, 2001; Slater & Rouner, 1996).

The dimensions and measurement of credibility varies case by case in different contexts. Researchers executed factor analyses to create a credibility index. Gaziano and McGrath’s credibility index includes fifteen items (fair/unfair, bias/unbiased, tell the whole story/doesn’t tell the whole story, accurate/inaccurate, invades or respects people’s privacy, does or doesn’t watch after readers’ interests, is or is not concerned about the community’s well-being, does or does not separate fact and opinion, can or cannot be trusted, is concerned about the public interest or is concerned about making profits, is factual or opinionated, has well-trained or poorly trained reporters, social concerns factor, cares or does not care what audience thinks, sensationalizes or does not sensationalize, is moral or immoral) (Gaziano & McGrath, 1986). It was widely adopted by later researchers although there are still controversial issues in its application. Meyer developed a five-dimension index of newspaper credibility—fairness, completeness, bias, accuracy, and trust worthiness (Meyer, 1988). Meyer argued they created the most comprehensive index of credibility because it

can measure the two dimensions of credibility: believability and community affiliation (Meyer, 1988). Originally developed and tested on newspapers, these indexes were later used to test radio, television and online newspapers. It seems that there is no absolute reliable definition and measurement of news credibility so far.

In the present study, both the message credibility and news organization dimensions of credibility were tested based on Meyer's credibility index (Meyer, 1988). In addition, considering incivility and credibility is mostly a political communication issue, and questions regarding the credibility of the political figure (communicator, presenter) were also included in the questionnaire.

Based on previous studies on incivility, source and news credibility, the following hypotheses are proposed:

- $H_1$ : *Participants will rank a news story with uncivil comments less credible than a news story with civil comments.*
- $H_{1a}$ : Participants will rank the message credibility of a news story with uncivil comments less credible than a news story with civil comments.
- $H_{1b}$ : Participants will rank the news organization credibility of a news story with uncivil comments less credible than a news story with civil comments.
- $H_2$ : *The higher a participant perceives the level of incivility of a news story, the lower the participant rates the credibility of a news story.*
- $H_{2a}$ : The higher a participant perceives the level of incivility of a news story, the lower the participant rates the message credibility of a news story.
- $H_{2b}$ : The higher a participant perceives the level of incivility of a news story, the lower the participant rates the credibility of the news organization that carries a news story.
- $H_3$ : *A participant will rate a news story from a newspaper more credible than a news story from a blogger. A participant will rate a news story from a blogger more credible than a news story from a student's in-class writing.*
- $H_{3a}$ : A participant will rate a news story with uncivil comments from a newspaper less credible than a news story from a blogger. A participant will rate a news story with uncivil comments from a blogger less credible than a news story from a student's in-class writing.

## Methodology

Experiments are regarded as a powerful way to test causal relations (Campbell, Stanley, & Gage, 1963). First, an experiment provides us an opportunity to isolate causal forces. The news articles in the study were edited from local newspapers in order to exclude confounding effects of previous experiences. Second, an experimental design makes it possible to control the level of incivility in the news articles, while holding the presentation of disagreement constant. Moreover, fake names were used in the news article. These conditions are hard to control in real life. The central manipulation in the experiment was the level of incivility with which the speaker presents the disagreement. In addition, an experiment is essential in drawing causal inferences between two variables—incivility and credibility, source and credibility.

To test the research questions, an online survey with an experiment embedded was administered. In the survey, three news stories of disagreement with comments from a basketball player, a judge and a governor were shown to the participants. All of the subjects were undergraduate students from a large Midwestern university. Students received extra credit for their participation. The study (N=477) was fielded in October and November, in

2014. Of the 438 undergraduate participants, about 68.5% are females and 31.5 per cent are males. Their party identification is comparatively balanced, 34 per cent are democrats, 27 per cent are republicans and 39 per cent are neutral.

## Design

In this study, a 3 (Source: newspaper, blog, student's class writing within subjects) x 2 (Incivility: civil and uncivil between subject) mixed within-between subjects design was executed. All together, there were six conditions in the experiment: newspaper with civil comments; newspaper with uncivil comments; blog with civil comments, blog with uncivil comments; student's class writing with civil comments; student's writing with uncivil comments.

## Manipulation

To manipulate the incivility conditions, three news stories with comments from a basketball player, a judge, and a governor were selected and edited from local newspapers that are from outside the state in which the experiment took place. By changing the key words that the basketball player, the judge and the governor used to present his or her views on the disagreed issue, the civil and uncivil conditions were distinguished. In the uncivil condition, although the main arguments of the critique are the same, derogatory terms and insulting languages were included in the basketball player, the judge or the governor's presentation. Samples of the stories are shown in Appendix 2. Manipulation check measures indicated successful manipulation. An ANOVA test was conducted to examine the association between manipulated civility and perceived incivility. The ANOVA results show that  $F(1, 436) = 310.162$ ,  $p < 0.001$ , which means the manipulation of incivility was successful, the controlled conditions of incivility and perceived incivility are highly associated with each other.

## Procedure

In the online survey, the 438 subjects were randomly assigned to two groups. (Group 1: story 1, news story on a basketball player with uncivil comments; story 2, news story on a judge with uncivil comments; story 3, news story on a governor with uncivil comments. Group 2: story 1, news story on a basketball player with civil comments; story 2, news story on a judge with civil comments; story 3, news story on a governor with civil comments). In each group, participants were asked to read three news stories edited from local newspapers and answer questions after they read each of the stories. The questionnaire includes credibility questions on message credibility, news organization credibility and the credibility of the politician in the story; civility questions regarding the manner of the speaker; and personal information such as sex, party identification (Democrats, Republican, neutral), interest in news and politics, etc. were asked at the very end of the survey.

## Measures

### Independent Variable

*Source:* The within-subject controlled variable—source, was newspaper, blog and student's writing in class (unpublished).

*Incivility:* Two controlled conditions were developed based on the selected news stories. In the uncivil condition, the political story contains uncivil comments such as vulgarity; speaking rudely or disrespectfully and name-calling (see Appendix 2). In the civil condition, the political story does not contain uncivil comments such as vulgarity, speaking rudely or disrespectfully and name-calling.

*Perceptions of Incivility:* This is a rating of “perceived rudeness” or “perceived incivility”. Participants were asked to rate the level of incivility of the two news stories (the Republican criticizes the Democrat and the Democrat criticizes the Republican) with a 9-point (1=strongly disagree, 9=strongly agree) Likert-like scales, regardless of their party identification (party ID). The questions include whether the story was ethical/unethical, vulgar/not vulgar, respectful/disrespectful, rude/not rude, engaged in name-calling/not engaged in name-calling.

A principal component factor analysis with rotation method as varimax with Kaiser normalization was conducted for both stories. For story 1, one component (vulgar, disrespectful, rude, and name-calling) was extracted from the rotated component matrix. The Cronbach’s Alpha for story 1 is 0.878 (number of items 4). Following the same steps, one component (vulgar, disrespectful, rude, and name-calling) was extracted from story 2. The Cronbach’s Alpha for story 2 is 0.881 (number of items 4). Then the four common items (vulgar, disrespectful, rude, and name-calling) that were included in both of the factor analyses results from story 1 and story 2 were selected and an “incivility index” (perceived incivility index) was created.

## Dependent Variable

*News credibility:* Participants were asked to evaluate the perceived content credibility using a (1=strongly disagree, 9=strongly agree) Likert-like scale to gauge fairness/unfairness, biasness/un-biasness, accuracy, privacy violation, fact/opinion, trust/distrust, opinionated/non-opinionated, well-trained reporter/ unwell-trained reporter regarding the two news stories they read. For news organization credibility, questions about whether the news organization cares about the community/does not care about the community, has clear ethical principles/does not have clear ethical principles, is trustworthy/not trustworthy, does good journalism/does not do good journalism were asked.

A principal component factor analysis on message (content credibility) with rotation method as varimax with Kaiser normalization was conducted for story 1. From the rotated component matrix, two components (component 1, fair, accuracy, fact and opinion, trust, well trained writer, ethical; component 2, bias and sensationalized) were extracted. The Cronbach’s Alpha reliability test for component 1, story 1 is 0.836 (number of items 6), component 2, story 1 is 0.472 (number of items 2). Following the same steps, two components (component 1, fair, accuracy, fact and opinion, trust, well trained writer, ethical; component 2, bias and sensationalized) were extracted. The Cronbach’s Alpha reliability test for component 1, story 2 is 0.891 (number of items 6), component 2, story 2 is 0.444 (number of items 2). For story 3, one component (fair, accuracy, fact and opinion, trust, well trained writer, ethical; component 2, bias and sensationalized) was extracted. The Cronbach’s Alpha reliability test for component 1, story 3 is 0.904 (number of items 8). Finally, six common components (fair, accurate, fact and opinion, trust, well-trained reporter, ethical) that were included in all of the three factor analyses results were selected and a “content credibility” index was created.

Through the same process, four common items (care about community, clear ethical principles, news organization trustworthiness, good journalism) were selected and a “news

organization credibility index” was created. For “news organization credibility index”, the Cronbach’s Alpha for story 1 is 0.842 (number of items 4), the Cronbach’s Alpha for story 2 is 0.880 (number of items 4), the Cronbach’s Alpha for story 3 is 0.902 (number of items 4).

*Uncivil words:* Participants were asked “how negatively do you rate these following words” with a (1=acceptable, 9=never acceptable) Likert-like scales to gauge the level of incivility of “damn”, “shit”, “hell” and “fuck”. Then the ratings were added together to create a new factor —“ratings of uncivil words”.

## Results

To test the hypotheses and understand the interaction patterns a series of ANOVAs were applied.

H<sub>1</sub> predicted that the level of incivility is associated with the level of credibility of a news story (both message credibility and organization credibility). The ANOVAs show that the first hypothesis is supported by the data. For message credibility, between-subjects factor incivility, the result shows  $F(1, 436)=21.709, p<0.001$ ; For news organization credibility, between-subjects factor incivility, the result shows  $F(1, 436)=33.841, p<0.001$ ; Regardless of story type, incivility is significantly associated with the credibility (both message credibility and news organization credibility) of a news story. H<sub>1</sub>, H<sub>1a</sub> and H<sub>1b</sub> are supported by the data.

H<sub>2</sub> predicted there is an association between perceived incivility and the rate of credibility of a news story. The data support H<sub>2a</sub>, showing that for message credibility,  $F(1, 435)=5.918, p=0.015 <0.05$ . The mixed-subjects ANCOVA result also supports H<sub>2b</sub>, for news organization credibility,  $F(1, 435)=5.702, p=0.017 <0.05$ . This means the higher a participant perceives the level of incivility of a news story, the lower the participant rates the message credibility of a news story. The higher a participant perceives the level of incivility of a news story, the lower the participants rate the credibility of the news organization that carries a news story. Overall, hypotheses two are supported by the data.

H<sub>3</sub> predicted an association between source and credibility (including message credibility and news organization credibility). H<sub>3</sub> is supported, for message credibility,  $F(2, 436)=66.828, p<0.001$ ; for news organization credibility,  $F(2, 436)=92.945, p<0.001$ . There is an association between source and credibility. However, the association between source and credibility is negatively associated as hypothesized. The participants rated the credibility of a news story and the news organization that carries the story from a student’s writing more credible than a blogger, and a blog more credible than from a newspaper.

H<sub>3a</sub> seeks to examine the interaction of incivility and source on credibility. The data also support H<sub>3a</sub>. The mixed design ANOVA model shows, for message credibility,  $F(2, 436)=12.398, p<0.001$ ; for news organization credibility,  $F(2, 436)=21.589, p<0.001$ . However, the association between the interaction of source and incivility and credibility is negatively associated with each other. The credibility of a news story and the news organization that carries the story from a news paper is rated less credible than a blogger, and the blogger is rated less credible than a student’s writing (see figure 3 & figure 4).



Figure 1

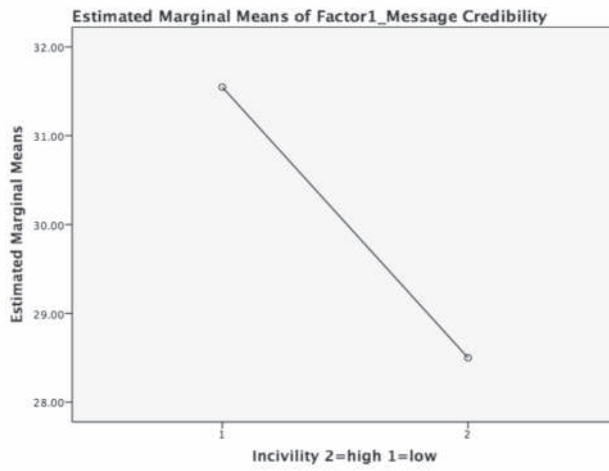


Figure 2

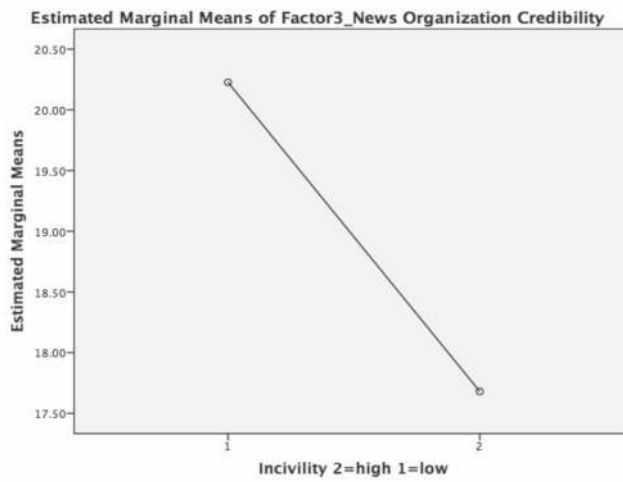


Figure 3

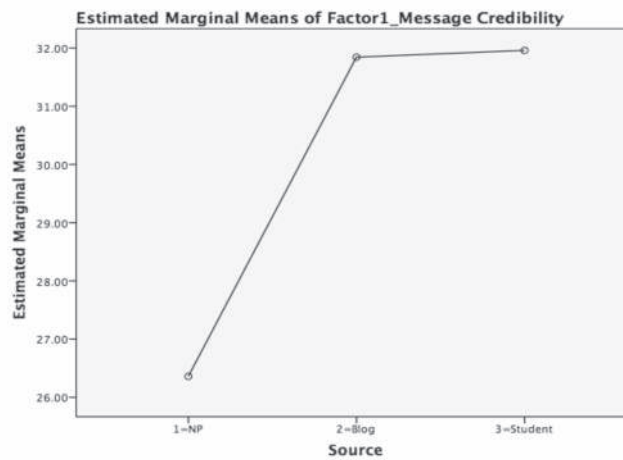




Figure 4

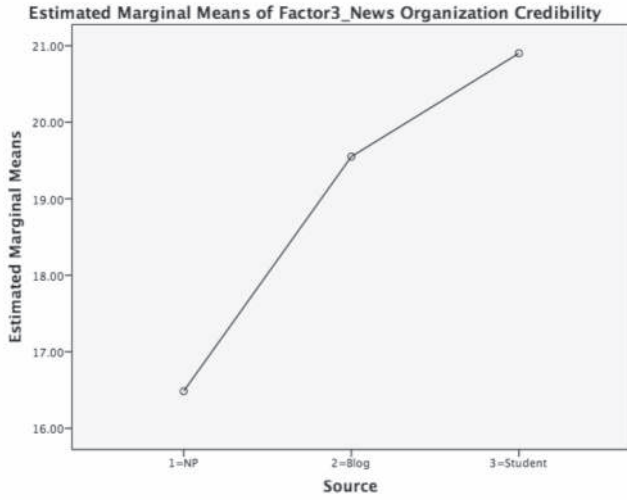


Figure 5

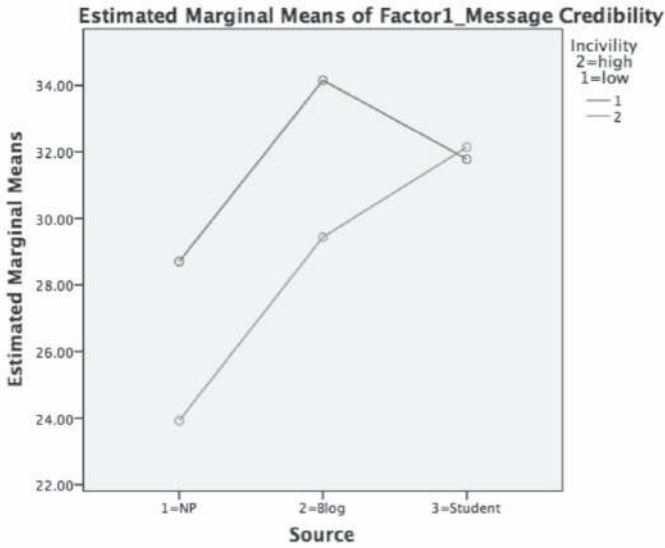
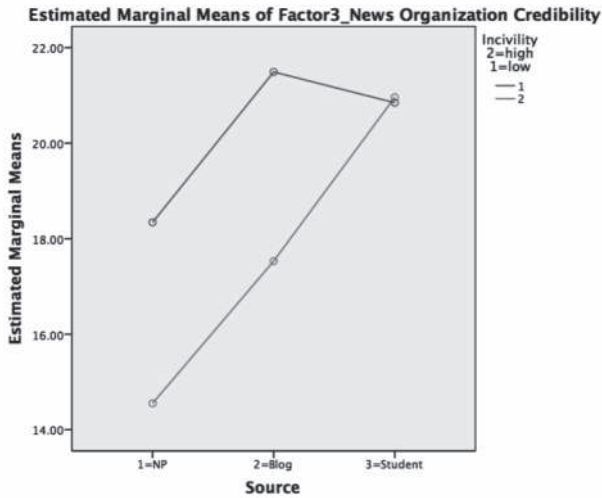


Figure 6



## Discussion

Meyer's (1998) index of credibility was reexamined in this study. Utilizing factor analyses, two categories of index of credibility were created—message credibility and news organization credibility. Distinguishing message credibility and news organization credibility is significantly important in the digital age as multi-platform (channel) transmission is becoming more and more common in newsrooms. The experiment shows participants sometimes rate message credibility and news organization credibility differently, which verified Hovland et al.'s (1953) distinction of content and channel, and the multi-directional interaction of content and channel in news credibility. Distinguishing message and news organization credibility also reflects the emerging “community affiliation” motivation of the audiences in the digital age. As more and more news organizations are becoming “community based”, either geographically or virtually, incorporating “community affiliation” into the index of credibility reflects the changes of the concept in the digital journalism time.

The study also distinguished controlled incivility and perceived incivility. As incivility is considered “a notoriously difficult term to define”, “what strikes one person as uncivil might strike another person as perfectly appropriate” (Coe, Kenski, & Rains, 2014). As civility and incivility are very much “in the eye of the beholder” (Herbst, 2010), it is valuable to examine the association between “perceived incivility” and credibility. The experiment successfully manipulated the incivility condition and the analyses found negative associations between “perceived incivility” and “message credibility”, and “perceived incivility” and “news organization credibility”. Thus the study contributed to the field by pushing the measurement of credibility to a more accurate level. Moreover, by testing participants' ratings of selected uncivil words, the study found that incivility is a perception, depending on how an individual perceives it. It explains why the Republicans perceived the four uncivil terms more uncivil than the neutrals, and the neutrals perceived the uncivil words more uncivil than the Democrats. This shows the republicans are the most conservative: they are the least tolerant with uncivil words and comments in a news story.

Perceived incivility is found negatively associated with both message and news organization credibility of a news story. The finding is in line with Brook & Geer's findings that “incivility does tend to delegitimize political arguments and lower the audience evaluations” (Brooks & Geer, 2007). Although the concern with the incivility crisis is global, “there has been little effort to confirm empirically the negative consequences of incivility” (D. C. Mutz & B. Reeves, 2005, p. 1). The contributions of this experiment are not only theoretical, but also applicable. It provides useful evidence in evaluating uncivil words and comments in a news story, which is a good reference for news organizations to frame and phrase news stories appropriately.

Source is another important factor that affects credibility. The findings are surprising: in terms of both message credibility and news organization credibility, student's writing is rated more credible than a blog, and a blog is more credible than a news paper. There are multiple interpretations of the findings. First, since the participants are university students, between the two components of source credibility—“trustworthiness” and “expertise” that Hovland and his colleagues identified— the students may value “trustworthiness” more than “expertise” as most of the participants are from a top journalism school in the nation. Their journalistic expertise is above the average level of the local newspaper journalists' in the country. Or maybe in the digital age, “expertise” contributes less than “trustworthiness”

to the credibility of news and the news organization that carries the story. Second, Kiousis held that “perceived credibility is a function of both source and channel characteristics”(Kiousis, 2001, p. 388). Following Kiousis’ logic, it could be that, with the popularity of social media, the function that social media performs in fact checking is becoming more and more powerful. Any incorrect information can easily be found immediately via social media, so the effect of channel credibility is weakening. Brady also had surprising findings that state, “some research has suggested that online material is regarded as more credible than information from television” (Brady, 1996; Kiousis, 2001, p. 395). Gables’ study on social cues and news consumption found some participants believe articles their friends shared are more credible than the news organizations they follow on Facebook (Boehmer, 2015). So the interpretation could be, with the popularity of social media, the credibility dynamics have changed. Given “authority is no longer a prerequisite for content provision” in the digital age, individuals may rely more on social means of information processing and evaluation, and authoritative source might no longer matter for individuals’ credibility evaluation of news (Metzger, 2007; Xu, 2013, pp. 762,770). University students are heavy Internet users, and they are very active on social media and rely more on social cues in rating news credibility, which is in line with Kiousis’ proposition “the introduction of online sources has changed public opinion or traditional media credibility” (Kiousis, 2001, p. 395). A theoretical foundation behind this is the diffusion theory. Rogers posits “the dissemination of new technologies can often shift opinions of older media” (Kiousis, 2001, p. 396; Rogers, 1983). Third, Bucy found a synergy effect of credibility among multiple medium users—telewebbing users: “evaluations of Net news credibility jump to their highest levels among students under telewebbing conditions, [and] evaluation of TV news credibility also benefited from telewebbing” (Bucy, 2003, p. 257). Moreover, according to Hovland, the influence between sources and channels are likely to be multi-directional, which means they can be transferred and mixed, so it is hard to distinguish different sources and channels. A study by Schweiger in 1998 found “German students valuing a particular newspaper also tended to consider its website credible, even if they had never seen it.” (Schweiger, 2000, p. 41). The participants in this study may be multiple medium users as well, since no pretests were conducted, so the confounding factor—multiple medium usage could not be excluded in this case.

The interaction effects of incivility and source on students’ writing credibility between the high and low incivility condition is very small (see Figure 5&6), while there is a significant difference between the high incivility and low incivility condition on newspaper and blog’s credibility. This shows participants are less sensitive to the uncivil comments in a student’s writing than to a blog or a newspaper. What motivated the participants to be more tolerant with the incivility in a student’s writing? It could be an interesting topic that deserves delving into in future studies.

Despite the contributions, the study is not without some limitations. The participants in the study are university students. This might limit the external validity of the findings. Considering the demographic characteristics of university students in age, education, experiences, the lack of regional difference of the subjects, and that the study was administered in a Midwestern university, further studies need to be done before the finding could be generalized to the adults and students from other regions of the country. Our study may also be limited by the lack of pretest of the condition of multiple medium uses, which makes it a possible confounding factor on the credibility test.

## Conclusion

Findings from this study demonstrate that news credibility can be divided into two dimensions—message credibility and news organization credibility. The level of incivility of a news story and the perceived incivility of a news story, are negatively associated with both the message and news organization credibility. The most surprising finding is that a student's class writing was found more credible than bloggers and newspapers. An interaction effect of source and incivility on credibility was significant. Future studies may seek to test participants more representative of the general population to verify the findings.

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## Appendix 1: ANOVA Tables

H<sub>1</sub> H<sub>3</sub>

Test of effects: Message credibility

Factor	df	F	Sig
Incivility	1	21.709	0.000**
Source	2	66.828	0.000**
Incivility*Source	2	12.398	0.000**
Error	436		

\*\*p&lt;.001

H<sub>1</sub> H<sub>3</sub>

Test of effects: News organization credibility

Factor	df	F	Sig
Incivility	1	33.841	0.000**
Source	2	92.945	0.000**
Incivility*Source	2	21.589	0.000**
Error	436		

\*\*p&lt;.001

Manipulation test

Test of between subjects effects: Perceived incivility

Factor	df	F	Sig
Incivility	1	310.162	0.000**
Error	436		

\*\*p&lt;.001

H<sub>2</sub>

Test of between subjects effects: Message credibility

Factor	df	F	Sig
Perceived Incivility	1	5.918	0.015*
Error	436		

\*p&lt;.05

H<sub>2</sub>

Test of between subjects effects: News organization credibility

Factor	df	F	Sig
Perceived Incivility	1	5.702	0.17*
Error	436		

\*p&lt;.05

Means and standard deviations of message credibility, by source (N=438)

Source	Newspaper			Blog			Student		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Incivility									
Low	28.7018	8.32377	219	34.1535	9.14822	228	31.7851	10.57102	219
High	23.9224	9.16807	219	29.4384	9.86001	219	32.1416	10.33889	219
Total	26.3602	9.05922	438	31.8434	9.78182	447	31.9597	10.44774	438

Means and standard deviations of news organization credibility, by source (N=438)

Source	Newspaper			Blog			Student		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Incivility									
Low	18.3421	5.37137	219	21.4912	5.76904	219	20.8465	6.47993	219
High	14.5525	5.75818	219	17.5297	6.2862	219	20.9589	7.081	219
Total	16.4855	5.87265	438	19.5503	6.33918	447	20.9016	6.77367	438

Appendix 2: Stories

(i) Incivility High News Paper Basketball

Read news story from the *Palm Beach Garden* newspaper

Local Seminole high school basketball player Brandon Jones caused outrage on Twitter yesterday by tweeting that Conch opponent Jamie Jenkins was a “scumbag cheater” in last Friday’s game. Jenkins’ coach was quoted after the game as saying that “Jenkins started doing things on his own, which meant that the team’s communication and leadership were damaged,” although they did win by 19 points. Jones tweeted that Jenkins “didn’t give a fuck about even his own team” and that when the two teams meet up for the state final, “Look out for the butt kicking.”

Conch coach Jason Burns, meanwhile was pleased with his team’s rally in the crosstown game. “You saw us from the beginning of the season and now, it’s unbelievable. Guys who were considered chickenshit players have figured out who does what well and put the pieces together. Conchs outscored the last five teams they played, including the Seminole team. Seminole Coach Mike Burns said the Conchs won the game fair and square, and that Brandon Jones tweeting about games would be ended.

(ii) Incivility High Blog Judge

Read news story from the *Braddenton Florida Blog* carefully

The opening day of filing for the August. 5 primary election in Braddenton County ended with three candidates filing for Division 6 judgeships. However, at the courthouse, conflict among the three broke out when incumbent George Atwill said that neither of his opponents, Ernie Pounds or Jeremy Kalor “knew his ass from a hole in the ground.” Pounds, who is running for the first time, shouted that Atwill was “older than a dinosaur turd,” and his last few decisions have proved it. Kalor, who was exiting the courthouse, reprimanded both opponents saying, “we don’t need rude jackass judges in Division 6.”

Atwill has served as Division 6 judge for 10 years, and had announced his decision to run for another term as much as three months ago, at about the time his decision to send convicted armed robber Dan Driver to prison for 35 years came under criticism from the other judges in the county. Pounds has served as a public defender since



2005. Kalor has been an attorney in Braddenton for 15 years. He said he had planned to add his name to the ballot, “for quite a period of time.”

(iii) Incivility High Student Writing

Read news story from a university student in a news writing class

Olympia, WA –Kirby Wiles, Press Secretary for Governor Jay Inslee reported that at a general information meeting the Governor held in town last night to discuss ways to improve interstate Highway 5 around the three exits to Olympia, Jim Bowen, the head of the Olympia city council called the Governor a “lying whore.”

Jim Bowen is known for challenging state officials, particularly on issues related to state funding for transportation. Bowen claimed the Governor had promised Highway 5 improvements last year, with no local contributions from the City of Olympia. The improvements did not occur. Now, said Bowen, “ the Governor is insisting that Olympia contribute 20% of the costs of the improvement, with the state picking up the rest of the tab. Why should we believe the “lying whore”?

Secretary Wiles reported that Governor Inslee was deeply stung. “You may say I disagree, or he lied and point that out. But you don’t call me a lying whore.”

He added “Councilman Jim Bowen should apologize.”

In an email to the media this morning, Councilman Bowen said, “the Governor repeatedly promised these improvements and that the state would pay for them. There is no reason for any citizen in Olympia to believe anything the lying whore Governor says.”

Governor Inslee said, “I never ruled out cost-sharing with the city of Olympia; and I’ve apologized for the delay in the road improvements.”

(iv) Incivility Low News Paper Basketball

Read news story from the *Palm Beach Garden* newspaper

Local Seminole high school basketball player Brandon Jones caused outrage on Twitter yesterday by tweeting that Conch opponent Jamie Jenkins was an “overly aggressive player” in last Friday’s game. Jenkins’ coach was quoted after the game as saying that “Jenkins started doing things on his own, which meant that the team’s communication and leadership were damaged,” although they did win by 19 points. Jones tweeted that Jenkins “really only cared about himself first and foremost” and that when the two teams meet up for the state final, “Expect the Seminoles to come back fighting.” Conch coach Jason Burns, meanwhile was pleased with his team’s rally in the crosstown game. “You saw us from the beginning of the season and now, it’s unbelievable. Guys who were considered immature players have figured out who does what well and put the pieces together. Conchs outscored the last five teams they played, including the Seminole team. Seminole Coach Mike Burns said the Conchs won the game fair and square, and that Brandon Jones tweeting about games would be ended.

(v) Incivility Low Blog Judge

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decisions have proved it. Kalor, who was exiting the courthouse, reprimanded both opponents saying, “we don’t need candidates who use uncivil language in Division 6.”

Atwill has served as Division 6 judge for 10 years, and had announced his decision to run for another term as much as three months ago, at about the time his decision to send convicted armed robber Dan Driver to prison for 35 years came under criticism from the other judges in the county. Pounds has served as a public defender since 2005. Kalor as been an attorney in Braddenton for 15 years. He said he had planned to add his name to the ballot, “for quite a period of time.”

(vi) Incivility High Student Writing

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Jim Bowen is known for challenging state officials, particularly on issues related to state funding for transportation. Bowen claimed the Governor had promised Highway 5 improvements last year, with no local contributions from the City of Olympia. The improvements did not occur. Now, said Bowen, “ the Governor is insisting that Olympia contribute 20% of the costs of the improvement, with the state picking up the rest of the tab. Why should we believe the “fibber”?

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Governor Inslee said, “I never ruled out cost-sharing with the city of Olympia; and I’ve apologized for the delay in the road improvements.”

Press Secretary Wiles reported that no further discussion of the improvements would occur until Councilman Bowen formally apologizes.

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