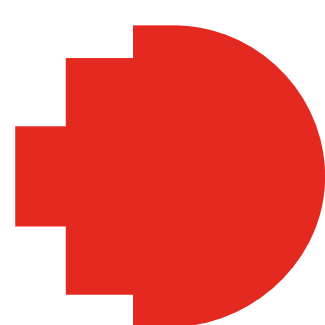


ARC Centre of Excellence for Automated Decision-Making and Society



RMIT UNIVERSITY



School of Health and Biomedical Science & School of Computing Technologies, RMIT, Naarm, Melbourne VIC



Clickbait nudges social media away from accuracy

Fletcher Scott, Damiano Spina, and Lauren Saling

Background: What this problem means for you!

View all

An external world underlies what we observe. We access it either through first-hand observation or through others' reported measurements.

Because such reports are selectively filtered, they may diverge from the external cause that generates direct observations. Lacking access to the cause and the filter, people must model both to maintain accuracy, but time and effort is costly.

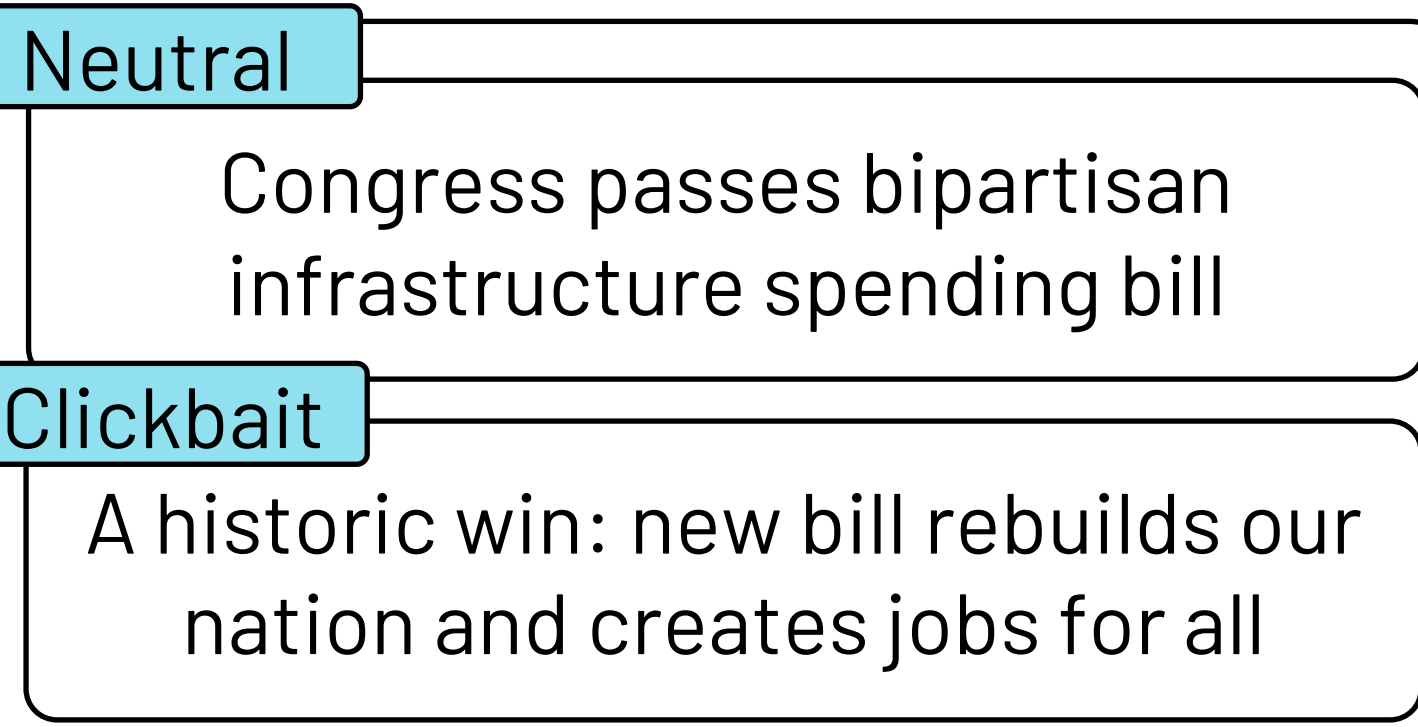
A way of achieving this under constraints is to continue the problem only while the expected gain in accuracy from the next unit of effort exceeds its opportunity cost.

The implication is that judgement is confined to the dimension that best meets that rule.

Rational inattention

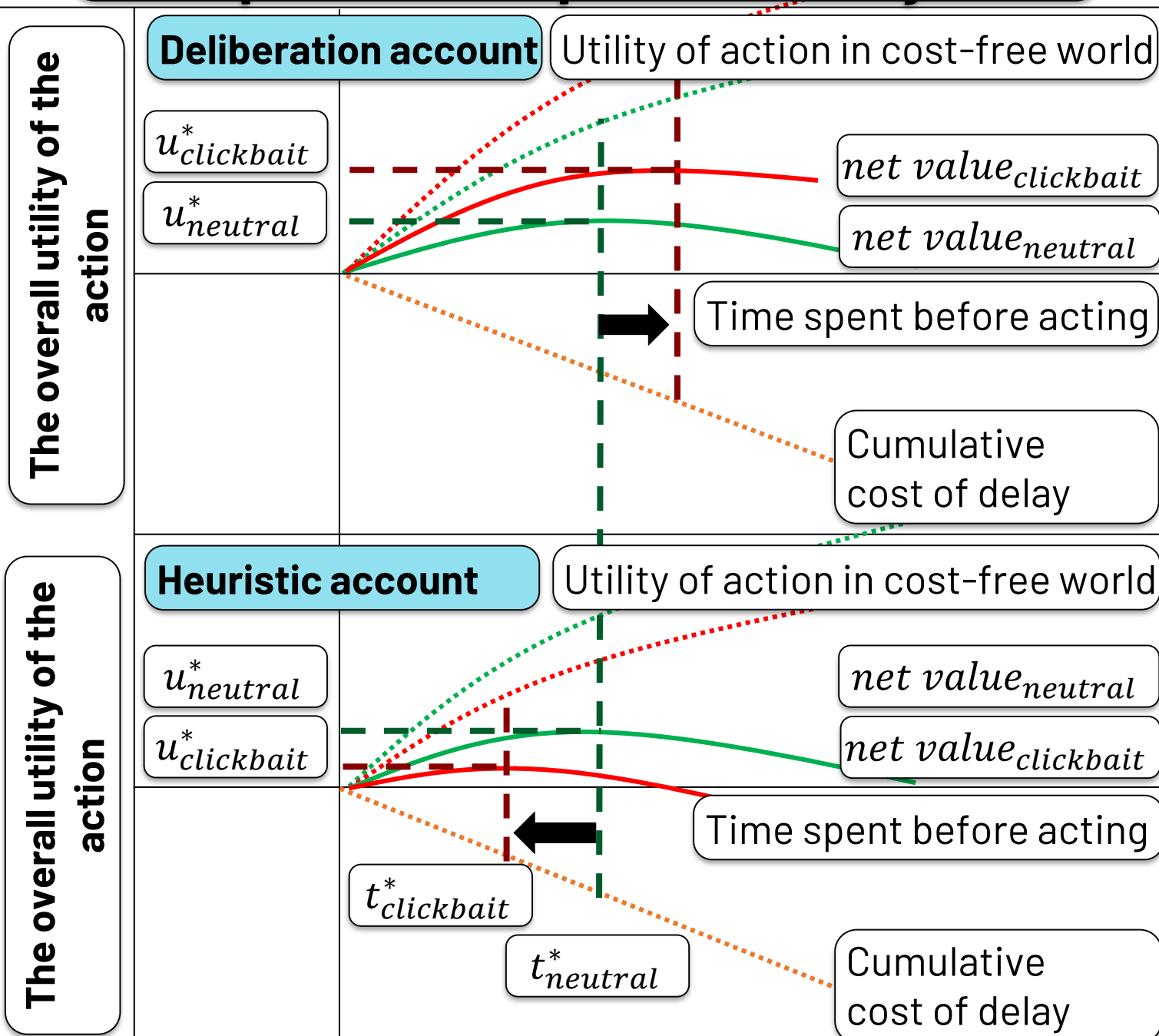
News format is a signal beyond the proposition that accrues associations through experience. Format may set the standard of evaluating the opportunity cost of precision.

It is unknown if sensational cues steer people toward accuracy or toward confirming their existing beliefs.



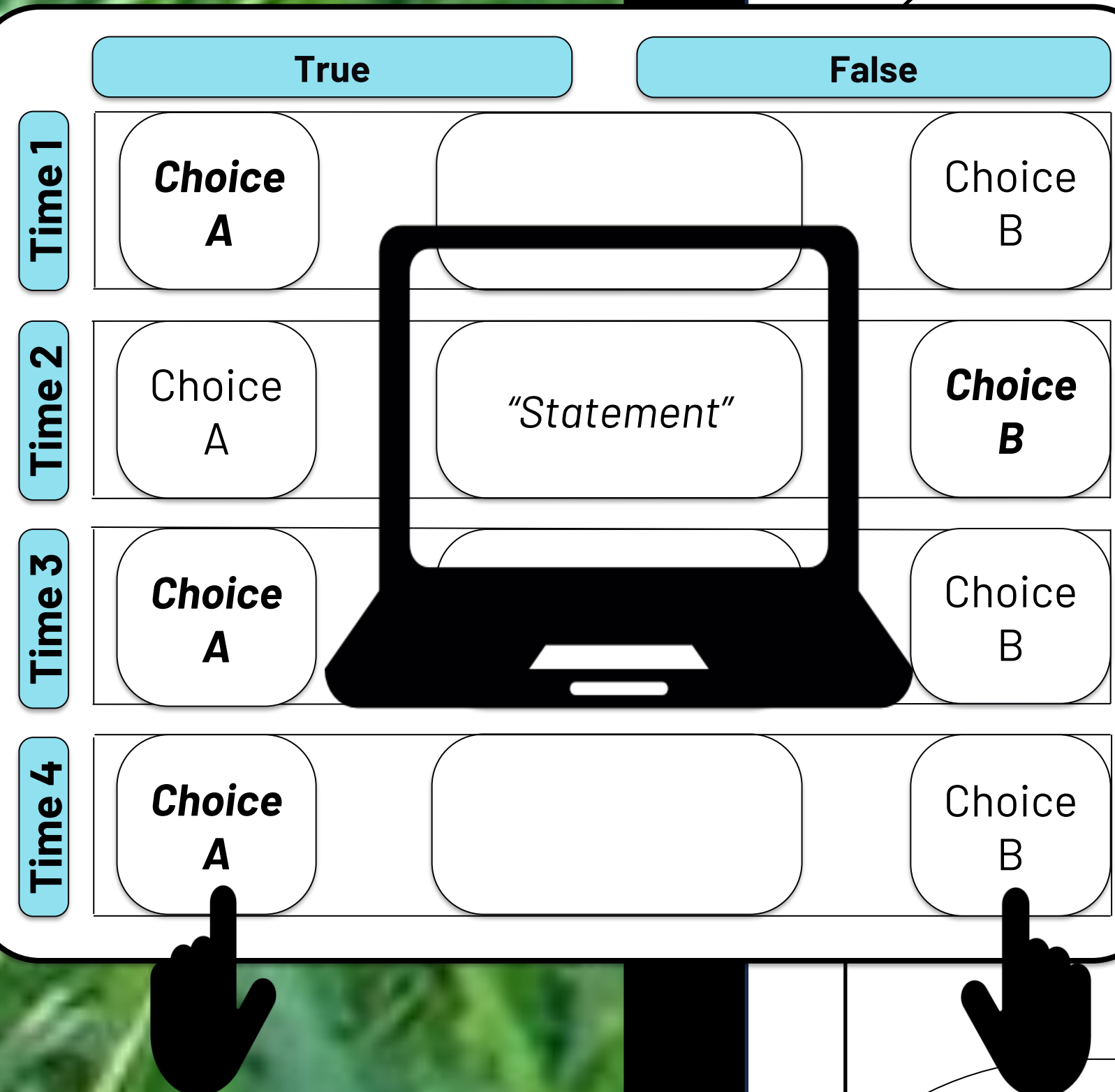
Format: an inattention signal

Does clickbait change processing speed and impact accuracy?



Test Model

Method: You won't believe what we did to participants



Participants: 75 US adults (recruited via Prolific) who identified as Democrat or Republican (Age: M = 42.0, SD = 11.0; Gender: 54% Male, 46% Female)

Design: A mixed-factorial experiment, with headline style (neutral vs. clickbait; between-subjects), political congruence (congruent vs. incongruent; between-subjects), and truth status (true vs. false; within-subjects).

Procedure: Participants judged the truth of 64 political headlines, responding True or False each time, while accuracy (correct/incorrect) and RT was recorded. Stimuli were extracted from an existing dataset and re-written for the Clickbait condition and verified using a fine-tuned RoBERTa model.

Analysis: Mixed-effects models were used to analyze the effects of headline style, political congruence, and truth status on accuracy and response times.

Drift-Diffusion Models (DDM) were used as an exploratory analysis to investigate the cognitive processes underlying decision-making

Deliberation account

Do clickbait headlines, compared to neutral, **increase** accuracy and RT when judging the truthfulness of political news?

or

Heuristic account

Do clickbait headlines, compared to neutral **decrease** accuracy and RT when judging political news, explained by a reliance on political congruence?

Research Questions

Results: We ran the analysis (it's shocking)

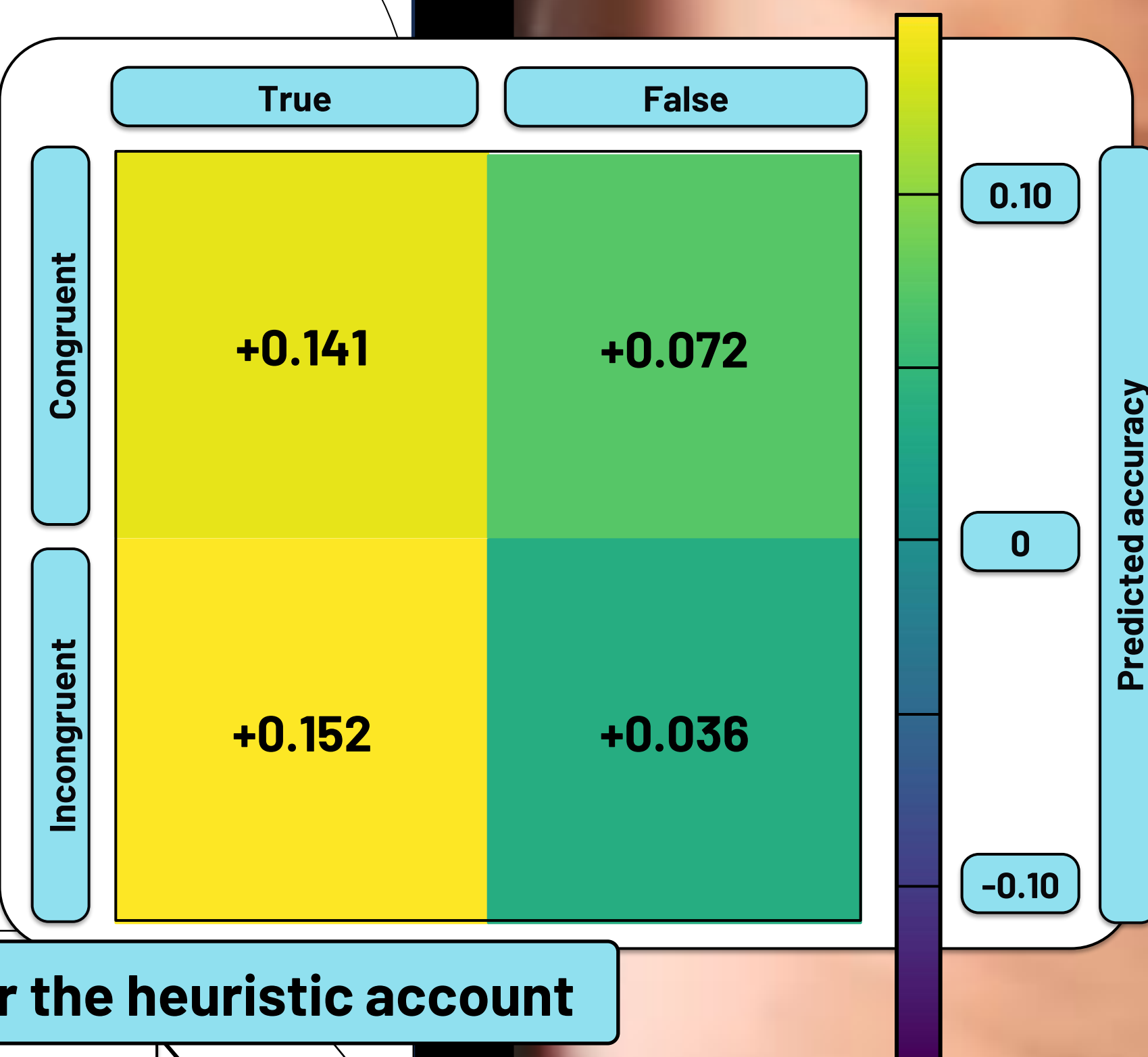
Mixed-effects models

Accuracy:

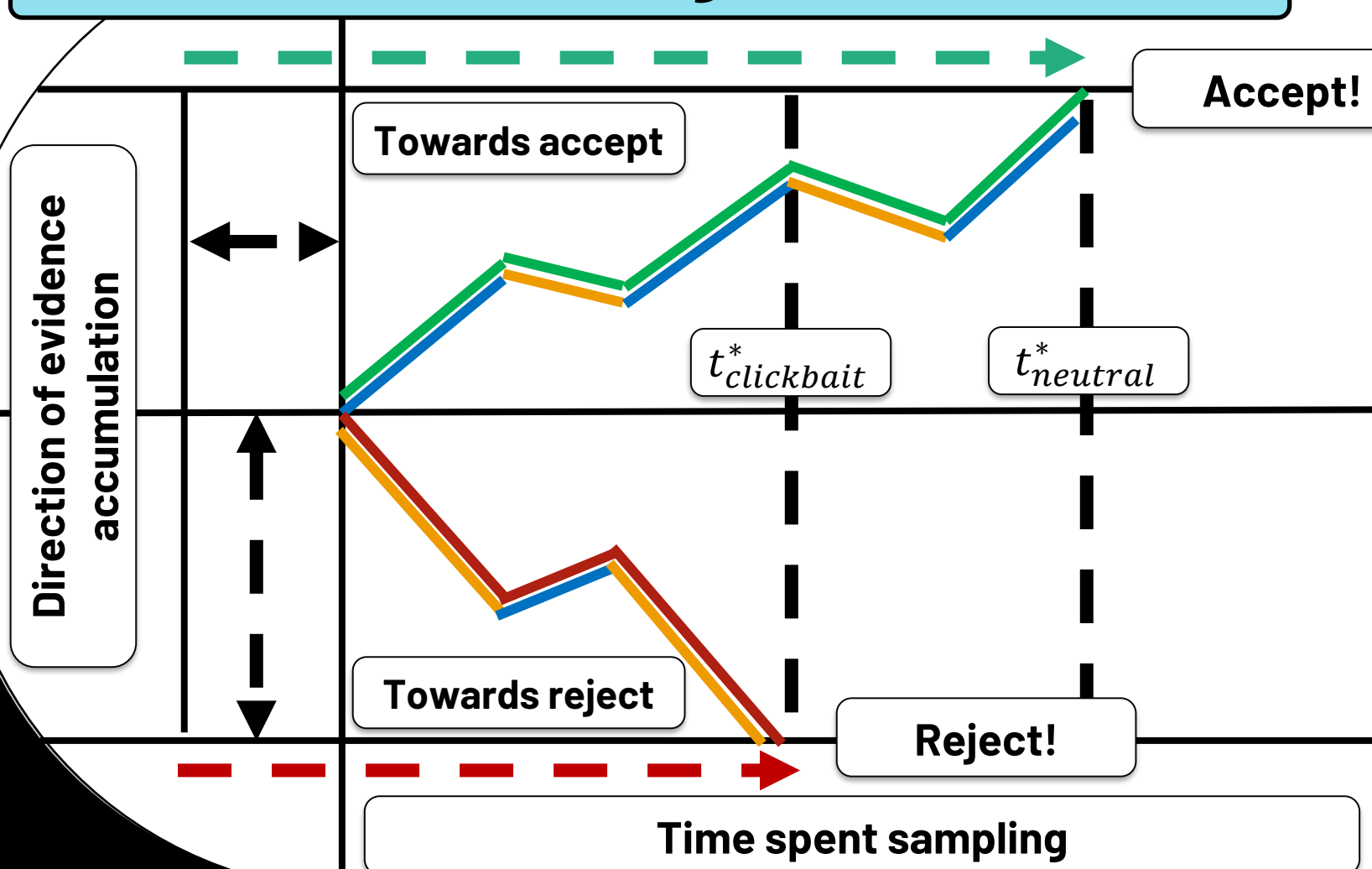
Neutral headlines improved accuracy compared to clickbait (OR = 1.25). True headlines were less accurate than false ones (OR = 0.32). Neutral headlines significantly reduced the accuracy penalty for true items (Neutral × True Interaction, OR = 1.53).

Response Time:

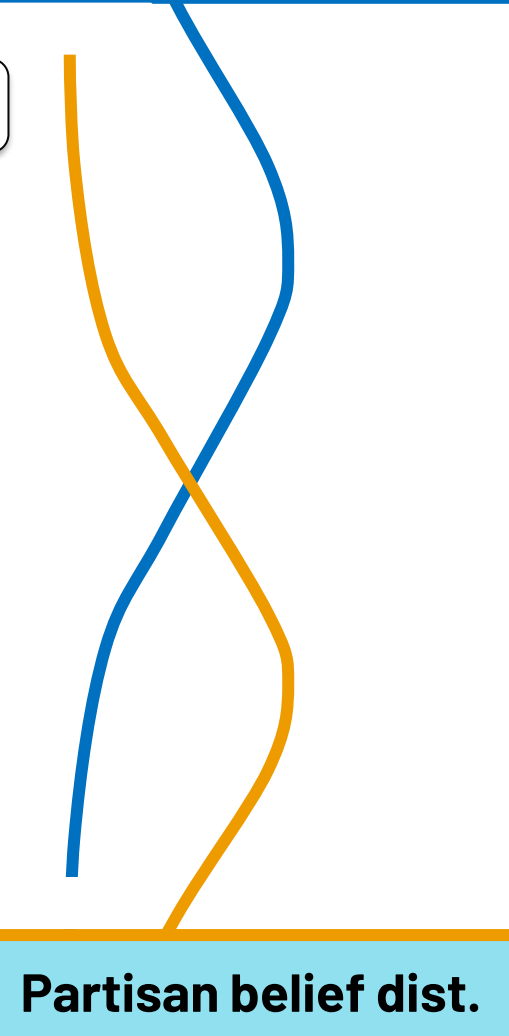
There was no significant main effect of headline style on response time. True headlines were ~23% slower to judge than false ones ($\beta = 0.091, p < .001$). Neutral headlines sped up judgments for true items by ~10% (Neutral × True Interaction, $p = .025$).



For a true, but incongruent headline...



Accuracy belief dist.



Support for the heuristic account

Participants evaluated sensational headlines reaching a decision (either "Accept" or "Reject") in less time. Decisions were made based on noisier evidence, making evaluation less consistent. $\beta = 0.13, 95\% \text{ CI } [0.01, 0.24]$

A significant Style × Congruence × Truth interaction drove both accuracy (OR = 0.78) and response time ($p = .015$). Under clickbait, judgments align more with partisan congruence, while under neutral, that pattern weakens.

Pre-reg

