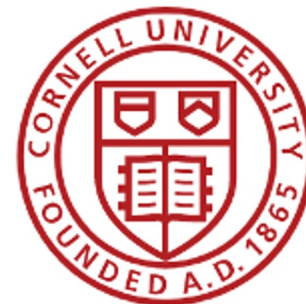


Exploring the Relationship between Political Ideology and Confirmation Bias in Web Search

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Outline

- Search engines as information gateway
- Relevant literature on partisan selective exposure, media & individual frames, confirmation bias
- Current study: examines partisan confirmatory search tendencies.

Search Engines have Powerful Impact on Access to Information



Drive web traffic



Direct public attention



Facilitate information

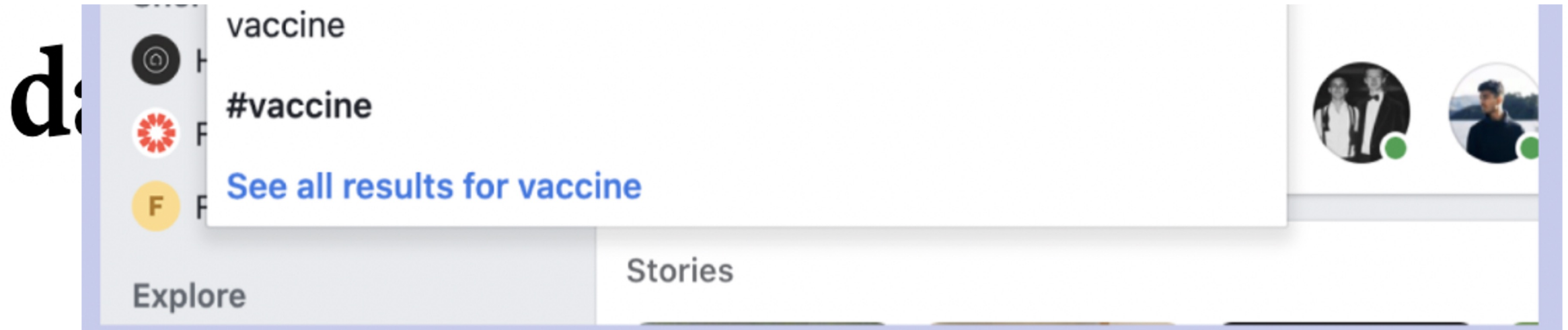


Work in synergy with social media

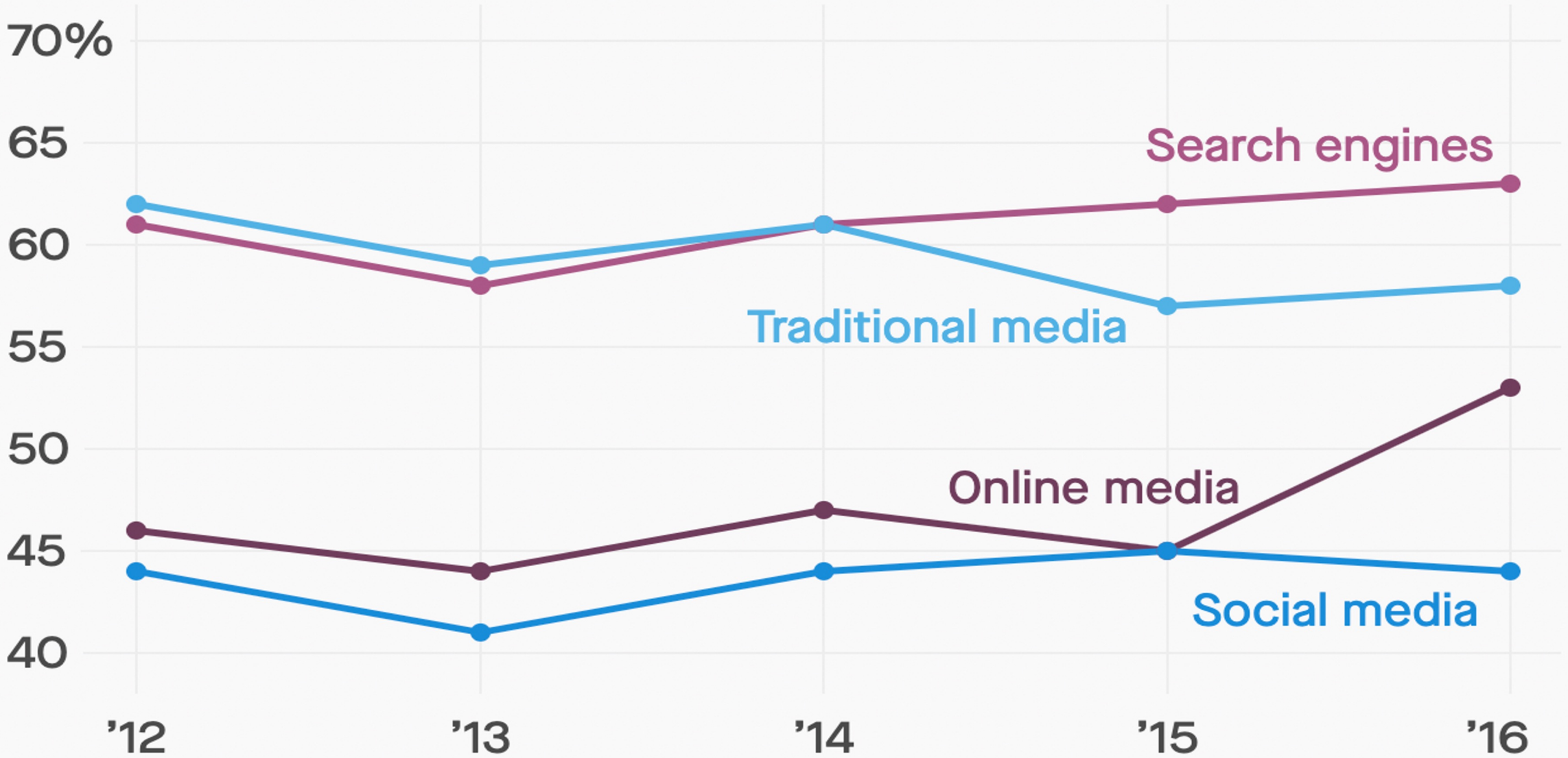


December 17, 2019

Bing's Top Search Results Contain an Alarming Amount of Disinformation



Percentage of people who trust each source of news



Search ubiquity

- among the first places to go for information
- 86% reported using on a daily basis
- 74% reported using to check the accuracy of information
- 68% reported that the information they found by searching was “important to influencing their decisions about voting”

(Dutton et al., 2017)

In the domain of politics

- Search engine manipulation effect (SEME) (Epstein & Robertson, 2015)
- Snippets of search results exhibit more political bias than actual site content (Hu et al., 2019)
- Search personalization when political queries are used (Hannak et al., 2013)
- Bias: coverage bias in candidate quotations and visual framing in images (Diakopoulos et al., 2018); left-leaning bias (“lying Ted” but not “crooked Hillary”) (Sullivan, 2016)

Current literature

Mental schemata of the audience affects how they think and talk about issues (Scheufele, 1999)

Frames are constructed and circulated through social processes (Hochschild, 2018; Cramer, 2016).

Selective exposure to partisan media & outcomes

Motivated reasoning goals affect information selection

Some questions

Search terms as the mechanism through which selective exposure happens?

How the concept of framing, applies to search queries?

In this study...



How political ideology relates to partisan selective information search?

How partisan media use relates to partisan selective information search?

To what extent does partisan media mediate such relationship?

Data and Methods

- Collecting partisan media coverage on polarized issues → terms disproportionately used in liberal vs. conservative media.
- Survey design (oversampling of conservatives and liberals in the US).
- Included measures of strength of partisanship, issue positions, frequency of media use, search query ranking.
- Open-ended questions on query choice by motivated reasoning goals.

“Confirmatory search tendencies” operationalization

Preference for partisan terms
(extracted from partisan media)
as search queries

Open-ended search queries
under **Accuracy** goals &
Directional goals

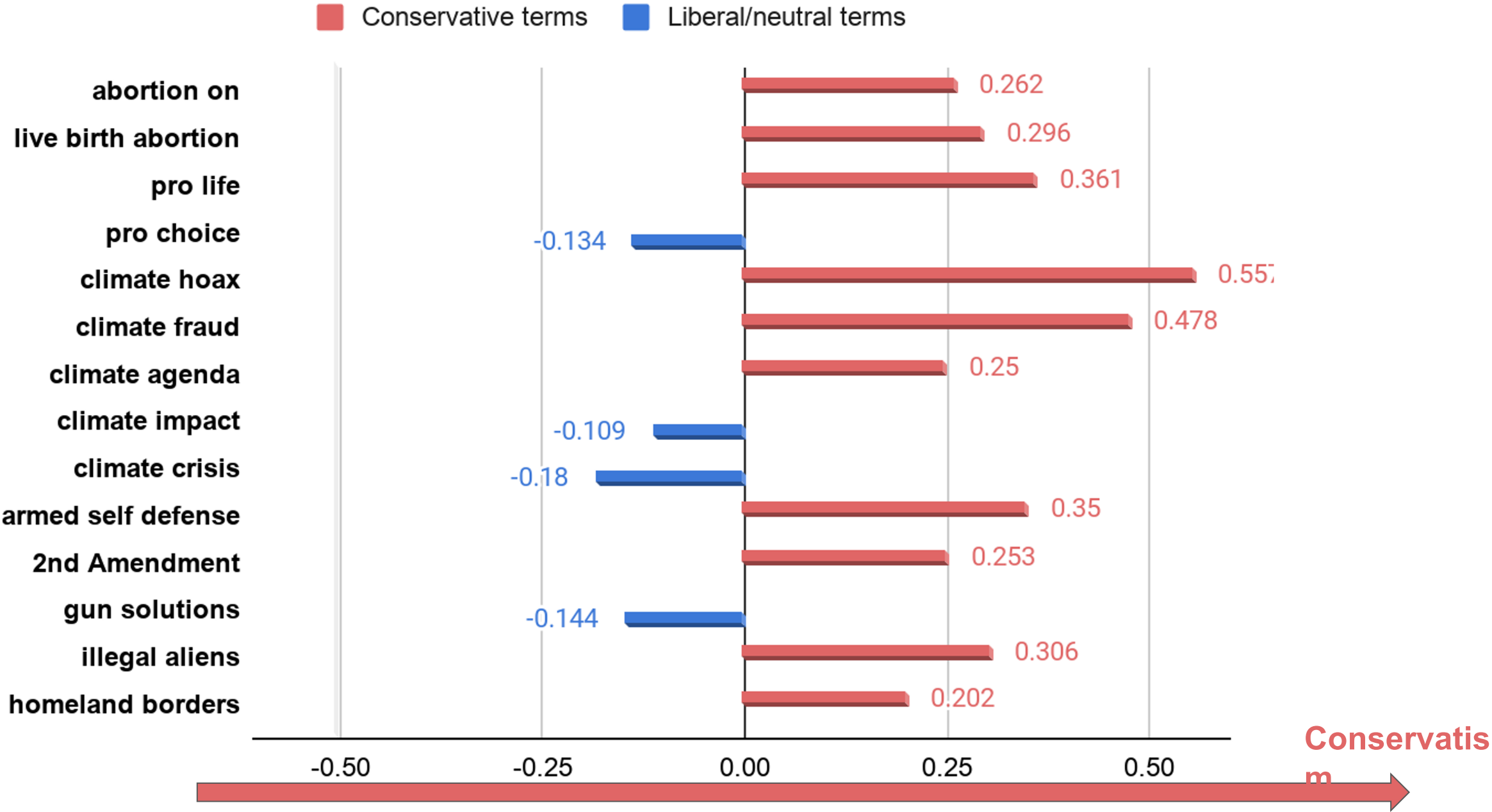
Select and rank terms from the one you would **most likely use** to the one you would **least likely use** to search for information about “XXXX” on a search engine.

*We are trying to understand how people seek for information regarding current news events. If you were to conduct an online search to get information about "XXXX". What would be the phrases or questions you would use to find **accurate and objective** information? OR*

What would be the phrases or questions you would use to find **strong and convincing** information to **support your opinion**?

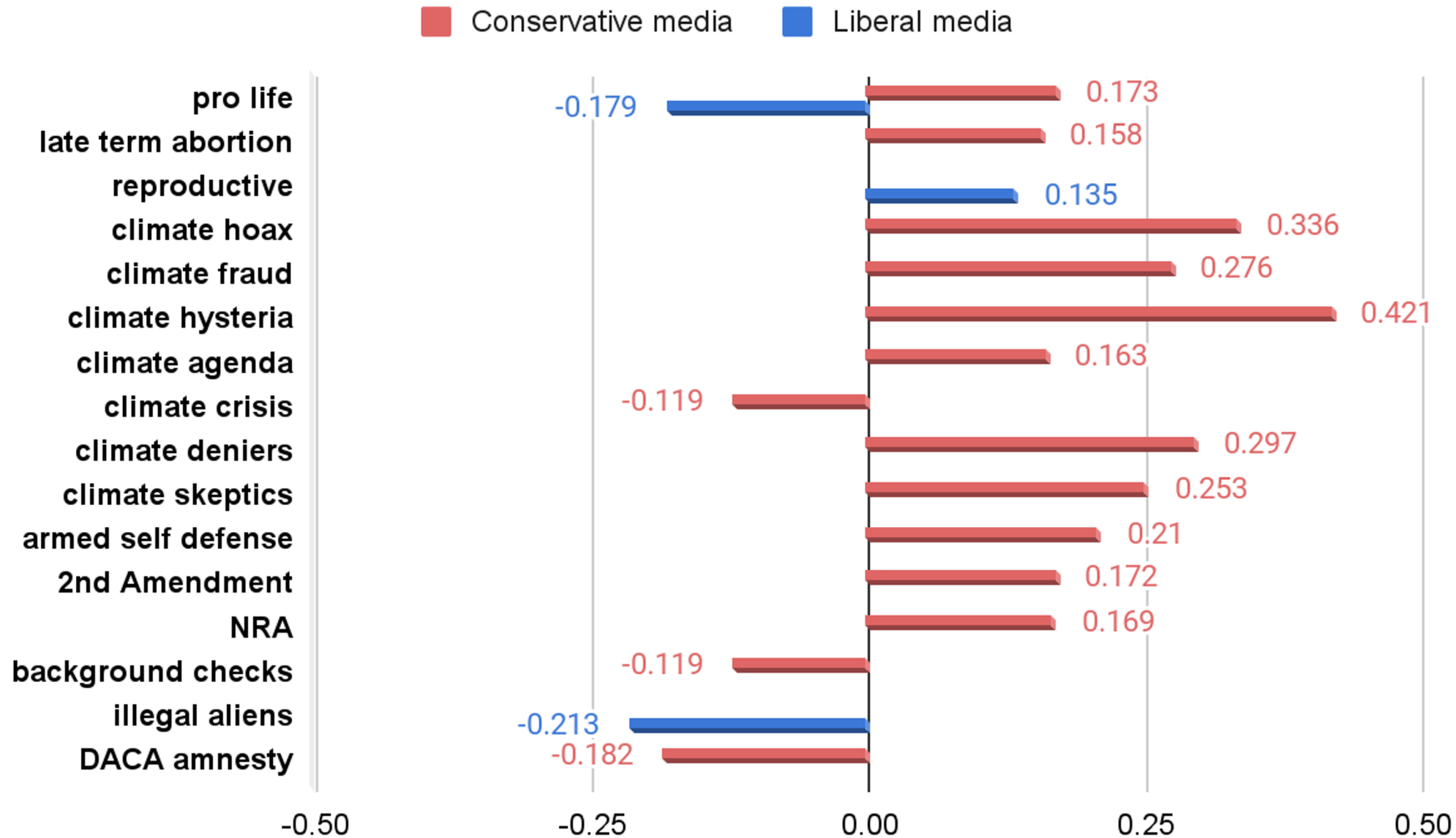
H1: There is a positive correlation between conservative ideology and preference for conservative terms (as search queries), and a negative correlation between conservative ideology and preference for liberal terms (as search queries).

Correlations between ideology and term preference



H2: There is a positive correlation between partisan media consumption and preference for biased terms of the same slant as search queries.

Correlations between partisan media use and term preference



H3a: Open-ended search terms (both accuracy and directional goals) provided by respondents will reflect pre-existing issue positions.

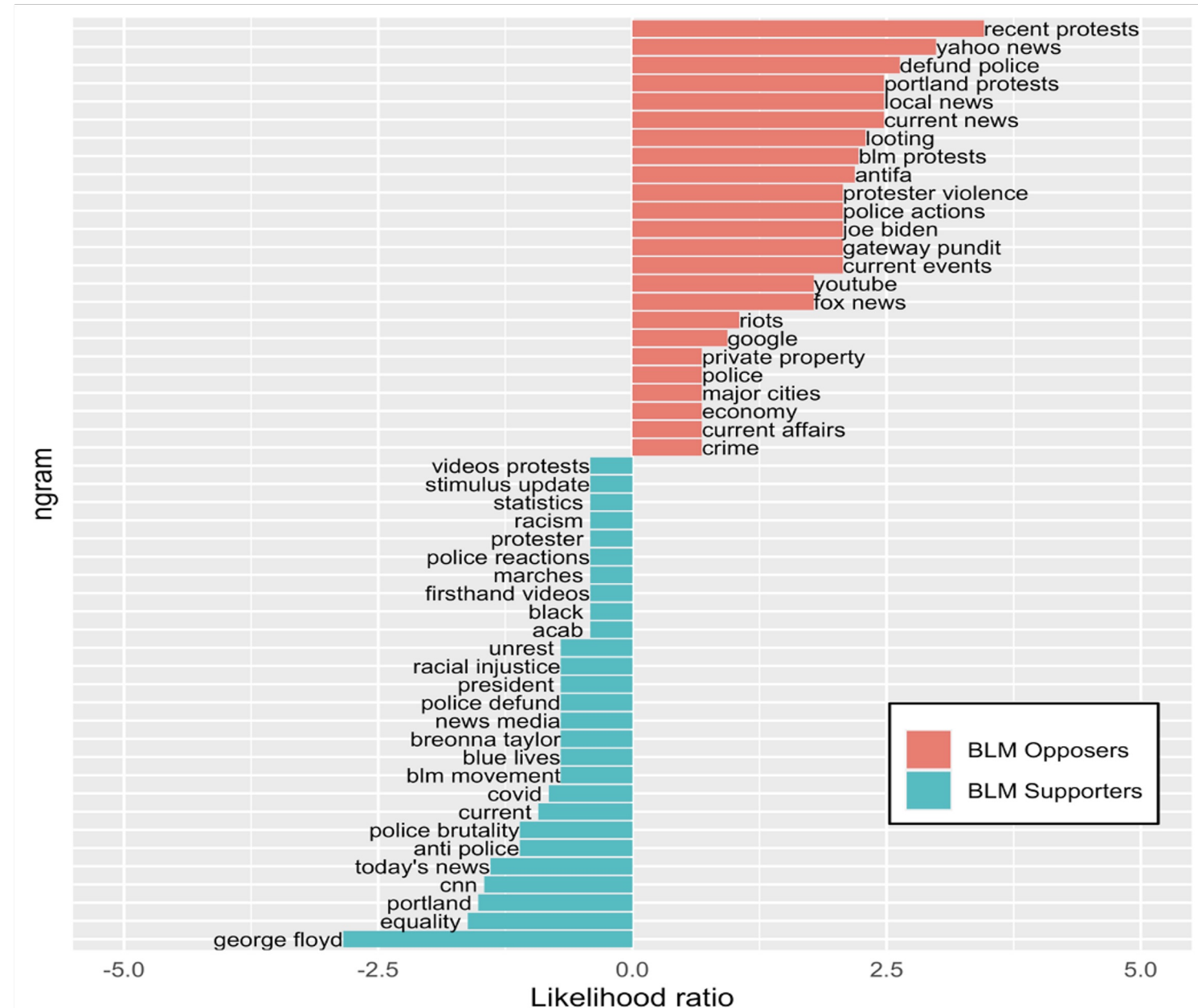
H3b. Directional goals generated more negativity than accuracy goals.

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2020 Black Lives Matter protests

“Antifa”, “looting”, “private property”, “protester violence”

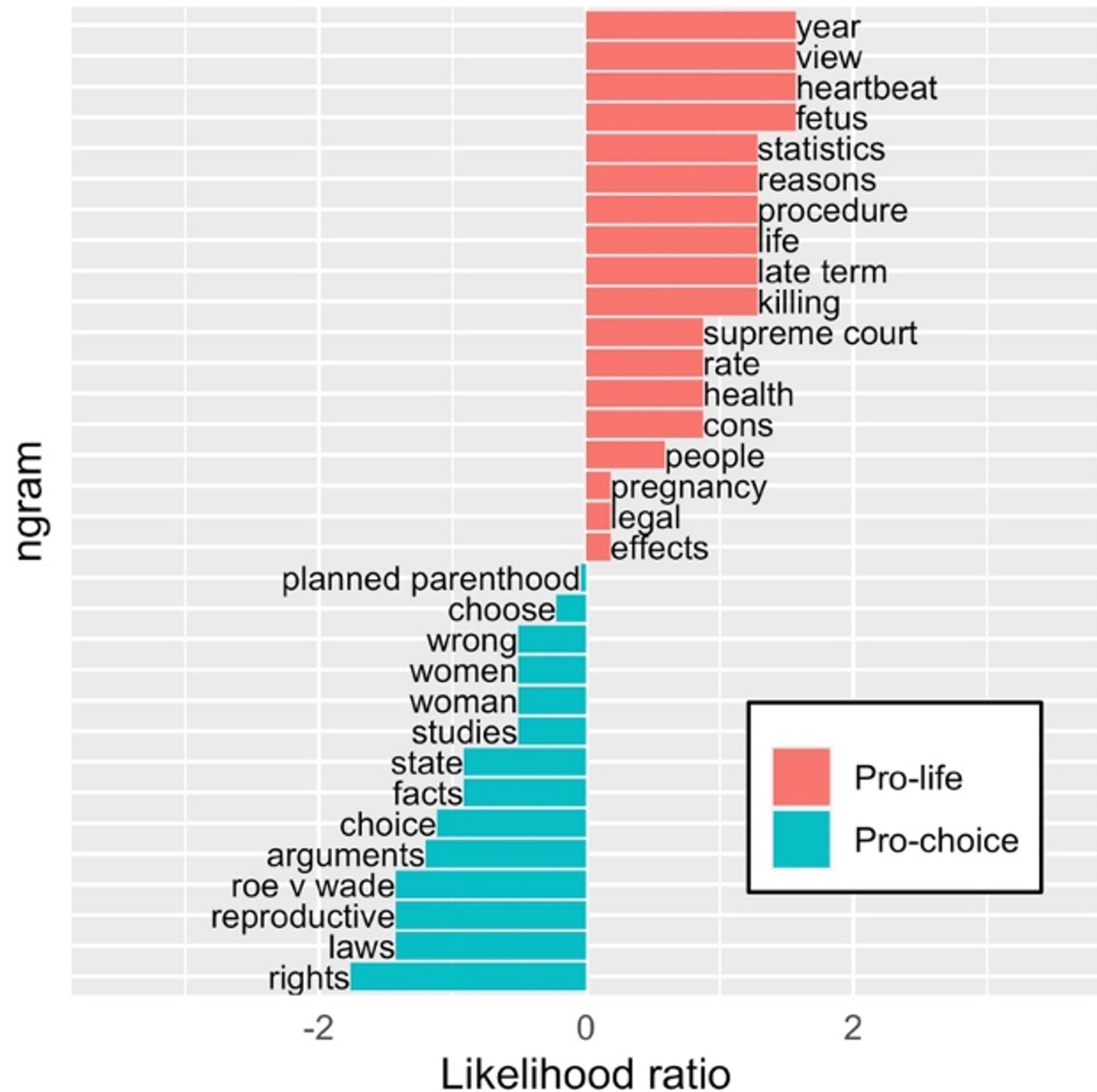
“George Floyd”, “equality”, “police brutality”, “racial injustice”, “anti police”, “acab”



Abortion

“heartbeat”, “fetus”,
“statistics”, “killing”, “life”

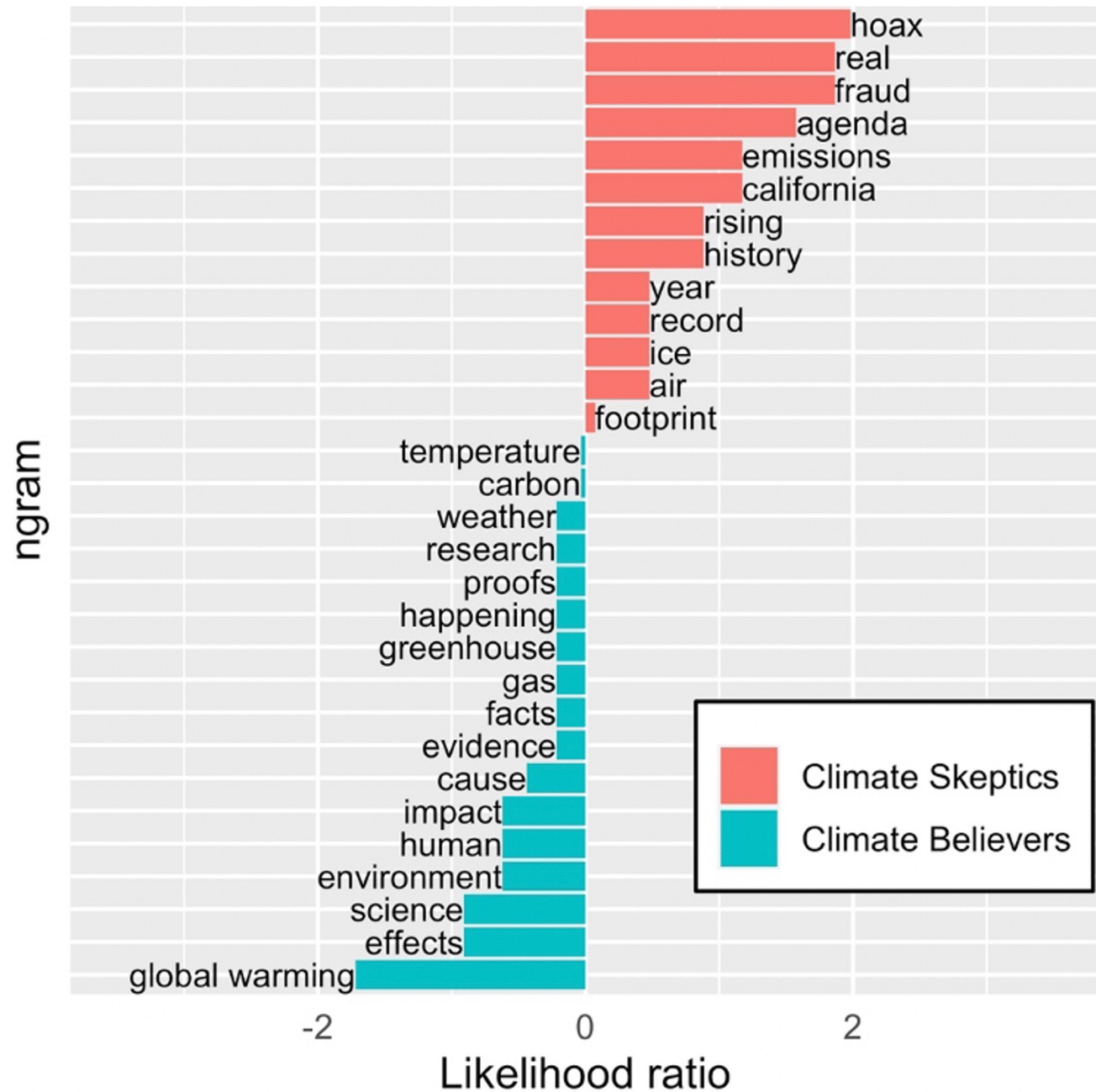
“rights”, “reproductive”, “roe
v wade”, “choice”



Climate change

“hoax”, “real”, “fraud”,
“agenda”, “emissions”

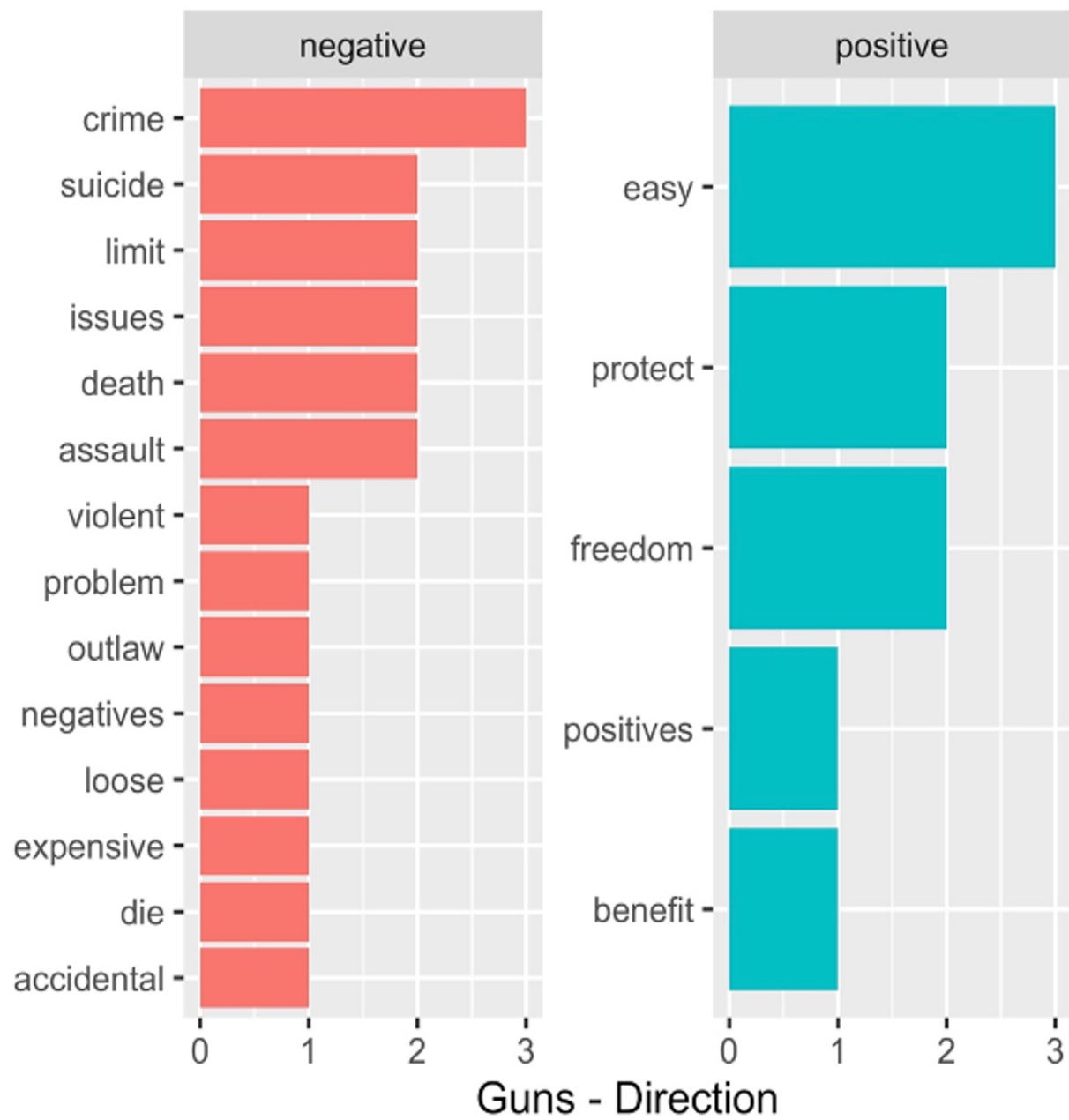
“Global warming”, “effects”,
“science”, “environment”,
“human”



Directional goals generated more **negative** sentiment

Directional
(vs Accuracy)





Takeaways

Connection between political predispositions & confirmatory search?

Limited support

Connection between partisan media & confirmatory search?

**Limited support
(only conservative media)**

Partisan media mediated the effects of ideology?

No significant effect

How goals influence search queries?

Directional goals → negativity

Conclusion

- Not enough evidence to support claims about confirmatory search tendencies.
- Though limited, the relationship between conservative ideology, right-wing media use and biased information search suggests concerning implications.
- Partisan language: “climate change agenda” as a right-leaning term?
- Not ideology, but extremity.

Thank you!

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