

Motivated Inconsistency in Probability Importance Judgments during COVID-19



Zoom link: <https://uoregon.zoom.us/j/92428695654>

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Introduction

- Motivated reasoning is the process by which one's goals or motivations affect one's reasoning, including when evaluating the importance of information.¹
- Individuals engage in motivated reasoning on a number of politicized topics, and some studies have found that individuals higher in numeracy (i.e., numeric ability) are more likely to engage in motivated reasoning, a phenomenon called motivated numeracy.²⁻³
- Despite being a severe public health crisis, COVID-19 has become a politically polarized topic in the United States.⁴
- The current study examined whether individuals engaged in motivated reasoning on COVID-19 policies—using a novel, within-subjects coding design—and whether those higher in numeracy were more likely to do so.

Methods

- N=817 MTurkers recruited via CloudResearch met criteria to be included in the current study.
- These analyses utilize data from two of the six waves of the longitudinal UO-EPIDeMIC Study.

Wave 1 (Feb. 2020)	Numeracy, political ideology
Wave 5 (July 2020)	Motivated reasoning items, order randomized

Table 1. Relevant contents of UO-EPIDeMIC Waves 1 and 5

- Motivated reasoning was measured with a two-item paradigm³: for each item, participants were given four probabilities and asked to indicate which should most influence one's policy judgment.
- One probability was the objectively correct response to the task, while another probability, the **hit rate probability**, was an objectively incorrect response but designed to be highly compelling to either conservative or liberal participants.
- For the conservative-motivated item, the hit rate probability was motivated for conservative participants (see Sample Item); for the liberal-motivated item, it was motivated for liberal participants.
- To directly examine within-participant motivated reasoning, participants were said to commit an **ideologically-motivated response inconsistency (RI)** if they selected the hit rate probability only for the item in which it was motivated for their political ideology.

Sample Item: Conservative-Motivated Item

Which of the following pieces of evidence should most influence the decision of whether or not the U.S. should ban trade with China?

- 21.20% of imported products come from China.
- 0.01% of imported products have been handled by a worker with the coronavirus.
- Of the imported products that come from China, 0.03% have been handled by a worker with the coronavirus.*
- Of the imported products that have been handled by a worker with the coronavirus, 65.35% are from China.**

(Correct probability, Hit rate probability)

Hypotheses

H1: Political ideology will predict the likelihood of committing an ideologically-motivated response inconsistency.

H2: Numeracy will significantly moderate the relationship between political ideology and likelihood of committing an ideologically-motivated response inconsistency.

Results: Conservative-Motivated RI

H1 was supported: Participants lower in liberalism were more likely to commit a conservative-motivated response inconsistency ($\beta = -0.36, p = .002$).

H2 was not supported: The Numeracy \times Ideology interaction was *ns* for the conservative-motivated response inconsistency ($\beta = 0.12, p = .274$).

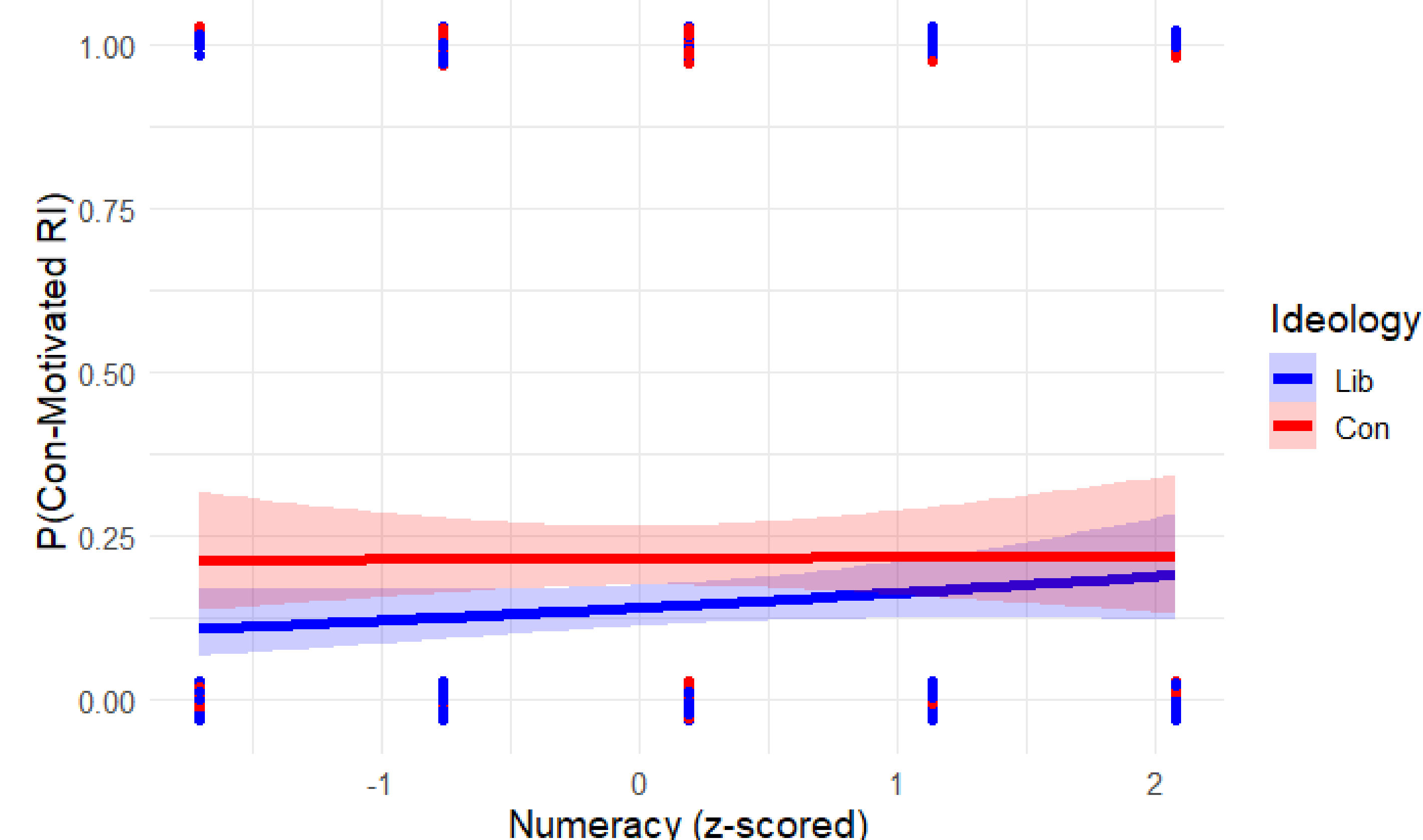


Figure 1. Likelihood of Conservative-Motivated Response Inconsistency (RI)

Results: Liberal-Motivated RI

H1 was supported: Participants higher in liberalism were more likely to commit a liberal-motivated response inconsistency ($\beta = 0.35, p = .001$).

H2 was not supported: The Numeracy \times Ideology interaction was *ns* for the liberal-motivated response inconsistency ($\beta = -0.09, p = .380$).

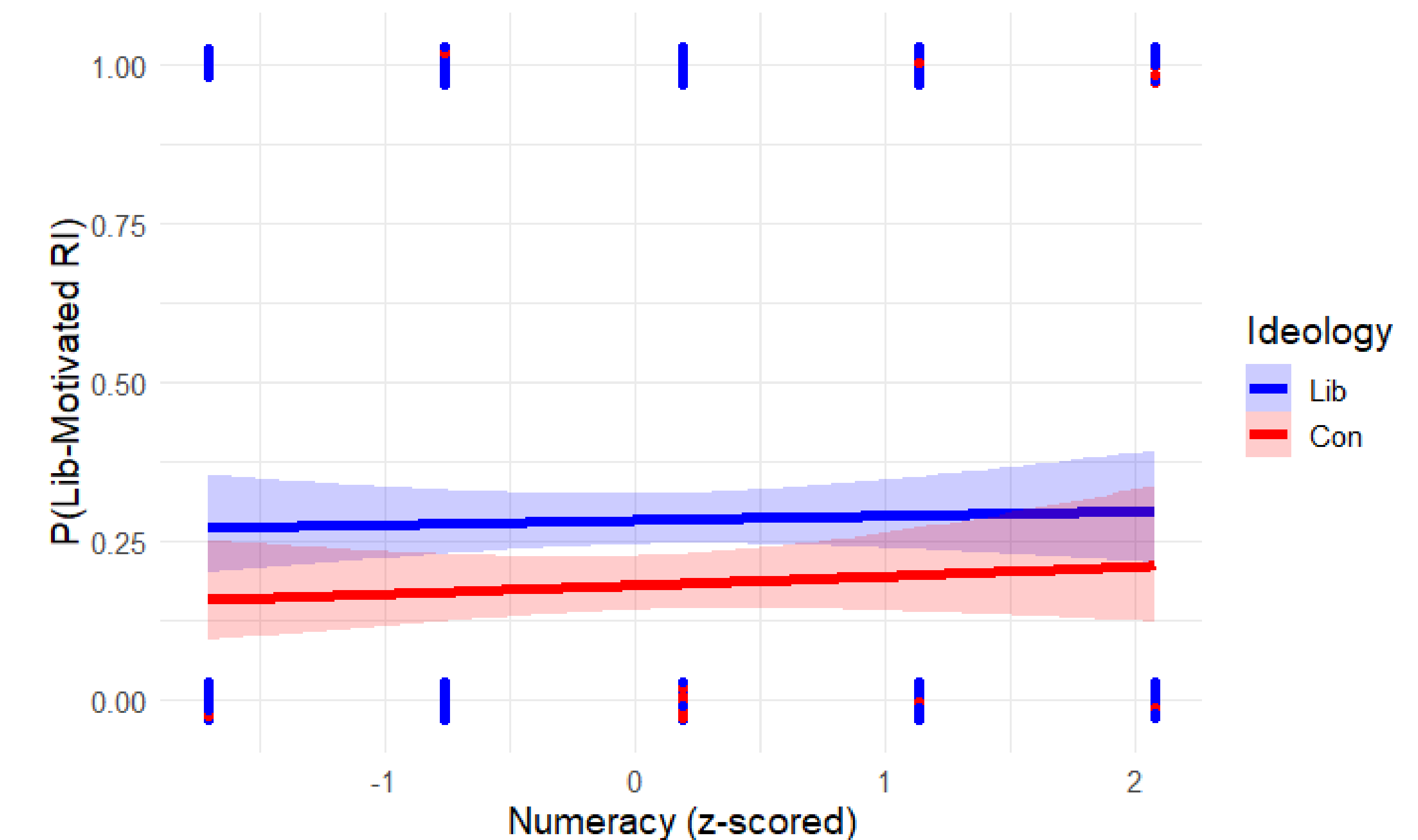


Figure 2. Likelihood of Liberal-Motivated Response Inconsistency (RI)

Discussion

- This study utilized a novel coding method to test within-person motivated reasoning directly by recording when participants engaged in ideologically-motivated inconsistencies in their judgments.
- The current study is limited by its correlational design and non-representative sample.
- These findings provide evidence that individuals engage in politically motivated reasoning on consecutive COVID-19 policy judgments, replicating and extending previous research.
- However, the current study did not find evidence of motivated numeracy. Researchers hypothesize this may be due to insufficient ambiguity or difficulty of the items.

References

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