# FYTing with science: Ideological differences on the nature and origin of truth



## **Key Takeaways**

- Political liberals and conservatives evaluate disagreeing scientific and non-scientific perspectives on one of four apolitical topics
- Conservatives more welcoming to non-scientific perspectives. We hypothesize this is in part due to differences in the tendency to extend individualism to truth, a multi-dimensional construct we term Finding Your Truth, or FYT
- This political split on evaluation of perspectives is mediated by conservatives scoring higher than liberals on the Intuitions Reveal Truth (IRT) sub-scale of FYT
- However, liberals and conservatives are not split on the Reality Is Subjective (RIS) sub-scale of FYT, which also predicts acceptance of science rejecting perspectives

### Introduction

#### Are there political divides on science acceptance?

- Conservatives more opposed to climate science, and less trusting of science in general
- However, both liberals and conservatives react negatively to science and distort data that would contradict their values. Few studies have addressed reactions to apolitical scientific topics
- So, both groups at times are resistant to science, with conservatives perhaps being more resistant overall
- The FYT framework identifies meta-beliefs about truth and reasoning to explain how liberals and conservatives converge and diverge on factors that lead people to equate scientific and non-scientific evidence

#### Conceptualizing FYT

IRT	RIS	MRB
Intuitions Reveal Truth	Reality Is Subjective	Moral Right to Belief
Measures extent to which people think gut feelings and intuition tend to be true and should be on equal or greater level with facts.	Measures extent to which people think truth is a subjective concept, and everyone has to figure out a truth for themselves.	Measures extent to which people believe what you want is a moral right. Included for future use.

Randy Stein, Alexander Swan, and Michelle Sarraf California State Polytechnic University, Pomona

### Hypotheses

- H1: Three-factor structure of FYT scale validated. FYT subscales correlated with evaluation of researcher and rejecter, as well as CRT and REI scales
- H2: Conservatives, compared to liberals, are more likely to see "both sides" as equivalent- evaluate researcher less positively, rejecter more positively
- H3: Conservatives are higher than liberals on IRT; small/no difference on RIS
- H4: Political split on rejecter evaluation are mediated by IRT, even when controlling for CRT, REI, age, gender

### Methodology

#### Pilot Study & Study 1

• Respondents read an excerpt of an article on four apolitical topics wherein a researcher debunks a popular product/experience

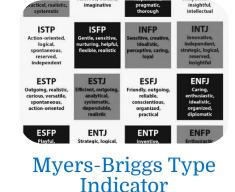




*I*agnetic medica bracelets



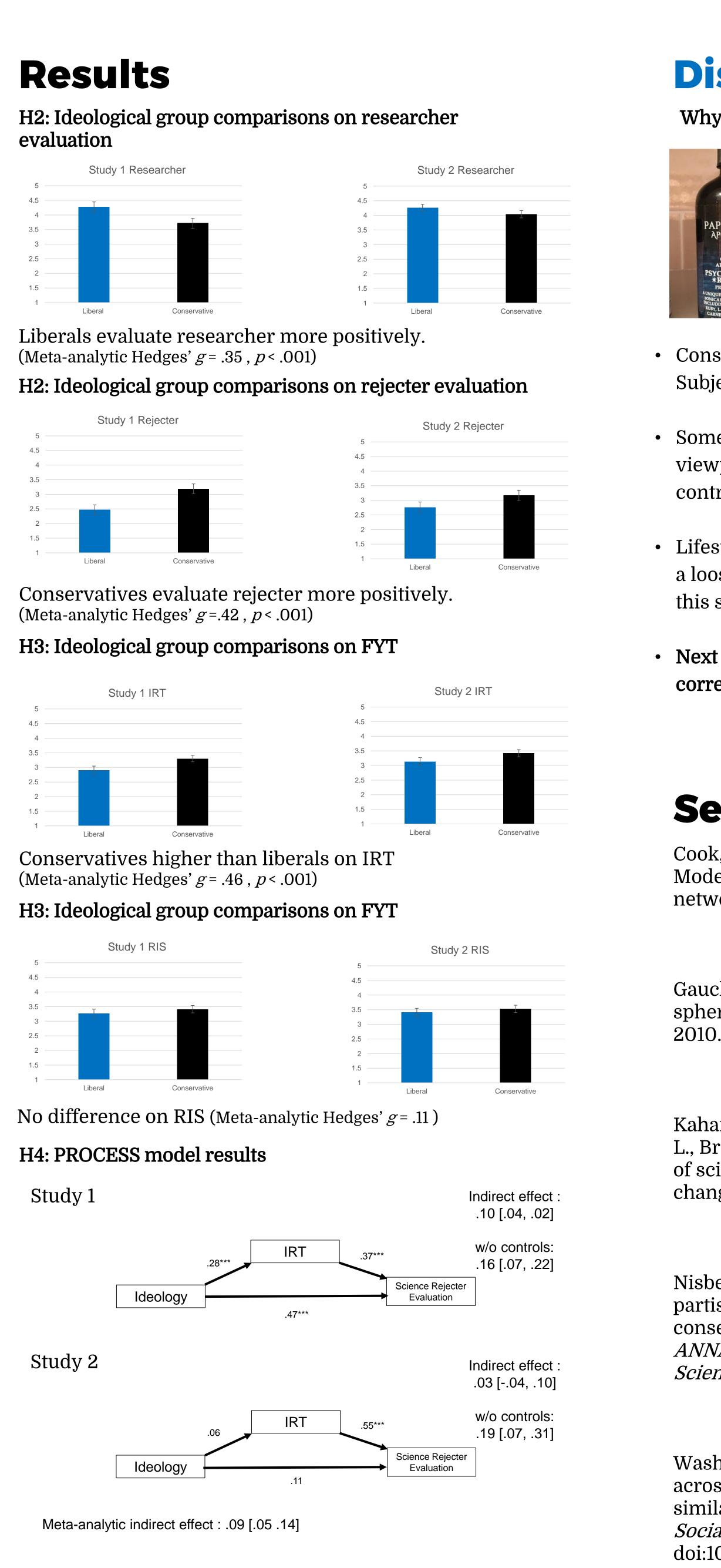




- Respondents also read a disagreeing point of view from a professional in the field
- Respondents evaluate researcher and rejecter, as well as fill out FYT scale questionnaire

#### Study 2

- Same as Pilot Study and Study 1, but rejecter is no longer a Professional, instead a commenter on the article with relatively no experience in the field
- This was done to ensure effects were robust to different non-expert sources





#### Discussion

Why do we love bullshit products?

		MYERS-BRIGGS® TYPES			
		ISTJ	ISFJ	INFJ	INTJ
PERFORME POTHECARY GEM-INFUSED AROMATHERAPY CHIC VAMPURE PROTECTION MIST UNIQUE AND COMPLEX REMOVE ALLY TUNED COMPLEX REMOVE ALLY TUNED COMPLEX REMOVE NUMBER AND COMPLEX REMOVE NUMBER AND COMPLEX REMOVE ALLY TUNED COMPLEX REMO	PAPER CRAN APOTHECAN	ISTP	ISFP	INFP	INTP
	CLEAN SLAT SMOKE-FREE SMUDGI <sup>A UNIQUE AND COMFLETE SONICALLY TUNED GENT INCLUDING: SMOKY OF LABRADORITE AND ANT OILS OF: PALO SANTU LAVENDER AND PETTU REIKI CHARGED CAST</sup>	ESTP	ESFP	ENFP	ENTP
		ESTJ	ESFJ	ENFJ	ENFJ

• Conservatives and liberals still about likely to see Reality as Subjective

• Some liberals can certainly endorse non-scientific viewpoints without seeing such endorsement as contradictory

• Lifestyle branding seems to target the idea that people have a loose sense of what's real and what's not (e.g., if I feel like this soda is adventurous, it'll make me adventurous)

• Next topic: How is endorsement of bullshit products correlated with FYT scale?

### **Selected References**

Cook, J., & Lewandowsky, S. (2016). Rational irrationality: Modeling climate change belief polarization using Bayesian networks. *Topics in Cognitive Science*, 8(1), 160-179.

Gauchat, G. (2012). Politicization of science in the public sphere: A study of public trust in the United States, 1974 to 2010. *American Sociological Review*, *77*(2), 167-187.

Kahan, D. M., Peters, E., Wittlin, M., Slovic, P., Ouellette, L. L., Braman, D., & Mandel, G. (2012). The polarizing impact of science literacy and numeracy on perceived climate change risks. *Nature Climate Change*, *2*(10), 732-735.

Nisbet, E. C., Cooper, K. E., & Garrett, R. K. (2015). The partisan brain: How dissonant science messages lead conservatives and liberals to (dis) trust science. *The* ANNALS of the American Academy of Political and Social *Science*, *658*(1), 36-66.

Washburn, A. N., & Skitka, L. J. (2017). Science denial across the political divide: Liberals and conservatives are similarly motivated to deny attitude-inconsistent science. Social Psychological and Personality Science, 1-9. doi:10.1177/1948550617731500