

A Mixed Methods Approach to Examining the Relationship Between News Media Literacy and Political Efficacy

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Employing a convergent parallel design that combines an experiment and interviews, this study examined the relationship between news media literacy (NML) and political efficacy. The experiment tested the effect of exposure to NML messages on self-perceived media literacy and political efficacy beliefs. Experimental results suggest that NML messages influence self-perceived media literacy, which mediates political efficacy. This study also used interviews to explore how people apply NML skills to their news consumption and the relationship between news media literacy and political efficacy. The experimental and interview findings give us a more complete understanding of the complex relationship between NML and political efficacy and offer insight into the kinds of NML interventions that could be developed using theoretically and empirically validated findings.

Keywords: news media literacy, political efficacy, self-perceived media literacy, mixed methods, democracy

Although democratic societies depend on a healthy relationship between the public and the press, there are troublesome indicators that such a relationship is threatened in the United States. Trust in the press is at an all-time low, with widening gaps between political groups in terms of the news sources they use and trust (Pew Research Center, 2017). At the same time, many young people are apathetic toward politics and define engagement with issues as nonpolitical (Thorson, 2012).

News media literacy (NML) education may provide a mechanism to address concerns about disengagement with news and politics (Klurfeld & Schneider, 2014; Mihailidis, 2014). NML education is designed to empower audiences to examine and deconstruct news, and to develop and share informed

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views on social issues (Maksl, Ashley, & Craft, 2015). In addition, NML can encourage engaged citizenship by giving people confidence to engage with news and politics in service of democratic deliberation (Burroughs, Brocato, Hopper, & Sanders, 2009; Kahne, Lee, & Feezell, 2012). Scholars therefore emphasize that NML education can animate news engagement and political participation (Ashley, Maksl, & Craft, 2017; Mihailidis, 2014).

NML education emphasizes three core concepts: (1) the relationship between news and citizens in a democracy, (2) the responsibility of journalists to be inclusive and accurate in their reporting and the constraints of news production processes, and (3) the responsibility of audiences to be critical when consuming news (Fleming, 2014; Maksl et al., 2015). For the most part, NML education is relegated to classrooms, where it can reach only a small subset of the population. However, previous research suggests that short NML interventions in the form of online presentations can be effective at promoting critical consumption of news and heightening perceptions of one's own media literacy (Vraga, Tully, Akin, & Rojas, 2012). Although NML concepts can be thoroughly addressed in classrooms, it may not be practical to cover all of these ideas in short NML messages designed to be consumed as part of a regular media diet. Moreover, highlighting certain concepts over others may prove more effective in helping individuals develop a sense of their own literacy and connecting it to democratic outcomes.

We expect that self-perceived media literacy (SPML) will help individuals recognize their abilities to engage with news, the source of political information for most citizens, thus promoting their self-confidence to participate in the political process more generally. Two types of political efficacy should be particularly relevant: internal political efficacy (IPE), or the belief that one can effectively participate in the political process (Bandura, 1982; Niemi, Craig, & Mattei, 1991); and epistemic political efficacy (EPE), or confidence in one's ability to determine facts about politics and political issues (Pingree, 2011). Previous research suggests that short presentations that highlight NML concepts can promote critical thinking and increase perceptions of news credibility (Vraga et al., 2012), but little empirical research has investigated whether these lessons can improve political efficacy despite recognition from scholars that media literacy is fundamental to developing an informed citizenry (Mihailidis & Thevenin, 2013).

In addition to empirically testing the effects of short public service announcements (PSAs) that deliver NML messages on participants' SPML and two political efficacy beliefs, this convergent parallel design study (Creswell & Plano Clark, 2011) employed in-depth interviews with adults to explore the relationship between people's perceptions of their literacy and feelings of political efficacy. Using this approach, we (1) tested the effects of NML PSAs that were developed from a review of literature on NML on SPML and the mediating effect of SPML on political efficacy, and (2) explored the mechanisms by which news media literacy connects to people's perceptions of their political efficacy. Improving our knowledge of this relationship has implications for how scholars and practitioners think about news media literacy, news consumption, and political engagement.

News Media Literacy and Democracy

Considering the complicated relationship between news, citizens, and democracy, NML education must be similarly complex and adaptable to changing news environments (Mihailidis & Viotty, 2017). NML education focuses on developing news literacy skills, which involve evaluating news for quality and veracity, and media literacy skills, which include developing an understanding of context, production, and consumption (Ashley et al., 2017; Potter, 2013). NML curricula distinguish news from other mass media by focusing on elements of news stories (e.g., sources, attribution), news processes (e.g., verification), and the role of news as a purveyor of information in a democracy.

NML education explores three related aspects of news creation and consumption: (1) the responsibilities and constraints of the press in producing news, (2) the role of citizens to critically engage with news, and (3) the interaction of the press and the public as part of a democracy (Ashley et al., 2017; Mihailidis, 2014). Although NML education is often critical of the news and its coverage of important issues, it is meant to encourage skeptical engagement with news rather than engender cynicism about the role of news in society and politics (Klurfeld & Schneider, 2014; Mihailidis, 2014).

There is an emerging consensus among scholars and educators that media literacy can foster democratic participation and contribute to an informed citizenry (Ashley et al., 2017; Mihailidis & Thevenin, 2013; Tully & Vraga, 2017b). NML education presents news as vital to a functioning democracy, with the goal of enabling citizens to make informed choices about social and political issues (Burroughs et al., 2009; Mihailidis, 2014). In the United States, NML education emphasizes the role of the news in democracies by teaching about news as the main source of civic and political information for citizens and as a government watchdog, among other functions.

NML education highlights news production by contrasting journalists' duties to be accurate and inclusive in their reporting with the constraints and challenges that journalists face in their jobs (Schudson, 2011). NML education acknowledges the democratic role of the press to inform publics, while also stressing the commercial and related pressures that journalists, editors, and news outlets face that intersect with news production to shape news content (Kovach & Rosenstiel, 2014). If audiences understand that news faces commercial pressures and competition from other media for advertising and attention, this should enable them to consume news through a more critical and informed lens.

Developing knowledge about news content, processes, and structures is just one aspect of NML education (Ashley et al., 2017). NML education also emphasizes building and maintaining critical analysis skills, such as seeking out diverse sources of information, searching for context, and paying attention to news content (Potter, 2013). Thinking about the influence of one's own worldview on news choices and devoting time to conscious processing of news messages can strengthen an individual's media locus of control—the degree to which individuals perceive themselves as being in control of their relationship with news media—to become more mindful media consumers (Ashley et al., 2017; Maksl et al., 2015; Potter, 2004). Gauging media literacy perceptions provides insight into individuals' beliefs about their media literacy, which are separate from their actual literacy or news knowledge (Vraga, Tully, Kotcher, Smithson,

& Broeckelman-Post, 2015). It is important to consider individuals' perceptions separately from their knowledge or behaviors, as they do not always align (Hargittai & Shafer, 2006; Hollander, 1995).

Considering the multiple aspects of NML education and our interest in self-perceptions of one's NML abilities, this study tested three messages that articulate NML concepts derived from media literacy textbooks (e.g., Potter, 2013) and NML research (e.g., Maksl et al., 2015; Mihailidis, 2014) to see whether these messages affect SPML: (1) a message that journalists' job is to produce accurate, well-rounded news as part of the news production process; (2) a message that citizens' job is to be critical news consumers when evaluating news content; and (3) a message that includes both journalists' and citizens' roles and responsibilities in a democratic society. Distilling NML education to these concepts reflects our understanding of NML education as engaging with news content, context, production, and consumption. By making these issues and values more salient, each PSA should improve SPML.

However, it is unclear whether these messages will be equally effective at improving SPML. Previous research suggests that a message that focuses on both citizens' and journalists' roles and responsibilities boosts media literacy perceptions (Tully & Vraga, 2017a), and such a message best matches NML literature. Less is known about messages that focus on either citizens or journalists. It may be that information about citizens' job to be critical compared with a focus on journalistic norms, for example, creates opportunities for individuals to see themselves as media literate. Alternatively, it may hinder this process if individuals recognize their own failings. Thus, we proposed the following hypotheses and research question:

H1: Exposure to any NML PSA will improve SPML compared with a control condition.

H2: Exposure to an NML PSA that highlights both journalists' and citizens' roles and responsibilities in a democracy will improve SPML compared with a PSA that focuses on either citizens' or journalists' roles separately.

RQ1: Will there be differences between a PSA that focuses on citizens' roles and responsibilities in a democracy and a PSA that focuses on journalists' roles and responsibilities in their ability to improve SPML?

News Media Literacy and Political Efficacy

Theoretically, having confidence in one's NML abilities can give people more confidence to discuss news and political issues, thus spurring participation in political activities (Burroughs et al., 2009; Kahne et al., 2012; Maksl et al., 2015). Drawing from the theory of planned behavior (Ajzen, 1985), we argue that SPML may function as a form of "perceived behavioral control" over responding to media messages, and thus serve as a precursor to related beliefs or behaviors. In addition, previous research suggests that media literacy beliefs and skills predict democratic outcomes, including political participation, exposure to and value for political disagreement, and political trust (Ashley et al., 2017; Kahne et al., 2012; Tully & Vraga, 2017b). This research reinforces the value of studying self-perceptions of media literacy and their potential relationship to political efficacy, broadly construed as individuals' views of themselves as capable

of influencing the political process (Bandura, 1982; Niemi et al., 1991). We extend this research to explore whether exposure to NML messages indirectly influences two efficacy beliefs through SPML: IPE and EPE.

The research into IPE is long-standing. IPE measures individuals' confidence in their ability to understand and participate in the political process (Kenski & Stroud, 2006; Niemi et al., 1991). IPE has been explicitly linked to patterns of news consumption and to increased levels of political participation (Baumgartner & Morris, 2006; Hoffman, Jones, & Young, 2013; Kenski & Stroud, 2006). However, the results regarding whether news use increases IPE are mixed (e.g., Baumgartner & Morris, 2006; Kenski & Stroud, 2006), which may result from different understandings of "news," an issue that NML education and research attempt to address by articulating a multifaceted definition of news and exploring the multiple roles of news in democratic society (Ashley et al., 2017; Potter, 2013). Alternatively, we suggest that news media literacy may play a role in this process. Although one study found no relationship between news knowledge and IPE (Ashley et al., 2017), when NML messages encourage people to see themselves as critical news consumers, they should also foster a belief that one can be an effective participant in the democratic process. In other words, NML messages should heighten IPE but only if people first see themselves as media literate.

Closely related but conceptually distinct from IPE, EPE describes one's ability to interpret and evaluate news messages (Pingree, 2011; Pingree, Hill, & McLeod, 2013). EPE explicitly measures whether individuals see themselves as capable of discovering the truth behind complicated political issues, rather than their ability to engage in political action, as measured by IPE (Pingree, 2011). Interrogating individuals' confidence in their ability to understand political issues is particularly relevant to the goals of NML education. Most important political information is communicated through the news, so having confidence in one's ability to understand and interpret this information is, perhaps, a key step in critically engaging with news and making informed decisions. Exposure to journalistic adjudication of competing facts—when journalists fact-check competing claims of politicians—has been shown to boost EPE (Pingree, 2011; Pingree et al., 2013). Therefore, NML messages about the responsibility of journalists to be inclusive and accurate in their reporting or messages that encourage individuals to be fair but critical news consumers should lead people to see themselves as more news media literate and also able to discern the truth behind the political issues covered in the news or, in other words, higher in EPE.

Therefore, NML messages that increase SPML should indirectly contribute to both IPE and EPE by encouraging people to see themselves as effective news consumers, and thus effective participants in a society that relies on news for political information. But given the dearth of existing research on these relationships, it is not clear whether some NML messages will be more effective in promoting these efficacy beliefs. Therefore, we proposed the following hypotheses and research question:

H3: Exposure to NML messages will have an indirect effect on increased (a) IPE and (b) EPE beliefs through heightened levels of SPML compared with a control condition.

H4: Exposure to an NML PSA that highlights both journalists' and citizens' roles and responsibilities will increase (a) IPE and (b) EPE beliefs through heightened levels of

SPML compared with a PSA that focuses on either citizens' or journalists' roles separately.

RQ2: Will there be differences between a PSA that focuses on citizens' roles and responsibilities in a democracy and a PSA that focuses on journalists' roles and responsibilities in their ability to boost (a) IPE and (b) EPE through heightened SPML?

In addition to testing these hypotheses and research questions, we employed interviews to explore the connections between these concepts. An experimental study cannot tell us how well the NML PSAs align with people's own understandings of what it means to be "news media literate" or their understanding of their own NML skills. It may be that individuals define news media literacy differently from scholarly definitions, which could influence their perceptions of their own NML. This understanding and self-perception could relate to their political efficacy perceptions as well. With this in mind, we asked:

RQ3: How do individuals perceive their own NML?

RQ4: What is the relationship between individuals' NML and political efficacy perceptions?

Study Design

Using a convergent parallel design allows for the simultaneous collection and analysis of quantitative and qualitative data. This study used data collected from an experiment and interviews that were conducted concurrently but separately to develop a more complete understanding of the relationship between SPML and political efficacy (Creswell & Plano Clark, 2011). Building on previous experimental research into the effects of NML interventions, we tested our expectations about NML PSAs using an experiment embedded in an online survey performed in Fall 2015. However, given the lack of research into the relationship between NML and political efficacy, we also conducted interviews with 22 adults to explore their NML and political efficacy perceptions. As is common with convergent parallel design, we first analyzed the data separately and then compared and interpreted them together to present a more complex interpretation of the findings (Creswell & Plano Clark, 2011). As such, we first present the experimental methods and results followed by the interview methods and results before bringing the findings together in the discussion.

Experiment

Undergraduate students at two American universities, one in the Midwest and one in the South Atlantic, were invited to participate in the experiment for course credit. This study received institutional review board approval in September 2015. Of the roughly 2,600 students invited to participate via e-mail, 1,279 completed the survey, a response rate of 49.2%. After cleaning the data, $N = 282$ valid responses

remained.² The sample was slightly more female (53.9%) than male and politically moderate ($M = 3.94$, $SD = 1.29$).

In this study, a four-cell between-subjects experimental design was analyzed. Participants completed a pretest questionnaire before being randomly assigned to see one of three PSAs from the fictional "The Media Literacy Coalition" or to a control condition in which participants watched a cat video of equivalent length ($n = 78$). After viewing the video, participants answered questions about their media literacy beliefs and democratic orientations before being debriefed.

The three NML PSAs were comparable in length, with run times between 35 and 39 seconds. For each PSA, the script was recorded and edited with professional stock footage of newsrooms and news consumers to create the videos (see Appendix A). The first PSA ("journalist PSA") emphasized how news is produced and how the job of journalists is to represent diverse viewpoints when constructing stories ($n = 74$). The second PSA ("citizen PSA") focused on the role of citizens as critical consumers of news and how personal viewpoints can influence individual interpretation of news ($n = 66$). The third PSA ("combination PSA") included both of these ideas ($n = 64$).

Measures

SPML. Participants rated their level of agreement on 7-point Likert-style scales with six items designed to measure SPML, including their understanding of media literacy, their skills to interpret media messages, and their willingness to accept information at face value (reversed). These measures were taken from Vraga et al. (2015; Appendix B). These items were averaged to form an index ($\alpha = .76$, $M = 4.88$, $SD = 0.89$).

IPE. Participants rated their level of agreement on 7-point scales for four items about whether they were qualified to participate in politics, their ability to succeed in political office, and their understanding of political issues (Baumgartner & Morris, 2006; Pingree, 2011), which were averaged to form an index ($\alpha = .84$, $M = 3.82$, $SD = 1.32$).

EPE. To measure EPE, we took four items from Pingree (2011) that measured participants' confidence in their ability to find the truth about political matters, to learn the facts behind political

² Three types of participants were eliminated from analyses. First, participants in six experimental conditions not analyzed here were excluded, which combined exposure to the media literacy PSAs with a short clip of *The Daily Show* ($n = 758$). For parsimony, this study examined the main effects of exposure to the PSA; a separate manuscript examines how the messages of the PSA intersected with this clip (Vraga & Tully, 2016). Second, participants were excluded who reported they could not see ($n = 10$) or hear the video ($n = 45$), or those who spent more than 80 seconds (twice as long as the PSAs) on the video page ($n = 89$), as they likely did not pay sufficient attention to the PSA. Finally, participants who both had inadequate variance in their responses (e.g., answered over 60% of the survey questions with a 4; see Vraga & Tully, 2015) and who failed an attention check were excluded ($n = 110$). As some individuals failed more than one attention check, these numbers do not equal 1,279 participants.

disputes, the existence of objective facts for political issues, and the impossibility to figure out the truth behind political issues (reversed). These items were measured on 7-point scales and averaged to create an index ($\alpha = .77$, $M = 4.83$, $SD = 1.02$).³

Experimental Results

To test expectations, we used an analysis of covariance, controlling for school enrollment, party affiliation, and political ideology,⁴ to test whether exposure to the three PSAs significantly impacted individuals' SPML. The analysis of covariance results demonstrate that there was a significant main effect of PSA type on SPML, $F(3, 272) = 2.70$, $p = .046$, $\eta_p^2 = .029$ (see Figure 1). The pairwise comparisons using two-tailed significance tests for least significant differences suggest that these results were driven by significant differences between the control condition and exposure to the journalist PSA ($p = .01$) or citizen PSA ($p = .03$), and a marginally significant difference between the control condition and exposure to the combination PSA ($p = .07$). Moreover, there were no significant differences between the three PSAs ($p > .52$)⁵ in their effects on SPML. Therefore, Hypothesis 1 was supported. Any PSA improved SPML compared with a control condition, but we found no support for Hypothesis 2 suggesting that a combination PSA would outperform the citizen or journalist PSA. In fact, we answer Research Question 1 by suggesting that there were no differences in the effectiveness of the PSAs in terms of SPML.

Next, the ability of SPML to mediate the relationship between different media literacy messages and EPE and IPE was tested using the Hayes (2013) Model 4 PROCESS macro in SPSS, again controlling for school, party affiliation, and political ideology. As a first step, this model confirmed that the journalist and citizen PSAs significantly improved SPML compared with a control condition, with the combination PSA marginally improving SPML (see Figure 2). Moreover, SPML was related to higher levels of EPE ($B = .47$, $SE = .06$, $p < .01$) and IPE ($B = .61$, $SE = .08$, $p < .001$).

³ An exploratory factor analysis was run for 15 measures of IPE, EPE, and SPML using the promax rotation to test the potential for confounded measures between these concepts. A single item, "Sometimes politics and government are so complicated a person like me can't really understand them," was cross-loaded on both IPE and EPE factors. Based on face validity, this measure was eliminated from the measures of IPE. The factor analysis revealed four factors, but review suggested that SPML had loaded on two separate factors for the negatively and positively valenced items. When a new factor analysis requested three factors, the expected factors of IPE (explaining 34% of variance), SPML (explaining 14% of variance), and EPE (explaining 10% of variance) emerged. This analysis is available by request.

⁴ These controls were included to rule out the potential for school, party affiliation, or political ideology to moderate these results, as our previous research suggests that political orientations and classroom characteristics can impact the effectiveness of NML messages. Excluding these controls did not fundamentally alter the results. In addition, we tested whether political ideology and party affiliation functioned as moderators of the relationship between exposure to the PSAs and SPML.

⁵ There are no differences between the combination and journalist PSA ($p = .53$), the combination and citizen PSA ($p = .71$), or the journalist and citizen PSA ($p = .81$).

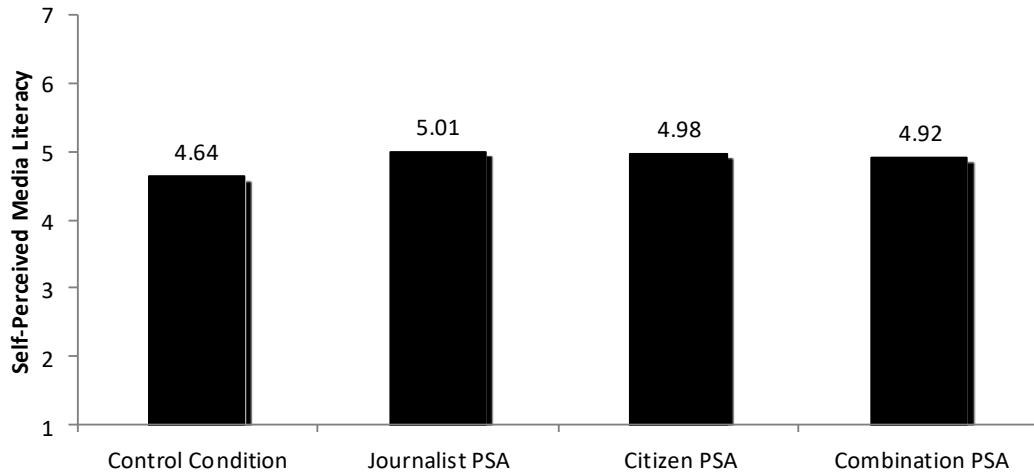
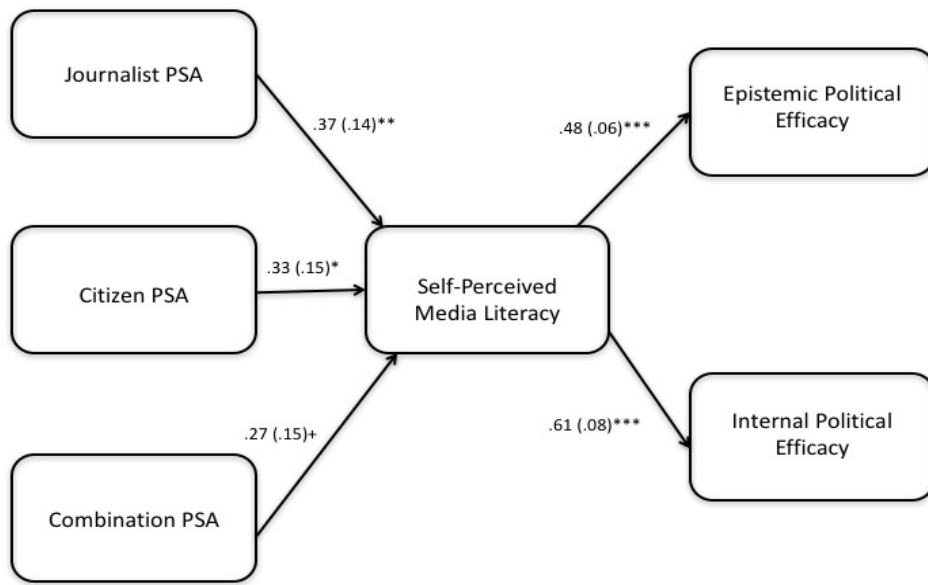


Figure 1. Effects of exposure to public service announcement (PSA) messages on self-perceived media literacy.



+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Figure 2. Mediated relationship between public service announcement (PSA) messages and political efficacy beliefs.

Next, the mediation process was tested. The results revealed that all relationships were significant, as indicated by the confidence intervals not including .00 (see Table 1). Supporting Hypothesis 3, exposure to any of the NML PSAs boosted SPML, which then was associated with higher EPE and IPE. Given our previous results suggesting that the combination PSA had no greater effect on SPML than the citizen or journalist PSA, Hypothesis 4 was not supported. Moreover, answering Research Questions 2a and 2b, these results revealed few differences between the NML messages and their relationship to IPE and EPE as mediated by SPML. It appears that all three NML messages were equally effective in shaping participants' SPML, with a corresponding increase in IPE and EPE.

Table 1. Indirect Effects of Public Service Announcement (PSA) Messages on Efficacy Outcomes via Self-Perceived Media Literacy.

PSA	Epistemic political efficacy			Internal political efficacy		
	β	SE	CI	β	SE	CI
Journalist	.18	.08	[.04, .34]	.23	.10	[.05, .45]
Citizen	.16	.08	[.02, .33]	.20	.10	[.01, .42]
Combination	.13	.07	[.01, .28]	.17	.09	[.01, .38]

Note. All values represent significant indirect pathways (confidence intervals do not include .00).

Interviews

To further improve our understanding of the relationship between NML and political efficacy, researchers conducted 22 in-depth interviews with adults in three U.S. locations: a small city in the Midwest ($n = 9$), a large suburb in a South Atlantic state ($n = 5$), and Washington, D.C. ($n = 8$). Interviews were conducted from September to November 2015. Interview subjects ranged in age from 19 to 56 years old ($M = 31.5$ years); included 10 men and 12 women; 12 participants identified as White, and 10 interviewees indicated other races or mixed race. The sample was fairly well educated, with nine interviewees currently enrolled in college and 13 completing at least a four-year degree.

Interviews were conducted by the researchers and a trained research assistant following a structured interview protocol. The use of a structured protocol ensured that all key topics would be addressed by interview subjects and enabled the researchers to achieve data saturation (Guest, Bunce, & Johnson, 2006). Subjects were recruited using fliers posted in public locations and through referrals from other subjects. Interviews lasted approximately 30–60 minutes, with the shortest interview lasting 25 minutes and the longest lasting 68 minutes. Subjects received \$20 for their participation. Interviews were audio recorded and transcribed for data analysis. The institutional review board approved study procedures in September 2015.

Interviews started with a discussion of interviewees' media habits, especially their news use. The protocol then asked about news and information-seeking habits and feelings of political efficacy. To gauge individuals' political efficacy feelings, researchers asked participants, "If you care about a social or political issue, do you think you're able to do something about it?" The second phase of the interview focused on

definitions, applications, and self-perceptions of NML. The interviewer concluded by asking participants to share their views on the applicability of NML to their everyday news habits.

To assess people's NML perceptions, researchers provided all participants with the same definition of NML:

the ability to access, analyze, evaluate, and create messages in a variety of forms. This is a skills-based definition that involves building critical thinking skills and applying those skills to specific media domains including news. It involves understanding how news is made, the role of news in society, and the role of news consumers to critically consume news content.

They asked, "Thinking about this definition, do you think of yourself as news media literate?" and "Why do you describe yourself in this way?"

To examine interviewee responses and potential connections between SPML and political efficacy, researchers analyzed interview transcripts for themes and categorized responses according to the themes that emerged.

Interview Results

Self-Perceptions of News Media Literacy (RQ3)

Interview results suggest that most interviewees did not feel particularly literate across all NML tenets or even have a clear understanding of the concept. When asked about their NML, many individuals noted the barriers to becoming news media literate—most notably, a lack of skill, time, and interest—rather than NML concepts. One interviewee rated her NML as a "solid 6 on a scale of 1 to 10," but went on to note, "I think if I'm interested I'm able to hear it and analyze it and you know kind of contemplate it, but if I'm not, I probably don't" (Interviewee 22). Another woman explained, "I mean I do read. I do have access, and I do read these articles. But when it comes to evaluating, the, I guess, *truthness* behind those, I don't spend too much time in that section" (Interviewee 3). Another said that she was news media literate at "a very basic" level and explained, "I don't use news media enough to really think about it, analyze it, or describe my ability to analyze it" (Interviewee 17). Although she acknowledged that she does not spend much time with news, she noted that to become more news media literate requires "focus to pay more attention to news and consume a greater amount of it and pay attention past the headline and the first few sentences" (Interviewee 17), an indication that she understands how to become news media literate despite her lack of commitment to it. Similarly, others offered a superficial understanding of the concept and presented skills such as being able to locate information via online search engines or knowing how to access news websites.

For others, a perception that it was a "waste of time" to critically consume news or, in some cases, to consume news at all, emerged as a hurdle. As a participant from Washington, D.C., noted,

I don't take the time to sit down and get that in-depth with it. I just tend to play on preferences and on almost style in many ways and the mood that you're feeling. . . . I used to read *The Wall Street Journal* and *The Washington Post* every day. I always felt very sharp and very cutting edge. . . . But at the end of the day, I was like, *pfft*. Waste of time. (Interviewee 6)

His views highlight a contradiction that some people face—wanting to spend time consuming news to become informed, while also thinking that being informed has little social or political value. Another participant said that he is news media literate “to a point” because he does not “spend as much time on it” as he should (Interviewee 12). He said that he is cynical about the news, but then described behavior that is consistent with NML skills:

I'm very cynical so, a lot of times I'm quick to, I don't know, I'm not quick to distrust but a lot of times I'll read something and, OK I get an understanding of it, but maybe I'll read another article and it has a completely different message on that topic and it's like OK, and you sort of form your own opinion off of it.

Although this participant expressed cynicism and distrust in the news, he still reported looking for a variety of sources on an issue and weighing competing arguments, both core NML skills.

Other participants said that they analyze and evaluate news, but that they do it without really thinking about it. For example, one participant described himself as “semiliterate,” noting,

I don't know that I'm exactly fluent in this, but I do a lot of this naturally as an unconscious process—thinking about where did they get this information, how accurate it is, what is the spin they're putting on it, and then looking through and trying to compare to other sources and say, “What is really going on here?” (Interviewee 13)

Although he described this as an unconscious process, the attention to information, sources, and context suggests that this participant is more actively processing at least at times. Similarly, another woman described herself as news media literate because she seeks out and appreciates a variety of viewpoints, but also claimed to do this without “even thinking” (Interviewee 18). A third participant contrasted his processing of news content to the deliberate processing that he would apply to his schoolwork:

I think have the ability to locate analyze and evaluate the sources. I don't necessarily do that consciously. You know, so it's not a homework, so I'm not reading that article because I have to answer a quiz on it. (Interviewee 2)

So, although these participants described their behaviors as mostly unconscious, it is evident that they do take the time and effort in some situations to actively process news, suggesting that they are in a position to develop more tuned NML skills. As Potter (2004) notes, “media literacy requires individuals to spend more time and effort with conscious processing” (p. 73). As such, with more dedicated effort and application of NML skills, these participants could develop and strengthen their skills.

Finally, some participants were able to articulate why they felt news media literate and what kind of behaviors or skills they applied to consuming news. For example, one man explained his confidence in his ability to interpret news:

I feel like I have a pretty good handle on just being able to navigate the current media landscape, you know mostly, mostly online. I kind of think that's where all, most news consumption is going so I feel pretty confident in my ability to hear about something—you know, a fact—something that's happened across the world, a study and just take that little bit of information and figure out the story behind it by reading several articles, sources. (Interviewee 9)

Another woman noted that a mentor taught her how to read the news and to think critically about the information presented (Interviewee 8), and another woman said she felt news media literate because she knows "how to access news in different formats, interpret, analyze what they're saying" (Interviewee 19).

Although the depth and detail with which people described their NML varied, one aspect remained consistent: Interviewees largely focused on skills related to finding and analyzing news sources, which is just one aspect of NML. Only one participant mentioned the need to overcome personal biases when interpreting news, noting that she did not feel news media literate because of her "bias and prejudice," which color her interpretations of news content (Interviewee 10). None mentioned news production processes or the relationship between news and democracy.

Political Efficacy (RQ4)

Next, we explored how interviewees discussed their political efficacy in relation to their self-perceived NML to address Research Question 4. Participants' efficacy beliefs ranged from feeling positive about their abilities to bring about social or political change to seeing participation as difficult or useless, and encompassed both traditional democratic participation behaviors (e.g., voting) and online political participation (e.g., posting online petitions). However, the relationship between individuals' self-perceived NML and political efficacy beliefs was not straightforward. Individuals who perceived themselves as news media literate did not necessarily feel more politically efficacious, whereas some participants who did not believe they were particularly news media literate expressed optimism about their ability to effect social and political change.

One group of participants felt like enacting change was possible, even easy, in some cases, because of the number of opportunities to participate. For some, this included official channels, such as "[finding] an organization that was making an impact" (Interviewee 21). For others, social media offered a way to participate without formal structure:

I think [with] social media really anybody really could generate interest on a topic if they really wanted to. Take the ALS ice bucket challenge. If you came up with something creative and it went viral you could bring awareness to any topic. (Interviewee 19)

These positive views were contrasted by others who believed it was difficult or not worth it to participate. Whereas some described opportunities afforded by social media as positive, one interviewee articulated the opposite argument:

My friends will post things about like "This is awful how can they do this?" you know, and, yeah, like you aren't going to go help them, are you? You're just posting things saying how terrible it is; that doesn't help them. . . . It's not really spreading awareness because everyone's spreading awareness. If no one's actually doing anything, the awareness doesn't matter. (Interviewee 5)

The cynicism that sometimes emerged when discussing NML was also apparent in discussions of political efficacy, with interviewees noting that systems were rigged or it was not worth spending time to do something about social issues. For example, one interviewee, who also expressed cynicism when discussing NML, noted that he did not feel able to do anything about social issues because of "the systems in place" that make it difficult to confront powerful people and institutions (Interviewee 6). Although this participant did not think it was worth his effort to engage with news or politics, he expressed an understanding of both, suggesting that he consciously decided to disengage.

However, others believed that participating in the democratic process was the best way to bring about social change, reflecting optimism about democracy. Their responses included traditional democratic behaviors, including participating in rallies, voting, and joining advocacy organizations as forms of participation (Interviewees 3, 9, 17, and 18). For example, one participant said, "Generally whether it's local or federal, I think the best way to effect change is through the democratic process" (Interviewee 9). This same interviewee noted that social media give "every person a platform to be an advocate for whatever issue they feel passionately about," highlighting both traditional and digital political participation as opportunities to bring about social change (Hoffman et al., 2013).

However, such trust in the democratic process is not necessarily aligned with feeling news media literate. One participant said that she is part of a student group about abortion rights focused on changing opinions and policy. Although she has a clear sense of purpose with this group, when discussing her NML, she described herself as not evaluating "truthness" or spending much time on analysis (Interviewee 3). Similarly, an interviewee who said she participated in a climate change rally said that she does not use media a lot or analyze news (Interviewee 17). In contrast, a young woman who described herself as news media literate said that she votes and even suggested means to improve voter turnout, including voting incentives (Interviewee 18). These three participants had clear articulations of political participation and reasons for participating, but their perceived NML ranged from nonexistent to sporadic, with no one fitting the ideal type of critical news consumer and engaged citizen.

Discussion

Using a convergent parallel design, this study is the first to empirically test the relationship among NML messages, SPML, and political efficacy using an experiment and to further explore the complexity of these relationships with interviews. This mixed methods approach contributes to a more

nuanced understanding of the relationship between NML and political efficacy. Although the experiment shows that exposure to any of the NML messages in this study can boost SPML, which was related to greater political efficacy, the interview results reveal that the relationship between NML and political efficacy is anything but straightforward. Our findings have both theoretical and practical implications.

The experimental results suggest several important conclusions about the role of NML in a democratic society. First, all of the NML messages were successful in boosting individuals' confidence in their ability to evaluate news messages, and this heightened SPML was associated with people feeling more efficacious about participating in politics (IPE) and discovering the truth about political issues (EPE). Therefore, the effects of NML messages are not limited to an individual's relationship to the news, but may extend to encouraging people to feel better equipped to participate in the political process. Future research should continue to investigate how short NML messages relate to a range of democratic outcomes, including other efficacy beliefs and behaviors.

It is promising that these effects occurred after seeing any of the PSAs, which could appear in a variety of contexts, such as accompanying television programming or online videos. The fact that each NML PSA was successful in indirectly encouraging these efficacy beliefs is important, as it suggests that an integrated campaign with a variety of NML messages may encourage greater SPML and heighten political efficacy (Vraga & Tully, 2016).

Of course, the experiment is not without limitations. First, our experiment relied on a student sample, which is likely to be more educated and more familiar with NML concepts than the general population. Despite issues with student samples, they are used frequently in experimental research, and may not produce meaningful differences in the nature of results when carefully considering the relevant sample characteristics (Druckman & Kam, 2011; Mullinix, Leeper, Druckman, & Freese, 2015; Shapiro, 2002), although future research should explore these questions with more diverse samples.

Second, without panel data, we cannot truly test a mediation model among exposure to the NML messages, SPML, and efficacy outcomes. However, we have theoretical reason to expect SPML to act as the mediator, rather than efficacy, given that media literacy attitudes and beliefs have been investigated as precursors to political participation, exposure to political disagreement, and political trust (Ashley et al., 2017; Kahne et al., 2012; Tully & Vraga, 2017b). We also fitted a competing model with our efficacy variables as mediators, rather than SPML, in MPlus (Muthen & Muthen, 2012). The model fit statistics consistently suggested that the model with SPML as a mediator outperformed the model with efficacy beliefs as mediators, providing more evidence for this claim. However, we believe it is possible that SPML and efficacy are interrelated, perhaps in a virtuous circle (Slater, 2007). Future research should use panel data to test this assumption.

The findings from the interviews present an interesting glimpse into how individuals perceive their NML and ability to effect political change. Although we are not attempting to generalize, our interview results suggest that participants can be grouped into types based on the relationship between their NML and political efficacy perceptions: *cynical citizens*, *naïve citizens*, and *critical citizens*. Of course, this typology is preliminary, and additional research should continue to develop it and examine whether

these types are in fact visible across a broader spectrum of Americans. Future research should address the limitations inherent in our interview sample size and participant diversity. Additional interviews would allow for a more in-depth examination of the relationship between NML and political participation and continued development of the preliminary typology proposed.

Some interviewees expressed confidence in their NML but did not feel particularly efficacious when it comes to enacting social or political change. In fact, some people who felt more news media literate were also more skeptical of the media and politics and therefore less likely to feel politically efficacious, a finding that echoes Mihailidis's (2008) findings that although a media literacy course "taught the students skills to critically view media," it failed to show "how such critical viewing should be couched in media's larger civic roles and responsibilities" (p. 140). These *cynical citizens* are worthy of further exploration to understand what breeds this cynicism and how to overcome it through NML interventions, as these individuals show glimmers of a desire to engage and evaluate content but feel downtrodden by contemporary news and politics.

Those who do not feel particularly media literate but do believe they can effect social change may fit into a broader conceptualization of a *naïve citizen*—one who feels earnest about political participation with little knowledge about news or political systems. This group could benefit from NML education that balances teaching how to be a critical news consumer and an engaged citizen, a framework promoted by Mihailidis (2008, p. 153), which suggests the need to teach media literacy skills and to highlight the value of news for democratic society to embolden skeptics, not cynics.

Finally, interview findings suggest that very few interviewees fit the mold of truly *critical citizens*, indicating a clear understanding and application of the concept of NML, confidence in their NML skills, an articulation of the ways they apply their NML skills to news consumption, and a connection to their political efficacy. A number of people appear to be occasional critical news consumers, saying that they do analyze and evaluate news sometimes, but they often do it without thinking. However, to become news media literate requires active processing, sustained engagement with media, and practice applying media literacy skills (Potter, 2004). These individuals are well suited to continue to develop NML skills and political efficacy if they put time and effort into seeking out diverse news sources, critically, but fairly evaluating this content, and thinking about how to use the information garnered in political decision making and participation.

Thinking about how to tailor messages to different groups could improve NML interventions. For example, designing NML campaigns with cynics in mind would produce a different kind of message than a message aimed at more optimistic audiences. Continued mixed methods research should test the effects of these tailored NML interventions with experimental designs and use interviews or focus groups to examine how individuals perceive NML messages to better understand how these concepts resonate (or not) with diverse audiences.

In addition, considering that most interview participants focused on the barriers to applying NML skills (e.g., time, interest, motivation) to their news consumption, it is worth considering how to develop messages that focus on these issues in addition to the NML concepts used in this study. Interventions that

provide information about how to become more literate or why it matters could potentially improve actual and self-perceived NML and political efficacy. If lack of motivation is a barrier to engaging in critical news consumption and in political activity as mentioned by several interview participants, NML messages focusing on motivation could be more effective than those that focus solely on providing information. Future research should examine whether combining messages on how to overcome perceived barriers to applying NML skills with more theoretical arguments about the value of NML to democratic society as part of a larger strategy would be even more effective in producing cumulative effects on NML attitudes and political efficacy.

More research is also needed into other democratic outcomes that may align with NML. The interviews included a question about influencing social change, which is just one aspect of political efficacy, whereas the experimental study tapped into a wider range of political efficacy attitudes. EPE (Pingree, 2011), given its emphasis on discovering the facts underlying political issues, is a particularly important construct to consider in conjunction with NML efforts. Future research should incorporate other democratic orientations such as political discussion or participation to further explore the complex relationship between NML and political engagement.

Understanding how news audiences relate to news and the political process is critical for both researchers and practitioners as the news landscape continues to evolve with more niche news, false and misleading content masquerading as news, satirical news, and social media news becoming readily available to consumers. If news producers and the public are to work together to develop a nuanced understanding of important social and political issues, these groups must be speaking the same language and have some common democratic goals.

Overall, the results from this study are promising: The experimental results show that short NML messages can improve SPML, which in turn positively relates to political efficacy beliefs. However, the interviews revealed that this relationship is complex. At worst, NML could promote cynicism and apathy toward news and politics, making people less likely to engage with news or politics. But, at best, it could promote engaged, critical citizenship in which citizens evaluate news and use it to inform their civic and political attitudes and behaviors.

References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11–39). Berlin, Germany: Springer.
- Ashley, S., Maksl, A., & Craft, S. (2017). News media literacy and political engagement: What's the connection. *Journal of Media Literacy Education, 9*(1), 79–98.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122–147.

- Baumgartner, J. C., & Morris, J. S. (2006). *The Daily Show* effect: Candidate evaluations, efficacy, and American youth. *American Politics Research*, 34, 341–367. doi:10.1177/1532673X05280074
- Burroughs, S., Brocato, K., Hopper, P. F., & Sanders, A. (2009). Media literacy: A central component of democratic citizenship. *The Educational Forum*, 73, 154–167.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- 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. Kuklinski, & A. Lupia (Eds.), *Cambridge handbook of experimental political science* (pp. 41–57). New York, NY: Cambridge University Press.
- Fleming, J. (2014). Media literacy, news literacy, or news appreciation? A case study of the news literacy program at Stony Brook University. *Journalism and Mass Communication Educator*, 69, 146–165. doi:10.1177/1077695813517885
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. doi:10.1177/1525822X05279903
- Hargittai, E., & Shafer, S. (2006). Differences in actual and perceived online skills: The role of gender. *Social Science Quarterly*, 87, 432–448. doi:10.1111/j.1540-6237.2006.00389.x
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York, NY: Guilford Press.
- Hoffman, L. H., Jones, P. E., & Young, D. G. (2013). Does my comment count? Perceptions of political participation in an online environment. *Computers in Human Behavior*, 29, 2248–2256. doi:10.1016/j.chb.2013.05.010
- Hollander, B. A. (1995). The new news and the 1992 presidential campaign: Perceived vs. actual political knowledge. *Journalism and Mass Communication Quarterly*, 72, 786–798. doi:10.1177/107769909507200403
- Kahne, J., Lee, N., & Feezell, J. T. (2012). Digital media literacy education and online civic and political participation. *International Journal of Communication*, 6, 1–24.
- Kenski, K., & Stroud, N. J. (2006). Connections between Internet use and political efficacy, knowledge, and participation. *Journal of Broadcasting & Electronic Media*, 50, 173–192. doi:10.1207/s15506878jobem5002_1

- Klurfeld, J., & Schneider, H. (2014). *News literacy: Teaching the Internet generation to make reliable information choices*. Washington, DC: Brookings Institute.
- Kovach, B., & Rosenstiel, T. (2014). *The elements of journalism: What newspeople should know and the public should expect* (3rd ed.). New York, NY: Three Rivers Press.
- Maksl, A., Ashley, S., & Craft, S. (2015). Measuring news media literacy. *Journal of Media Literacy Education, 6*(3), 29–45.
- Mihailidis, P. (2008). *Beyond cynicism: How media literacy can make students more engaged citizens* (Unpublished doctoral dissertation). University of Maryland, College Park.
- Mihailidis, P. (2014). *Media literacy and the emerging citizen: Youth, engagement and participation in digital culture*. New York, NY: Peter Lang.
- Mihailidis, P., & Thevenin, B. (2013). Media literacy as a core competency for engaged citizenship in a participatory democracy. *American Behavioral Scientist, 57*, 1611–1622.
doi:10.1177/0002764213489015
- Mihailidis, P., & Viotty, S. (2017). Spreadable spectacle in digital culture: Civic expression, fake news, and the role of media literacies in a “post fact” society. *American Behavioral Scientist*. Advance online publication. doi:10.1177/0002764217701217
- Mullinix, K. J., Leeper, T. J., Druckman, J. N., & Freese, J. (2015). The generalizability of survey experiments. *Journal of Experimental Political Science, 2*(2), 109–138. doi:10.1017/XPS.2015.19
- Muthen, L. K., & Muthen, B.O. (2012). *MPlus user's guide. 7th edition*. Los Angeles, CA: Author.
- Niemi, R. G., Craig, S. C., & Mattei, F. (1991). Measuring internal political efficacy in the 1988 National Election Study. *The American Political Science Review, 85*, 1407–1413. doi:10.2307/1963953
- Pew Research Center. (2017, May). Americans' attitudes about the news media deeply divided along partisan lines. Retrieved from http://assets.pewresearch.org/wp-content/uploads/sites/13/2017/05/09144304/PJ_2017.05.10_Media-Attitudes_FINAL.pdf
- Pingree, R. J. (2011). Effects of unresolved factual disputes in the news on epistemic political efficacy. *Journal of Communication, 61*, 22–47. doi:10.1111/j.1460-2466.2010.01525.x
- Pingree, R. J., Hill, M., & McLeod, D. M. (2013). Distinguishing effects of game framing and journalistic adjudication on cynicism and epistemic political efficacy. *Communication Research, 40*, 193–214. doi:10.1177/0093650212439205

- Potter, W. J. (2004). *Theory of media literacy: A cognitive approach*. Thousand Oaks, CA: SAGE Publications.
- Potter, W. J. (2013). *Media literacy* (6th ed.). Thousand Oaks, CA: SAGE Publications.
- Schudson, M. (2011). *Sociology of news* (2nd ed.). New York, NY: Norton.
- Shapiro, M. A. (2002). Generalizability in communication research. *Human Communication Research, 28*, 491–500. doi:10.1111/j.1468-2958.2002.tb00819.x
- Slater, M. D. (2007). Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. *Communication Theory, 17*, 281–303. doi:10.1111/j.1468-2885.2007.00296.x
- Thorson, K. (2012). What does it mean to be a good citizen? Citizenship vocabularies as resources for action. *The ANNALS of the American Association of Political and Social Science, 644*, 70–85. doi:10.1177/0002716212453264
- Tully, M., & Vraga, E. K. (2017a). Effectiveness of a news media literacy advertisement in partisan versus nonpartisan online media contexts. *Journal of Broadcasting & Electronic Media, 61*, 144–162. doi:10.1080/08838151.2016.1273923
- Tully, M., & Vraga, E. K. (2017b). Who experiences growth in news media literacy and why does it matter? Examining education, individual differences and democratic outcomes. *Journalism & Mass Communication Educator*. Advance online publication. doi:10.1177/1077695817706572
- Vraga, E. K., & Tully, M. (2015). Media literacy messages and hostile media perceptions: Processing of nonpartisan versus partisan political information. *Mass Communication and Society, 18*, 422–448. doi:10.1080/15205436.2014.1001910
- Vraga, E. K., & Tully, M. (2016). Effective messaging to communicate news media literacy concepts to diverse publics. *Communication and the Public, 1*, 305–322. doi:10.1177/2057047316670409
- Vraga, E. K., Tully, M., Akin, H., & Rojas, H. (2012). Modifying perceptions of hostility and credibility of news coverage of an environmental controversy through media literacy. *Journalism: Theory, Practice, and Criticism, 13*, 942–959. doi:10.1177/073953290903000406
- Vraga, E. K., Tully, M., Kotcher, J. E., Smithson, A. B., & Broeckelman-Post, M. (2015). A multidimensional approach to measuring news media literacy. *Journal of Media Literacy Education, 7*(3), 41–53.

Appendix A: PSA Scripts

Journalist PSA

People rely on the news for information about their world. News organizations are for-profit businesses, so they try to appeal to both advertisers and consumers. It is the job of journalists to fairly represent diverse viewpoints and interests in their pursuit of the truth. Responsible journalists strive to present accurate, well-rounded stories but face tight deadlines and commercial pressures. Ultimately, news stories offer one account of events.

It is your job to be media literate. Critically engage with news content. Scrutinize the sources and intent of messages. Weigh competing views. Do your part: demand quality journalism.

Citizen PSA

People rely on the news for information about their world. People choose what news stories to read based on their tastes and interests. It is the job of citizens to recognize their own biases in consuming news. People often disagree with many of the views and opinions found in news stories. Personal viewpoints and experiences influence understanding of news stories.

It is your job to be media literate. Critically engage with news content. Weigh competing views. Move beyond your own biases to evaluate news fairly. Do your part: be a critical news consumer.

Combination PSA

People rely on the news for information about their world. News is expected to inform self-governing citizens, a role that faces mounting challenges as traditional news outlets shrink and disappear. It is the job of journalists to fairly represent the varied viewpoints and interests in society in their pursuit of the truth.

It is your job to be media literate. Critically engage with news content. Scrutinize the sources and intent of messages. Weigh competing views. Move beyond your own biases to demand quality journalism. Do your part: be a critical news consumer.

Appendix B: Question Wording

Self-perceived media literacy (SPML) measures

I have a good understanding of the concept of media literacy
I have the skills to interpret media messages
I understand how news is made in the U.S.
I am confident in my ability to judge the quality of news
I'm not sure what people mean by media literacy
I'm often confused about the quality of news and information

Internal political efficacy (IPE) measures

Sometimes politics and government are so complicated a person like me can't really understand them
I consider myself to be well qualified to participate in politics
I feel that I have a pretty good understanding of the important political issues facing our country
I feel I could do as good a job in public office as most other people
I think I am better informed about politics and government than most people

Epistemic political efficacy (EPE) measures

I feel confident that I can find the truth about political issues
If I wanted to, I could figure out the facts behind most political disputes
There are objective facts behind most political disputes, and if you try hard enough you can find them
It is not possible to figure out the truth about political issues