Partisan Motivated Reasoning Trumps Even Illusory Truth

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Motivation

Theorethical Model

Bayesian Model for Belief Formation integrating both cognitive biases

$$\pi_i(\mu|x) \sim \square\left(\hat{\mu}_{i,0} + (\mu_x - \hat{\mu}_{i,0})\left(\frac{\hat{\sigma}^2_{i,0}}{\hat{\sigma}^2_{i,0} + \hat{\sigma}^2_{i,x}}\right), \frac{\hat{\sigma}^2_{i,0}\hat{\sigma}^2_{i,x}}{\hat{\sigma}^2_{i,0} + \hat{\sigma}^2_{i,x}}\right)$$

Design

- **Data:** Online survey fielded Qualtrics, with a nationally representative sample of Americans.
- **Design:** Modeled after previous work examining "illusory truth effects" (Pennycook, Cannon and Rand, 2018; Lyons, 2023)
  - **Familiarization stage**: show **X** headlines with questions about participants' familiarization
  - **Distraction stage**: distract participants with survey questions
  - **Accuracy Stage**: show **X + Y** headlines with questions about accuracy beliefs
- **Measuring PMR**: In previous work, partisan leaning is manipulated only with content of the headlines (Pennycook, Cannon and Rand, 2018). We manipulate both the content and source (MSNBC, Democracy Now, Fox, Breitbart)

Experiments

Table 2: Experimental Design

Randomization	Study 1: Familiarization Stage	Study1: Accuracy Stage	Study 2: Accuracy Stage
Control Group	Eight Headlines (H_c)	Sixteen Headlines ($H_{set1} + H_{set2}$)	Twenty-Four Headlines ($H_{set1} + H_{set2} + H_{set3}$)
Treatment 1: Prior Exposure	Eight Headlines (H_{set1})	Sixteen Headlines ($H_{set1} + H_{set2}$)	Twenty-Four Headlines ($H_{set1} + H_{set2} + H_{set3}$)
Treatment 2: Warning Labels	Eight Headlines (H_{set1})	Sixteen Headlines ($H_{set1} + H_{set2}$)	Twenty-Four Headlines ($H_{set1} + H_{set2} + H_{set3}$)

Note: Every H represents a set of eight headlines, equally balanced in their political leaning and split between true and false stories. H_c represents eight headlines seen only by the control group. H_{set1}, H_{set2}, H_{set3} each represent a set of eight different headlines, summing up to twenty-four headlines seen by all participants in Study 2. $H_{\hat{set1}}$ are the same eight headlines as in H_{set1}, but the hat sign indicates these headlines were shown with added warning labels for participants assigned to Treatment 2.

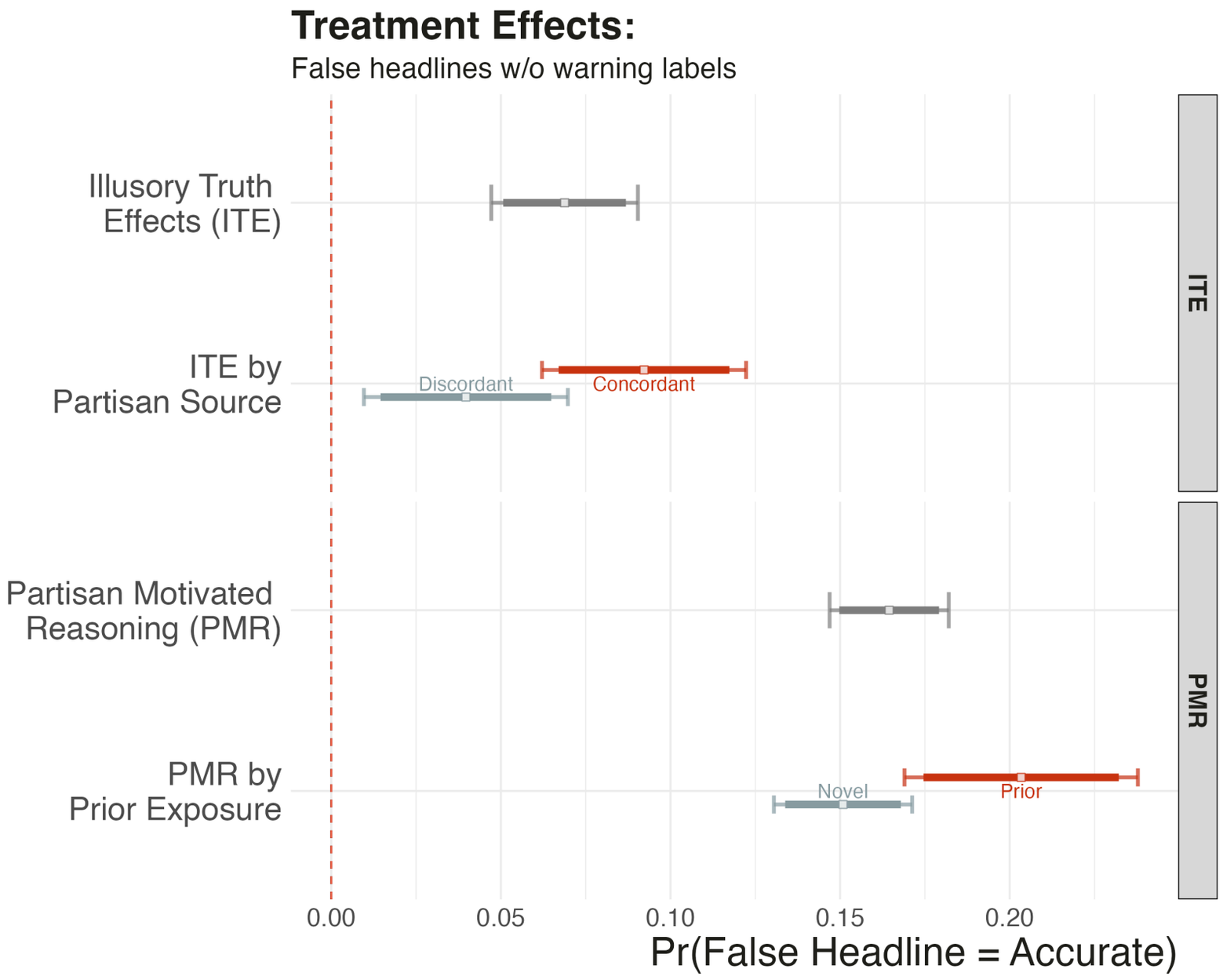
Marginal Means ITE vs PMR for False Headlines without Warning Labels

Table 3: PMR versus ITE: Marginal Means among false headlines

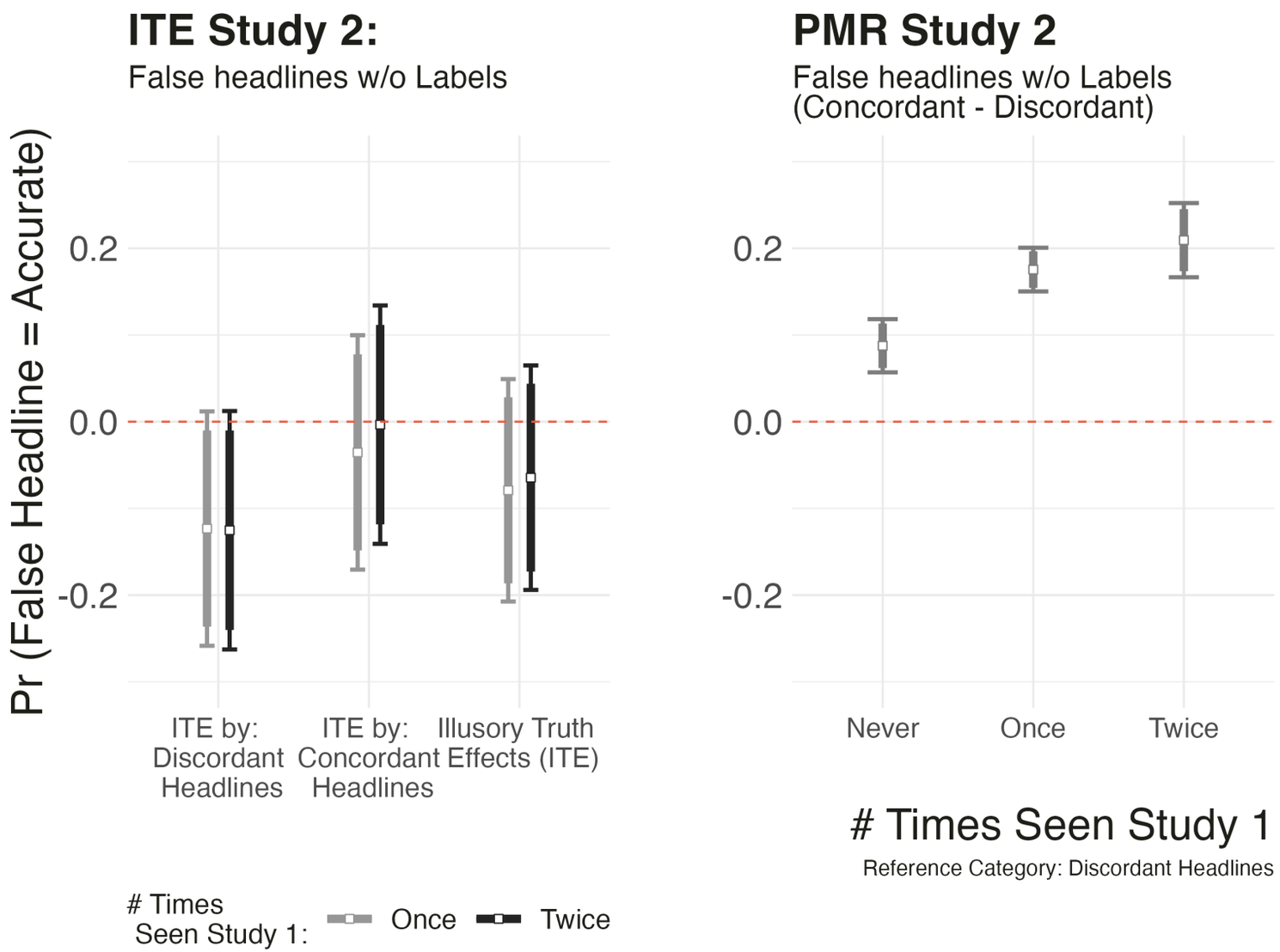
	Concordant	Discordant	β_{PMR}
Prior exposure	0.559	0.356	0.203***
No prior exposure	0.461	0.312	0.149***
β_{ITE}	0.098***	0.044**	0.055**

Notes: Each cell contains the marginal means calculated from the probability of respondents' assessing a false headline as accurate, modeled as in equation 3.

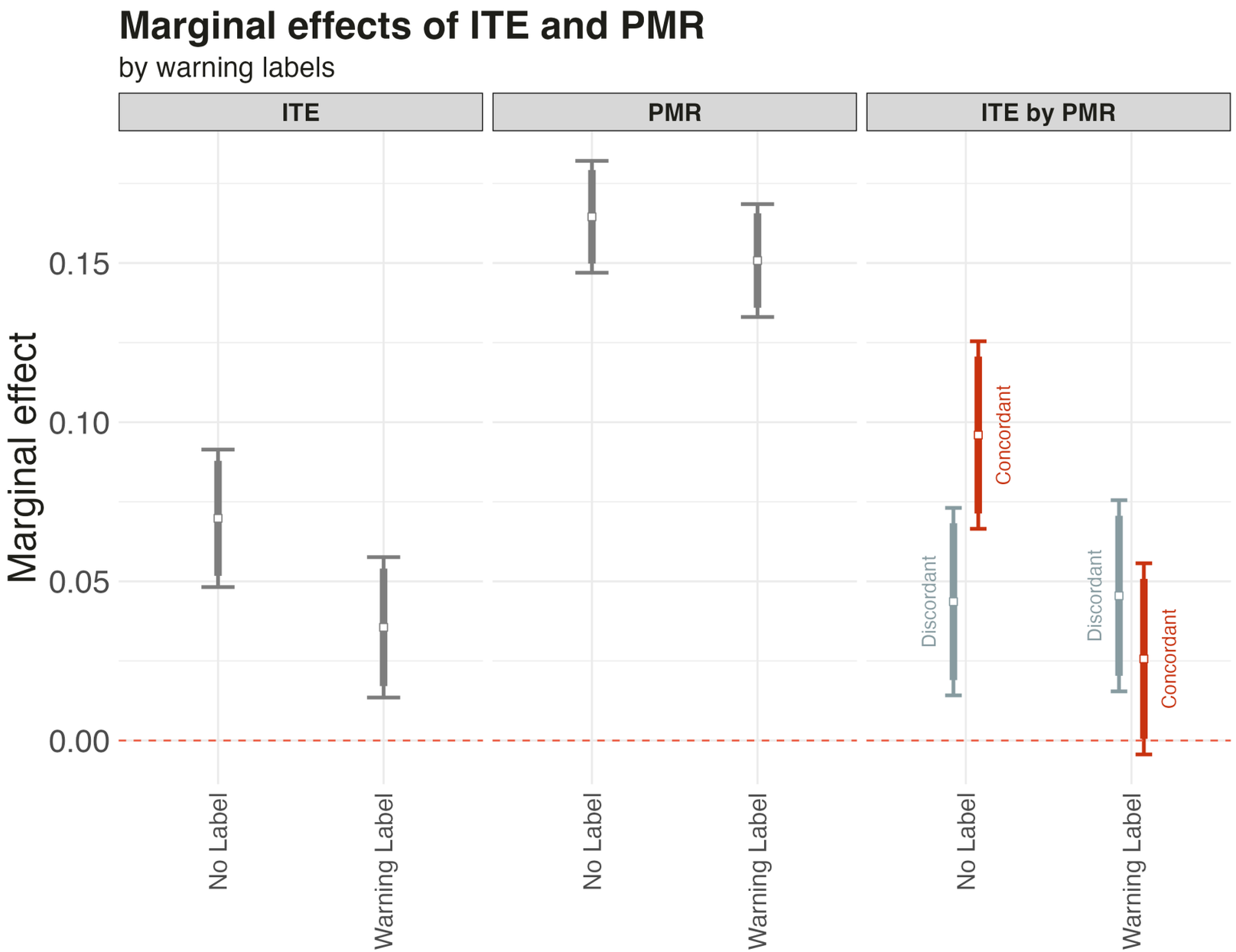
Marginal Effects ITE vs PMR for False Headlines without Warning Labels



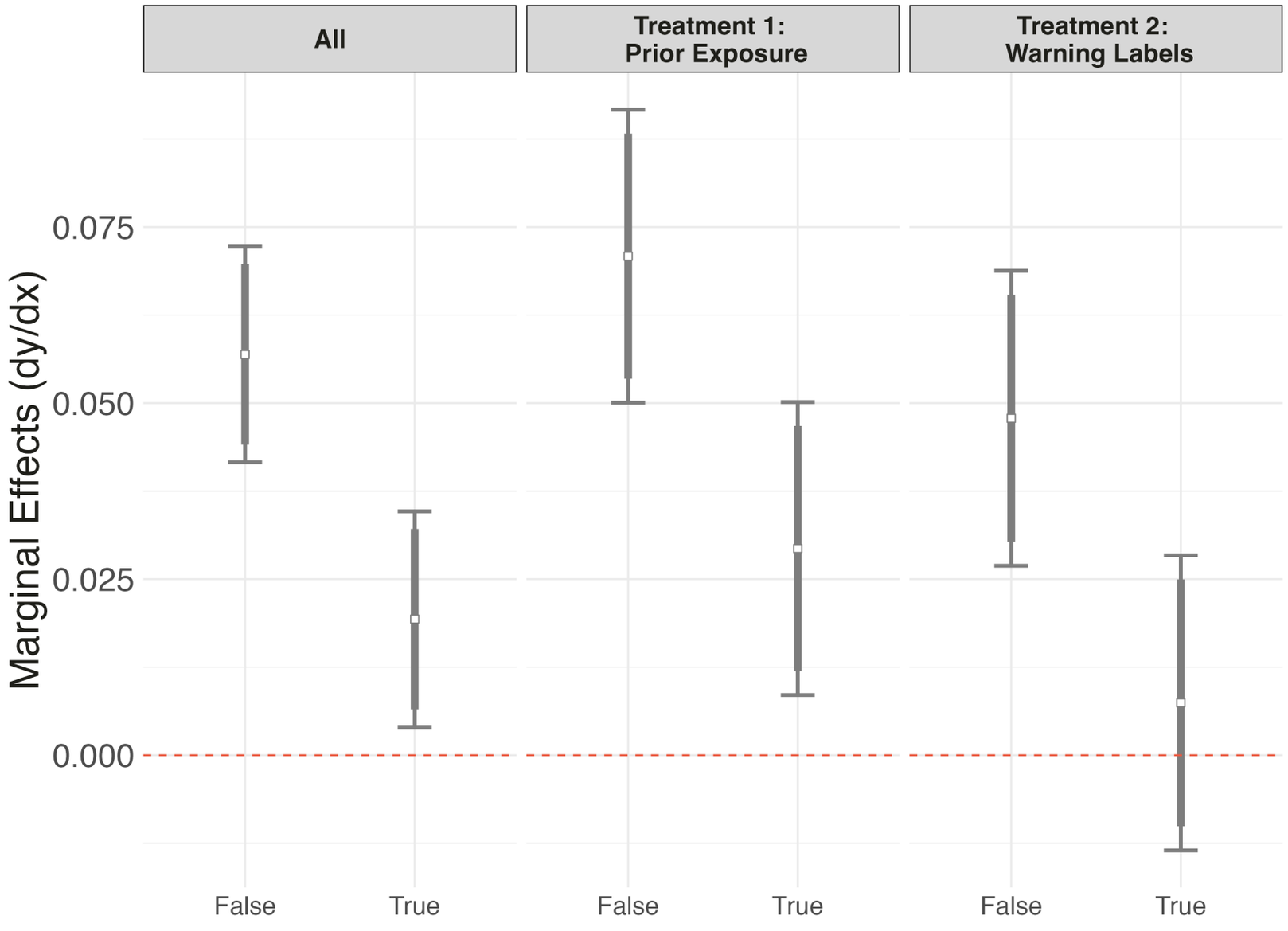
Effects of ITE vs PMR over Time for False Headlines without Warning Labels



Effects of ITE vs PMR over Time for False Headlines with Warning Labels



Effects of ITE vs PMR over Time for TRUE Headlines



Discussion

Annual Meeting APSA, 2024