

## **News Media Trust and News Consumption: Factors Related to Trust in News in 35 Countries**

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The changes in how people consume news and the emergence of digital and distributed news sources call for a reexamination of the relationship between news use and trust in news. Previous research had suggested that alternative news use is correlated with lower levels of trust in news, whereas mainstream news use is correlated with higher levels of trust in news. Our research, based on a survey of news users in 35 countries, shows that using either mainstream or alternative news sources is associated with higher levels of trust in news. However, we find that using social media as a main source of news is correlated with lower levels of trust in news. When looking at country effects, we find that systemic factors such as the levels of press freedom or the audience share of the public service broadcaster in a country are not significantly correlated with trust in news.

*Keywords: trust in news, social media, digital news consumption, Public Service Broadcaster, press freedom*

The trust that citizens place in news is important for the media system and subsequently for the political system. When people do not trust news, they are more likely to choose nonmainstream, alternative news

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sources (Tsfati & Ariely, 2014; Tsfati & Cappella, 2003) and to rely more on their political predispositions when voting (Ladd, 2010). Ideally, citizens' trust in the media is closely linked to media operating independently from vested interests (both political and economic) in transparent and free democracies. In countries where news media are (subjectively) perceived to be shaped by "undue" influences from political and business actors, trust is expected to be low.

The discussion about trust in news is particularly relevant in today's news media landscape. During the past years, we have observed a seismic shift in how people use news and which sources they rely on. People are more likely than ever to use nonmainstream sources for news (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2017). By nonmainstream news sources we refer to digital-born news sources or social media. These changes in news consumption have fueled a discussion in academia, the news media industry, and the public sphere. On the one hand, the prominence of digital news has enabled a reciprocal relationship between journalists and the audience (Lewis, Holton, & Coddington, 2014), with the inclusion of user-generated content and with journalists more easily writing about their editorial decisions potentially enhancing users' trust in the media (Grosser, Hase, & Blöbaum, 2016). On the other hand, following the 2016 U.S. presidential election, the discussion has moved toward the spread of misinformation on platforms such as Facebook.

As news consumption patterns have changed over time, so has trust in news. For instance, trust in news has continued to fall in the U.S. following a two-decade period characterized by high levels of trust in news from the 1950s until the 1970s (Ladd, 2012). Furthermore, the move of the audience to digital news sources has been met with skepticism by journalists and news organizations. The vast majority of journalists surveyed in the U.S. and Canada claimed that social media platforms have decreased trust in journalism (Rashidian et al., 2018). However, in other countries, scholars observe rather stable levels of trust in the media (Hanitzsch, Van Dalen, & Steindl, 2018). Thus, the varying levels of trust in news over time in different countries, the changes in how we consume news and the potential implications of these changes call for a reexamination of factors related to trust in news.

Following this rationale, we ask: Is nonmainstream digital news consumption today associated with lower levels of trust in news? Are perceptions of undue political and business influences on media associated with lower levels of trust? In addition, given the large country-level differences in trust, we also ask whether structural factors such as press freedom and the size of the public service broadcaster (PSB) affect trust in news.

Using data from the 2017 Reuters Institute Digital News Report survey (Newman et al., 2017), which allow us to use detailed survey items on news consumption in a set of diverse 35 countries, we find that while (a) using traditional news sources (TV, print and their websites) and nonmainstream news sources (digital-born news websites, social media) are both associated with higher levels of trust in news, (b) using social media as a main source of news is associated with lower levels of trust in news. We further find that (c) perceiving the news media as being unduly influenced by political and business interests is associated with lower levels of trust in news. At the country-level, our findings suggest that (d) the levels of press freedom and the audience share of the PSB are not significantly associated with trust in news.

In the first part of the article, we discuss trust in institutions and trust in news, we position our work in relation to existing research on correlates of trust in news at both the individual and the aggregate level and

develop our hypotheses. Second, we present our data and the operationalization of key variables. Third, we present the results, and fourth, we discuss the implications and the limitations of findings, as well as opportunities for future research.

### Literature Review

Trust in institutions is important for democracy. Trust in political institutions has been linked to voting turnout, broader political participation, attitudes toward policies or interpersonal trust (Levi & Stoker, 2000), while it creates conditions where it is easier for incumbents to succeed (Hetherington, 1998). Whether citizens express trust or distrust in political institutions is a reflection of their political lives (Levi & Stoker, 2000). As research shows, there is correlation between trust in different institutions in a society (e.g., Jakob, 2012). Newton and Norris (2000) highlight the strong association of trust in political institutions with social trust: In countries with corruption and low social trust, it is difficult to “build the kind of vibrant civil society that spurs strong government performance, and the result will be low citizen confidence in political and public institutions” (p.12). Political trust is also connected to trust in media. Hanitzsch et al. (2018) showed that trust in political institutions is strongly associated with trust in the press, a phenomenon that they call “trust nexus.” They further found that the correlation is becoming stronger over time and it is more powerful in politically polarized countries, findings also corroborated by Tsfaty and Cohen (2005). In addition, trust in news media is an important precondition for media to have positive effects for democracy. Ladd’s (2010, 2012) research in the U.S. shows that those who do not trust the news media tend to rely more on their partisan predispositions and not on new developments when voting. Thus, the positive effects of news media on democracy (e.g. learning about politicians when evaluating them) are in part dependent on trust in news.

Recently, trust in news has been in the midst of a public discussion about democracy in many countries. First, attacks against the news media are high on the agenda of many populist politicians around the world (Krämer, 2017; Mudde & Kaltwasser, 2017), with effects on individuals holding populist attitudes (Fawzi, 2019; Schulz, Wirth, & Müller, 2018). Most prominently, in the United States, Donald Trump uses the term “fake news” to discredit news media that he does not like. Second, a number of high profile scandals involving news organizations have been extensively visible, from the *News of The World* scandal to the recent scandal involving a journalist inventing news stories in Germany’s highly reputed *Spiegel* magazine. These developments are partly behind the decrease in trust in news during the past years in countries such as the United States (Hanitzsch et al., 2018) and elevate the importance of examining factors associated with trust in the news.

All these discussions also take place because the way we use news has changed drastically during the past years. The emergence of distributed platforms such as social media has further disrupted the business of news and also the way we navigate the online news environment. These changes highlight the importance of studying the relationship between trust in news and the various ways how news is used. In the sections that follow, we present previous research on individual-level variables and trust, followed by a discussion on how country-level variables affect perceptions of trust in different countries.

### ***News Consumption and News Media Trust***

Research on the relationship between news consumption and news media trust has shown that its direction depends on the type of news consumption of (individual) users. Tsfati and Cappella (2003) found that using mainstream news sources (print, TV) is associated with higher levels of general trust in news, while using non-mainstream news (talk radio and online campaign information) is associated with lower levels of trust in news. More recently, Tsfati and Ariely's (2014) cross-country study showed that exposure to news in TV and newspapers is positively correlated with news media trust, whereas exposure to news on the Internet is negatively correlated with news media trust. According to the authors, this may be explained by the nonmainstream or "alternative" character of news on the Web. Nonmainstream news has been shown before to be correlated with mistrust in news, particularly when it comes to highly partisan news (Ladd, 2011). Similarly, Tsfati (2010) demonstrated, using data from 2004, that the use of mainstream online sites is correlated with higher levels of trust in news, whereas low trust in news is correlated with the use of nonmainstream online sites.

Since the publication of these studies, the online news media environment has evolved dramatically. It is indicative that in Tsfati's (2010) study, nonmainstream news exposure was defined as exposure to independent and right-wing websites, while there is no discussion of social media and other distributed pathways to news. Now, around 93% of adults in the U.S. gets their news online, with 67% getting it via social media (Shearer & Gottfried, 2017), and the share appears to be even higher in Southern European or Latin American countries (Newman et al., 2017). Although news users can consume all sorts of news via social media (including news from mainstream news sources), news use in these platforms has distinctive characteristics when compared with direct news use. The selection of news is algorithmic and editorial, and in most cases users are not able to recall the news brand they used (Kalogeropoulos, Fletcher, & Nielsen, 2018). The emergence of distributed sources proceeds hand in hand with alternative news source consumption: 40% of online news users across 35 countries report using a digital-born news outlet during a typical week (Newman et al., 2017).

Very little research has examined how consuming news via different means is associated with trust in news in today's complex and distributed media landscape. One recent study (Fletcher & Park, 2017) showed that in 11 countries, preference for nonmainstream news sources (digital-born outlets, blogs, or social media) was found to be associated with low levels of trust in news. Going one step further, we take a deeper look at news media consumption patterns and examine how using different news sources and choosing a main source of news is associated with trust in 35 countries. Based on the findings of Tsfati and Cappella (2003) and Fletcher and Park (2017) as outlined in this section, we hypothesize that nonmainstream news use (social media and digital-born outlets<sup>2</sup>) will be associated with lower levels of trust in news while using mainstream news sources (TV, print, and legacy news outlets) will be associated with higher levels of trust in news.

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<sup>2</sup> We include digital-born outlets in our definition of alternative outlets since they tend to differentiate themselves from legacy news outlets (Carlson & Usher, 2016). We follow a similar typology of nonmainstream news as Fletcher and Park (2017).

- H1: Using mainstream news sources (TV, print and their websites) will be positively associated to trust in news.*
- H2: Using nonmainstream news sources (digital-born news outlets, social media) will be negatively associated to trust in news.*
- H3: Using nonmainstream sources (digital-born outlets, social media) as main source of news will be negatively associated to trust in news.<sup>3</sup>*

### ***Trust and Perception of Undue Influences on News Media***

Another individual-level factor associated with trust in news is the perception that the news media are not independent from “undue” business and political influences. When Newman and Fletcher (2017) examined the reasons behind mistrust in news by studying open-ended survey responses, they find that the primary reason why people mistrust the news media in 10 Western countries is a perception of a political or a commercial bias. More particularly, respondents talked about “deliberately distorted information” (p. 19), news outlets that have their own political agenda or that are “overwhelmingly in the hands of oligarchs” (p. 22), or news media that favor some interests over others.

Research in political science has shown that trust in political institutions is dependent on the perception of corruption of public officials. Anderson and Tverdova (2003) show that there is a negative effect of perception of corruption on people’s beliefs about government in 16 countries, particularly for nongovernment supporters. Others find similar conditioning and conditional effects in relation to corruption and trust. Hakhverdian and Mayne (2012) found that perceptions of corruption have a negative effect on institutional trust, particularly for educated individuals. Those conducting regional-specific studies have found similar findings. Chang and Chu (2006) find that perceptions of corruption have strong trust-eroding effects in Asian democracies, and Seligson (2002) finds that in four Latin American countries, exposure to corruption is related to lower levels of trust in the political system and even lower interpersonal trust.

A parallel stream of research has focused on media commercialization. As Tsfaty and Ariely (2014) set out, the debate on whether media commercialization is damaging for democracy is an old one (as noted in Lazarsfeld & Merton, 1948; Norris, 2001). Much of this debate has focused on the various contrasting affordances of public sector and commercial television (Aarts & Semetko, 2003; de Vreese, Banducci, Semetko, & Boomgaarden, 2006; Iyengar & Kinder, 2010). Ashley, Poepsel, and Willis (2010) found that increased knowledge of media ownership may make news users more likely to be skeptical about the credibility of news organizations.

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<sup>3</sup> A common way to view the relationships between news exposure and trust is that exposure to news influences trust in news. However, research has also shown that trust in news affects news exposure patterns (e.g., Tsfaty & Capella, 2003). Given the cross-sectional nature of our study, we study associations and not the direction of the causal relationship between news exposure and trust.

Based on the research findings outlined in this section, we hypothesize that perceptions of undue outside influences on media will be negatively correlated with trust in news media. In this study, we test perceptions of influences on the individual level and not on the aggregate level, as in most other studies that use aggregate measures of corruption perception (e.g., Anderson & Tverdova, 2003).

*H4: Perceptions of undue outside influences (political or commercial) on media will be negatively correlated with news media trust.*

### **Cross-Country Correlates of News Media Trust**

In this section, we are looking at how country-level factors are correlated with trust in news given the large country variations in trust in news. Our rationale for examining country level variables on top of individual-level ones is related to how structures can influence attitudes toward institutions. This is why we are focusing on factors such as freedom of press and the size of the PSB in different countries. First, we are looking at freedom of press. This variable works complementary to perceptions of freedom of press measured on the individual level, as seen above.

### **Freedom of Press and Media Trust**

Political science literature has long argued that a free and independent press is essential to the process of democratization. It has been found to improve government accountability, act as a contributor toward development of informed public discourse (Sen, 1999), and, importantly, to reduce corruption (Chowdhury, 2004; Freille, Haque, & Kneller, 2007; Persson & Tabellini, 2002). Literature investigating the relationship of trust and corruption establishes that citizens everywhere are watchful of the lack of honesty and unethical behavior in their respective governments (Chowdhury 2004). Some of the most straightforward tools of combating corruption are ensuring freedom of the press, transparency, and gender equality (Blind, 2007; Kaufmann, 2005). Moehler and Singh (2011) find that citizens tend to trust private media in less free African countries, and in more democratic African countries citizens tend to trust public media more. Freille et al. (2007) find that restrictions to press freedom lead to higher corruption, that both political and economic influences on the media are strongly and robustly related to corruption, and that the direction of causation runs from a freer press to lower corruption. These findings lead us to the fifth hypothesis:

*H5: Higher rates of freedom of the press will be positively correlated with trust in news.*

### **Public Service Broadcaster and Media Trust**

We further look at the relationship between news media trust and the presence of a PSB. By definition, PSBs serve the public, though research suggests that there is large variation in public service media independence from country to country (Hanretty, 2010). In terms of its formal structure (media law, organizational ties, etc.), the norms, practices and the actual content produced, public service broadcasting is ideally independent from both the political system and the economic system. Independent journalism, as opposed to journalism attached to the state or political parties, as in the era of the "party press," or unlike journalism following commercial imperatives, is shaped by a truly "public logic" (Brants & van Praag, 2006).

This follows a “trustee model” (Schudson, 1999), which seems best to inform, control, and provide a platform for debate and, in the end, help citizens. Against this normative background stressing the independence of media, one could argue that citizens tend to put their trust in those media that fulfil these criteria.

One possible driver of trust in news media is therefore trust in media’s actual independence, which applies especially to public service broadcasting—but only under certain conditions. Evidence for this comes from a study by Tsfaty and Ariely (2014), who looked at data from the World Values Survey and found that state ownership of television is positively associated with trust in media in democratic societies and negatively associated with trust in media in nondemocratic societies. This highlights the fact that PSBs in nondemocratic societies are perceived more as mouthpieces of state actors and the ruling elite, reducing trust in media, whereas in democratic societies they are perceived more as bodies independent from political elites, serving the public as a fourth estate and thus increasing trust in media.

In a meta-analysis of the studies on the political, social, and cultural impact of PSBs in democratic societies (Nielsen, Fletcher, Sehl, & Levy, 2016), the authors conclude that studies link the presence of public service media to an overall higher degree of trust in both institutions and individuals. Related to trust, public service media also are able to promote inclusivity and social cohesion by helping people develop a more realistic understanding of the society they live in. As Schmitt-Beck and Wolsing (2010) showed, higher levels of PSB use are correlated with higher levels of social trust. At the same time, the authors state that there is not enough research yet to establish a clear, evidence-based consensus. One of the more recent studies based on surveys (but not with a panel design) points at the importance of PSBs for people’s trust in the media. A study of trust in news in 13 Western democratic countries showed that an individual’s use of public broadcasting (combining online and off-line use) is significantly positively correlated with trust in the media across all 13 countries (Schranz, Schneider, & Eisenegger, 2018).

In sum, though there might not be hard (statistical) evidence on the positive link of PSB and media trust, the indications from available studies at least seem to support this link and, importantly, do not seem to show the opposite—namely, that PSB is a driver of distrust. On the macro level, then, at least in those democratic societies where government interference in the media is comparatively low, one would expect that in countries with higher rates of PSB use, trust in news will be higher.

*H6: Higher rates of PSB use will be positively correlated with trust in news.*

### **Method**

To test the aforementioned relationships, we employ a framework that allows us to examine a number of different countries. We use data from the 2017 Reuters Institute Digital News Report (Newman et al., 2017) survey, an online survey using a panel that is representative of the online population of each country included in the study.<sup>4</sup> The countries included in the sample are from Europe, the Americas, and

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<sup>4</sup> The markets are U.S., UK, Germany, France, Italy, Spain, Portugal, Ireland, Norway, Sweden, Finland, Denmark, Belgium, Netherlands, Switzerland, Austria, Hungary, Slovakia, Czech Republic, Poland, Romania, Croatia, Greece, Turkey, Japan, South Korea, Taiwan, Hong Kong, Malaysia, Singapore, Australia, Canada,

Asia-Pacific. The sample encompasses all Western media systems and includes countries with varying levels of trust in news and press freedom, as is seen in the tables in the Appendix. The survey was conducted from mid-January to early February 2017. The survey data were weighted by YouGov, to match census/industry accepted data, such as age, gender, and region, to represent the total population of the country. Because the main focus of the study is news consumption patterns, respondents who responded to a screener question that they have not consumed any news during the past month were excluded from the survey. Those who were excluded amounted to 3% on average for each country. The number of respondents was more than 2,000 in every country, apart from Taiwan (1,014 respondents).

### **Measures**

The dependent variable was "trust in news." The respondents were asked to denote whether they agree or disagree in a 1–5-point Likert scale with the following statement: "I think you can trust most news most of the time." Early in the survey, respondents were given a definition suggesting that "by news we mean national, international, regional/local news and other topical events accessed via any platform (radio, TV, newspaper or online)." Table A in the Appendix lists the descriptive statistics for trust in news in all 35 countries ranging from the country with the highest levels of trust Finland ( $M = 3.51$ ,  $SD = 0.93$ ) to Greece, the country with the lowest levels of trust ( $M = 2.76$ ,  $SD = 0.95$ ).

To examine news use, we employed measures of TV use for news, newspapers use, legacy news websites use (websites of newspapers, radio, magazines, or TV stations), digital-born news website, and social media news use. Apart from examining the simple use of news sources, we further looked the use of a news source as a main one. We created two binary variables with those who picked digital-born and social media sites as their main source of news as 1, and all other mainstream news sources (print, radio, TV, legacy news websites) as 0. We further included two variables counting the number of off-line and online news brands that respondents used, as a proxy of frequency of accessing news (see Fletcher & Nielsen, 2018). In every country, respondents were presented with a list of approximately 30 off-line and 30 news online brands and were asked to denote which ones they used the week leading up to the survey.<sup>5</sup>

To measure the perceived influence of political and business actors on news, we used the following measures: Respondents were asked to indicate their levels of agreement in a 1–5-point Likert scale with the following statements: "The news media in my country is independent from undue political or government influence most of the time," and "The news media in my country is independent from undue business or commercial influence most of the time." The sum of these two measures was reversed and was used to

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Brazil, Argentina, Chile, and Mexico. Singapore was removed from the panel because the variable measuring ideological strength (measured in a left/right scale) is not relevant for Singaporean politics. In Brazil, Mexico, and Turkey the sample is more representative of urban rather than of national populations, given the low Internet penetration compared with other countries.

<sup>5</sup> An academic or a journalist in each country was asked to provide a list with the most popular offline and online news outlets in each country.

create a variable called "perception of outside influences" ( $\alpha = .91$ ,  $M = 5.38$ ,  $SD = 2.07$ ).<sup>6,7</sup> Undue influences were not defined in the questionnaire; we are aware that respondents' standards of when influences are "due" or "undue" differ greatly based on the cultural context. This is why we called the variable "perceptions of outside influences" and further included experts' measures of press freedom, as seen below.

The analysis includes sociodemographic controls (age, gender, education, and income), and measures of interest in news, internal political efficacy, and ideological strength (respondents who identify themselves 1–2 or 6–7 on a 1–7 left/right-wing placement scale). Internal political efficacy has been found to be significantly correlated with trust in Lee's (2010) study of trust in news. Ideological strength at the individual level has been examined as a predictor of trust in news in Hanitzsch et al. (2018), among others.

To examine the correlation between trust in news and freedom of press in each country, we used the Press Freedom Index, published annually by the Reporters Without Borders. According to the publishers, "it is a snapshot of the media freedom situation based on an evaluation of pluralism, independence of the media, quality of legislative framework and safety of journalists in each country" (Reporters Without Borders, 2017, para. 20). Higher scores denote lower levels of freedom of press. The scale for the countries of our study ranges from 7.60 for Norway to 52.98 for Turkey. To examine the correlation between trust in news and size of audience share of the public broadcasters in each country, we use the share of off-line PSB use (TV and/or radio) from the 2017 Reuters Institute Digital News Report Survey as a proxy. The reach varies from 83% in Austria (the number denoting the percentage of news users that accessed the PSB for news at least weekly) to 10% in Brazil and 18% in the United States. We are aware that the audience share of the public broadcaster is only one possible indicator, since the de facto independence of PSB organizations varies across cases (Hanretty, 2010) and possibly mediates the impact on trust. However, to our knowledge, no data on the actual independence are available for the set of countries we apply in our analysis. Last, we included a control variable measuring economic development in each country (GDP per capita), following the rationale that high economic development is correlated with other forms of trust, such as political or interpersonal trust (Tsfati & Ariely, 2014).

## Results

For the purposes of this analysis, we ran three multilevel models. The first step of the analysis was to measure the interclass correlation coefficient, which was calculated at 3.3%. The coefficient represents the variance explained by the country-level effects in Model 0, as a share of the total variance (see Table 1). A likelihood ratio test showed that the country effects were significant, indicating that the multilevel model offers a significant improvement over a linear regression model. When running a model in 35 markets

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<sup>6</sup> The variable "perception of outside influences" is statistically different from the variable "trust in news," denoting that it measures of a separate concept. Their correlation is moderate (.49), but if included on a scale with the variable "trust in news," the Cronbach's alpha is equal to .55, denoting poor internal consistency of the scale.

<sup>7</sup> The items regarding perceptions of business and political undue influences were used to create a "perceptions of outside influences" index rather than being examined separately because of multicollinearity issues (they are correlated at the .8 level).

of the 2017 sample after controlling for demographic factors and other variables that could affect trust (Model 1), we find that using TV for news ( $b = .142, p < .001$ ), using print newspapers and magazines ( $b = .048, p < .001$ ), using legacy news websites ( $b = .043, p < .001$ ), using digital-born news websites ( $b = .037, p < .01$ ), and using social media for news ( $b = .027, p < .001$ ) are all positively correlated with trust in news, with TV having the strongest relationship. These findings provide support to H1, which suggested that traditional news exposure will be positively correlated with trust in news. Our findings do not provide support to H2, which suggested that nonmainstream news exposure will be negatively correlated with trust in news. Using digital-born outlets and social media for news for news are in fact positively correlated with trust.<sup>8</sup>

**Table 1. Individual-Level Factors Predicting Trust in the Media (Multilevel Models).**

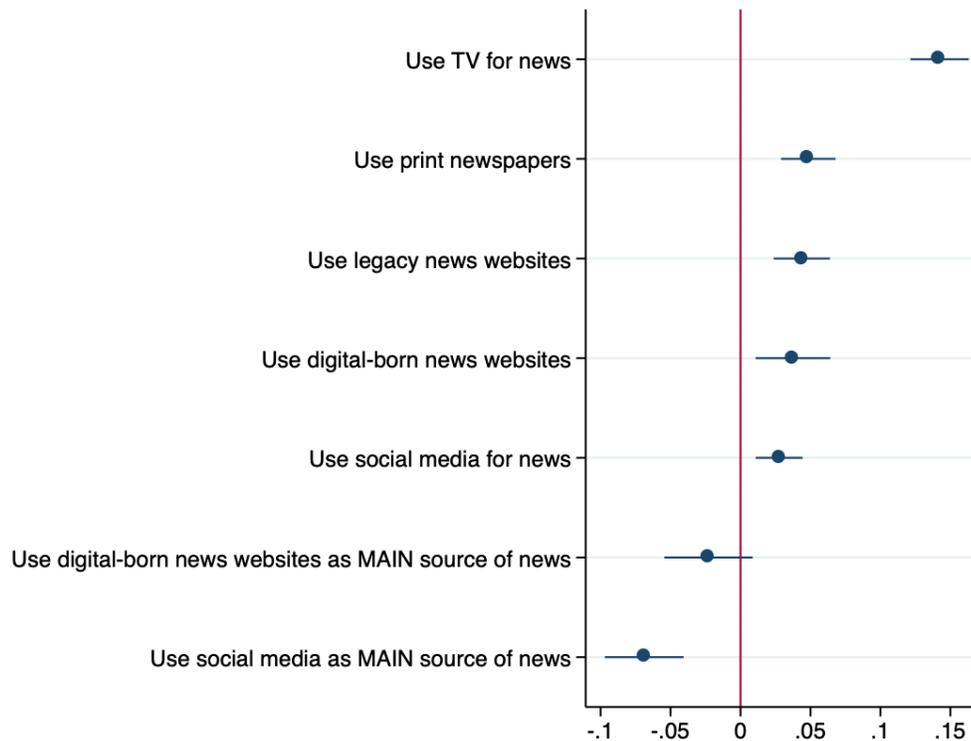
Trust in news media	Model 0	Model 1
Age		.003*** (.000)
Gender (female)		.071*** (.009)
Education		-.019*** (.004)
Income		.019** (.006)
Internal political efficacy		.029*** (.005)
Ideological strength		-.053*** (.011)
Interest in news		.068*** (.006)
Use of TV for news		.142*** (.010)
Use of newspapers/magazines for news		.048*** (.009)
Use of legacy websites for news		.043*** (.010)
Use of digital-born websites for news		.037** (.013)
Use of social media for news		.027*** (.008)
Count of offline sources used		.006*** (.001)
Count of online sources used		-.007*** (.001)
Use of digital-born websites as the MAIN news source		-.022 (.016)
Use of social media as the MAIN news source		-.068*** (.014)
Perceptions of outside influences		-.235*** (.008)
Constant	3.14***	3.44*** (.073)
Individual-level variance	.989	.729
Country-level variance	.034	.017

Note. Unstandardized coefficients. Robust standard errors in parentheses.  $N = 60,579$ . Countries = 35.

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

<sup>8</sup> In separate models, we further investigated whether age moderates the relationship between use of different types of news and trust in news. The results show that the positive relationship between legacy news use and trust in news was stronger for older individuals: This was the case for news use via TV, print, legacy newspapers. (The interaction term of TV use and age is  $b = .002, p < .001$ . The interaction term of print use and age is  $b = .0009, p < .001$ . The interaction term of legacy news websites use and age is  $b = .0007, p < .001$ ) Age did not moderate the relationship between digital-born website news use and trust in news ( $b = .0005, p < .1$ ), and the relationship between social media news use and trust in news ( $b = .0002, p < .1$ ).

However, we find that choosing social media as the main source of news is correlated with lower levels of trust in news, partly providing support to H3. Respondents who pick social media as their main source of news (amounting to 14% of the total sample), showed lower levels of trust in news ( $b = -.068$ ,  $p < .001$ ) than those who pick a mainstream source as their main one. However, picking a digital-born website as a main source of news (amounting to 7% of the total sample) had no significant association with trust in news at the .05 level ( $b = -.022$ ,  $p > .05$ ), although the direction of this relationship is as hypothesized. The relationships between different types of news exposure and trust in news is visualized in Figure 1. In addition, using many online news outlets is associated with lower levels of trust in news ( $b = -.007$ ,  $p < .001$ ), whereas using many offline news outlets ( $b = .006$ ,  $p < .001$ ) is associated with higher numbers of trust in news. The relationship between news exposure from different sources and trust in news is shown in Figure 1.



**Figure 1. Effects of using different types of news on trust in news. Coefficients depicted with 95% confidence intervals. The model includes individual-level controls (Table 1).**

Hypothesis 4 suggested that the perception of news media having undue political and business influences is significantly and negatively correlated with trust in news. Our finding ( $b = -.235$ ,  $p < .001$ ) provides support to H4.

As seen in Table 2, after controlling for the individual-level characteristics (seen in Table 1), the two multilevel variables in our model—press freedom ( $b = -.0001$ ,  $p > .05$ ) and the share of population using the PSB ( $b = -.028$ ,  $p > .05$ )—are not significantly correlated with trust in news, thus not providing support for H5 and H6. The control variable GDP per capita was significantly and negatively associated with trust in news, suggesting that in countries with lower economic development, people are more likely to trust most news most of the time. A similar direction was also found by Tsfati and Ariely (2014).

**Table 2: Macro-Level Factors Correlated With Trust in News After Controlling for Individual-Level Factors.**

DV: Trust in news	Model 2	Model 3
Press freedom score (higher score = less free press)	-.0001 (.002)	
Audience share of the PSB for news <sup>9</sup>		-.028 (.100)
GDP per capita	-.004* (.002)	-.004** (.001)
Country-level variance	.012	.012
$N = 60.579$ , countries = 35		

*Note.* Unstandardized coefficients. Robust standard errors in parentheses. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

## Discussion

This study examines the relationship between different types of news use and trust in news. It extends previous research (e.g., Tsfati, 2010; Tsfati & Ariely, 2014; Tsfati & Cappella, 2003), which showed that using online nonmainstream news sources is correlated with lower levels of trust in news. Since these studies were published, the use of distributed news sources and digital-born news websites has soared, calling for a reexamination of these relationships. Our results show that higher levels of trust are associated not only with the use of mainstream sources such as TV news or websites of newspapers but also with the use of “nonmainstream” sources such as digital-born news websites. However, using social media for news as the main source of news is correlated with lower levels of trust in news. Furthermore, we find that using a high number of online news sources, a behavior associated with social media news use (Fletcher & Nielsen, 2018), is also correlated with lower levels of trust in news.

Our mixed findings concerning the relationship between using digital nonmainstream sources and news media trust reflect the mixed narratives regarding the changing patterns in news consumption. On the one hand, more people than ever are getting news from digital-born websites that position their coverage as a response to the flaws of legacy journalism (Carlson & Usher, 2016). On the other hand, the current discussion about misinformation online is focused around news exposure to nonmainstream brands, and particularly social media news exposure. Of course, social media use can also mean exposure to mainstream brands that offer their content on social media; thus, the audience has the opportunity to engage with journalists and news

<sup>9</sup> We retested the Model 3 analysis, using PSB audience share (for broad use and not specifically for news) data from the European Audiovisual Observatory from 2015. We limited the analysis in the 23 countries of the sample for which we had data. The analysis also showed no significant association of the audience share of the PSB with trust in news.

organizations using social media platforms and shape the discussion about a given news topic (Stroud, Scacco, Muddiman, & Curry, 2014). Still, despite possible engagement features, (trusted) mainstream media find it difficult on social media to make their brands visible and distinguishable. In their unbundled news consumption, users are less able to identify the sources of a message and thus show lower levels of brand recognition (Kalogeropoulos et al., 2018). As (trusted) mainstream media brands have to compete with content from all sorts of actors on social media, including nonprofessional actors claiming to produce news, it is not surprising to see that a large majority of online news users claim news media companies should do more to distinguish between fake and real information online (Newman et al., 2017). A recent study by the Tow Research Center found that 86% of journalists in the U.S. and Canada believe that social media have decreased trust in journalism (Rashidian et al., 2018). These fears are not unfounded. One indication comes from our data where we find that relying on social media for news is the only type of news use that has a negative and significant correlation with trust in news. Of course, more research is needed to determine the direction of the relationship between trust in news and social media news use.

We further find that perceptions of undue political and commercial influences are strongly associated with lower levels of trust in news. Previous studies have documented that perceptions of corruption are associated with lower levels of trust in political institutions (Anderson & Tverdova, 2003; Hakhverdian & Mayne, 2012; Seligson, 2002) and this study showed that perceptions of undue influences are associated with lower levels of trust in the news media.

When looking at country-level effects, we first find only small variations in trust in news among countries (3.3%), even though it is significant. In a similar study of trust in the media, Tsfaty and Ariely (2014) found that country-level variance was 13%. However, that study was based on a different set of countries than the one examined in this study. This could be one of the reasons why we find that contextual variables such as press freedom and the reach of the PSB were not significantly correlated with trust in news. These macro-level variables are correlated with individual-level variables, such as perception of undue influences and the use of TV for news, of nonmainstream sources. However, we highlight the finding that across 35 countries from Europe to Asia-Pacific and the Americas, individual-level variation and variables such as demographics and news use patterns were the most important in explaining trust in news, rather than country-level variation. We further found similar results when we included only a subset of countries in the sample.<sup>10</sup>

Another possible reason why we do not see a macro-level effect of the PSB presence in different countries could be the fact that in some countries PSB organizations are less independent than in others (Hanretty, 2010). One important next step would be to integrate data on the actual or the perceived independence of PSB organizations in particular, with data measuring trust specifically in PSB as a possible proxy. Linking data on trust in specific brands with media use data could also shed more light on a current observation from populism scholars, who suggest that clear mistrust of media and PSB in particular actually goes hand in hand with a high use of PSB. This paradoxical finding appears when we look at the behavior of populist political actors (Haller & Holt 2018; Krämer 2017) and when we look at audiences close to right-wing

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<sup>10</sup> When running the analysis in a smaller and less diverse set of countries (the 19 Western countries included in the Hallin and Mancini, 2004, framework), the levels of country-level effects were similar to the ones we found in the wider sample.

populist milieus (Kösters & Jandura, 2018). Rather than avoiding them, populists often use mainstream media (often PSB) to attack them but also to use them as a source in those instances when their content fits the populist worldview.

Overall, this study contributes to the literature on news media trust in several ways. First, we examine news media trust using a contemporary data set in a diverse set of countries. We further study the relationship between news consumption and news media trust using a questionnaire with detailed items on the increasingly complex ways people can consume news. This allows us to map the correlations of individual news use and news media trust, after controlling for country-level effects.

Of course, our study does not come without limitations. Given the lack of panel data, we can only argue about correlations and not draw causal links. Future research could look at news media trust using a panel-wave study that allows a control of stable individual characteristics. Another limitation of the study is our reliance on a single item measure of news media trust. Future comparative research could operationalize a scale examining trust by employing a detailed scale of media credibility including components of trust, such as the selectivity of topics or the accuracy of the journalistic depictions (Kohring & Matthes, 2007). In addition, experimental research examining how different content elements can influence trust in news will further enrich the knowledge on trust and news consumption.

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## Appendix

**Table A1. Descriptive Statistics for Trust in News in Different Countries. Countries are Ranked by Aggregate Average Trust.**

Country	<i>M</i>	<i>SD</i>
Finland	3.51	0.93
Brazil	3.46	1.08
Portugal	3.44	0.96
Denmark	3.37	0.85
Netherlands	3.36	0.90
Germany	3.33	0.99
Poland	3.32	0.97
Hong Kong	3.30	0.73
Spain	3.29	1.05
Japan	3.27	0.78
Canada	3.27	0.98
Norway	3.26	1.04
Belgium	3.24	0.95
Switzerland	3.22	0.97
Austria	3.22	0.97

Ireland	3.18	1.01
Mexico	3.18	1.13
UK	3.15	0.97
Australia	3.15	1.00
Italy	3.12	0.93
Chile	3.12	1.13
Taiwan	3.11	0.78
Romania	3.09	0.98
Sweden	3.01	1.16
Czech Republic	3.01	0.92
Croatia	2.98	1.05
Turkey	2.98	1.22
Malaysia	2.98	0.90
Hungary	2.94	0.99
Republic of Korea	2.94	0.81
Argentina	2.94	1.15
U.S.	2.90	1.25
Slovakia	2.90	0.92
France	2.85	1.01
Greece	2.76	0.95

**Table A2. Descriptive Statistics.**

Variable name	Question/operationalization	Descriptive Statistics
Trust in news	"Please indicate your level of agreement with the following statement: "I think you can trust most news most of the time" (1 = <i>strongly disagree</i> , 2 = <i>tend to disagree</i> , 3 = <i>neither agree or disagree</i> , 4 = <i>tend to agree</i> , 5 = <i>strongly agree</i> )	$M = 3.14, SD = 1.01$
Age		$M = 45.7, SD = 15.6$
Gender	(1) Male, (2) Female	$M = 1.51, SD = 1.51$
Education	"What is your highest level of education?" (1) I did not complete secondary/high school. (2) Secondary school, high school. (3) Professional qualification. (4) Bachelor's degree. (5) Master's or doctorate.	$M = 3.13, SD = 1.18$

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Income	"Which is your household income?" (Recoded to: 1 = <i>low</i> , 2 = <i>middle</i> , 3 = <i>high</i> )	$M = 2.03, SD = .73$
Internal political efficacy	"Please indicate your level of agreement with the following statements." -I consider myself well-qualified to participate in politics -I feel that I have a pretty good understanding of the important political issues facing our country (items added to a 2-10 scale)	$M = 6.47, SD = 1.98$
Ideological strength	"Some people talk about 'left,' 'right,' and 'center' to describe parties and politicians. With this in mind, where would you place yourself on the following scale?" 1 = <i>slightly left of center</i> , <i>center</i> , <i>slightly right of center</i> ; 2 = <i>very left wing</i> , <i>fairly left wing</i> , <i>very right wing</i> , <i>fairly right wing</i>	$M = 1.28, SD = .45$
Interest in news	"How interested, if at all, would you say you are in news?" 1 = <i>not at all interested</i> , 2 = <i>not very interested</i> , 3 = <i>somewhat interested</i> , 4 = <i>very interested</i> , 5 = <i>extremely interested</i>	$M = 3.79, SD = .84$
Use of TV for news	"Which, if any, of the following have you used in the last week as a source of news?" (0) Not watching TV bulletins or 24 hour news television channels. (1) Watching either TV bulletins or 24 hour news television channels.	$M = .73, SD = .44$
Use of newspapers/magazines for news	"Which, if any, of the following have you used in the last week as a source of news?" (0) Not reading printed newspapers or printed magazines. (1) Reading printed newspapers or printed magazines.	$M = .38, SD = .48$

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Use of legacy websites for news	<p>“Which, if any, of the following have you used in the last week as a source of news?” (0) Not getting news from the websites of newspapers, TV and radio broadcasters or news magazines. (1) Getting news from the websites of newspapers, TV and radio broadcasters or news magazines.</p>	$M = .61, SD = .48$
Use of digital-born websites for news	<p>“Which, if any, of the following have you used in the last week as a source of news?” (0) Not getting news from other news websites (1) getting news from other news websites</p>	$M = .29, SD = .45$
Use of social media for news	<p>“Which, if any, of the following have you used in the last week as a source of news?” (0) Not getting news via social media. (1) Getting news from social media.</p>	$M = .53, SD = .49$
Count of offline sources used	<p>An addition of all the outlets the respondents reported to have used off-line during the past week: “Which, if any, of the following have you used in the last week as a source of news? Please select all that apply.”</p>	
Count of online sources used	<p>An addition of all the outlets the respondents reported to have used online during the past week: “Which, if any, of the following have you used in the last week as a source of news? Please select all that apply.”</p>	

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Perceptions of outside influences	Please indicate your level of agreement with the following statements: "The news media in my country is independent from undue political or government influence most of the time"; "The news media in my country is independent from undue business or commercial influence most of the time" (Responses ranging from 1 = <i>strongly disagree</i> to 5 = <i>strongly agree</i> ).	$M = 4.62, SD = 2.08$
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