

**Socrates Effect:
Teacher's mindset,
wisdom, and reasoning
in a polarized world**

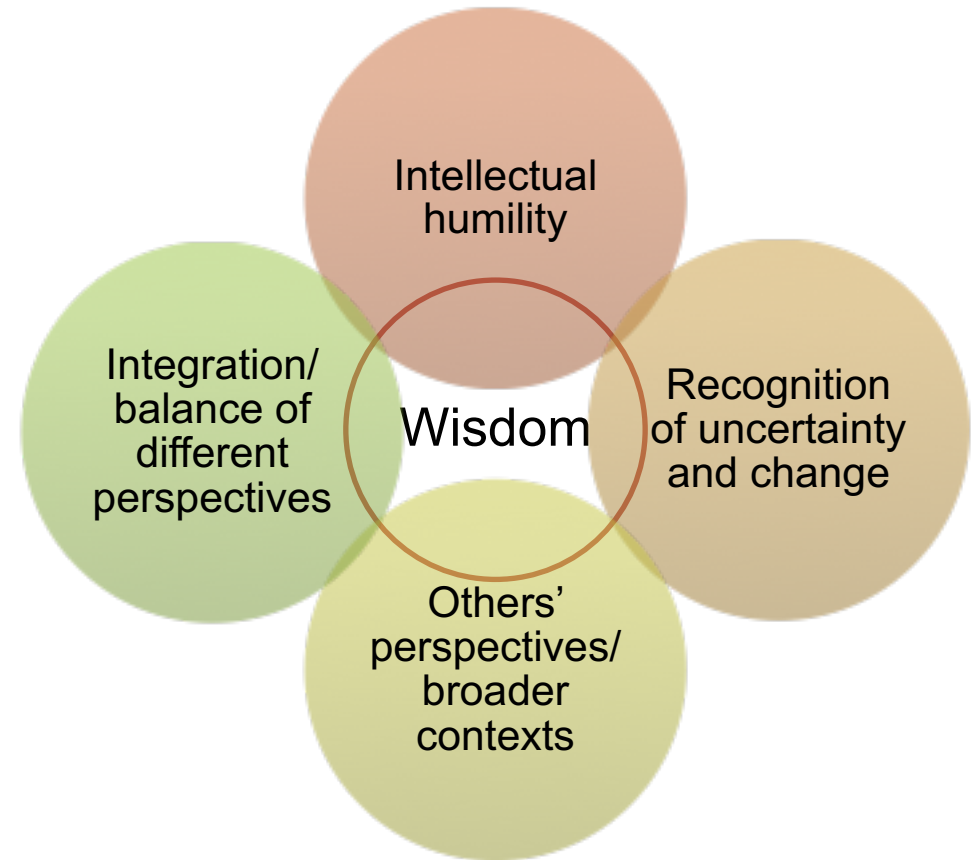
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Wise Reasoning

- Expression of wisdom in everyday life
 - Mastery of uncertain, ill-defined issues
 - Balanced integration of perspectives
- Linked to less polarized political attitudes Kross & Grossmann, 2012; Leary et al., 2017



for review, see Grossmann, 2017, *Persp Psych Sci*

SOCIETAL ISSUES

2 weeks before the 2008 election

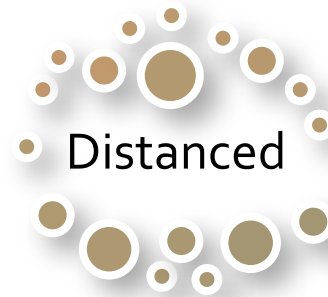
54 strongly liberal/ conserv. students (27 ♀; $M_{age} = 18.5$)

Read summaries of Democrats and Republicans on a variety of issues

Focus on two issues you feel strongly about (e.g., abortion, taxation, health insurance)

Spatial distance manipulation

Fujita, Henderson, Eng, Trope, & Liberman, 2006



perspective of an Icelandic citizen living in Iceland

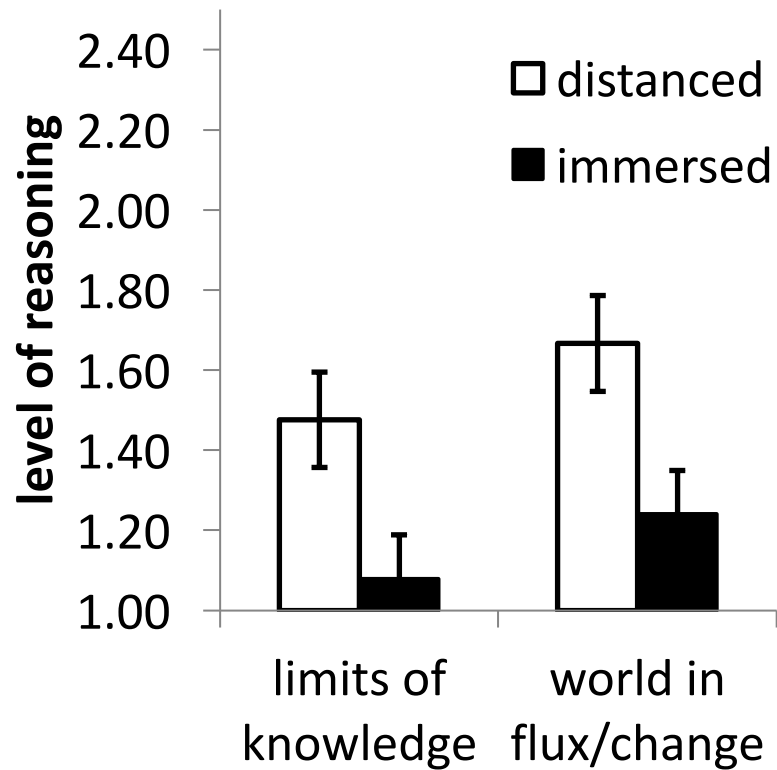


perspective of a U.S. citizen living in the U.S.

How will each issue develop if the candidate you don't endorse will win the election?

Results

Wise Reasoning



$F(1,52) = 11.80^{**}$

$F(1,52) = 11.14^{**}$

Openness to diverse Views

Would you be willing to join a bipartisan group discussing political issues?

- Leave your email to join the mailing list

	Left email
distanced	8
Immersed	3

$\chi^2(1, N = 54) = 3.88^*$

† $p < .1$. * $p < .05$. ** $p < .01$.

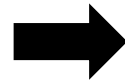
How to foster wise reasoning?



Temporal distance



Observer vantage point



3rd-person self-talk

for reviews:

Santos, Huynh, & Grossmann, 2017, *Soc Psych & Personality Compass*
Grossmann, 2017, *Persp Psych Sci*; Grossmann, 2017, *Europ. Psychologist*

Teaching is hard

How might you explain something like:

- Brexit?
- 2016 U.S. presidential elections?



Emotional Van Jones: How do I explain this to my children? - CNN Video



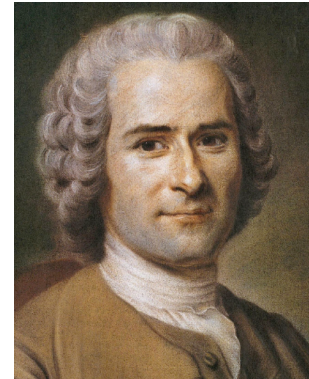
www.cnn.com/videos/.../van-jones-emotional-election-results-sot.cn...

Nov 9, 2016

CNN political commentator Van Jones gets emotional during a panel discussion of a possible Donald Trump ...

What do we know about teaching?

- Focus on *how to teach*
 - Rousseau
 - Montessori
 - Vygotsky



➔ benefit for students / mentees

How does adopting a teacher
mindset impact **teacher's** reasoning?

Multiple reasoning path



Sophists:

- Taught rhetoric
- Sought to mold opinions



High self-investment in one's views



Socrates: "I am no one's teacher"

- Sought knowledge/truth
- Asked questions



Low self-investment in one's views

Prior speculations / related research

- Zajonc: classic argument about why birth-order affects cognitions
→ older siblings are more likely to teach their younger siblings
- Developmental theories (Erikson / McAdams): Teaching others as a behavioral manifestation of generativity (i.e., a motivation to guide the next generation)
 - emerge in middle adulthood and precede the development of a wise, more balanced viewpoint on social life matters
- Education research: Tutoring others facilitates more effective learning Roscoe & Chi, 2007
- Cognitive research: Explaining facilitates pattern-discovery and improves inferences Lombrozo, 2006; Williams & Lombrozo, 2010

Generalizable to social issues?

- More extreme attitudes when asked to explain and justify one's judgment, or to discuss the issue with like-minded Hirt & Markman, 1995; Ross, Lepper, Strack, & Steinmetz, 1977; Tesser, 1978; Schkade, Sunstein, & Hastie, 2010
- Argumentative theory of human reasoning Mercier & Sperber, 2011

but...

- Explaining can help realize how little one knows about a complex topic Rosenblit & Keil, 2002, which in turn can promote a balanced perspective on it Fernbach & Sloman, 2013

Research questions

1. How do people spontaneously teach/advise others?
 - Does it lead to polarized or inclusive reasoning?
2. What is the mechanism underlying this effect?
 - Psychological distance
 - Positivity
 - Deliberation
 - Self-investment
 - Generativity

Study Overviews

- Study 1: 2012 U.S. presidential elections
 - Name 3 domestic political issues
 - Rate how much they cared about it
 - Wrote about the issue they cared about most
- Study 2: 2016 U.S. presidential elections
 - Rate how much they cared about gun control
 - Wrote about the issue of gun control



STUDY 1: PRELIMINARY EXPLORATION

2012 U.S. Presidential election

- Recruited 886 US MTurkers after the final US presidential debate in 2012
- Described a political issue they most cared about
 - Imagine discussing with a **12-year-old**
 - Imagine discussing with **someone new to the country**
 - Write **own thoughts** about it
- Raters coded responses (Cohen's $k = .82$)
 1. No framing of an issue as an opinion/single opinion (29.8%)
 2. Presentation of several opinions, but discounting unfavorable / rationalizing favorable ones (36.4%)
 3. Presentation of multiple opinions, providing details for each (21.4%)
 4. Presentation of multiple opinions, integrating them in a coherent statement (12.4%)



Study 1

Written responses coded into four categories

(Inter-rater reliability: Cohen's $\kappa = 0.82$)

1. No opinion/Single opinion

People are starting to feel that they are being taxed to death....All politicians vow not to raise taxes, but after elected they always do.

2. Discounting unfavorable views

Some people think it is a good idea to change the health care system, but I think it is a horrible idea...In the end, I will [receive] "standardized" care, the same kind they give cattle.

Study 1

Written responses coded into four categories

(Inter-rater reliability: Cohen's $\kappa = 0.82$)

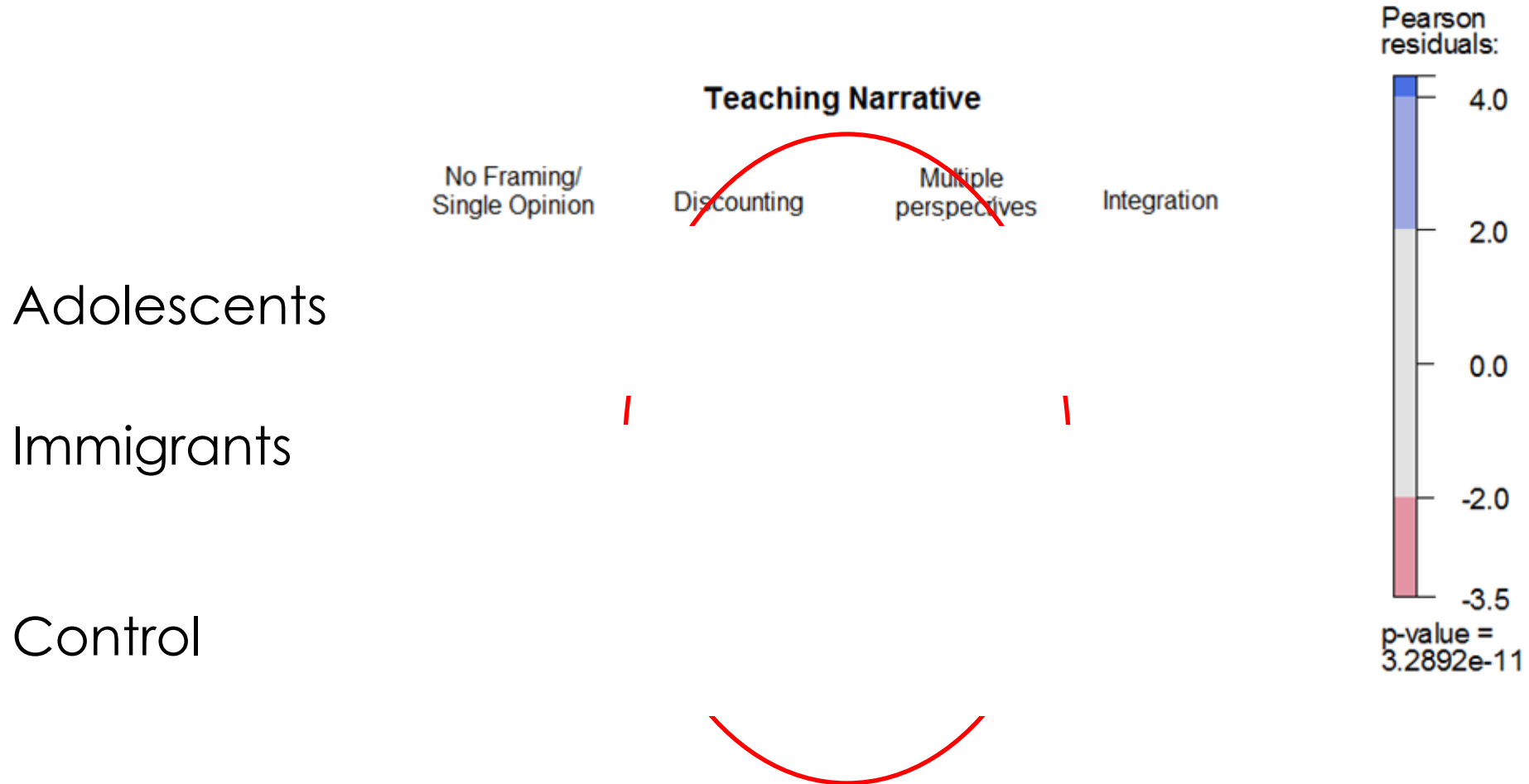
3. Presenting multiple perspectives

Obama and Romney have different ideas for what the best way to boost the U.S. economy is. Obama's policy leans more toward reducing benefits of the upper class...Romney's policy benefits upper class people.

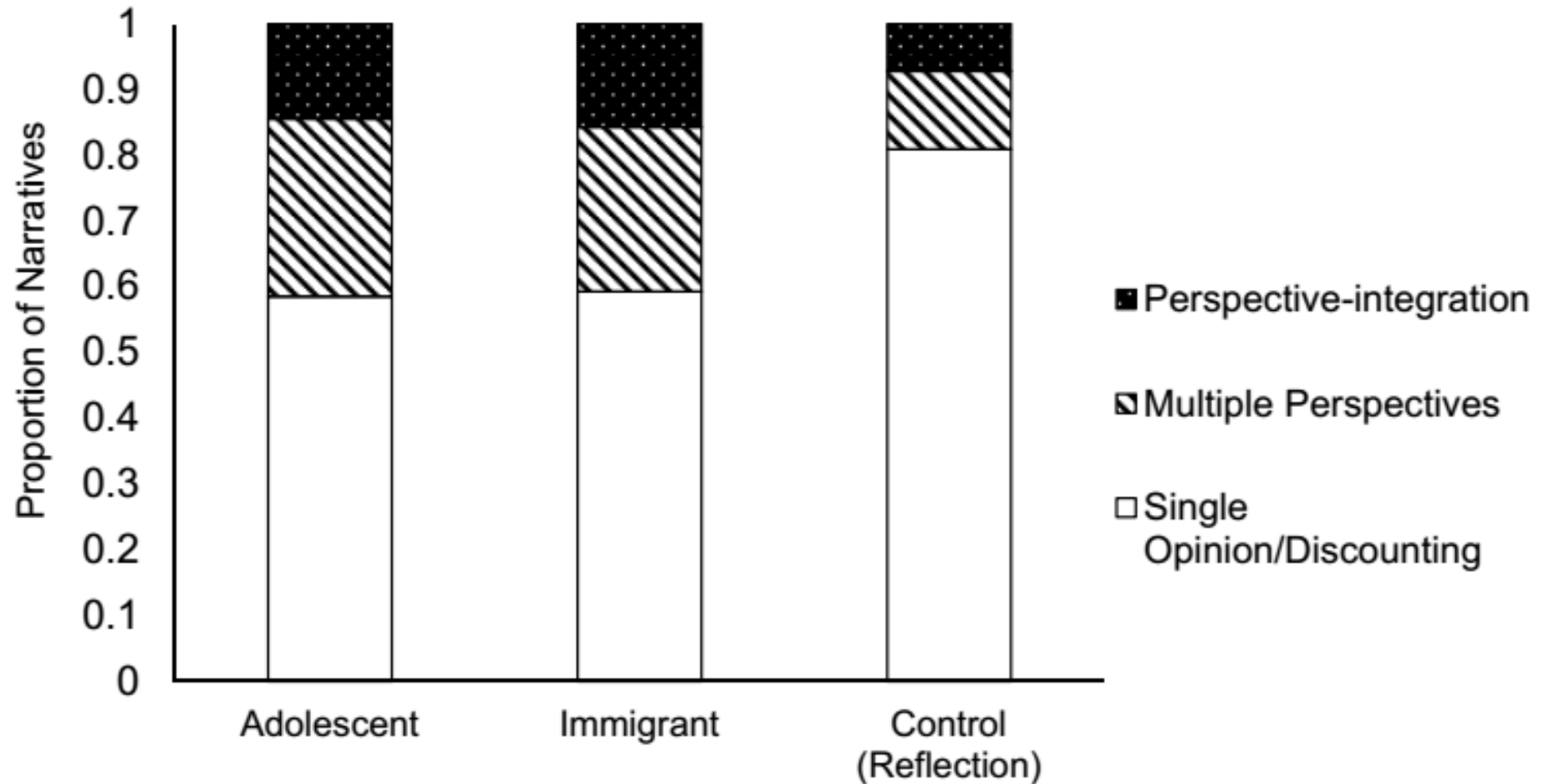
4. Multiple perspectives + Integration

Some people want to give rich people tax cuts because they think it will help the economy. Others think it will actually hurt a lot of people and not help the economy. Both outcomes are possible, but it depends on how you look at it...

Study 1: Results



Study 1: Results



Study 1 Summary

- Explaining political issues to an adolescent or immigrant is likely to promote wise/inclusive reasoning
 - fewer discounting narratives for those in a teaching-mindset
 - greater acknowledgement of multiple perspectives

What about teaching someone who might be just as knowledgeable as you?

What is the mechanism?

- Multiple possibilities
 - others' vs. self-focus
 - psychological distance
 - differences in speed and length of deliberation
 - differences in language
 - motivation to teach & guide others
 - assuming limited self-investment



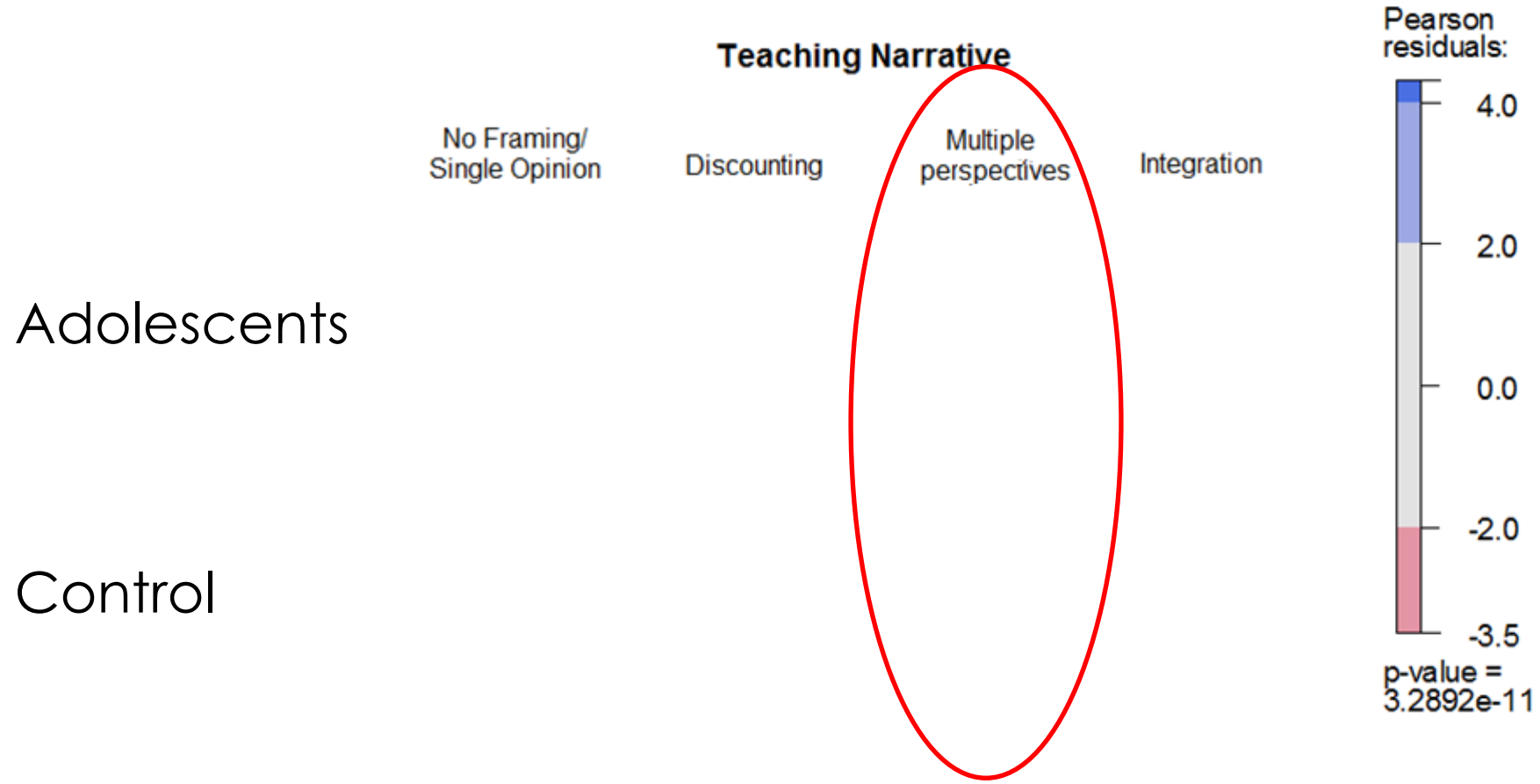
2016 U.S. Presidential Elections

STUDY 2: PRE-REGISTERED EXTENSION

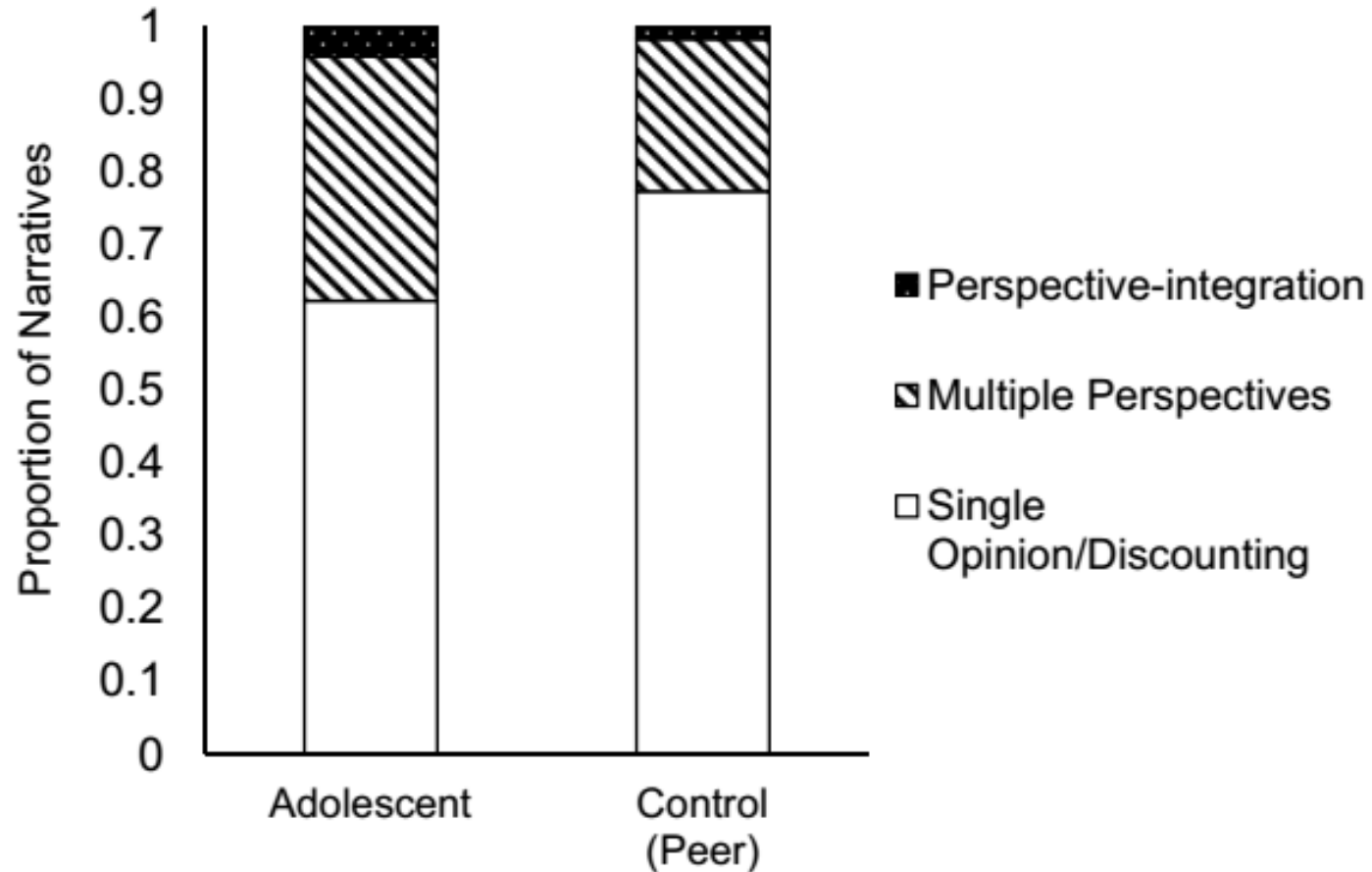
2016 U.S. Presidential election

- Recruited 588 US MTurkers across four days starting on June 30th (debate about Gun control)
- Described a political issue they most cared about
- Focus on gun control
 - Imagine discussing with a **12-year-old**
 - Imagine discussing with **another MTurk worker**
- Raters coded responses (Cohen's $k = .80$)
 1. No framing of an issue as an opinion/single opinion (41.2%%)
 2. Presentation of several opinions, but discounting unfavorable / rationalizing favorable ones (28.7%)
 3. Presentation of multiple opinions, providing details for each (27.2%)
 4. Presentation of multiple opinions, integrating them in a coherent statement (2.9%)

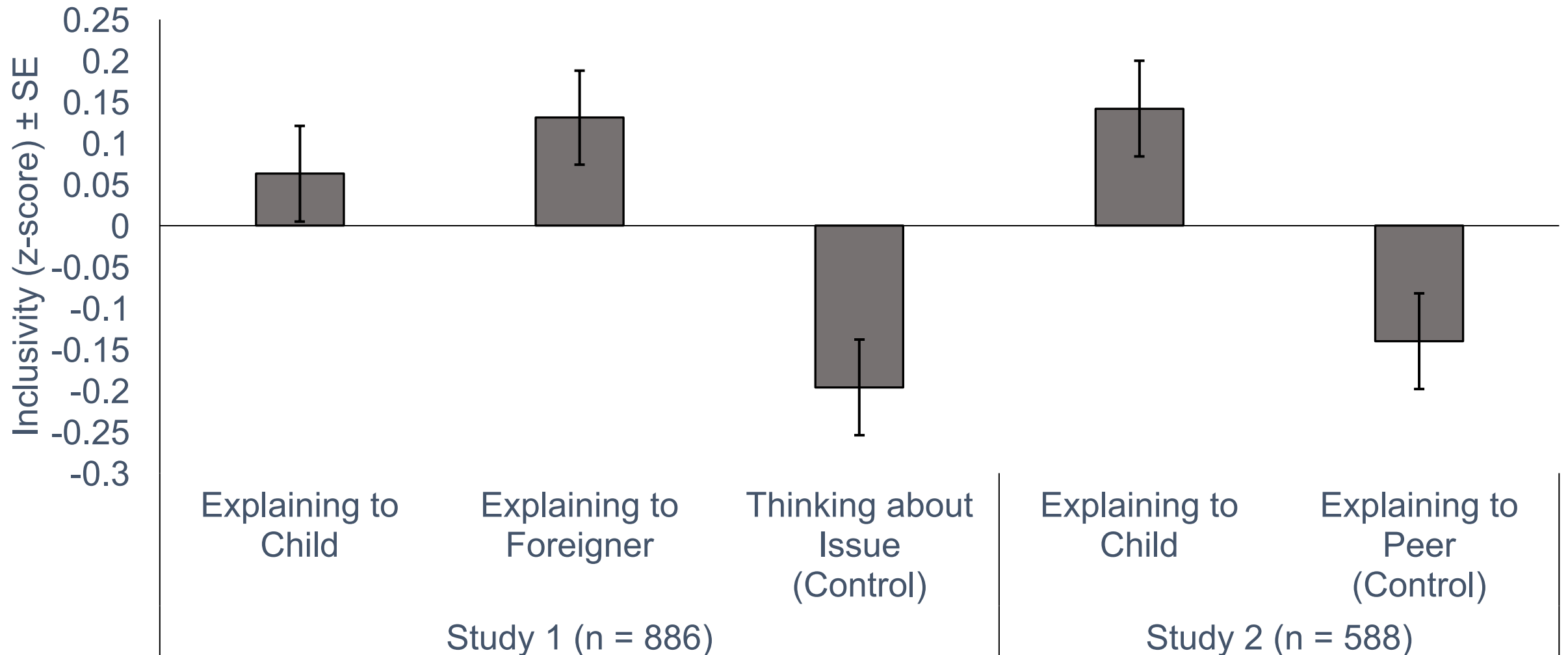
Study 2: Results



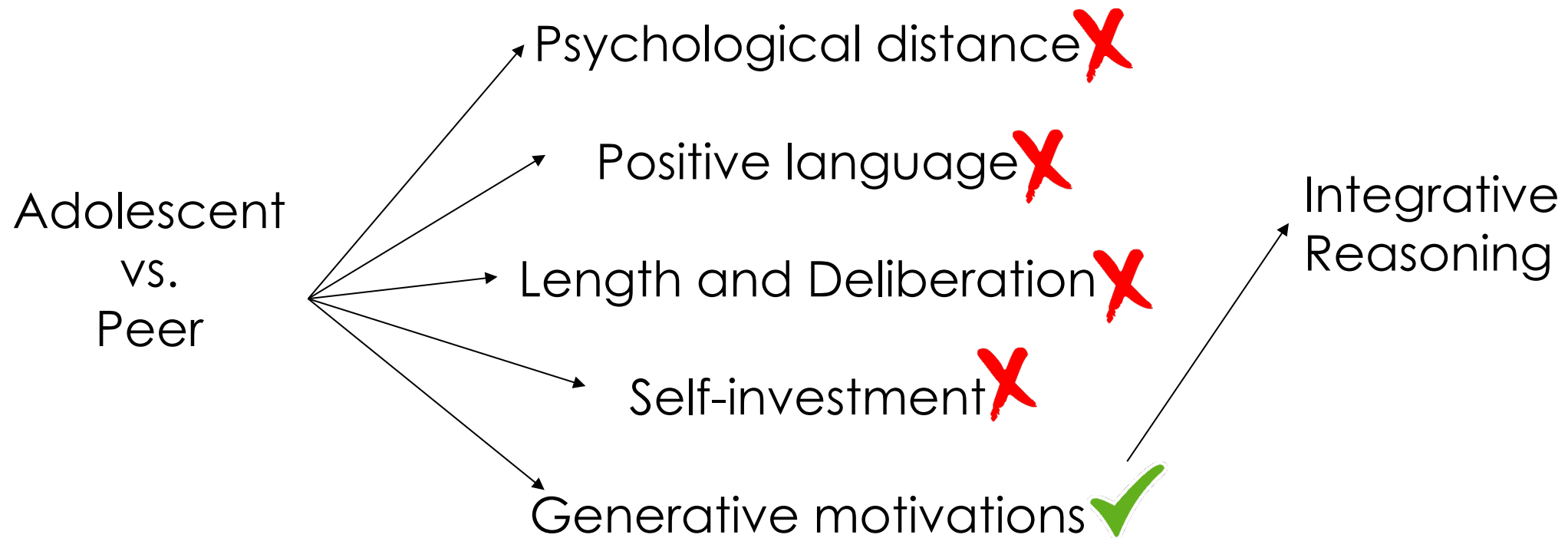
Study 2: Results



Teaching mindset leads to more inclusive reasoning about politics



Which psychological processes underlie the relationship between teaching-mindsets and inclusive reasoning?

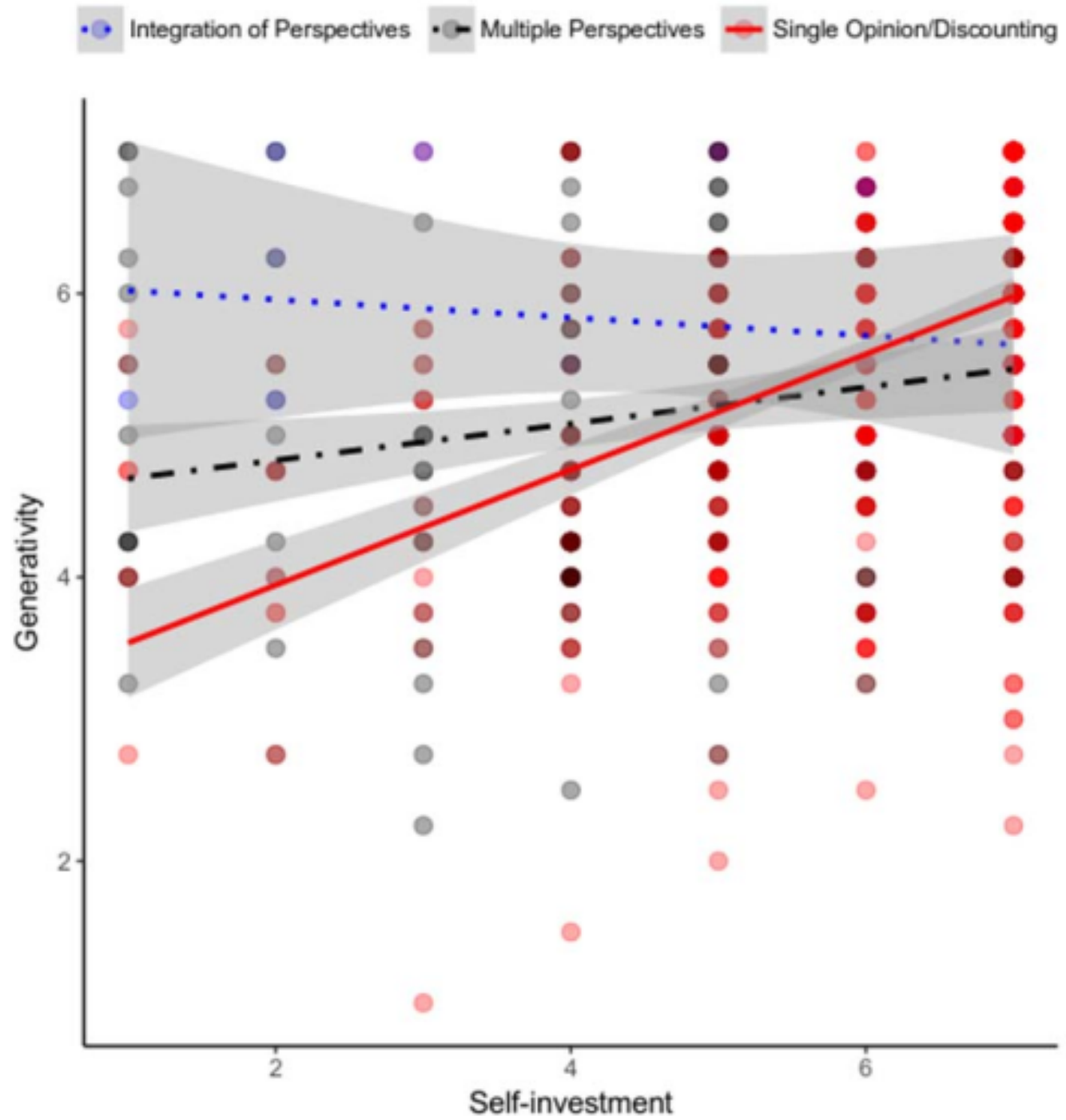


Generative motivations

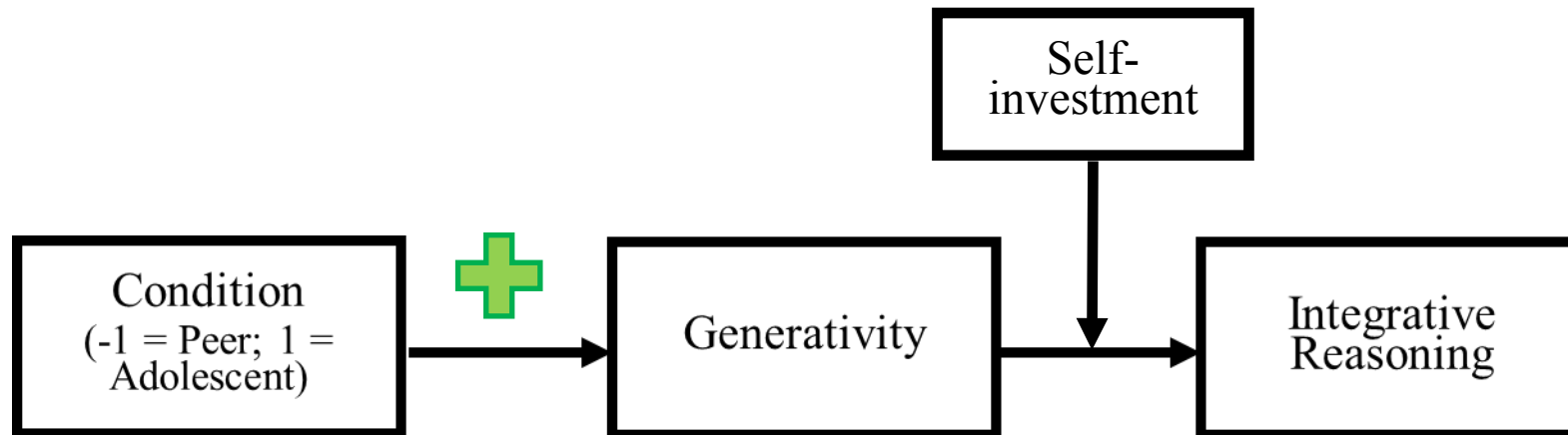
- 7-item questionnaire adapted from McAdams & Aubin (1992), e.g.,:
 - I tried to teach and guide the other person
 - I tried to guide this person toward understanding the situation
- Highly reliable (Cronbach's alpha = .80)

Study 2: Results





Study 2: Results



Overall index of moderated mediation:
-.001 (.004) [-.019; -.002]

Self-investment 10th percentile: .024 (.013) [.0001; .053]

Self-investment 90th percentile: -.016 (.008) [-.034; -.002]

Summary



- Many people tend to be Socratic when discussing issues to less knowledgeable
- Benefits of a teaching mindset to one's reasoning about political issues
 - 2 field experiments
- BUT: not because one is simply motivated to teach others!
 - When in a teaching role, a **combination** of being generative and not invested in your own views promotes greater integrative/wise reasoning.

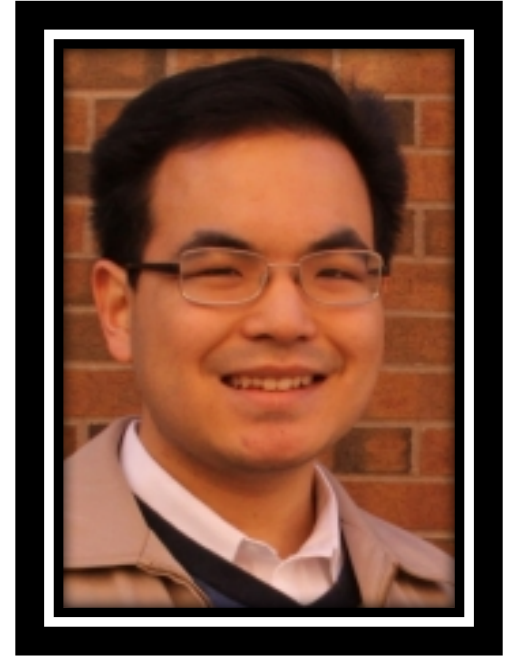
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THANK YOU!



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