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Original Article

Partisan news users in the United States and India on either side seldom use fact checkers

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Abstract

Fact checkers have low reach, and their limited efficacy is often attributed to perceived partisanship. Yet little research exists investigating the reach of or engagement with fact checkers among their intended audiences. We argue that given their small audience size, fact checkers' usage is likely driven by heavy media users regardless of their partisan leanings. We examined a slice of Twitter (X) users, following certain partisan and fact checking outlets from India and the United States. Our analysis of over 7 million news users suggests that exposure to and engagement with fact checkers remains largely restricted to heavier users, with little evidence that these interventions penetrate among selectively partisan news audiences. This study is thus among the first to highlight complementary explanations for the limited efficacy of fact checkers beyond the partisan inclinations of either audiences or news outlets.

Keywords: fact checkers, misinformation, partisan media, news consumption, audiences, social media, India, double jeopardy, heavy media users

Fact checkers—dedicated organizations that specialize in identifying and correcting circulating pieces of misinformation potentially serve a critical function in contemporary media ecosystems. The efficacy of fact checking and its failure to sustain the positive effects among misinformation consumers are both vibrant areas of research. Yet, there is surprisingly little research investigating how effective fact checkers are in reaching and engaging with their intended audiences. The little that we know is that fact checkers have limited reach, particularly among audiences most susceptible to misinformation (Alto Analytics, 2019), and that their growth has stalled since reaching a peak during the coronavirus disease 2019 (COVID-19) pandemic (Hsu & Thompson, 2023; Stencel et al., 2023).

Current theory suggests that right leaning partisan news users, who are more likely to consume misinformation, are unlikely to engage with fact checkers owing to their partisan beliefs and ideological inclinations. We instead argue that given fact checkers and partisan media are both niche outlets with low reach, they are unlikely to be used by the same audiences, except for heavier media users. Employing the law of double jeopardy, a formal theory of mass behavior (McPhee 1963), we suggest that fact checkers, given their low reach, are likely interacted with by the heaviest users, those who consume a lot of sources including partisan outlets. As such, they derive limited engagement and contrary to extant knowledge, partisanship is often not the primary factor driving their usage.

We test this argument on the following of and engagement with fact checkers using Twitter (now X) as a case study. It is a particularly suitable platform for this question due to its prominent role in news dissemination and information sharing (Orellana-Rodriguez & Keane, 2018) as well as in spreading misinformation (Vosoughi et al., 2018). Coupled with a substantial user base where both journalists and news consumers can interact, X serves as a critical platform where fact checkers operate (Coddington et al., 2014). The platform began promoting Community Notes (formerly Birdwatch) more widely to combat misinformation. Misinformation spreads rapidly on the platform (Vosoughi et al., 2018), which has led the platform to embrace some fact-checking efforts even after Musk's takeover (Miller, 2022). However, relaxations in its content moderation policies following the takeover arguably dampen its potential to a large degree (Elliot & Gilbert, 2023). While the efficacy of fact-checking efforts has been examined in multiple studies (e.g., Hameleers, 2019), it remains unknown how audiences form around dedicated fact checkers. Since Facebook started deprioritizing news content in 2023 (Darcy, 2023), X has remained relevant among news organizations and fact checkers. Analyzing the activity of a sample of more than 5 million and 1.5 million X users who follow popular partisan sources and fact checkers in United States and India, respectively, we find that, regardless of their partisan affiliation, following fact checkers is restricted among the heaviest users who follow a disproportionately large number of sources. These findings accord with a supplementary exploration of audience behaviors across niche partisan outlets and fact checker websites using data from Comscore.

This study contributes to the literature on fact checking by investigating patterns of audience behavior on social media that constrain the reach of fact checkers in real-world settings. It is among the first to highlight the need to consider alternative reach-based explanations for fact checkers' limited efficacy beyond partisan inclinations of either audiences or news outlets. By focusing on user activity patterns, we offer a nuanced understanding of the dynamics that influence the visibility and impact of fact checkers. Our findings suggest

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that strategies to enhance the reach of fact checkers should be cognizant of these structural constraints and explore ways to engage a broader audience more effectively.

Further, we contribute to a more nuanced understanding of the consumption of niche news (Stroud, 2011). Using fact checkers as a case of niche content, often understood to be consumed based on partisan preferences alone, our study demonstrates that a lot of such observed usage can be attributed to "formal theories of mass behavior" (McPhee, 1963), where heavy users also consume special interest media than to users' motivation to avoid or select into niche content.

Partisanship and fact checking

Prior research has primarily focused on the efficacy of fact-checking interventions in countering misinformation, with inconclusive findings. While in several studies corrective information did indeed reduce political misperceptions, such effects are often conditional on an individual's prior beliefs, political leanings, and the strength of partisanship (Edgerly et al., 2020; Hameleers & van der Meer, 2020; Jarman, 2016; Shin & Thorson, 2017). On the other hand, political affiliation and strength of partisanship can, in fact, decrease the efficacy of fact checks by strengthening an individual's existing partisan beliefs (Bail et al., 2018; Nyhan et al., 2013; Nyhan & Reifler, 2010) – a phenomenon dubbed the "backfire effect." However, the severity of this backfire effect has also been contested in some studies (Porter et al., 2018; Weeks & Garrett, 2014; Wood & Porter, 2019). Besides partisan selectivity and bias of news consumers, certain methods and modes of presenting corrective information may be more effective than others. For example, using visual truth scales, videos, and fact checks that counter negative political messaging are more effective than relying on only contextual corrections, long-form text articles, and validation of positive political messaging respectively (Amazeen et al., 2018; Fridkin et al., 2015; Young et al., 2018). Even when fact checking interventions do have a positive impact, such effects tend to dissipate over time (Dowling et al., 2020; Nyhan & Reifler, 2010; Thorson, 2016).

Most investigations of fact checking efficacy have sought to provide explanations as to why individuals may or may not be receptive to corrective information. As we demonstrate through this study, these insights are insufficient in explaining the limited reach and engagement with fact checkers among partisan news audiences. We contend that the limited interaction and engagement with fact checkers also need to be assessed and interpreted within the broader media use patterns of online news audiences. In what follows, we offer one such explanation, guided by the presence of double jeopardy effects in media consumption, which we believe would also manifest in how people use fact checkers.

Double jeopardy effects in media use

A particularly notable pattern of media use observed in several studies pertains to the concentration of demand for the few most popular news outlets or media entities in general. Whereas the demand for the popular entities is disproportionately driven by media users with average levels of overall media consumption, the demand for smaller niche entities is disproportionately driven by heavier users. Additionally, niche media users tend to be less loyal, and being heavy users, likely consume content from popular outlets as well. Collectively known as the law of double jeopardy (McPhee, 1963), these two empirical generalizations about audience behavior have been observed across a range of different products and settings including radio programming (McPhee, 1963), consumer goods (Yang et al., 2005), movie rentals (Elberse, 2008), and website popularity (Taneja, 2020; Webster & Ksiazek, 2012) among others.

Relevant to this study, prior research has shown that there is considerable overlap of audiences across the most popular media outlets and scant evidence of loyalty for niche outlets (Webster & Ksiazek, 2012). Likewise, the demand for niche partisan content is disproportionately driven by a small minority of audiences, with the majority having a moderate news diet comprising the most popular outlets, regardless of their ideological leanings (Guess, 2021). Recent studies find that misinformation consumers tend to be heavy media users, who are also exposed to reliable information sources (Nelson & Taneja, 2018; Zhou et al., 2023). These observations stand in contrast to expectations of niche media outlets having small, dedicated, and siloed audiences, who are not interested in or aware of alternatives.

Fact checkers, similar to partisan news outlets, can be seen as catering to a niche audience with shared values and beliefs (Stroud, 2011). In the existing literature, fact checkers are thought to appeal to partisan news users given the political nature of most misinformation. Some studies find partisan users on all sides to selectively engage with fact checkers when convenient (Edgerly et al., 2020; Hameleers & van der Meer, 2020; Shin & Thorson, 2017). Even among partisan users, typically fact-checking outlets are considered to have a liberal bias, often attributed to the disproportionate volume of misinformation originating from right-leaning corners (Guess et al., 2020). These explanations seem to be at odds with double jeopardy effects. This inconsistency motivates the present study with the hypotheses and research question outlined in the following section.

Revisiting fact checkers' audiences through the lens of double jeopardy

Observational studies of media use demonstrate that most users of partisan media also access popular outlets and at times there is considerable overlap between audiences consuming outlets on the left and the right. The true "selectively exposed" user (to either side) is a small slice of all audiences (Guess, 2021). The same effects have been shown for misinformation consumption, where those exposed to misinformation are typically also exposed to genuine news (Nelson and Taneja, 2018) and importantly, to a wider variety and number of sources (Zhou et al., 2023).

Likewise, fact checkers also have small audiences, making it more likely that their audiences access mainstream popular media than other niche partisan sources (Supplementary Appendix Table A1). Given this statistical expectation, we question the attribution of engagement with fact checkers in the current literature to partisanship alone. Double jeopardy effects likely provide a better complementary explanation, wherein much like fake news and misinformation, most exposure to fact checkers could be among heavy users who access a large number of sources. These effects are also likely to hold for partisan news users. In other words, partisan users on either side who follow fact checkers are likely to be

heavier media users than those who do not. These effects will manifest irrespective of platform. Thus, even among partisan news users, we expect the dominance of mainstream outlets on X due to their significantly larger audience (Newman et al., 2024) to likely undermine the reach of fact checkers among all but the heaviest news consumers (users who follow more outlets and handles). This leads to our first hypothesis:

> **H1:** *Exposure to fact checkers on X (then Twitter) is limited to a subset of partisan users, who in general are heavier consumers of most (news) content.*

Second, while following fact checkers can expose misinformation consumers directly to corrective information, they may also encounter fact checks indirectly when users in their network retweet them. However, fact checks are retweeted selectively based on partisan-motivated reasoning (Shin & Thorson, 2017); the same mechanism that also explains the sharing of fake news on X (Osmundsen et al., 2021). Yet, behavioral factors beyond motivated reasoning may also influence the retweeting of fact checks. Users who retweet comprise a small portion of the overall audience but consume more content in general (Wu et al., 2011). Indeed, a Pew Research Center study indicated that only 10% of the heaviest users post 80% of tweets on the platform, and user activity metrics are strongly correlated among such users (Wojcik & Hughes, 2019). Again, following from the double jeopardy thesis, we posit:

> **H2a:** *User activity in terms of posting and liking, is positively associated with retweeting posts from fact checkers.*

Intuitively, users who follow the fact checkers are the most likely to retweet their posts. Further, given the asymmetry in corrective information targeting mostly right leaning misinformation (Guess et al., 2020) and the Democratic leanings of the heaviest users (Wojcik & Hughes, 2019), we also expect that following left leaning outlets will be more positively associated with retweeting fact checks than following right leaning ones. Formally expressed:

> **H2b:** *Following left leaning outlets will be more positively associated with retweeting fact checks than following right leaning ones.*

Finally, whereas retweets often indicate a user's trust and agreement with the content (Metaxas et al., 2021), replies can also be used to express disagreement. These interpretations, however, come with the usual caveats of interpreting social media text. Since replying involves considerably more effort than retweeting, an even smaller subset of heavy news users who follow fact checkers are likely to reply. While we do expect replying patterns to be positively associated with overall user activity levels, it may be more heavily influenced by partisan dynamics. Given how fact checkers debunk more right leaning misinformation and the propensity of heavier right leaning users to counter them (Bail et al., 2018), following right leaning outlets is likely to be associated more positively with replying. Thus, we aim to examine the following research question:

> **RQ1:** *Are heavier users and those following right leaning outlets more likely to reply to fact checkers?*

Current study

Besides the considerably low reach of niche media websites, cross-visitation data from Comscore (Supplementary Appendix Table A1) also illustrates that niche media users are more likely to visit mainstream news websites than other partisan news websites. While such data are indicative of the double jeopardy effects, it does not allow us to investigate whether the overlapping audiences comprise heavier users. Our study thus focuses on a slice of users following partisan news outlets and fact checkers on X based in the United States and India. These countries are the two largest democracies (Buchholz, 2024), and also the largest and the third largest markets respectively for X (Kemp, 2024, p. 332).

Accordingly, we analyzed the following, retweeting, and replying patterns among followers of partisan and fact checking outlets from these two countries. In the United States, three news outlets each representing politically left and right partisan leanings were selected, alongside two fact-checking outlets. In India, two English news outlets each representing left and right partisan leanings along with two fact-checking outlets were selected.

We gathered the user level account data for each user following these outlets in March 2021. Next, we collected all the tweets posted by fact checkers over a 13-month period from February 2020 to March 2021. After an exploratory cluster analysis of the outlets based on their co-followers for each country, a series of logistic regression analyses were conducted to test the hypotheses.

Following is the most fundamental form of association on a social media platform and often an indicator of user interest and affiliation. Users can have several motivations for why they follow a particular account, but to an extent following is based on homophily (McPherson et al., 2001). This connection has been acknowledged in recent communication research as well (Bandy & Diakopoulos, 2021; Eady et al., 2019). Exposure is not only limited to followers, but who the user follows shapes their feed. Further, following any given handle x prompts the platform to recommend other accounts that share followers with x. Therefore, comparing co-following of fact checkers with those of left and right leaning media outlets provides a reasonable proxy for user interests, at least in the aggregate.

Method

Outlet sampling strategy

Our study design was aimed at analyzing the behavior of X users more likely to be selectively exposed to partisan misinformation, since extant literature mostly ascribes the failure of fact checking to partisan factors. Based on prior research, most mainstream legacy media outlets cater to more moderate users, whereas more niche outlets have substantial user bases which lean more extreme on either side of the partisan divide.

The United States and India provide comparable contexts for studying media use and fact-checking engagement. Both countries have faced political consequences from low-quality information. In the United States, "fake news" has arguably misled and confused individuals (Barthel et al., 2016), eroding public trust in institutions (Sanchez & Middlemass, 2022) and potentially shaping electoral outcomes (Adam, 2024). India has been ranked highest for the risk of

misinformation and disinformation (World Economic Forum, 2024) and its pervasiveness has triggered political unrest and ethnic violence on multiple occasions (ET Online, 2023). While specialized fact-checking efforts have emerged in both countries to curb misinformation, their effectiveness has varied. Despite substantial economic, social, and political differences we suspect both countries may reveal valuable insights into engagement with fact-checkers in democratic contexts. We employ a "most-different" case comparison (Seawright & Gerring, 2008) to examine these two contexts.

Our study design and in turn, the choice of outlets, derive from these considerations. However, we also consider how broader patterns of audience behavior affect both partisan and fact checking outlets. Thus, both for the United States and India, we selectively sampled outlets which have somewhat moderate to explicit partisan leanings and a relatively niche follower base. That said, the political left and political right is not a universal classification that is uniformly applicable in each country. Likewise, the degree of partisan bias of our sampled outlets is not uniform either. Thus, in this section, we explain our choice of specific outlet for each country in more detail, also defining how we classify the outlets from either nation as right or left leaning.

United States

Online media such as political blogs and partisan news websites started becoming increasingly relevant within the U.S. political news landscape in the early 2000s. In many ways, the 2016 U.S. presidential election catalyzed an explosive growth of partisan news outlets, in large part due to Donald Trump's continued attacks on legacy news media outlets, terming them as "fake news." Consequently, Breitbart News emerged as the cornerstone of an insular right-wing media ecosystem, with social media as a vital cog in the machinery (Benkler et al., 2017). Benkler et al.'s (2017) analysis of news engagement behavior on X suggested that legacy media outlets such as The Washington Post, New York Times, CNN, and MSNBC were more popular among followers of Hillary Clinton than Trump followers. However, left leaning partisan outlets such as Huffington Post, Daily Kos, Mother Jones, were also popular among Clinton followers. In fact, two left leaning outlets, Occupy Democrats and The Other 98% had higher interaction rates on Facebook than right leaning outlets, suggesting that the popularity of partisan outlets is not restricted to conservative or right leaning news audiences. For our analysis, we selected three partisan outlets each to represent the right and left leaning slices of the U.S. news ecosystem. While Slate, Mother Jones, and Daily Kos (AllSides rates each of these as Left; see www.allsides.com) comprise the sample of left leaning outlets, Breitbart News, The Daily Wire, and Newsmax (AllSides rates each of these as Right; see www.allsides.com) were selected to represent right leaning news sources. We deliberately exclude legacy media outlets such as CNN, New York Times, Fox News, etc., since their X accounts are more likely to be followed by audiences situated on either side of the partisan divide.

The growing prominence of partisan outlets and the polarized political climate has also affected people's trust in the media. Accordingly, we selected the two most prominent U.S.-based outlets dedicated to fact checking that also have the most followers—PolitiFact and Snopes.

India

The 2014 Indian general election, dubbed as the country's "first social media election," saw political parties extensively use social media and analytics (Khullar & Haridasani, 2014). The BJP's landslide victory marked a turning point in India's media landscape, with Hindu nationalist populist discourses challenging mainstream English news media's perceived liberal elitism (Bhat & Chadha, 2020) and editorial independence (Chaudhry, 2016). This led to the rise of digital news platforms such as OpIndia, Swarajya, The Wire, and Scroll, aligning media discourse along pro-BJP (right)/anti-BJP (left) axes, reflecting the two dominant ideological poles.

OpIndia and Swarajya, both launched in 2014, promote right-of-center and right-liberal viewpoints. Swarajya, originally founded by Indian statesman C. Rajagopalachari in the 1960s as a conservative alternative to the Indian National Congress, was relaunched as a digital platform to cater to a new generation of right-leaning audiences. OpIndia, initially affiliated with Swarajya, became an independent right-wing news portal in 2018, gaining popularity as India's leading right-wing platform (Bhat & Chadha, 2020). In contrast, The Wire, founded in 2015 by former *Hindu* editor Siddharth Varadarajan, and Scroll.in were established by journalists seeking greater freedom to critique the government (Chaudhry, 2016). All four outlets have notable presence on X, reflecting varying degrees of bias, from selective reporting to outright fabrication, and their followers provide insights into how partisan English news is consumed online in India.

Swarajya and OpIndia were selected to represent right-of-center partisan outlets, Scroll and The Wire represent left-of-center outlets, and AltNews and BOOM were the fact-checking outlets. Considering BOOM's comparatively smaller follower count on X and its self-described focus on "fact-driven journalism," compared with AltNews' higher follower count and self-identified mission as a "fact-checking website," we decided to pivot our fact checking engagement analyses around the latter. Despite an expired IFCN certification, AltNews remains one of India's leading independent fact-checking organizations (Bhalla et al., 2024; Siwakoti et al., 2021) and maintained the highest social media following among Indian fact-checkers during our study period.

Data

First, we downloaded the list of followers for all the fact checking and news outlets from both countries using the GET followers/ids method of the Twitter API v1.1. Next, using the GET users/lookup method we downloaded the account metadata for each account in the lists of followers. All data were downloaded in March 2021.

To analyze the retweeting and replying patterns, we first downloaded all the retweets and replies to original tweets posted by @AltNews, @PolitiFact, and @Snopes from February 4, 2020 to March 3, 2021 using the full archive search endpoint of the Twitter API v2. We wanted to capture the dynamics of fact checking engagement during the COVID-19 pandemic, during a time of increased reliance on digital news sources and heightened risk of misinformation propagation among news audiences. Owing to the platform's current limitations and policy restrictions, we were unable to compile a list of users who liked the original tweets as well as collect more advanced engagement metrics on the tweets.

Measures

We created two datasets of unique users who follow any one of the six outlets based in India ($n = 1{,}783{,}776$), and any of the eight outlets based in the United States ($n = 5{,}432{,}425$) respectively. We created the following user level measures:

Following an outlet—Dummy variables for whether a user followed a specific outlet.

Retweeting and Replying to posts—Two separate dummy variables indicating whether they ever retweeted or replied to tweets posted by the fact checking outlets. The data from the replies and retweets were matched to the follower lists on the user id.

User activity—Logged values of number of posted tweets, likes (favorites), followers, and accounts followed as indicators of user activity in our analyses.

Age on network—The time since a user joined the platform at the time of data collection in March 2021, rounded to the nearest number of years (minimum being 1).

Heavy users is a relative term for describing users demonstrating above average following of accounts, favoriting, or posting activity across the platform (Figure 2). Since these metrics are highly correlated (Wojcik & Hughes, 2019), a heavy user will have above average levels of activity across all these metrics.

Analytical strategy

Cluster analysis

To determine the similarity between partisan news outlets and fact-checking outlets in each country, we conducted agglomerative hierarchical cluster analysis on both the United States and India datasets. Similarities were calculated using the Jaccard index for each outlet pair and converted to distances (see Supplementary Appendix pg. 1).

Logistic regression

To examine the association between the following of a given outlet on X with the likelihood of retweeting and replying to tweets from fact-checking outlets, we conducted logistic regression analyses for the outlets based in the United States and India. Replying to tweets and retweeting were the outcome variables on the follower datasets. Due to the rarity of the events (retweeting or replying) and to account for data with separation, Firth's penalized maximum likelihood method (1993) was used to estimate all the models using the brglm2 package in R (Kosmidis, 2017).

Findings

Hierarchical clustering revealed that among both U.S.-based and India-based outlets, followers of the partisan, and fact checking outlets have very little overlap (Figure 1; Supplementary Appendix Tables A2–A3). Although the fact checking clusters eventually merge with the left leaning clusters, the dissimilarity is very close to 1. Thus, fact checking audiences indeed constitute a separate niche from partisan news audiences, which is to be expected given the small follower base of each of these outlets.

Following fact checkers

A comparison of activity metrics (handles followed, posts favorited, and statuses posted) between users who follow fact checkers versus those who do not (Figure 2; Supplementary Appendix Table A4) offer strong preliminary support for our argument that followers of fact checkers are considerably heavier users. The disparity in usage levels persists regardless of the partisan outlets a user follows. Among users who retweeted or replied to content posted by fact checkers, this trend was reversed. In other words, users who engaged with fact checkers without following them were even heavier users than those who follow them. We observed a similar trend across both countries.

Results from logistic regression models with following fact checkers as the outcome variable indicated that except for follower count, a user's activity metrics were all associated with increased odds of following fact checkers. Further, following partisan news outlets were associated with significantly reduced odds of following fact checkers, irrespective of their partisan inclinations. The results were largely similar for both the United States (Figure 3) and India-based (Figure 4) fact checking outlets, except for following Scroll (left leaning), where the association was insignificant. However, we do note that following left leaning outlets were associated with marginally less reduction in odds of following fact checkers than following right leaning outlets.

Hence, our first hypothesis, that exposure to fact checkers on X is restricted to a subset of heavier partisan news users was supported. Moreover, following fact checking outlets among followers of partisan news media on X remains extremely limited, especially among right leaning followers.

Replying to and retweeting fact-checkers

Between February 4, 2020 and March 3, 2021, 147,494 unique users retweeted original tweets posted by PolitiFact and Snopes 511,564 times. Further, 65,322 users replied to these fact checkers, totaling 106,753 replies. Half of all users who either retweeted or replied to fact checkers were following at least one of the eight U.S.-based outlets in our sample and they accounted for an even higher share of both retweets (78.9%) and replies (63.2%) posted by all users. During the same time period, 34,607 unique users retweeted original tweets posted by AltNews 120,214 times, and 14,704 unique users replied to them 21,362 times. About 75% of all such users who either retweeted or replied followed at least one of the six India-based outlets, accounting for 87.7% of all retweets and 78.6% of all replies. Thus, in both countries a majority of engagement with posts by fact checkers was from users who follow these outlets. We fit separate logistic regression models with retweeting and replying to fact checking tweets as outcomes, and the following of the six partisan news outlets and activity metrics as predictors to the data from the United States and India.

General user activity in the form of likes and posted tweets were significant positive predictors of retweeting and replying to fact checking tweets. Among U.S.-based outlets, barring Slate (OR = .70, $p < .001$), following left leaning outlets were associated with significantly higher odds of retweeting fact checks. Following right leaning outlets were associated with significantly lower odds of retweeting. Whereas following The Daily Wire was associated with a 64% reduction in odds of retweeting (OR = .36, $p < .001$), following Breitbart or Newsmax were associated with even lower odds. Interestingly, only following Daily Kos was associated with a significant increase in odds of replying among left leaning outlets (OR = 1.28, $p < .001$), whereas following Slate or

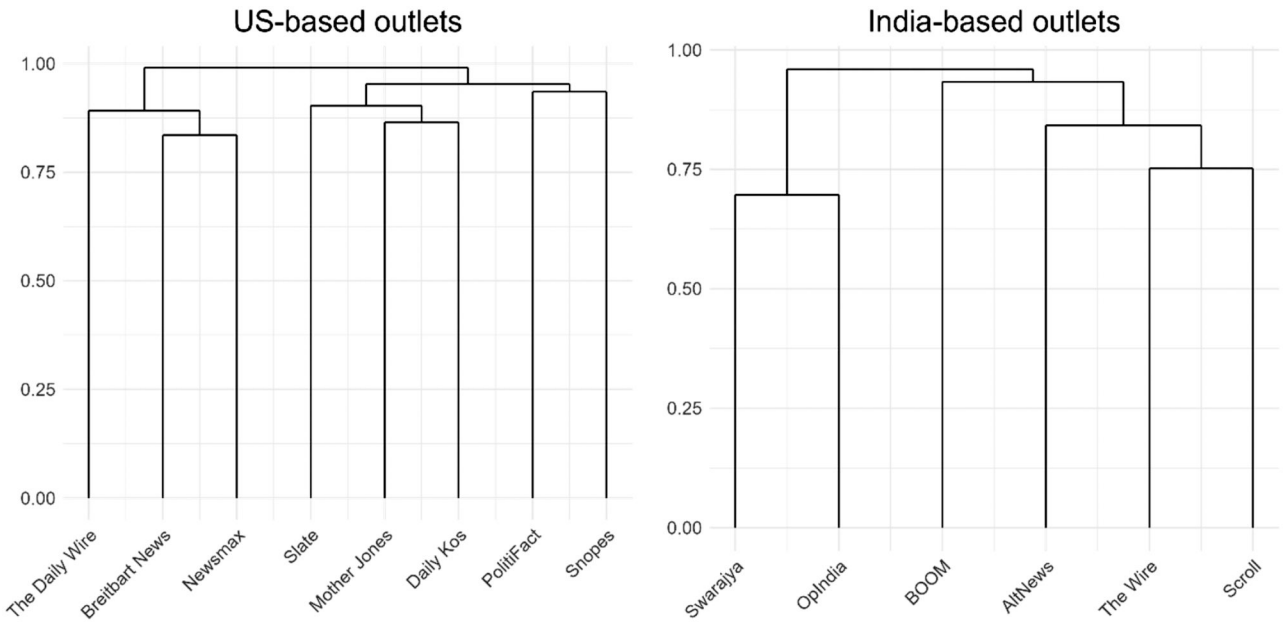

Figure 1. Dendrogram of the agglomerative hierarchical cluster analysis of the eight U.S.-based outlets and six India-based outlets using Jaccard distance measure and average linkage method. The outlets are arranged along the x-axis with the Jaccard dissimilarity along the y-axis.

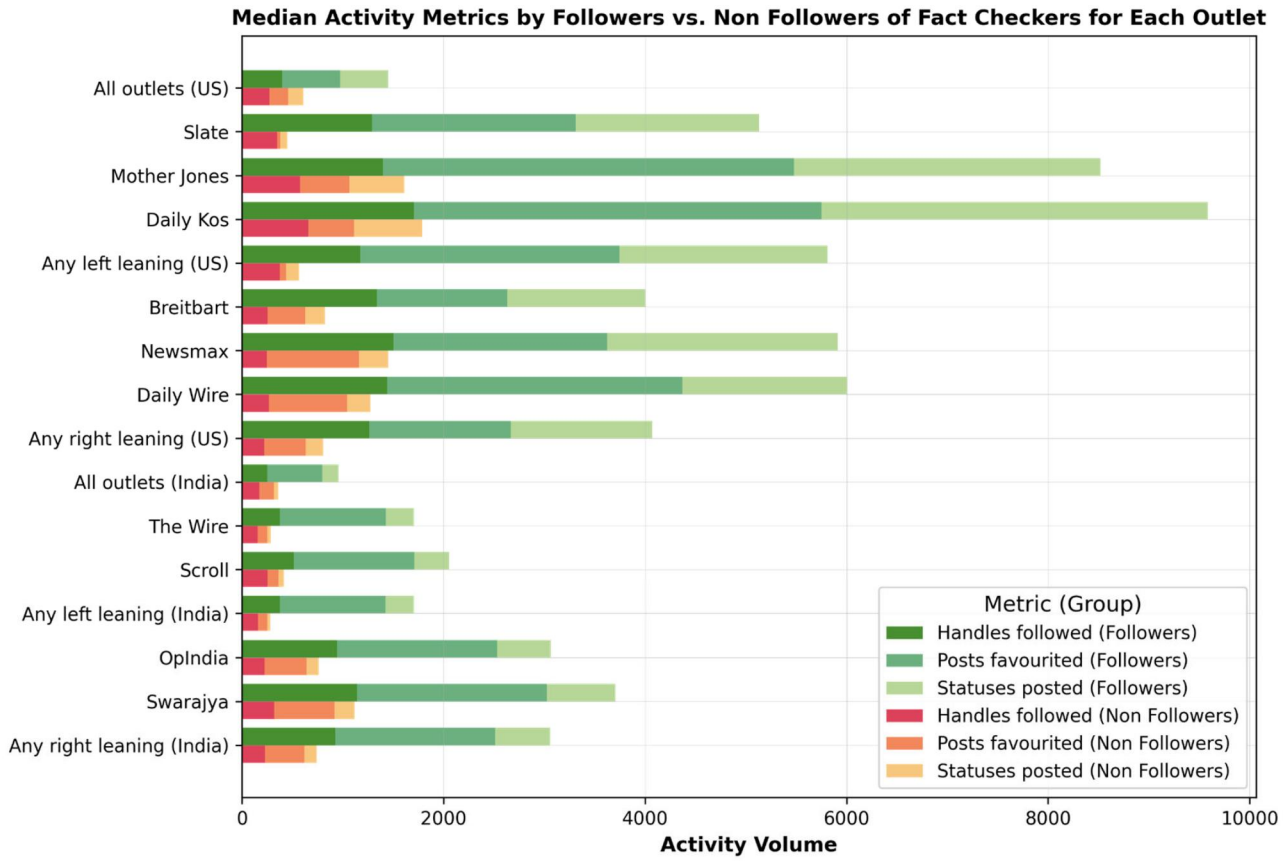

Figure 2. Comparing median activity metrics (total handles followed, posts favorited, and statuses posted) of users who follow fact checkers (shades of green) versus who do not follow them (shades of red) across followers of different outlets. See Supplementary Appendix Table A4 for the full table.

Mother Jones were both associated with reduced odds. Alongside following the fact checkers themselves, following the right leaning outlets were all associated with significantly higher odds of replying.

Replicating the same logistic regression analyses for the follower dataset of India based outlets also yielded similar results. Consistent with findings from the U.S.-based outlets, likes and posted tweets had significant positive associations

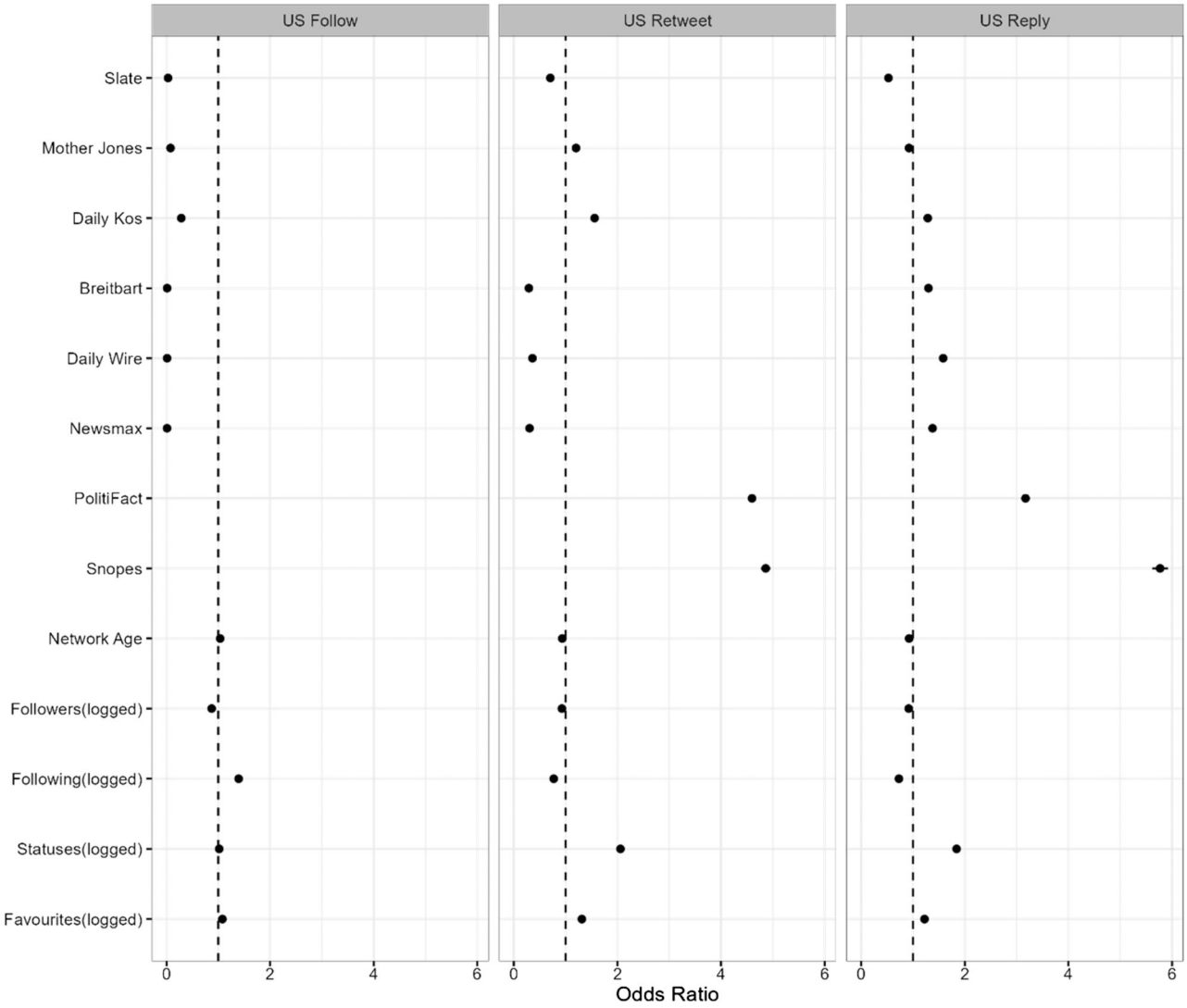

Figure 3. Association between following of media outlets and activity metrics, and (a) following fact checking outlets, (b) retweeting posts from fact checkers, (c) replying to posts from fact checkers in the USA.

Note. Odds ratios and 95% confidence intervals from logistic regression models, estimated using Firth's penalized maximum likelihood method. $\underline{N} = 5{,}432{,}425$. Table with coefficients and standard errors can be found in Supplementary Appendix Table A5.

with both replying to and retweeting fact checking posts from the India-based outlets. Interestingly, the effect sizes for the activity metrics for both retweeting and replying were remarkably similar between the two countries. Following the two left leaning outlets, The Wire, Scroll, or the fact checkers were all associated with significantly higher odds of retweeting fact-checking content than following Swarajya (OR = .56, $p < .001$) or OpIndia (OR = .35, $p < .001$), the two right leaning outlets. Similar to what we observe in the United States, the patterns of replying to fact-checking tweets by AltNews are quite different from those observed for co-following of the outlets and retweeting. Results from the logit model indicate that following right leaning outlets Swarajya (OR = 1.26, $p < .001$) and OpIndia (OR = 1.45, $p < .001$) were associated with much higher odds of replying to such tweets. Among left leaning outlets, following The Wire was also associated with higher odds of replying to fact checking tweets, following Scroll was not found to be significantly associated.

Thus, we found partial support for the second set of hypotheses that posited that posting and liking more tweets would be positively associated with retweeting, as would also be following left leaning outlets. The findings were similarly mixed for our research question pertaining to replying to fact checks. While posting and liking activity were both positive predictors of retweeting and replying, there were some exceptions concerning our expectations of the association between following partisan outlets and engagement.

Discussion

Fact checkers have limited reach and the existing literature predominantly explains their usage as selective based on partisanship. Drawing on a sample of approximately 1.5 and 5 million X users with partisan interests across India and the United States, respectively, we find that, among users who follow partisan outlets, following and engagement with fact checkers remains largely restricted among X users who use the platform more heavily than the rest. That being a follower of partisan outlets reduced likelihoods of following fact checkers further signals that fact checking as a component of

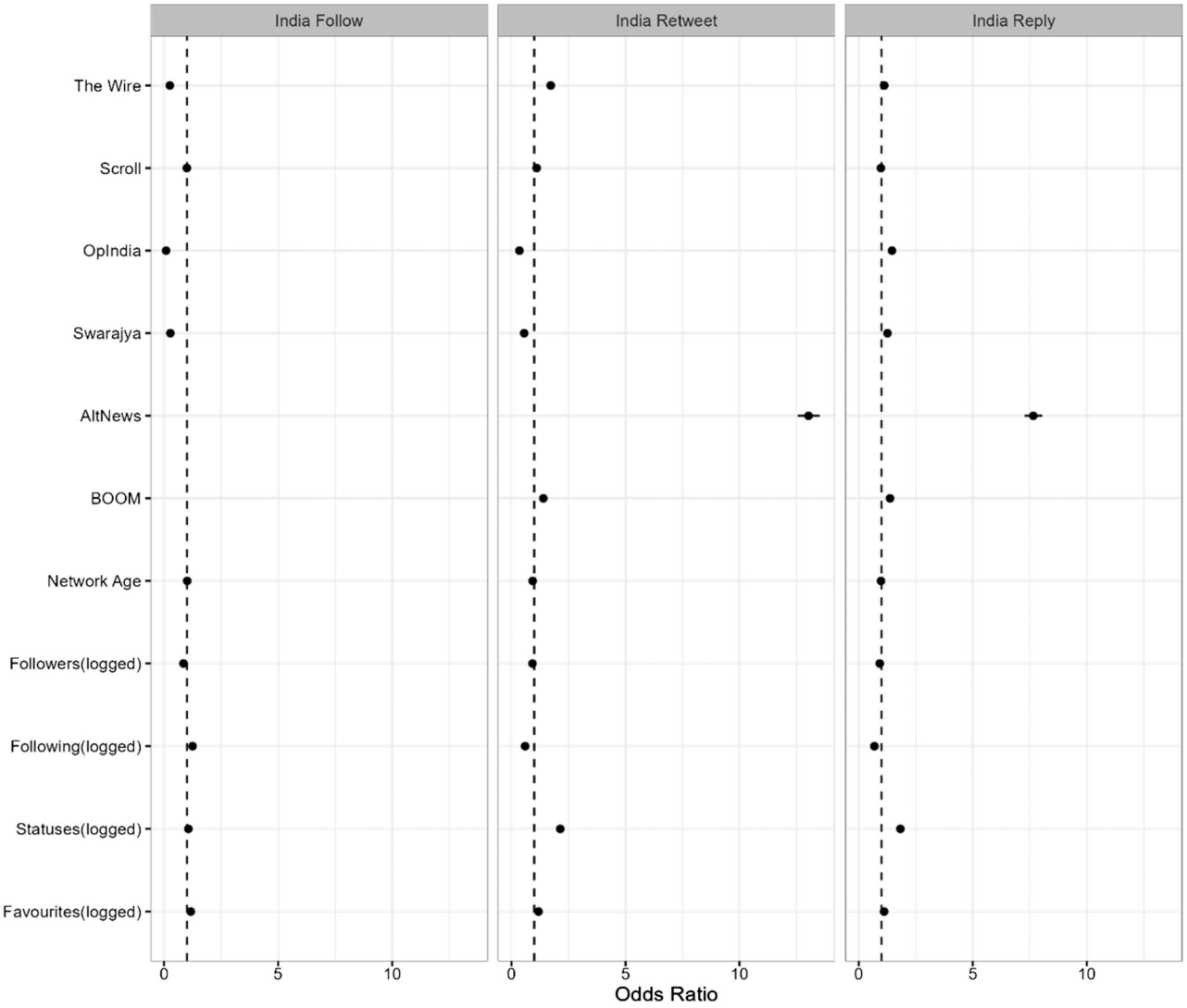

Figure 4. Association between following of media outlets and activity metrics, and (a) following fact checking outlets, (b) retweeting posts from fact checkers, (c) replying to posts from fact checkers in India.

Note. Odds ratios and 95% confidence intervals from logistic regression models, estimated using Firth's penalized maximum likelihood method. $N = 1{,}783{,}777$. Table with coefficients and standard errors can be found in Supplementary Appendix Table A6.

people's news diet finds little purchase among partisan news users. Despite some variation along partisan lines, engagement with fact checkers is also limited to a small subset of heavier users. In this section, we first highlight the contributions to the current understanding of fact checkers' audiences followed by some practical implications these bear on fact checking outlets. Finally, we reflect on broader contributions to scholarship on (news) media consumption.

Contrary to the perceived liberal bias of fact checkers, their followers, being heavy users, are also more likely to follow partisan outlets on both sides (see Supplementary Appendix Figures A1–A4). Fact checkers, thus, have a very small following limited to the heaviest X users who are exposed to a broader range of information sources, likely including trustworthy sources as well (Nelson & Taneja, 2018; Zhou et al., 2023). When we consider that at least a few of these followers may be bots, the task of fact-checkers to penetrate more insular partisan bubbles appears even more daunting.

Unlike following fact checkers on X, replying and retweeting require more active user participation, implying that a user not only is exposed, but also affected by the message. Consistent with prior reports (Wojcik & Hughes, 2019), a small subset of heavier users was more likely to retweet and reply to fact checkers as well. More tellingly, users who replied to or retweeted fact checkers without following them were even heavier users of the platform. Beyond user activity, in general, following left leaning outlets were positively associated with retweeting. Slate's deviation from this pattern can likely be explained by its larger and likely more mainstream following compared to Mother Jones and Daily Kos (Supplementary Appendix Figure A1). Following of most partisan outlets were associated with increased likelihoods of replying to fact checkers. However, replying was restricted to an even smaller group of users who likely have disproportionately high political interest and therefore more likely to engage in online political discussions (Guess, 2021). The only exceptions were Slate in the United States and Scroll in India, whose association was insignificant. Considering how retweeting and replying are both low volume activities restricted to the heaviest users (Wojcik & Hughes, 2019), it is

much more likely that these findings are indicative of an interaction between user activity and partisan leanings.

Despite the limited scope, the similarities and differences in news usage on X between the two countries and our "most-different" case design allows for some reasonable generalizations concerning audiences of fact checking initiatives. Approximately 15% of news consumers in the USA and 13% of English-speaking news consumers in India use X for receiving news content (Newman et al., 2024). These figures closely correspond to the global average of 10% of consumers who use the platform for consuming news (Newman et al., 2024). The effect sizes for the user activity metrics for the models predicting the following of fact checkers, retweeting, and replying across the two countries are fairly similar. Only recently has short form video sharing platforms, most notably TikTok, been outpacing the popularity of X as a preferred source of news (Newman et al., 2024). However, TikTok has been banned in India since 2020 and is facing a similar threat in the USA (Travelli & Raj, 2024). As such, X remains an important platform for news sharing and consumption, despite the significant changes it has undergone since Musk's acquisition. Apart from the contextual importance of examining the fact checking landscape on X in the world's two largest democracies, these similarities serve to enhance the validity of our findings and arguments as well. Thus, we might expect similar results regarding fact checking in other countries with thriving digital news ecosystems as well.

The perceived liberal leanings of fact checkers that may account for the observed partisan patterns, can itself be understood as an outcome of the disproportionate volume of fact checks that target right leaning misinformation. These insights, therefore, complement our current understanding of fact checking initiatives, which are mostly rooted in partisan explanations. Findings from this study and their implications for fact checking online misinformation remain relevant despite changes to the platform since Musk's takeover. The Community Notes feature is aimed at curbing the spread of misinformation by crowdsourcing the fact checking process. However, the relaxation in platform-wide moderation arguably negates the efficacy of this feature to some extent since several misleading posts might escape the scrutiny of Community Notes contributors. Moreover, participation in the program is itself a niche behavior, with the contributors likely being heavier news users as well. As our findings demonstrate, such niche media use behaviors are subject to the "law of double jeopardy." Further, it might be argued that the efficacy of fact checkers will be similarly limited on other platforms as the pattern of heavy users driving niche behaviors has been observed across a range of media contexts and platforms, which our exploratory analysis of website traffic also indicates (Supplementary Appendix Table A1). Thus, the implications of this study extend beyond X.

The penalties incurred by fact checkers due to their low reach, less invested audiences, and other partisan factors translate to stagnating growth and negligible impact on stemming the flow of online misinformation. Based on our findings, dedicated fact checking operations may be more effective by associating with larger and more popular news outlets. While many mainstream news outlets and news agencies around the world already include fact checking as part of their portfolio (Poynter Institute, n.d.), slightly smaller and/or independent news outlets can benefit from collaborating with fact checkers, who have even smaller reach. Given that social media platforms act as news aggregators, enhancing strategic partnerships between platforms and fact checking organizations may be advisable (Bélair-Gagnon et al., 2023). However, this approach may be less feasible due to the known aversion of social media platforms to being characterized as media companies (Napoli & Caplan, 2017).

More broadly, this study contributes to the communication literature in at least two ways. First, it highlights how incorporating theories of mass behavior, specifically the double jeopardy thesis (McPhee, 1963) can provide a richer understanding of various issues of critical importance related to information consumption. Our findings show that engagement with fact-checkers can be explained by users' overall media behaviors, which can also account for the mixed outcomes from misinformation correction interventions (Nyhan & Reifler, 2010; Thorson, 2016). Second, this study extends the literature on structural determinants of media use (Mangold et al., 2022; Ng & Taneja, 2019; Schnauber-Stockmann et al., 2023) by demonstrating its applicability in explaining how being a niche genre actively inhibits fact checkers ability to reach their target audience. In doing so, it joins recent studies that highlight that users of other niche genres of news including fake news and misinformation tend to be exposed to more sources of news on average (Nelson & Taneja, 2018; Zhou et al. 2023). Our findings apply this argument to explain usage of fact checkers as well and this mechanism would apply on platforms beyond X.

Although the failure of fact checkers to reach their intended audience is often solely ascribed to partisan dynamics of selective media use, our findings demonstrate that certain generalized behaviors of media audiences also explain their low reach. However, the design of this study as well as the nature of the data imposes certain key limitations. We considered the following of media outlets on X as indicators of user interest and partisan leanings. However, in the absence of psychographic data, we are unable to determine the extent to which an individual's partisan preferences affect their likelihood of following and engaging with fact checkers beyond what is explained by structural factors such as their overall activity patterns on the platform. The focal variables in our study (following, retweeting, replying, and activity metrics) have epistemological boundaries that are primarily designed to serve the platform's administrative purposes (Wu & Taneja, 2021). They provide convenient but ultimately oversimplified measures of user engagement, intent, and behavior in the context of (mis)information and fact checking content (Altay et al., 2023; Anderson, 2021; Marres, 2018). Further, our sample of outlets only captures a small subset of partisan news audiences who may not accurately represent all users who actually consume misinformation. Our sample also does not include equally biased or similarly misleading outlets. Considering the growing interest the field has taken in using integrated web tracking and survey data (Stier et al., 2020), future research can address several of these limitations by using more accurate measures of individual preferences, content exposure, and engagement that these multimodal datasets offer. The extremely low levels of news exposure seen in tracking data, might, however, make it difficult to find enough visitors to fact checking websites using representative samples. Using a purposive sample of such users may be useful to study the interaction between partisan preferences and other structural factors in determining engagement with fact checking content, while trading off some of the

generalizability. However, matching fact checking visitors with non-visitors on key characteristics can more accurately assess the relative impact of such determinants discussed in this study.

Since the investigation of the content of tweets from fact checking outlets and their associated replies were beyond the scope of this study, further research can shed more light on the role of context in determining how partisan news users engage and interact with fact checks. Given the known limitations of platform-based measures of user behavior, employing qualitative and interpretive methods can uncover deeper insights into how social media users interact with fact checking content through specific platform features such as sharing and replying. Thus, there is ample scope to further examine how people's news seeking motivations, news context, and media consumption patterns work together to explain exposure and consumption of both misinformation and corrective information as well as news usage in general.

Despite these limitations, this study is among the first to demonstrate the importance of considering structural factors beyond partisanship when investigating the failures of fact checking initiatives. While our findings do not offer an optimistic evaluation of fact checkers, a holistic understanding of the media ecosystem within which they operate opens newer pathways for addressing the problems they currently face.

Supplementary material

Supplementary material is available at *Journal of Communication* online.

Data availability

The deidentified data, curated and aggregated for this study, will be shared on reasonable request to the corresponding author.

Conflicts of interest

None declared.

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