Effects of Editorial Media Bias Perception and Media Trust on the Use of Traditional, Citizen, and Social Media News

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Abstract
Citizens’ levels of mistrust toward the media, as well as their perception of media bias, have increased in past years in most Western democracies. This study explores how these negative observations on journalism may influence their use of traditional, citizen, and social media for news. Drawing on two-wave U.S. panel data, results suggest that media trust and perceived bias relate to media consumption differently. Trust in social and citizen media positively predicts use of news via social media, but has no effect on traditional or citizen news use. By contrast, perceived media bias is associated with decreased news use overall.

Keywords
trust in social and citizen media, trust in traditional media, media bias perception, journalism.

Journalism and the news media play key roles for the proper functioning of modern democratic societies (Brundidge, Garret, Rojas, & Gil de Zúñiga, 2014). Not without reason, journalism is considered to be the life-blood of a democracy, as it enables informed, reasoned, and rational participation by citizens (Gil de Zúñiga, 2015; Gunther, 1992; Habermas, 1996). Furthermore, journalism has been traditionally regarded as a watchdog that oversees the activities of public authorities on behalf of citizens, and also

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as a mediator between citizens and politicians (Dyck & Zingales, 2002; Serrin & Serrin, 2002). This ideal model is based on the trust placed by people in journalists, who are expected to put aside their political views and create unbiased news stories in accordance with the principles of “objectivity,” “fairness,” and “clear separation of information and opinion” (Farnsworth & Lichter, 2007; Schudson, 1978).

However, this prevalent narrative about the role of journalism in democratic societies is currently changing due to (a) the rise of the internet, online news technologies, social media tools, and mobile applications, and (b) a crisis in traditional media (Garrett et al., 2012). Citizen journalism has, to some extent, challenged the hierarchical, unidirectional model of news due to the fact that now ordinary citizens also engage in journalistic practices (Goode, 2009; Kenix, 2008). In the United States, but also in most of Western democracies, this changing media landscape may also be fueled by the public’s growing distrust toward the media, as well as their concern about the pervasiveness of biased reporting (Iyengar & Hahn, 2009; Jones, 2004; Morris, 2007; Watts, Domke, Shah, & Fan, 1999). These negative perceptions have shown to reduce traditional media use, as people tend to obtain information from media they trust and to avoid those ones they distrust (Gaziano, 1988; Kiousis, 2001; Lupia & McCubbins, 1998). Most previous studies, however, have mainly focused their attention on the effects of trust in mainstream news media (e.g., Bennett, Rhine, Flickinger, & Bennett, 1999; Jackob, 2010; Tsfati, 2010; Tsfati & Cappella, 2003), while the outcomes of trust in citizen or alternative media are still virtually unexplored. More specifically, previous research has not determined whether trust in non-mainstream media drive news consumption either in similar or different ways than trust in traditional media does. A similar gap in the literature exists regarding the possible effects of media bias perception on citizen journalism exposure.

This study takes a step toward that direction and sheds light over these important, unresolved questions. First, the article seeks to examine the effect of trust in the media and perceived bias on patterns of news use. Additionally, the potentially different influences of trust in traditional media versus trust in social and citizen media are explored. To do so, we use data from a two-wave panel survey of a national sample of U.S. adults, which is more appropriate than cross-sectional data to establish evidence of causal relationships.

**Traditional, Citizen, and Social Media Use for News**

In the recent past, the unidirectional flow of information from news media organizations to audience members left little room for participation in the creation or dispersal of information about politics or public affairs. This picture has gradually changed due to the widespread use of the internet and social media, providing citizens with new opportunities to actively engage in the process of information production (Bachmann, Correa, & Gil de Zúñiga, 2012; Chadha, Avila, & Gil de Zúñiga, 2012). They are citizen journalists (Carpenter, 2010; Goode, 2009; Thurman, 2008). The term citizen journalism can be used in a restrictive way, and applied only to the creation of original news content (interviewing, reporting, or analyzing news events). In a more open,
inclusive definition, citizen journalism may also include forms of collaboration in the news process in which no new material is created (e.g., linking, commenting on the posts created by others, retweeting, re-posting, etc.; Goode, 2009; Nip, 2006).

Citizen journalism and user-generated content are contributing to the development of what has been termed the “Fifth Estate,” complementary of the traditional “Fourth Estate” (the mass media; Dutton & Eynon, 2009). The “Fifth Estate” is an emergent, non-physical institution built on “networked individuals” with the ability to access and share information from a variety of alternative sources, thereby opening “new ways of increasing the accountability of politicians, press, experts and other loci of power” (Dutton, 2009, p. 2). Based on their common role as disseminators of information about politics and public events, the Fourth and Fifth Estates have begun to create links between each other that have somewhat changed the patterns of news production and use (Newman, Dutton, & Blank, 2012). In the words of Richard Sambrook, former BBC’s Head of News, “from now on news coverage is a partnership [between the media and the public]” (cited by Newman et al., 2012).

However, while professional and citizen journalism influence each other, a growing body of literature has also found profound differences in the contents they produce (Carpenter, 2010) and their impact on the audience (Carr, Barnidge, Lee, & Tsang, 2014; Kaufhold, Valenzuela, & Gil de Zúñiga, 2010). Thus, for example, citizen-generated content typically focuses on news coverage of a limited geographic area or a specific topic overlooked by mainstream media (Metzgar, Kurpius, & Rowley, 2011). Other studies have also shown that the public perceives the roles of both professional and citizen journalists as different (Nah & Chung, 2012). For these reasons, it makes sense to study whether media trust and perceived media bias relate to traditional and citizen media use differently or not.

The symbiotic relationship between traditional and citizen news is taking place primarily in the social media arena. On the one hand, increasing proportions of the traffic to online mainstream media is referred from Facebook or Twitter by ordinary citizens who filter, comment, and/or adapt the media content (Holton, Coddington, & Gil de Zúñiga, 2013; Newman et al., 2012). On the other, professional journalists are engaging more and more in active online active relationships with their audience, which often leads the former to give credit to content created by the latter (via mention, retweet, share, link, etc.; Hermida, Lewis, & Zamith, 2014). Hence, social media can be a source for mainstream and citizen-created news, but also for hybrid information containing the attributes of both. This is why this study separately considers the effects of trust in the media and media bias perception on (a) traditional news use, (b) citizen news use, and (c) social media use for news.

Trust in the Media and Media Use

Modern societies operate through social division of work and specialization that make it difficult or impossible for individuals to make decisions in all areas of their lives (Luhmann, 1979). In the political domain, journalists and media are entrusted with assisting citizens in becoming informed to make meaningful political decisions. Given
that it is almost impossible for citizens to get a firsthand experience of major political and social issues of the country, a certain degree of trust in the media is necessary to ensure the proper functioning of the democratic process (Bennett et al., 1999; Tsfati & Cohen, 2005). The opposite of media trust is media distrust, related to “the feeling that journalists are not fair or objective in their reports about society and that they do not always tell the whole story” (Tsfati, 2003, p. 159).

Given the important links between media and democracy, political science and communication scholars have paid attention to the overall decline in trust in the media over the last decades. Most of these studies however are limited to Western democracies (Müller, 2013). In the U.S. context, for example, confidence in the press has fallen sharply from a 28.3% in 1976 to an 8.8% in 2012, with a slightly higher decline for press than for TV (Smith & Son, 2013, p. 2). While a long tradition in media research has explored the related concept of media credibility1 (e.g., Hovland, Janis, & Kelley, 1953; Kohring & Matthes, 2007; Westley & Severin, 1964) and the reasons behind the decline of trust in the media (e.g., Cappella & Jamieson, 1997), only a few studies have focused on the consequences of media (dis)trust (Carr et al., 2014; Tsfati & Cappella, 2003).

In this line of research, communication scholars have found a mild association between (dis)trust in mainstream media and media exposure patterns (Kiousis, 2001; Tsfati, 2010; Tsfati & Cappella, 2003, 2005; Wanta & Hu, 1994). Because the current media environment is characterized by the availability of multiple sources of information, it makes sense to assume—and, in fact, this has been found to be the case—that people tend to seek accurate information from sources they consider reliable and to avoid the exposure to sources they distrust (Gaziano, 1988; Kiousis, 2001; Tsfati & Cappella, 2003). Therefore, people who trust in mainstream media tend to consume more news from mainstream sources. Conversely, traditional media skeptics tend to consume less mainstream news and to have more non-mainstream media news as a part of their “media diet” (Carr et al., 2014; Jackob, 2010; Tsfati, 2010; Tsfati & Cappella, 2003). This effect, however, has been found to be “only modest, although statistically significant” (Tsfati & Cappella, 2005, p. 252). Based on these findings and theoretical considerations, the first set of hypotheses are proposed:

**H1:** Trust in traditional media at Wave 1 is positively related to traditional news use at Wave 2.

**H2:** Trust in traditional news media at Wave 1 is negatively related to citizen news use at Wave 2. In other words, mistrust toward traditional news media at Wave 1 predicts citizen news use at Wave 2.

Recent studies on the relationship between trust and online media use have found that skepticism toward mainstream media is negatively related to overall online news exposure. However, once the effects on mainstream and non-mainstream online media are disaggregated, media trust behaves in the same way as it does offline: Those who trust in the mainstream media tend to show higher levels of exposure to mainstream online news, while media skeptics tend to visit more non-mainstream sites (Tsfati, 2010), which they find more credible (Carr et al., 2014). Despite these previous
findings in the online domain, the influence of trust in traditional media on social media use for news seems difficult to predict. As discussed above, social media provide almost simultaneous access to both traditional and citizen news. Consequently, the first research question is as follows:

**RQ1:** What is the effect (if any) of trust in traditional media at Wave 1 on social media use for news at Wave 2?

Although the pattern of influence from media trust to media consumption has been confirmed by empirical evidence, previous research has mostly paid attention to “traditional” or “mainstream” media trust (e.g., Jones, 2004; Miller & Krosnick, 2000; Tsfati & Cappella, 2003). Based on the above-mentioned impact of trust in mainstream media on news use, one could expect a complementary effect from trust in social and citizen media. Therefore, trust in citizen and social media should be positively related to citizen and social media use for news, but negatively related to traditional media use. However, the effect might also be different, as some studies have found that trust in professional and citizen news media are correlated: Those who trust in professional journalism also tend to trust citizen journalism, and vice versa (Kaufhold et al., 2010). Considering such a complex picture and the absence of previous studies looking at the role of trust in citizen and social media as antecedents of media exposure, the following set of research questions are addressed in the study:

**RQ2:** What is the effect (if any) of trust in citizen and social media at Wave 1 on traditional news use at Wave 2?

**RQ3:** What is the effect (if any) of trust in citizen and social media at Wave 1 on citizen news use at Wave 2?

**RQ4:** What is the effect (if any) of trust in citizen and social media at Wave 1 on social media use for news at Wave 2?

**Media Objectivity, Bias Perception, and Media Exposure**

Over the past decades, public concern regarding the pervasiveness of biased reporting in the U.S. news media has steadily increased (Iyengar & Hahn, 2009; Morris, 2007; Watts et al., 1999). In 2012, 37% of Americans said that there is a “great deal” of bias in news coverage, while 30% more believed that there was “a fair amount” of bias (Pew Research Center for the People and the Press, 2012). All these allegations and perceptions have drawn the attention of a number of scholars, who have tried to determine whether (a) news media contravene the standards of professional journalism by presenting political issues and news events in an unbalanced manner, (b) there are perceptive and evaluative psychological phenomena that explain the media bias perception beyond the news content itself, and (c) there is a link between media bias perception and media exposure.

The concept of media bias is elusive in nature, and lacks a universal definition. Bias has often been defined in a negative way, on the basis of the ingredients that make a
news story free of it. Unbiased news have been considered as a function of reporters’ “objectivity,” “fairness,” and ability to clearly “separate information and opinion,” all of which are fundamentals of “good news reporting” (e.g., Farnsworth & Lichter, 2007; Schudson, 1978). But, to begin with, many thinkers and researchers have addressed the necessity of reconceptualizing objectivity more as guiding principle for impartial inquiry than as an absolute rule (Fox & Park, 2006, p. 49). The very nature of news making and story-telling implies that the world beyond direct experience is (re)constructed according to “persistent patterns [ . . . ] of selection, emphasis, and exclusion” (Gitlin, 1980, p. 7). Thus, routines of newsrooms and production techniques of each medium interact with the content resulting in a particular interpretation of reality (Meyrowitz, 1998). Besides this, the market-oriented model of news production and the powerful influence of forces outside newsrooms determine not only what is published and what is not, but also the axis or angle around which the story is constructed (e.g., Herman & Chomsky, 1988; McManus, 1995).

Most previous research on media bias in the United States has focused on presidential election campaigns and considered three main sub-dimensions or types of media bias: gatekeeping bias resulting from the process of filtering and selecting information, which might benefit one of the parties at the cost of another; coverage bias, or differences in the proportion of space/time devoted to each side; and statement bias, or subjective, evaluative statements (either positive or negative in tone) about one side (D’Alessio & Allen, 2000, pp. 135-137). Although some studies have found partisan bias in certain situations, its direction (i.e., who benefits from and who is harmed by the bias) is variable, so bias, at least in the U.S. electoral context, does not seem to be pervasive (D’Alessio & Allen, 2000; Eveland & Shah, 2003; Niven, 2002). According to this line of research, the growing public concern about media bias (and, more specifically, the perception of a “liberal bias” in U.S. mainstream media) seems to have originated more in news self-coverage about liberal bias than in an actual liberal bias: “The increased claims of media bias come primarily from conservative elites who have proclaimed a liberal bias that is viewed as including the entire media industry” (Watts et al., 1999, p. 144).

More recent studies paint a somewhat different picture. In the United States and other Western democracies, the general use of the internet for getting news, and the widespread access to cable television, have given rise to a “fragmented” media environment where some news media adapt their content to their users’ political preferences (Mullainathan & Shleifer, 2005). These highly biased outlets carve out audience niches that become wrapped “in an insulating media enclave of information and opinion” (Jamieson & Cappella, 2008, p. 4). In the United States, this reinforcing media space has been dubbed the “echo chamber” (Jamieson & Cappella, 2008). News media such as Fox News, the Wall Street Journal editorial page, or Limbaugh’s talk radio show create shared opinion environments where the messages from conservative political elites (i.e., the Republican Party) are magnified and “echoed,” while alternative or competing interpretations are silenced (Jamieson & Cappella, 2008, p. 76).

The matter of media bias is further complicated with psychological variables. Perceptions on media bias are, in fact, more related to personal attitudes and characteristics than to the actual media content (Gunther, 1992; Niven, 2002). So, for example,
people tend to perceive and evaluate the media coverage as “biased against their own views” (Gunther & Christen, 2002, p. 179). This phenomenon has come to be called “hostile media perception” (e.g., Gunther, 1992; Vallone, Ross, & Lepper, 1985).

Whether these perceptions are based on the biased media content, the self-coverage of liberal bias, or the individuals’ skeptical dispositions, audience assessment of the good and fair news reporting seems to guide news consumption patterns as much as media trust does. Some scholars have even talked of a “revival of selective exposure” (Iyengar & Hahn, 2009, p. 20). Thus, during the 2000 and 2004 U.S. Presidential Election campaigns, Republican and Democratic partisans tended to avoid mainstream media they perceived as against their political views, and explored alternative sources such as local TV news and talk shows (Democrats) or political talk radio, radio news, and political advertising (Republicans; Pfau, Houston, & Semmler, 2007). Similarly, perceptions of bias and unfairness in traditional media predict a higher consumption of Fox News among those who perceive the channel as more tailored to their beliefs (Morris, 2007). On the contrary, those individuals who see little or no bias in the traditional media are more likely to consume CNN and other mainstream network news. According to these previous findings and theoretical explanations, it seems plausible that overall media bias perceptions negatively predict citizens’ mainstream news consumption levels. Thus our third hypothesis is as follows:

**H3:** Editorial media bias perception at Wave 1 is negatively related to traditional news media use at Wave 2.

Although it has been suggested that media bias perception encourages audiences to consume alternative sources of information, whether this holds true for citizen news media and social media has not been addressed. Citizen news media are not necessarily “more congenial” to certain political preferences, in the sense that they are not necessarily biased toward one or the other extreme of the political spectrum as Fox News is. In addition, social media provide access to both traditional and alternative news media, so the possible impact of bias perception cannot be easily predicted. Therefore, the last set of research questions ask,

**RQ5:** What is the effect (if any) of editorial media bias perception at Wave 1 on citizen news use at Wave 2?

**RQ6:** What is the effect (if any) of editorial media bias perception at Wave 1 on social media use for news at Wave 2?

**Methods**

**Sample**

This study uses two waves of panel data spanning 3 months. Longitudinal studies are the most suitable for “describing processes over time” (Babbie & Mouton, 2001, p. 104). Because our hypotheses and research questions assume a particular
causal direction (i.e., that levels of trust in the media and bias perceptions affect media consumption patterns), a panel study enables to test for time-order effects and to better explore these causal processes, compared with cross-sectional designs. Respondents were recruited by the media-polling group Nielsen in the United States from 200,000 previously registered people from all over the country. To improve external validity of the results, participants of the survey were selected based on quotas derived from the adult U.S. population, corresponding to age, gender, education, and income. This procedure minimizes the drawbacks of a convenience sample based only on internet users (see Bode, Vraga, Borah, & Shah, 2014; Iyengar & Hahn, 2009). In the first wave, distributed between December 15, 2013 and January 5, 2014, completed questionnaires were obtained from 1,813 persons. The response rate, 34.6% (American Association of Public Opinion Research [AAPOR], 2011, RR3), was considered acceptable for online-based surveys (Bosnjak, Das, & Lynn, 2016). In the second wave of surveys, conducted between February 15 and March 5, 2014, we retained valid information of 1,024 cases (W2 cooperation rate 57%; W2 total cooperation rate, COOP2, 19.5% of all eligible respondents ever contacted).

Overall, our sample is demographically diverse and comparable to the U.S. population in terms of gender (49.7% females), age (M = 52.71; SD = 14.72), and race (77.9% whites). There are, however, some differences between the sample and the U.S. Census Bureau (2012) regarding age, ethnic/racial composition, and education level. The sample is slightly older, more educated, and includes fewer Hispanics (see Saldaña, McGregor, & Gil de Zúñiga, 2015, for details).

**Variables of Interest**

**Social media use for news.** Respondents were asked about their frequency of use (1 = never to 10 = all the time) of Facebook, Twitter, Google+, Pinterest, Instagram, Tumblr, Reddit, and LinkedIn for getting news. Two more items asked respondents how often they used social media “to stay informed about current events and public affairs,” and “to get news about current events from mainstream media” (10 items averaged scale, W1 Cronbach’s α = .86, M = 1.94, SD = 1.31; W2 Cronbach’s α = .87, M = 1.90, SD = 1.29).

**Citizen news use.** Although there is a lack of agreement among researchers on what specific practices should be considered as citizen journalism,1 our measurement aims to strike a balance between the different interpretations of the concept. Building on previous studies (for example Kaufhold et al., 2010), this variable taps the frequency of exposure to news from “citizen news media,” understood as all the news content whose production stems from a creative effort on the part of the citizen/s (i.e., not only retweeting, sharing, or commenting on a content item). On a 10-point scale (from 1 = never to 10 = all the time), respondents separately rated how frequently they get news from “citizen journalism sites” (e.g., CNN’s iReport, Examiner.com), and “hyperlocal news sites” (e.g., Patch.com or other sites dedicated to news in their local community; W1 Spearman-Brown2 ρ = .65; M = 1.91; SD = 1.65; W2 Spearman-Brown ρ = .67; M = 1.95; SD = 1.67).
**Traditional news use.** Respondents separately rated how frequently they use traditional, mainstream media, including network TV news, national newspapers, cable news, radio news, and specific cable and satellite channels such as CNN, Fox News, MSNBC, and BBC America (eight items averaged scale; W₁ Cronbach’s α = .73; M = 3.92; SD = 1.72; W₂ Cronbach’s α = .74; M = 3.91; SD = 1.74).

**Editorial media bias perception.** This measure attempted to capture information about respondents’ perception regarding the ideals of objectivity, fairness, and balance of the news content produced by media companies. This measure included three items concerning respondents’ level of agreement (from 1 = strongly disagree to 10 = strongly agree) with the following statements: “News companies choose stories based on what will attract the biggest audience,” “Production techniques can be used to influence a viewer’s perception,” and “The owner of a media company influences the content that is produced” (three items averaged scale; W₁ Cronbach’s α = .91, M = 7.78, SD = 2.28).

**Trust in social and citizen media.** Although “there is no standardized scale for measuring trust in the media” (Jackob, 2010, p. 595), media trust was measured building on previous approaches to the construct (e.g., Jackob, 2010; Jones, 2004; Moy, McCluskey, McCoy, & Spratt, 2004). Respondents were asked to rate their level of trust (from 1 = do not trust to 10 = trust completely) in different alternative media. The exact wording of the questions was as follows: “How much do you trust news from alternative news media? (e.g., blogs, citizen journalism),” and “How much do you trust news from Social media sites” (W₁ Spearman-Brown ρ = .70; M = 3.56, SD = 1.98).

**Trust in traditional media.** Similarly to trust in alternative media, participants were asked about their level of trust in news from “mainstream news media,” and “news aggregators” (W₁ Spearman-Brown ρ = .48; M = 4.99, SD = 1.95).

**Control Variables**

In order to minimize confounding effects, all models control for the influence of an exhaustive set of control variables. All of these variables have been shown to be associated with either the independent or the dependent variables, or with both, as explained below.

**Political discussion frequency.** The frequency of political talk is influenced by the pattern of media use (Kim, Wyatt, & Katz, 1999; Koch, 1994). Given this relationship with our dependent variables, our models include discussion frequency as a control. On a 10-point scale, respondents were asked how often they talk about politics or public affairs online and offline with “spouse or partner,” “family and relatives,” “friends,” “acquaintances,” “strangers,” “neighbors you know well,” “neighbors you do not know well,” “coworkers you know well,” and “coworkers you do not know well” (nine items averaged scale, W₁, Cronbach’s α = .87; M = 3.27; SD = 1.74).
Discussion network size. The number of people with which an individual discusses regularly has been found to predict the use of different news media, especially social media use for news (Gil de Zúñiga, 2002). Respondents were asked to estimate, in an open-ended fashion, the number of people they talked to “face-to-face or over the phone about politics or public affairs,” and “via the internet, including e-mail, chat rooms, and social networking sites about politics or public affairs.” We created an initial index by adding the figures from both items, but the resulting variable was skewed (W1 $M = 4.36; Mdn = 1.00; SD = 16.89; skewness = 10.86). We then used the natural logarithm to convert the distribution of values to normality (W 1 $M = .33; Mdn = .24; SD = .37; skewness = 1.32$).

Internal political efficacy. This control variable taps respondents’ self-perception of their competence and ability to reason and participate in politics. Research of news exposure and efficacy has generally found a positive association between internal efficacy and informational uses of media (Jung, Kim, & Gil de Zúñiga, 2011; Kenski & Stroud, 2006). On a 10-point scale, participants were asked to rate their level of agreement with these statements: “I have a good understanding of the important political issues facing our country,” and “I consider myself well qualified to participate in politics” (W1, Spearman-Brown $\rho = .85; M = 5.34, SD = 2.56$).

Political interest. An individual’s level of interest in politics has been shown to be a strong predictor of news use (see, for example, Tsfati & Cappella, 2003, 2005). Accordingly, this study controls for the effects of this variable to isolate potential confounding effects. Survey respondents were asked to estimate, on a 10-point scale, their degree of interest in “information about what’s going on in politics and public affairs,” as well as their level of attention to “information about what’s going on in politics and public affairs” (two items averaged scale, W1 Spearman-Brown coefficient = .96; M = 6.67, SD = 2.70).

Political knowledge. Prior research has identified the relationship between trust in the media and political knowledge (Kaufhold et al., 2010), but also between political knowledge and news use (Tsfati & Cappella, 2003). Participants were asked eight questions about current political affairs and the functioning of the U.S. political system. An additive scale of political knowledge was created after coding correct responses as “1” and incorrect or missing ones as “0” (W1 Cronbach’s $\alpha = .75; M = 4.58, SD = 2.17$).

Strength of partisanship. Political ideology and strength of attachment to the major political parties has been found to predict trust in the media (Jones, 2004; Westley & Severin, 1964), media bias perceptions (Morris, 2007; Vallone et al., 1985), and media use and preference (Morris, 2007; Tsfati & Cappella, 2003). Respondents were also asked to rate their party identification, from “strong Republican” (“1”), through “independent” (“6”), to “strong Democrat” (“11”). To create an interval variable measuring strength of partisanship, we folded the item into a 6-point scale (from 0 = no party
identification to $5 = \text{total party identification}$, either with Republicans or Democrats) ($W^1, M = 2.10, SD = 1.88$).

**Socio-demographic variables.** The models also controlled for gender, age, race, education, and income (for a detailed demographic breakdown, see Saldaña, McGregor, & Gil de Zúñiga, 2015).

**Statistical Analyses**

First we checked differences in the mean scores of the variables of interest in Wave 1 and Wave 2. As expected, no significant differences between waves were observed for trust in traditional media, trust in social and citizen media, editorial media bias perception, traditional news use, citizen news use, or social media use for news (paired-samples $t$ tests), so that the sample composition was similar in both waves. These findings lend support to the notion that our models are robust testing causal order and it is not caused by measurement error or simple attitudinal individual variability of the dependent variables in time.

In order to examine the hypotheses and research questions, this study used three sets of cross-lagged, autoregressive ordinary least squares regressions, one for each dependent variable. Also, for comparative purposes, three series of cross-lagged, but non-autoregressive models were fitted. Analyses were conducted using SPSS version 21.0 and PROCESS macro (Hayes, 2013).

**Results**

The first hypothesis predicted that trust in traditional media would significantly increase traditional news use. As shown in Tables 1 and 2 (first column in each table), empirical support for $H_1$ was not found. Trust in traditional media was positively related to traditional news use, though the relationship did not reach the borderline of significance ($\beta = .039, p < .10$; see Table 2). Only when previous uses of traditional news media were disregarded, the effect was positive and significant ($\beta = .205, p < .001$; see non-autoregressive model in Table 1). The model, as Table 2 shows, accounts for 64.5% of total variance in traditional media use.

Disaggregated by blocks, “media use” (containing traditional news use in Wave 1) explained the most part of variance ($\Delta R^2 = .343, p < .001$), followed by “sociopolitical orientations” ($\Delta R^2 = .208, p < .001$), “news media trust” ($\Delta R^2 = .048, p < .001$), “demographics” ($\Delta R^2 = .043, p < .001$), and “bias perception” ($\Delta R^2 = .003, p < .01$). Within “media use” block, traditional news use (Wave 1; $\beta = .703, p < .001$) and social media use for news (Wave 1; $\beta = .075, p < .01$) exerted significant influence on traditional news use (Wave 2). Those who consume news from traditional media and from social media will tend to get news from traditional news sources in the future. Strength of partisanship ($\beta = .038, p < .05$), political interest ($\beta = .083, p < .01$), and political discussion frequency ($\beta = .055, p < .05$) were also predictors of traditional media use within the block of “sociopolitical orientations.” Those with higher levels of party identification and
political interest, and those who discuss politics more often will tend to consume traditional, mainstream media in the future. Trust in social and citizen media, within the fourth block, exerted a negative, but marginally insignificant effect on traditional news use ($\beta = -0.047, p < .10$). Thus the study did not find any influence of trust in social and citizen media on traditional news use (RQ2). Again, only when traditional news media use in Wave 1 is disregarded, the effect is negatively significant ($\beta = -0.121, p < .001$; see non-autoregressive model in Table 1). Finally, consistent with H5, negative perceptions about media bias (Wave 1) significantly reduce traditional news media consumption.

| Table 1. Lagged Models Predicting Traditional, Citizen, and Social Media Use for News. |
|-------------------------------------------------|---------------------|---------------------|
| Block 1—Demographics (W1)                      | Traditional news use (W2) | Citizen news use (W2) | Social media for news (W2) |
| Age                                             | .126***              | -.067*              | -.170***              |
| Gender (female)                                 | 0.010                | -.048               | -.008                 |
| Education                                       | 0.007                | -.019               | -.014                 |
| Income                                          | 0.039                | -.006               | -.053†                |
| Race (White = 1)                                | -.067**              | -.063*              | -.052*                |
| $\Delta R^2$                                    | 4.3%                 | 3.8%                | 9.8%                  |
| Block 2—Sociopolitical orientations (W1)        |                      |                     |                      |
| Strength of partisanship                        | .059*                | -.069*              | .027                  |
| Political knowledge                             | -.079*               | -.019               | -.046                 |
| Political interest                              | .297***              | .035                | -.050                 |
| Internal efficacy                               | -.029                | -.001               | .035                  |
| Discussion network size                         | -.055†               | -.014               | .080*                 |
| Political discussion frequency                  | .174***              | .129***             | .998**                |
| $\Delta R^2$                                    | 20.8%                | 10.9%               | 9.9%                  |
| Block 3—Media use (W1)                          |                      |                     |                      |
| Traditional news use                            | —                    | .214***             | .100**                |
| Citizen news use                                | .199***              | —                   | .155***               |
| Social media for news                           | .192***              | .240***             | —                     |
| $\Delta R^2$                                    | 6.9%                 | 8.2%                | 3.2%                  |
| Block 4—News media trust (W1)                   |                      |                     |                      |
| Trust in traditional media                      | .205***              | .034                | -.046                 |
| Trust in social and citizen media               | -.121***             | .067†               | .357***               |
| $\Delta R^2$                                    | 4.8%                 | 4.6%                | 12.6%                 |
| Block 5—Bias perception (W1)                    |                      |                     |                      |
| Editorial media bias perception                  | -.050†               | -.056*              | -.118***              |
| $\Delta R^2$                                    | 0.2%                 | 0.3%                | 1.2%                  |
| Total $R^2$                                     | 37.0%                | 27.7%               | 36.6%                 |

Note. $N = 1,021$. Cell entries are final-entry ordinary least squares (OLS) standardized coefficients ($\beta$). To maximize statistical power, missing values on variables have been replaced with the mean. $W^2 = Wave 2$; $W^1 = Wave 1$. $\dagger p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$. 
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Table 2. Panel Autoregressive Models Predicting Traditional, Citizen, and Social Media Use for News.

<table>
<thead>
<tr>
<th>Block 1—Demographics (W₁)</th>
<th>Traditional news use (W²)</th>
<th>Citizen news use (W²)</th>
<th>Social media for news (W²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.017</td>
<td>−.061*</td>
<td>−.069**</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>−.003</td>
<td>−.046†</td>
<td>−.018</td>
</tr>
<tr>
<td>Education</td>
<td>.023</td>
<td>−.025</td>
<td>−.009</td>
</tr>
<tr>
<td>Income</td>
<td>.005</td>
<td>−.029</td>
<td>−.020</td>
</tr>
<tr>
<td>Race (White = 1)</td>
<td>−.012</td>
<td>−.037</td>
<td>−.045*</td>
</tr>
<tr>
<td>ΔR²</td>
<td>4.3%</td>
<td>3.8%</td>
<td>9.8%</td>
</tr>
</tbody>
</table>

Block 2—Sociopolitical orientations (W₁)

<table>
<thead>
<tr>
<th></th>
<th>Traditional news use</th>
<th>Citizen news use</th>
<th>Social media for news</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength of partisanship</td>
<td>.038*</td>
<td>−.051*</td>
<td>.022</td>
</tr>
<tr>
<td>Political knowledge</td>
<td>−.014</td>
<td>−.001</td>
<td>−.042</td>
</tr>
<tr>
<td>Political interest</td>
<td>.083**</td>
<td>.022</td>
<td>.039</td>
</tr>
<tr>
<td>Internal efficacy</td>
<td>−.007</td>
<td>.001</td>
<td>−.005</td>
</tr>
<tr>
<td>Discussion network size</td>
<td>−.011</td>
<td>−.017</td>
<td>.071**</td>
</tr>
<tr>
<td>Political discussion frequency</td>
<td>.055*</td>
<td>.087*</td>
<td>.001</td>
</tr>
<tr>
<td>ΔR²</td>
<td>20.8%</td>
<td>10.9%</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

Block 3—Media use (W₁)

<table>
<thead>
<tr>
<th></th>
<th>Traditional news use</th>
<th>Citizen news use</th>
<th>Social media for news</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional news use</td>
<td>.703***</td>
<td>.105**</td>
<td>.003</td>
</tr>
<tr>
<td>Citizen news use</td>
<td>.019</td>
<td>.381***</td>
<td>.015</td>
</tr>
<tr>
<td>Social media for news</td>
<td>.075**</td>
<td>.138***</td>
<td>.610***</td>
</tr>
<tr>
<td>ΔR²</td>
<td>34.3%</td>
<td>17.2%</td>
<td>23.7%</td>
</tr>
</tbody>
</table>

Block 4—News media trust (W₁)

<table>
<thead>
<tr>
<th></th>
<th>Traditional news use</th>
<th>Citizen news use</th>
<th>Social media for news</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in traditional media</td>
<td>.039†</td>
<td>.029</td>
<td>−.018</td>
</tr>
<tr>
<td>Trust in social and citizen media</td>
<td>−.047†</td>
<td>.024</td>
<td>.134***</td>
</tr>
<tr>
<td>ΔR²</td>
<td>4.8%</td>
<td>4.6%</td>
<td>12.6%</td>
</tr>
</tbody>
</table>

Block 5—Bias perception (W₁)

<table>
<thead>
<tr>
<th></th>
<th>Traditional news use</th>
<th>Citizen news use</th>
<th>Social media for news</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editorial media bias perception</td>
<td>−.060**</td>
<td>−.053*</td>
<td>−.088***</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Total R²</td>
<td>64.5%</td>
<td>36.7%</td>
<td>56.5%</td>
</tr>
</tbody>
</table>

Note. N = 1,021. Cell entries are final-entry ordinary least squares (OLS) standardized coefficients (β). To maximize statistical power, missing values on variables have been replaced with the mean. W² = Wave 2; W₁ = Wave 1.

†p < .10, *p < .05, **p < .01, ***p < .001.

(Wave 2) (β = −.060, p < .01). That is, the more the people perceive news media as biased, the less they will consume mainstream information in the future.

Similarly to H₁, as the second model in Table 2 shows, the study did not find any effect of trust in social and citizen media on citizen news use (RQ3). Once the effect of citizen news use in Wave 1 is controlled, the impact of trust in social and citizen media on citizen news media use is non-significant (β = .024, ns). Furthermore, and unexpectedly, trust in traditional news media does not have any effect on citizen news.
use either (H2) (β = .029, ns). The whole model explains 36.7% of total variance in citizen news use. By blocks, “media use” (containing citizen news use in Wave 1) accounted for the most part of variance (ΔR² = .172, p < .001), followed by “sociopolitical orientations” (ΔR² = .109, p < .001), “news media trust” (ΔR² = .046, p < .001), “demographics” (ΔR² = .038, p < .001), and “bias perception” (ΔR² = .002, p < .05).

Different from the first model, the three variables in W₁ within the third block—traditional news use (β = .105, p < .01), citizen news use (β = .381, p < .001), and social media for news (β = .138, p < .001)—exerted significant influence on citizen news use (Wave 2). Within the second block, political discussion frequency (β = .087, p < .05) and strength of partisanship (β = −.051, p < .05) also showed to have an impact on citizen news use. Those who discuss politics more frequently will be more likely to consume citizen news media in the future. Conversely, both Democrat and Republican partisans will tend to consume less citizen-created news content. Age, within the first block, was also related to citizen news use (β = −.061, p < .05). The older the respondents are, the less they will consume alternative news media. Finally, and similarly to the first model, editorial media bias perception negatively predicted citizen news use (β = −.053, p < .05) (RQ5). That is, the more the people perceive editorial media as biased, the less they will consume citizen news media in the future.

The third regression model (third column in Tables 1 and 2) shows that the impact of trust in social and citizen media on social media use for news is strong and significant, both before (β = .357, p < .001, see Table 1) and after controlling for previous uses of social media use for news (β = .134, p < .001, see Table 2) (RQ4). Trust in traditional media, however, showed no significant relationship with social media news use for news (β = −.018, ns, see Table 2) (RQ1). As Table 2 shows, the model explains 56.5% of total variance in social media use for news. Again, “media use” (which includes social media use in W₁) accounted for the most part of variance (ΔR² = .237, p < .001), followed by “sociopolitical orientations” (ΔR² = .099, p < .001), “news media trust” (ΔR² = .126, p < .001), “demographics” (ΔR² = .098, p < .001), and “bias perception” (ΔR² = .007, p < .001).

Within the third block of variables, only previous uses of social media for news (β = .610, p < .001) positively predicted future uses of social media for news. Discussion network size, on the second block, also had a positive effect on future uses of social media for news (β = .071, p < .01). Those who discuss politics with a larger number of persons will be more likely to consume news via social media. Within “demographics,” age (β = −.069, p < .01) and race (1 = White) (β = −.045, p < .05) negatively predicted alternative news use. Older respondents and Whites tend to consume less news via social media. Finally, editorial media bias perception, once again, negatively predicted social media use for news (β = −.088, p < .001) (RQ6). The more the people perceive editorial media as biased, the less they will consume news via social media in the future.

Discussion and Conclusions

This study improves our understanding of the mutual relationships between trust in the media, perceived media bias, and media use. To the best of the authors’ knowledge,
this is the first work to separately examine the impact of trust in traditional versus social and citizen media in predicting news media use patterns. Additionally, editorial media bias perception was also included in the models to ascertain whether this variable has an effect on news media use habits that extends beyond trust in the media.

To some extent, our findings contradict results from previous studies. We found that, once the analyses control for previous news media uses, the effects of trust in traditional media disappear. In other words, trust in traditional media does not predict either traditional, citizen, or social media use for news. To date, the effects of trust in the media on media use have recurrently been found to be “only modest, although statistically significant” (Tsfati & Cappella, 2005, p. 252). Most of previous studies, however, rely on cross-sectional data, which limits the quality of the evidence with regard to causal inference. This study explores these relationships on the basis of longitudinal survey data, which is more suitable for causal inference and also affords the possibility of stricter statistical analyses.

One explanation for the lack of effects of trust in traditional media could lie in different motivations for using news media. As suggested by previous studies, social needs, need for entertainment, or need for cognition could explain the modest—or, in this case, the lack of—association between trust in traditional media and news use (Tsfati, 2003; Tsfati & Cappella, 2005). An individual might choose to get news from a source they do not trust, just to stay in touch with the mainstream interpretation of reality, to have a topic of conversation to talk with their coworkers, or simply to pass the time.

A complementary explanation has to do with the multidimensional character of trust in the media (Kohring & Matthes, 2007), and connects our findings about trust and bias perceptions. If we accept the idea that media trust is a multidimensional construct, it is reasonable to expect that each of the sub-dimensions will affect media use differently. It may be the case, for example, that some of the dimensions do not affect media consumption at all, while others do greatly, so that the overall effect is diluted. And this is where bias perceptions come in. Despite the absence of a widely accepted measure of trust in the media (Kohring & Matthes, 2007; Self, 1996), most of previous approaches to the concept include a component of lack of bias, impartiality, objectivity, or accuracy (Gaziano & McGrath, 1986; Hovland et al., 1953; Jacobson, 1969; Kohring & Matthes, 2007). All these notions are remarkably similar to the notion of bias perception as operationalized in this study. Therefore, bias perception may well be the key dimension of how and why trust in previous studies explained media exposure, as suggested by our results. Thus, once the effect of bias perceptions is ruled out, trust in traditional media would lose its predictive power.

The pattern of influence of trust in citizen and social media on media use is somewhat different. Contrary to trust in traditional media, trust in citizen media does seem to predict specific news media uses. In the autoregressive models, trust in citizen and social media has no effect on traditional or citizen news use, though it retains a strong, positive influence on social media use for news. A possible explanation for this last finding is that the positive effect of trust in social and citizen media on social media use for news may also capture some of the exposure to citizen and alternative media. That is, those who trust information from alternative media (i.e., blogs and citizen media) are
using social media as an entry gate to those alternative sources. The fact that most of the alternative information and citizen-generated news are distributed through social media (Newman et al., 2012) gives support to this interpretation. Indeed, we empirically tested this possibility *a posteriori* and found that this may be the case. Thus, we estimated the effect of trust in social and citizen media \((W_1^1)\) on citizen news use \((W_2^1)\) through social media use for news \((W_1^1)\). We found that social media use does mediate this relationship (see Notes section for the estimates of the indirect effect).

Our findings also suggest that variables other than trust in the media drive media use patterns in these data. Specifically, results show that perceived media bias has a negative effect on all news use without distinction between news in traditional, citizen, or social media. It is possible that perceived bias moved citizens toward different, alternative sources of information, which they consider to be less biased or free of bias. These results, however, suggest otherwise. Perceived media bias has detrimental effects on news use, regardless of the type of news media. Given the relevant role of journalism and the media for the democratic process (Gil de Zúñiga & Hinsley, 2013), these results should be viewed with some concern. The problem is not so much the deleterious impact of perceived media bias on traditional media use, but the widespread negative effect on all forms of news consumption. Not even more alternative ways of acquiring information such as citizen journalism escapes this trend. One plausible explanation for this is that the public may not perceive citizen media platforms as free of the constraints and biases derived from private ownership. In fact, in most cases—at least in the U.S. context—they might be not. For instance, at the time of data collection, AOL was selling Patch.com to Hale Global, which immediately laid off hundreds of employees and collaborators (Kaufman, 2014). Worse, plagiarism and the use of fictional bylines for news stories led to the failure of the outsourced, low-cost hyperlocal journalism model tested by Journatic (Sonderman, 2012).

The findings of this study have to be interpreted with caution, as there are a number of limitations to consider. The first concerns the time lag between the two waves (3 months). Our analyses show significant causal effects of our independent variables of interest over the dependent variables, even when controlling (autoregressive models) for prior individual levels of the dependent variables in Time 1. These changes are consistent with our expectations and theoretical explanations, and the effects remain significant even after introducing a large number of control variables. There is always a trade-off between time lag and attrition rate in panel studies, and we consider that this study strikes the right balance between both. With a larger time frame between waves, one could reasonably expect effects to be stronger, but at the risk of an unacceptable reduction in the response rate (see Bucy & Holbert, 2014; Kessler & Greenberg, 1981). Further research could, however, try to extend the time frame between waves to ensure that the effects are maintained or even increased. Second, although one can be reasonably sure that these findings are generalizable to the U.S. population, our results are based on panel data from one country. Future research should replicate this study in different societies with different social and political structures. Also, different countries may encompass distinct media systems so this call is relevant and in dire need in our discipline.
Another limitation of this study comes from the use of an online survey. Although the demographic characteristics of our samples are comparable with the U.S. Census, participants were drawn from an opt-in panel and not from the general population. The use of online panels consisting of volunteer participants has become increasingly frequent in communication research (see, for example, Beam, 2014; Davis, Nonnemaker, Duke, & Farrelly, 2012; Gil de Zúñiga & Valenzuela, 2010), but, strictly speaking, samples obtained by these means are not random. However, given the diversity of the respondents and the large number of control variables used in all models, we can be reasonably sure about the external validity of our findings.

Finally, some qualifications regarding our measures of trust should also be noted. As explained above, trust in the media is a multidimensional construct. This study captured respondents’ levels of trust in news from different media platforms: trust in traditional media and trust in citizen/social media. Within this context, a potential confound is that people may be also consuming “traditional media” on social media and thus, some of the trust in social media may also relate to that behavior. Future studies should attempt to better capture these nuances and systematically pinpoint how trust in news is built, particularly in social media. Likewise, this suggestion for future research also remains when applied to trust in traditional media: one can trust the news from MSNBC but not from Fox News, or vice versa. Still, our theoretical distinction (between trust in traditional, citizen, and social media news) constitutes a step forward in that direction.

Despite these limitations, this article makes important theoretical and empirical contributions in regard to the relationships between trust in the media, media bias perceptions, and media use. In brief, the study provides empirical evidence on the small role played by trust in the media (whether in traditional or alternative ones) in explaining media consumption patterns. What does appear certain is that the perception that the news is biased has a generalized detrimental effect on news media use, whether via traditional, alternative, or social media. Based on these findings, future research should continue to seek other variables and mechanism that, beyond or together with trust in the media, predict news media exposure patterns.

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Notes

1. For a detailed review of the different approaches to and the blurred boundaries of the concept of “citizen journalism,” see Goode (2009) and Lasica (2003).

2. The Spearman-Brown coefficient has been demonstrated to be a more appropriate measure for reliability when only two items are used in the construct (see Brown, 1910; Spearman, 1910).
3. \( N = 1,021 \). Indirect effect based on 1,000 bootstrap samples with biased corrected confidence intervals (CIs). Standardized indirect effect (standard error) = .09 (.02) (95% CI [.051, .132]). The control variables include demographics, strength of partisanship, political knowledge, political interest, internal efficacy, discussion network size, political discussion frequency, traditional news use, trust in traditional media, and editorial media bias perceptions (all measured in first wave). Missing values were replaced with the sample mean. Effects were estimated using PROCESS (Hayes, 2013).

References


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**Alberto Ardévol-Abreu**, PhD, is doctor in journalism and communication from the University of La Laguna, Spain. Currently, he is Universitätsassistent (post-doc) at the University of Vienna. His major research interests focus on political communication and new media. He has also worked on research about infotainment and political participation. In addition, he is also interested in media representation of immigration, ethnic minorities, and countries of the South. From a more theoretical perspective, he has collaborated in two research projects on the third level of the agenda-setting theory with the University of Texas at Austin.

**Homero Gil de Zúñiga**, PhD, is doctor in political science from the Universidad Europea de Madrid and also pursued a PhD in mass communication with a minor in digital media from the University of Wisconsin–Madison. Currently, he holds the Medienwandlung Professorship at University of Vienna, Austria, where he leads the Media Innovation Lab (MiLab). In general, his research addresses the influence of new technologies and digital media over people’s daily lives, as well as the effect of such use on the overall democratic process.