

Abortion salience after the Roe v. Wade leak: An automated content analysis of tweets by CNN, Fox News, and ABC News

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Extended Abstract

The Roe v. Wade leaked draft opinion, and the subsequent Supreme Court decision overturning Roe, drew a wave of media attention to the issue of abortion. According to the Agenda Setting Theory (McCombs & Shaw, 2016), the amount of attention an issue receives from the media is likely to make it more or less salient in the minds of the public, and indirectly, influence policy-making (issue salience). Similarly, by selectively highlighting certain attributes of the issue, the media can influence the public's attitude towards it (attribute salience). Keeping this in mind, this study sought to examine the topical and attribute salience of abortion in the tweets of CNN, Fox News, and ABC News from the time of the Roe v. Wade leak till the Supreme Court decision ($N = 20,144$).

The first objective of the study was to examine the salience of abortion in the tweets of the selected news outlets (RQ1a), the difference in abortion salience across news outlets (RQ1b), and the difference in abortion salience across time (RQ1c). Using Structural Topic Modelling (STM; Roberts et al., 2013) we found that crime (10.7%), inflation (8.5%), and health (7.6%), were the most prominent topics, whereas abortion was the seventh prominent topic with respect to proportion (5.1%). Fox News had the highest proportion of tweets related to abortion as compared to both CNN and ABC News. However, there was no moderating effect of time on the relationship between news outlets and abortion salience. Figure 1 shows the distribution of topics across news outlets and time.

The second objective was to examine the frames used to tweet about abortion, (RQ2a) and how they varied across news outlets (RQ2b). To identify *context-specific* frames, we included news outlets as topical content covariates within the STM model and found that Fox News and CNN mirrored the polarized responses of right and left political elites, such that CNN highlighted *rights* more (David, 2022), whereas Fox News condemned the act of the *leak* itself (Cheney & Desiderio, 2022). Next, we used dictionaries to identify *general* issue frames in the tweets. The most prevalent frames were political (34.68%), health (20.16%), and public opinion (18.47%), whereas the religious (8.90%) and economic (6.08%) frames were the least prominent. Logistic regression revealed that ABC News was less likely to use the political frame ($OR = -.68$, $S.E. = .19$, $p < .001$) and more likely to use the health frame ($OR = .67$, $S.E. = .20$, $p = .001$). Fox News, however, was more likely to use the religious frame ($OR = 1.62$, $S.E. = .52$, $p = .002$).

The third objective of the study was to examine the sentiment of abortion-related tweets across the news outlets (RQ3a) and across the frames (RQ3b). We used the BING lexicon (Hu & Liu, 2004) to measure sentiment. A one-way ANOVA showed that the sentiment scores for the abortion tweets differed significantly across the news outlets ($F [2, 885] = 33.13$, $p < .001$)—ABC News ($N = 197$; $M = .32$, $SD = 1.15$) had a more positive sentiment for abortion-related tweets than CNN ($N = 148$; $M = -.23$, $SD = 1.36$) and Fox News ($N = 543$; $M = -.48$, $SD = 1.16$). Next, we examined the relationship of sentiment with each of the frames using regression analysis. The results showed that the public opinion frame was related to a more negative sentiment ($R^2 = .08$, $F(7,880) = 11.03$, $p < .001$).

The present study identified characteristics of cable news outlets that might be contributing to ideological and affective polarization (Levendusky, 2013) in the context of abortion. Firstly, we found that CNN and Fox News engaged in politically biased coverage of abortion which was evident in their selection of context-specific frames about the Roe v. Wade leak. Also, the use of religious framing by Fox News shows their signaling of in-group cues to their largely conservative audience (Pew Research Center, 2019). Such pro-attitudinal and ideologically conforming coverage can reinforce the existing beliefs of viewers and their feelings towards the other party, thereby, pulling them further apart towards ideological extremes (see Levendusky, 2013). Secondly, the political framing of health issues can have devastating effects on health-related attitudes, beliefs, and behaviors of the public (e.g., Bolsen & Palm, 2022). Also, it tends to activate motivated reasoning, skew people's evaluations of policies (Van Bavel & Pereira, 2018), and possibly create gridlocks in the policymaking process (see McLaughlin, 2019). Lastly, the use of negatively charged emotional language by CNN and Fox News, atop the political framing of abortion, points to the possibility of outrage programming that is characteristic of cable news (Berry & Sobieraj, 2013). Outrage discourse tends to activate partisan identities and feelings towards political out-groups, thereby, exacerbating ideological and affective polarization, stalling political and legislative functions, and decreasing trust in the media, institutions, and the government (see Berry & Sobieraj, 2013).

References

- Berry, J. M., & Sobieraj, S. (2013). *The outrage industry : political opinion media and the new incivility*. Oxford University Press.
https://books.google.com/books/about/The_Outrage_Industry.html?id=co8BAAQBAJ
- Bolsen, T., & Palm, R. (2022). Politicization and COVID-19 vaccine resistance in the U.S. *Progress in Molecular Biology and Translational Science*, 188(1), 81.
<https://doi.org/10.1016/BS.PMBTS.2021.10.002>
- Cheney, K., & Desiderio, A. (2022). *Republicans rage about breach of draft Roe opinion - POLITICO*. Politico. <https://www.politico.com/news/2022/05/03/republicans-rage-draft-ro-abortion-opinion-00029644>
- David, R. (2022). *Roe v Wade overturned: How the media covered the landmark Supreme Court decision | Fox News*. Fox News. <https://www.foxnews.com/media/roe-v-wade-overturned-how-media-covered-landmark-supreme-courtdecision>
- Hu, M., & Liu, B. (2004). Mining and Summarizing Customer Reviews. *KDD '04: Proceedings of the Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*.
- Levendusky, M. S. (2013). Why Do Partisan Media Polarize Viewers? *American Journal of Political Science*, 57(3), 611–623. <https://doi.org/10.1111/AJPS.12008>
- McCombs, M. E., & Shaw, D. L. (2016). The Agenda-Setting function of mass media. *Agenda Setting: Readings on Media, Public Opinion, and Policymaking*, 36(2), 17–26. <https://doi.org/10.4324/9781315538389>
- McLaughlin, B. (2019). Tales of conflict: narrative immersion and political aggression in the United States. *Media Psychology*. <https://doi.org/10.1080/15213269.2019.1611452>
- Pew Research Center. (2019). *Fox News Viewed as Most Ideological Network*. Pew Research Center. <https://www.pewresearch.org/politics/2009/10/29/fox-news-viewed-as-most-ideological-network/>
- Roberts, M., Stewart, B., Tingley, D., Airoidi, E., & Et Al STM, R. (2013). *The Structural Topic Model and Applied Social Science*.
- Van Bavel, J. J., & Pereira, A. (2018). The Partisan Brain: An Identity-Based Model of Political Belief. *Trends in Cognitive Sciences*, 22(3), 213–224.

<https://doi.org/10.1016/j.tics.2018.01.004>

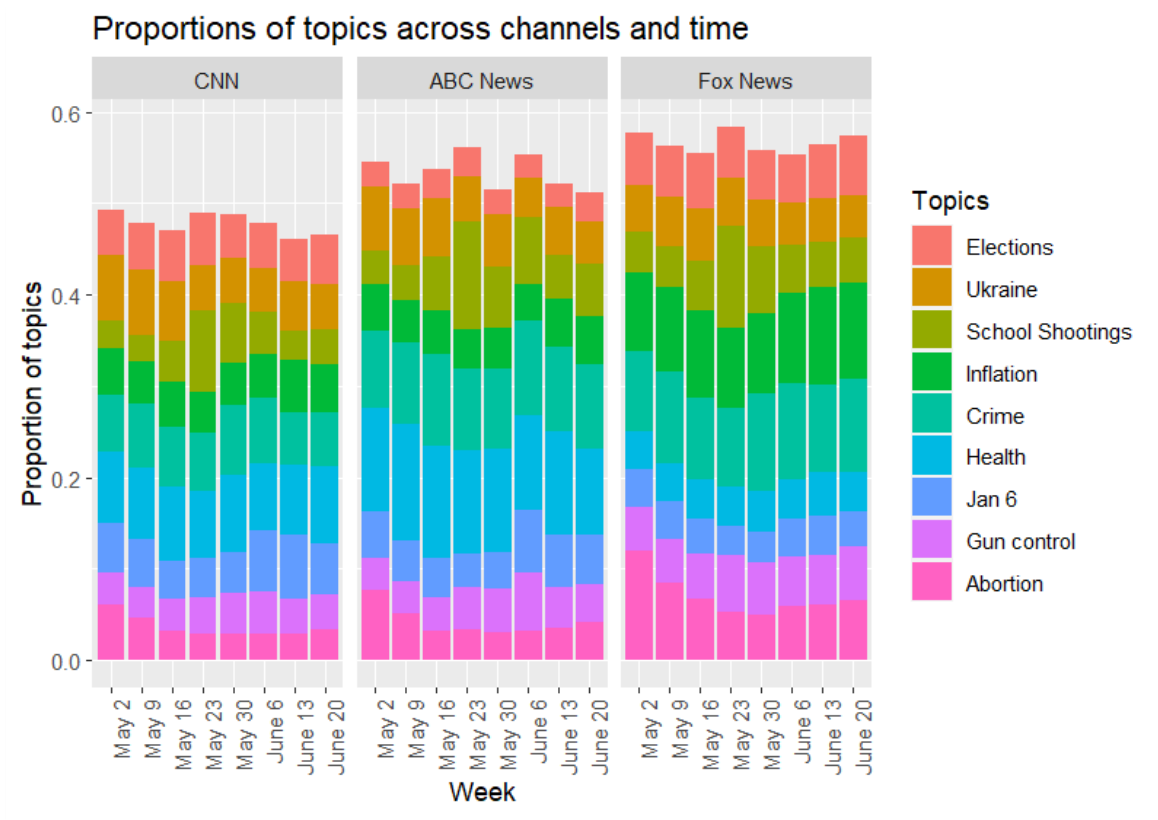


Figure 1. Distribution of topics within the tweets of CNN, Fox News, and ABC News from the time of the Roe v. Wade leak till the Supreme Court decision.