Psychological distancing, self-control and emotional well-being in children and adolescents

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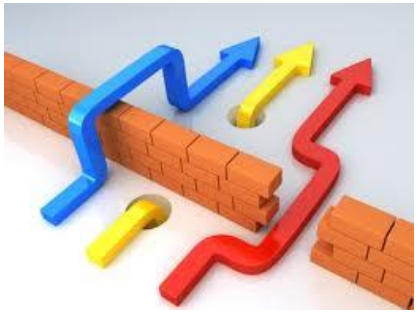


Self-Control

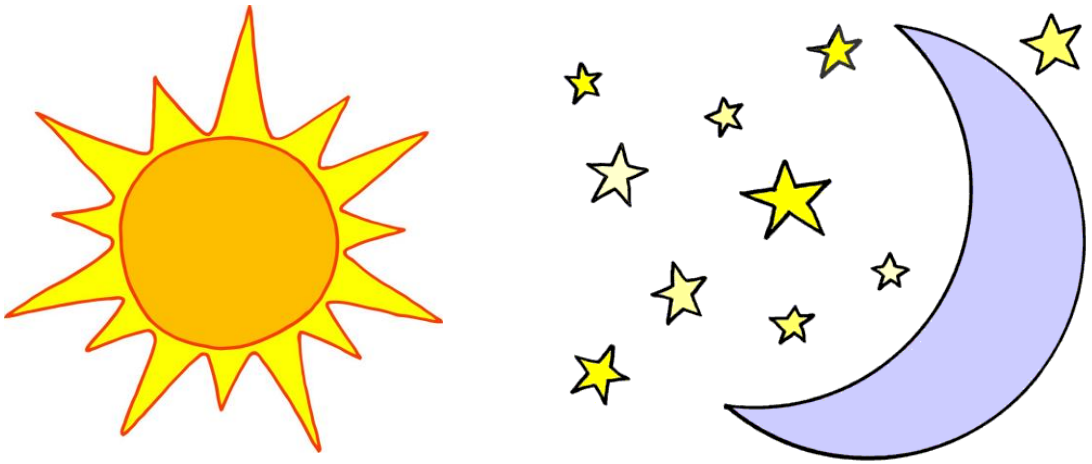
- Conscious control of attentional, emotional, and behavioral impulses in the service of personally valued goals
- Impacts:
  - Academic: achievement in math & reading better than IQ, SAT scores
  - Long-term implications for health, finance, criminality, etc…

So how do we improve it?

Blair & Razza, 2007; Shoda et al., 1990; Moffitt et al., 2011

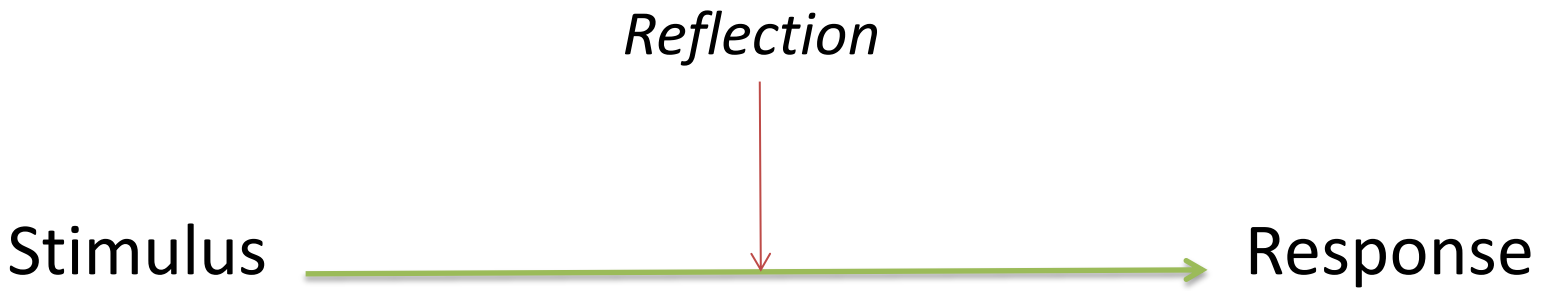
Self-Control

- Failure occurs when we attend to highly salient, often misleading aspects of objects or events
- Need to direct attention away from distracters, consciously attend to goals in flexible and reflective manner



(Carlson & Zelazo, 2008; Zelazo et al., 2003; Gerstadt et al., 1994)

Psychological Distance & Self-control



- *Psychological distancing*: "behaviors or events that separate the child cognitively from his immediate behavioral environment"

– Sigel, 1970, pp. 111-112

Psychological Distancing

- Distance can be temporal, spatial, social, hypothetical/abstract

- Broader perspective
  - Decrease salience
  - Notice alternative aspects

e.g., Werner & Kaplan, 1963; Mischel & Baker, 1972; Sigel, 1993; Liberman & Trope, 2003; Renninger & Cocking, 1993; Carlson & Zelazo, 2008

Distancing Theory

Low

- Concrete
- Subordinate features
- Near

High

- Abstract
- Gist (Goals, Values)
- Distant

Distance determines quality of behavioral response

Carlson & Zelazo, 2008; Liberman & Trope, 2008; Sigel, 1970

Prior Evidence

- Positive correlation between EF and representation
  (Elias & Berk, 2002; Carlson, White, Davis-Unger, under review)

- Experimental evidence:
  - "Marshmallow" study (Mischel & Baker, 1975)

CAN PRETENDING FACILITATE SELF-CONTROL?

Experimental manipulations of pretense and executive function performance

Study 1: Distancing in Pretense

White & Carlson, under review

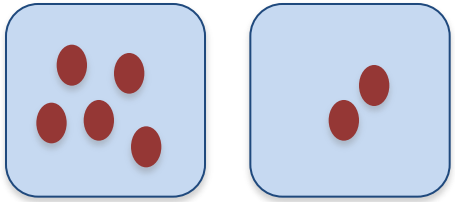
- Pretense encourages "emancipation from situational constraints." - Vygotsky, 1978, p. 99
  - Not me, Not here, Not now, Hypothetical

Werner & Kaplan, 1963; Mischel & Baker, 1972; Sigel, 1993; Liberman & Trope, 2003; Renninger & Cocking, 1993; Carlson & Zelazo, 2008

Methods

- Participants: 60 3-year-olds
  - *M age* = 42.6 months, *SD* = 1.82
  - 33 girls

- Less is More Task
  - Give away smaller tray of treats
  - 16 trials

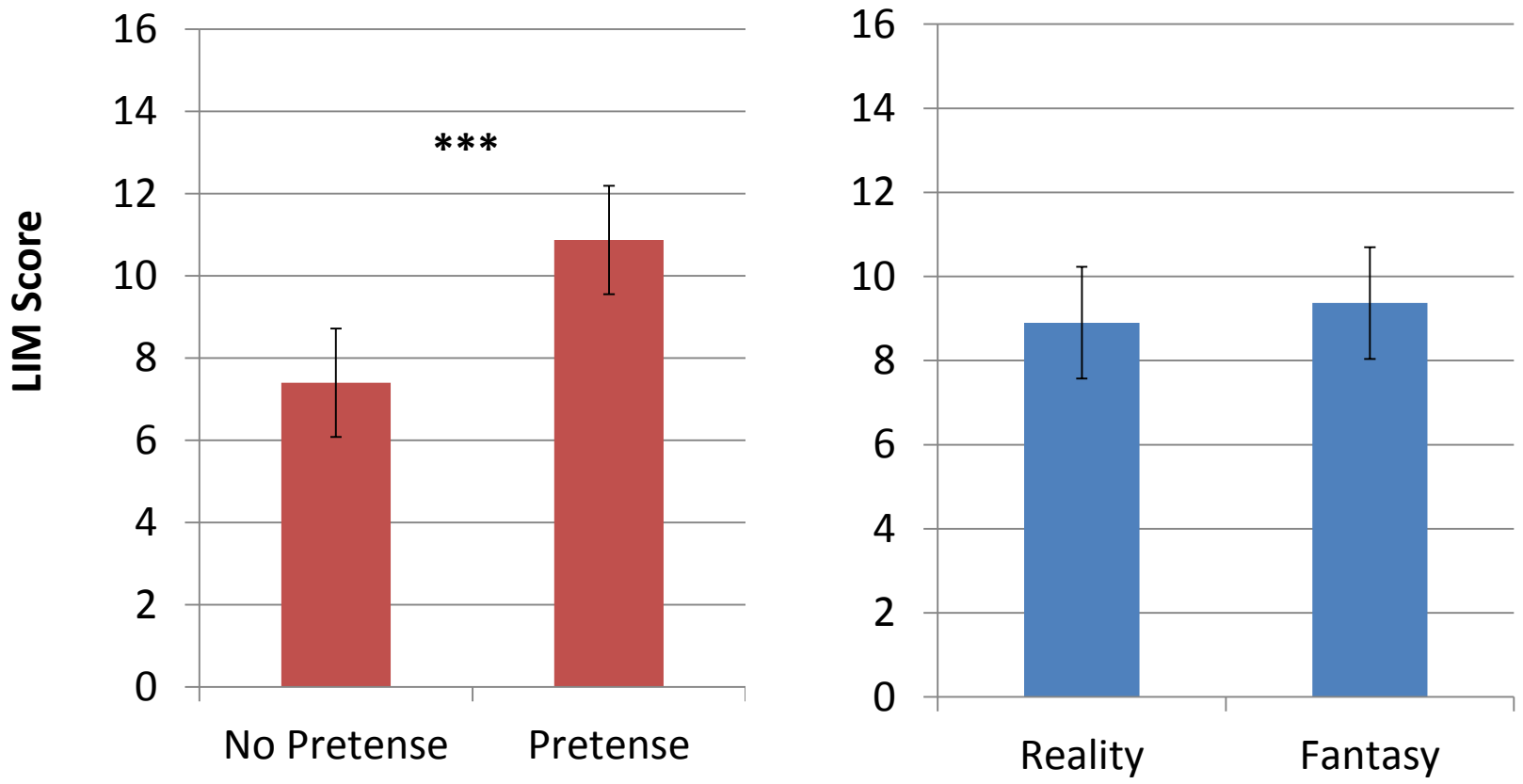


Experimental Conditions

	PRETENSE	NO PRETENSE
REALITY	Encouraged to pretend with reality-based story	Place pieces on board for reality-based story
FANTASY	Encouraged to pretend with fantasy story	Place pieces on board for fantasy story

Results

- Main effect of pretense, $F(1, 56) = 13.66$, $p < .001$, $\eta_p^2 = 0.20$



Note. $N = 60$. ** $p < 0.001$. Bars represent 95% C.I.s. No effect of story content, $p = 0.62$. No interaction, $p = 0.83$.

Study 1 Summary

- Pretense promoted flexible thinking required in EF task
  - May have created distanced mindset
- Strong effect present even in face of real rewards

WHAT ARE THE MECHANISMS?

Experimental manipulation of psychological distancing in young children

Study 2: Self-Distancing

White & Carlson, under review

- To what extent can children use social psychological distancing in the service of EF?
- Can we manipulate behavior as a function of levels of distance?
- Age-related differences?

Design

- Participants: 3.5 and 5.5 year olds (*N* = 96)

- 4 Social Distance Conditions within EF task
  - Social distance (self v. other) successfully used in previous research (Prencipe & Zelazo, 2005)

EF Scale for Early Childhood

- Graded scale, adapted from DCCS (Zelazo, 2006)
- Able to measure EF over the full preschool pd





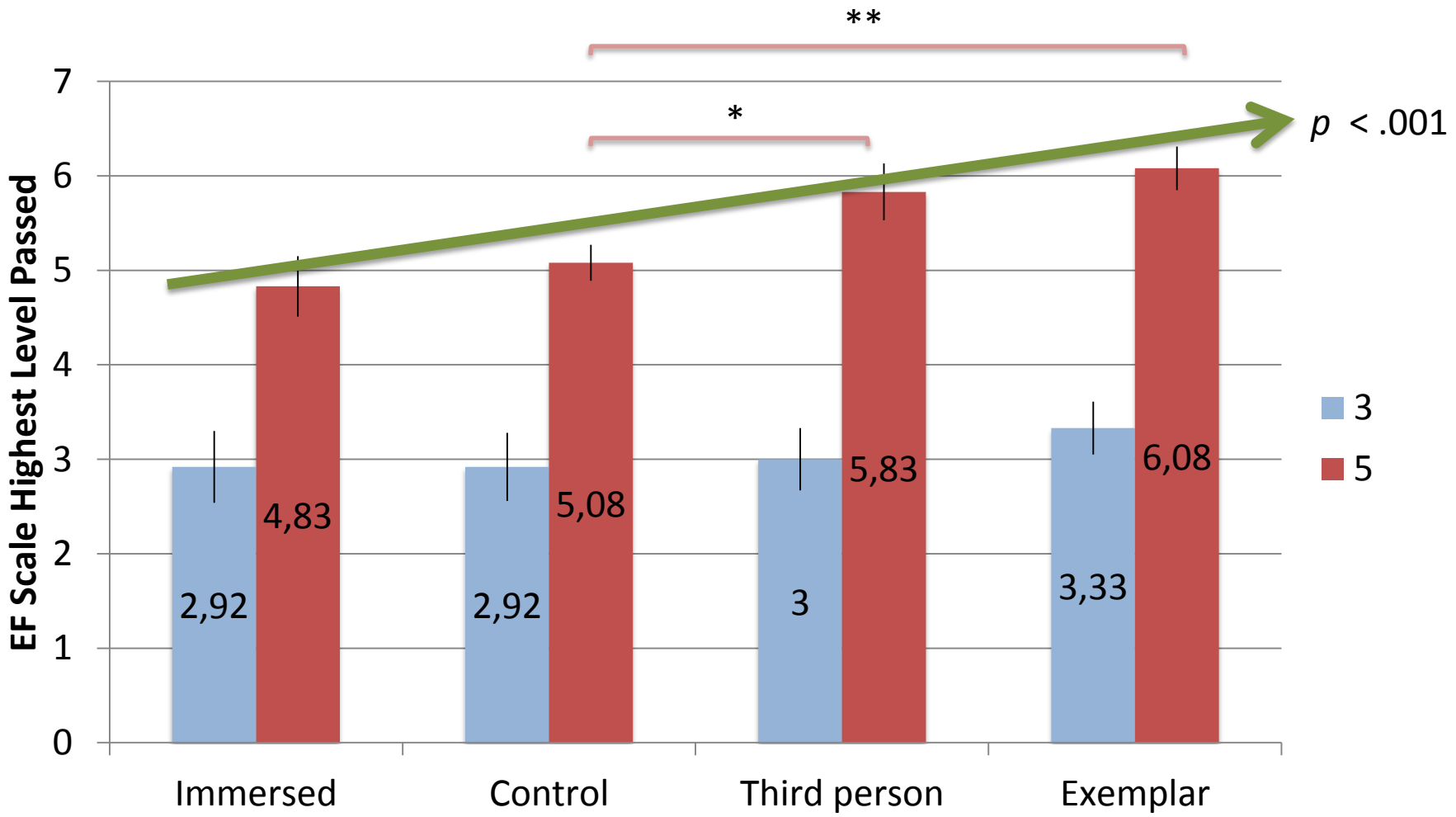
Carlson, 2012

Distancing Manipulations

- **Immersed**: "… focus on their own feelings and what they're thinking." … "Where should *you* put it?"
- **Third-person**: "…think about themselves using their own name." … "Where should *Rachel* put it?"
- **Exemplar**: "… think about someone who would be really good at this game." … "Where should *Batman* put it?"

Immersed **Control** **3rd Person** **Exemplar**

Condition x Age Results



Age, $p < .001$
Condition, $p < .05$

$N = 96$; $^{**}p = .01$, $^{*}p = .05$; Bars represent standard error

Study 2 Summary

- By late preschool, children can use social distancing strategies in the service of self control
- Performance increased incrementally as a function of distance from the self
- First study to demonstrate spectrum of distancing effects, and to show distancing effects “cool” self-control tasks

“REAL LIFE” EMOTIONS

Spontaneous distancing strategies and emotional reactivity to negative events

Studies 3-4: Spontaneous Distancing

White, Kross, & Duckworth, in prep

- Distance decreases emotional reactivity (experimental) Kross et al., 2011

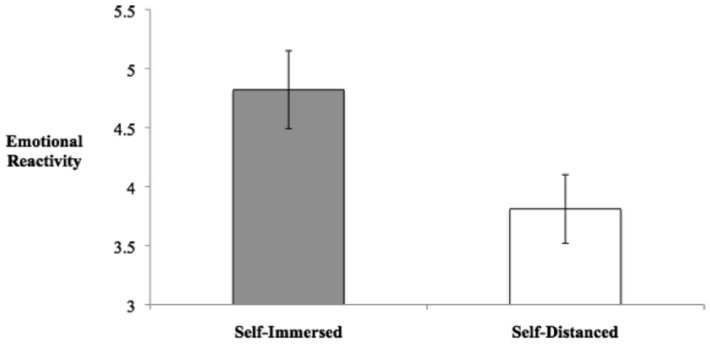


Figure 1. Effect of experimental manipulation on emotional reactivity.

- Does engaging in spontaneous distancing impact children's coping in everyday life?

- When does this ability come online? How does this change with age?

Study 3: Anger

- 226 6th-12th grade students
- 132 Females
- 100% African-American
- Tested in groups at school using Qualtrics survey software

Anger Prompt

No matter how well two people get along, sometimes there are times when they get very mad at each other; so mad that they feel like they are going to explode. They might get annoyed about something the other person does, get into fights because they are in bad moods, or argue with each other.

Take a few minutes right now to think about a time when ***you got very mad at someone****. Try to remember a specific fight or argument that happened not too long ago and that still makes you upset when you think about it.*

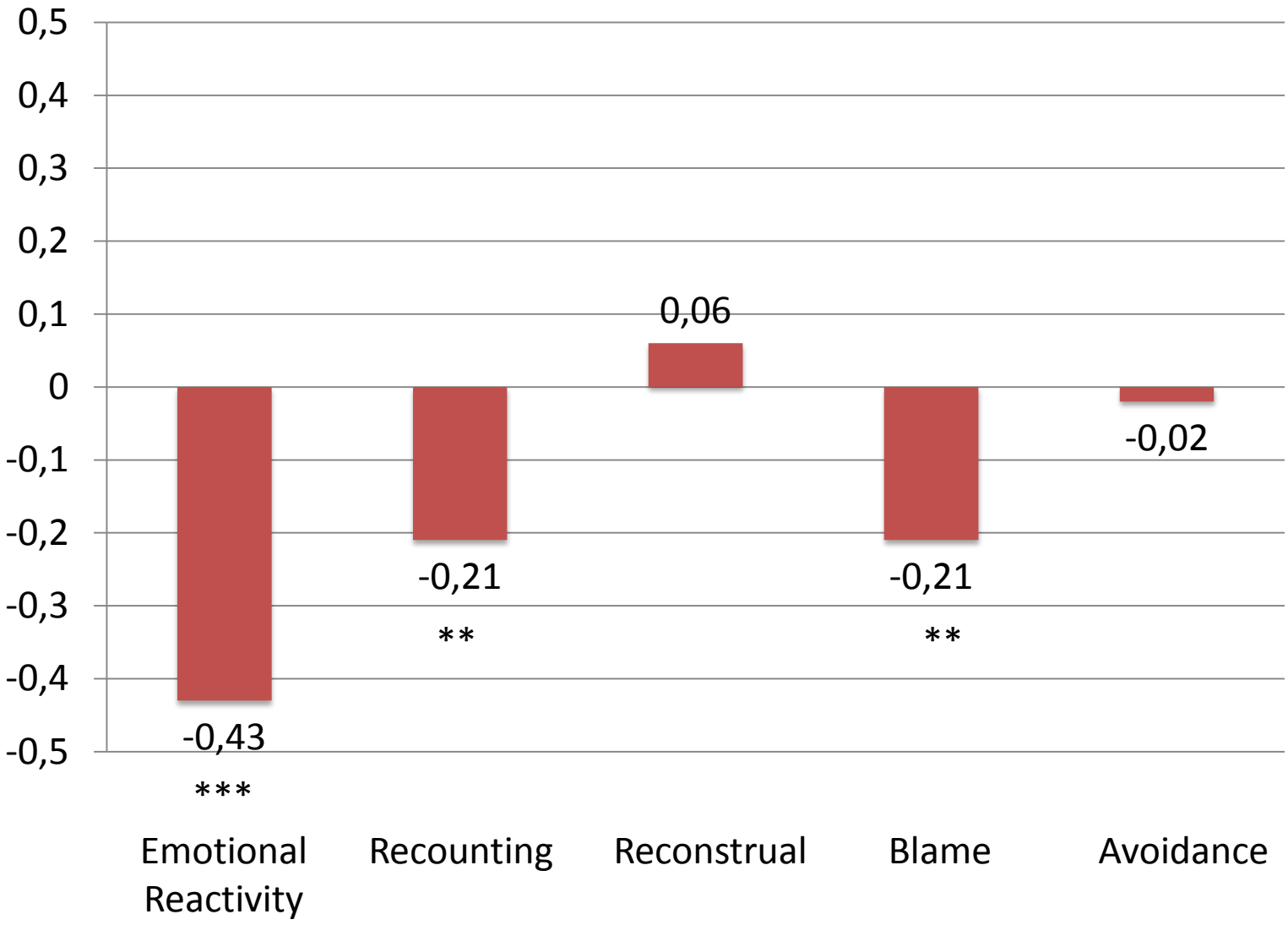
Distancing Questions

- When you thought about the fight a few moments ago…
  - how much did you feel like you were seeing it through your own eyes versus watching the fight happen from a distance (like watching yourself in a movie)?
  - how far away from the fight did you feel?
  - how much did it feel real or imagined?
  - how long ago did it feel like the fight happened?

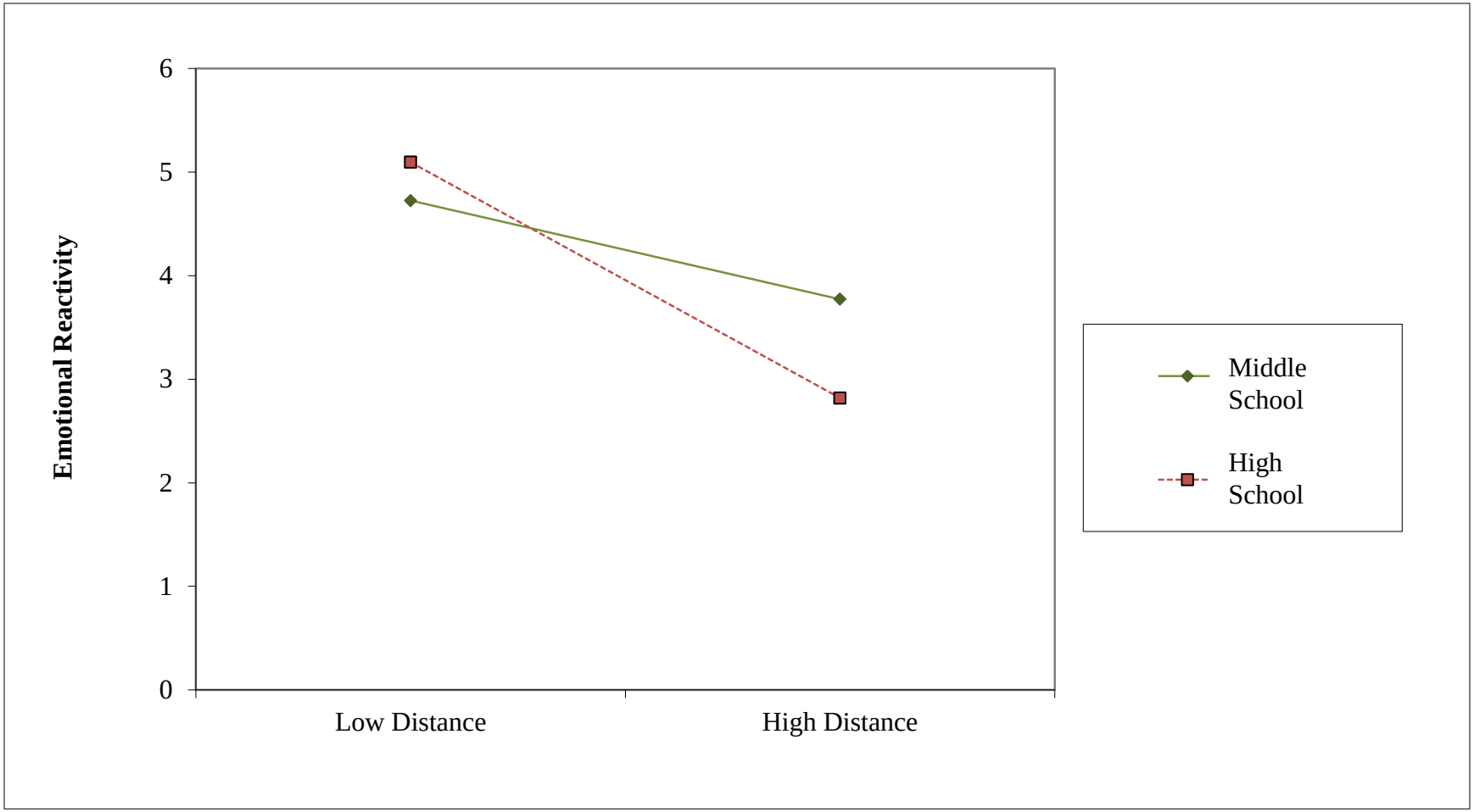
Measures

- Emotional Reactivity: strength of current emotional response ↓
  - *Thinking about the event still makes me feel upset (for example, angry, sad, hurt, rejected).*
- Recounting: focusing on chain of events ↓
  - *When I thought about this fight, I saw it happen step-by-step, from beginning to end.*
- Reconstrual: re-evaluation of the experience (realization, insight) ↑
  - *When I thought about this fight, I realized something that made the fight bother me less.*
- Blame ↓
  - *When I thought about this fight, I still blamed the other person.*
- Avoidance ✖
  - *When I was first asked to remember this fight, I tried not to think about it.*

Correlations with Distancing



Age x Distancing Interaction



Grade β = -.08; Distancing β = -.46***; Grade x Distancing β = -.19**

Study 4: Anxiety

- *What about other negative emotions? Distancing in the moment?*

- Participants:
  - 547 6th-12th grade students
  - 301 Females (54.3%)
  - Ethnically and socioeconomically diverse sample

- Tested in classrooms using Qualtrics survey software

Anxiety Prompt

*No matter how happy people are with their lives, there are times that they **worry or become anxious** about things that might go wrong in the future.*

Take a few moments right now to think about a specific experience that you're worried could happen to you in the future…

Essay Coding

- *"Please describe the stream of thoughts that went through your mind a few moments ago as you tried to understand your feelings about the experience that makes you anxious or worried."*

- **Threat**: degree to which someone feels unable or unprepared to deal with a stressor ↓

- **Challenge**: feeling of being able to cope with stressor ↑

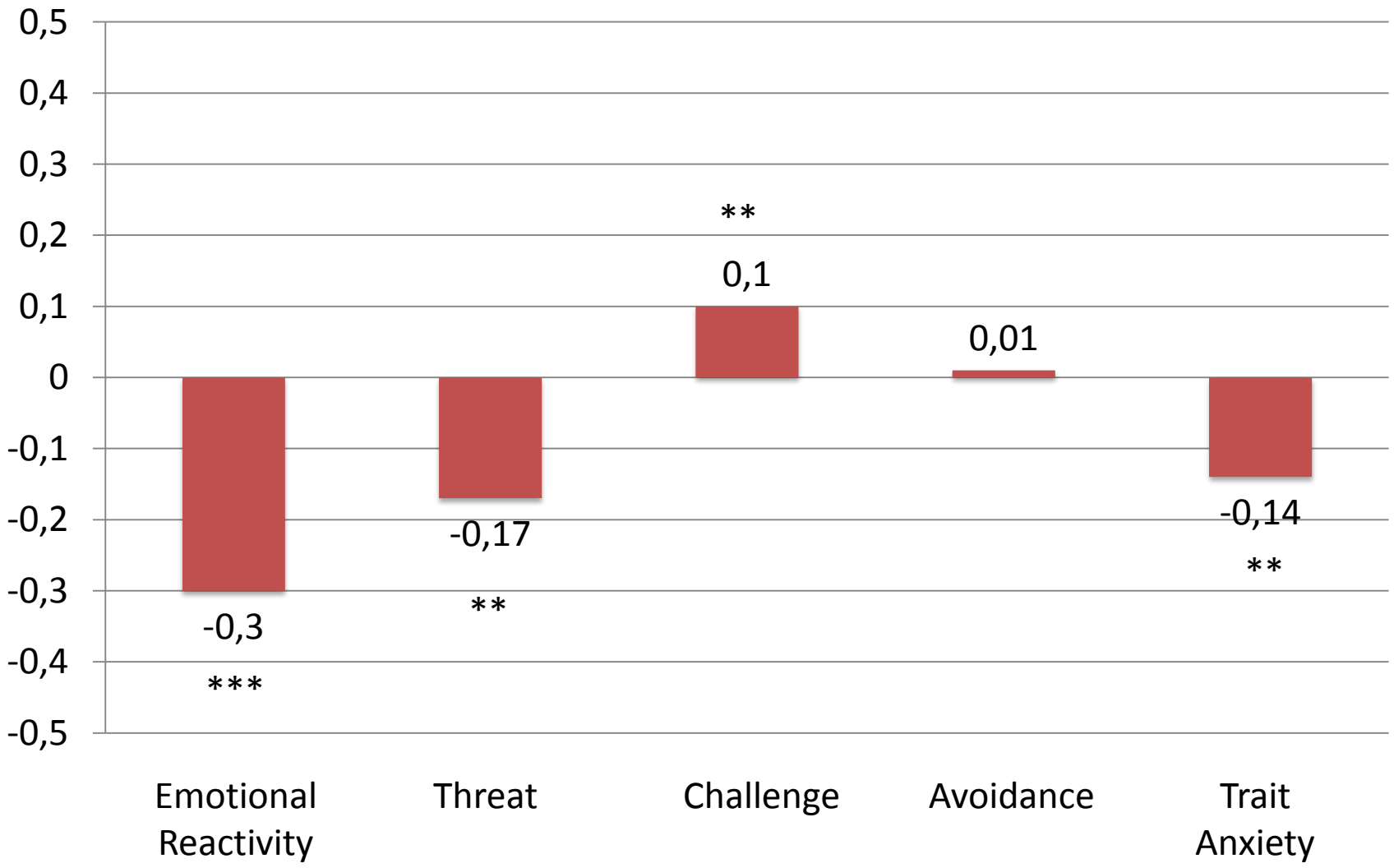
High Threat Example

“I just received my PSSA scores and they were horrible, 15 years from that moment I was homeless on the streets begging for money and living in a cardboard box.”

High Challenge Example

"...the thought of not getting in makes me anxious. However, I am a solid person with great parents. I am from a strong and loving family. [...] I have parents, friends, and a therapist I can talk to about my feelings. I have a great support system and that I'm going to do well at whatever college I go to."

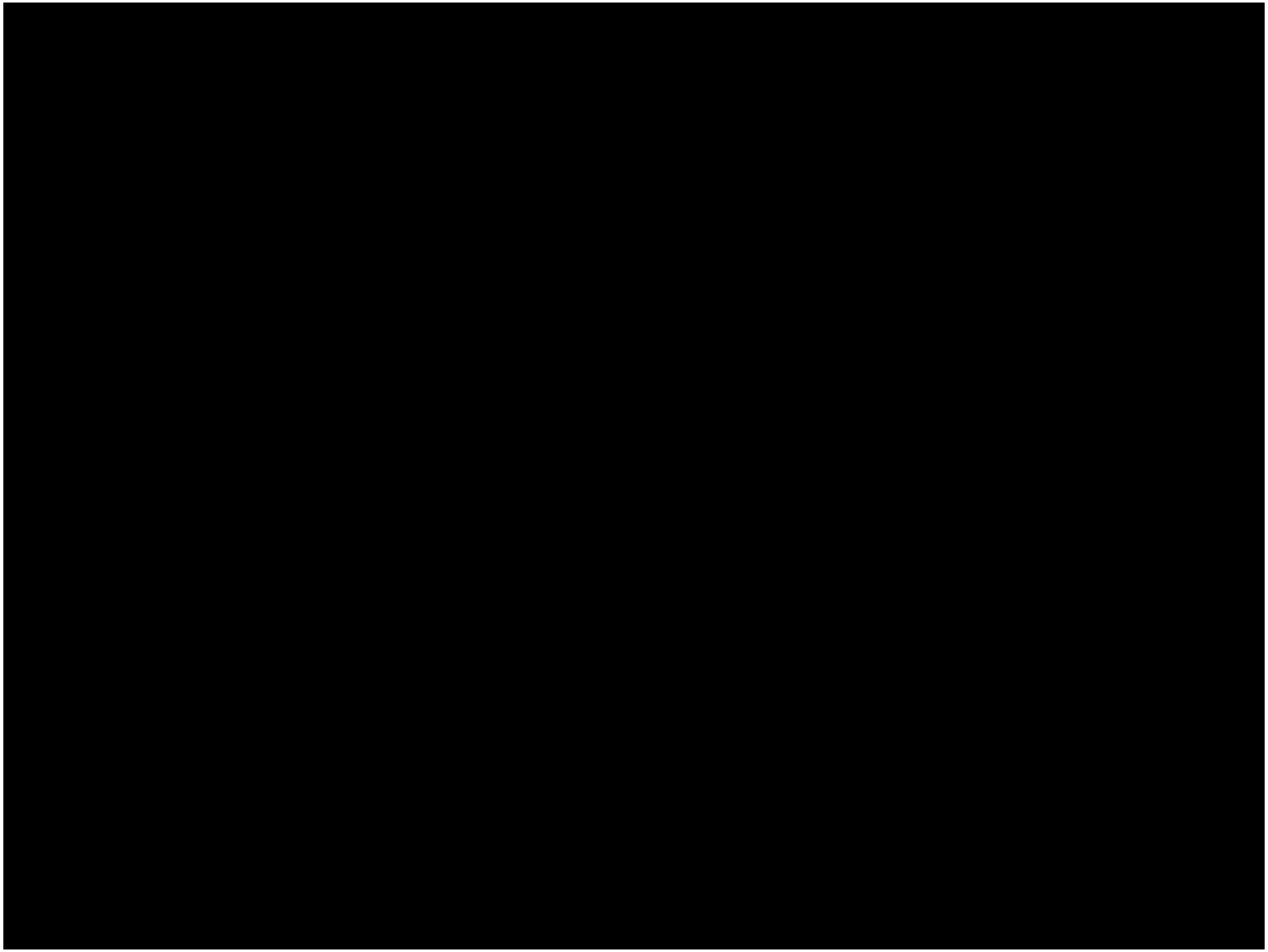
Correlations with Distancing



Yes, children spontaneously distance themselves from negative events

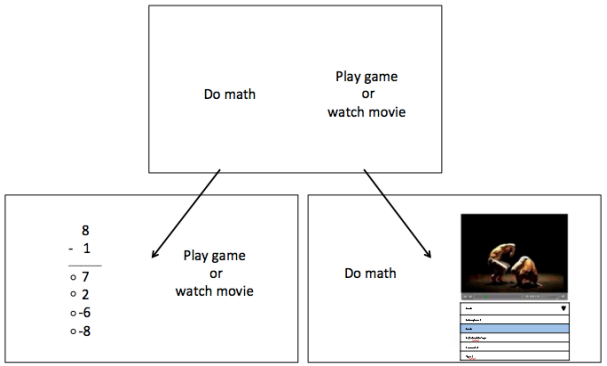
- … and *it helps*!

- Seems to be in place by at least age 11 and effectiveness increases with age
  - But likely effective (to some degree) at even younger ages…



General discussion

- Distancing effects self-control both in the lab and without instruction
- Could be good material for larger-scale interventions
- Future directions:
  - Academic tasks
  - Rolling out intervention for elementary and middle school



- One more piece of evidence for the importance of teaching flexible, imaginative thinking

Thank you

- Children and families who participated

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  Ethan Kross

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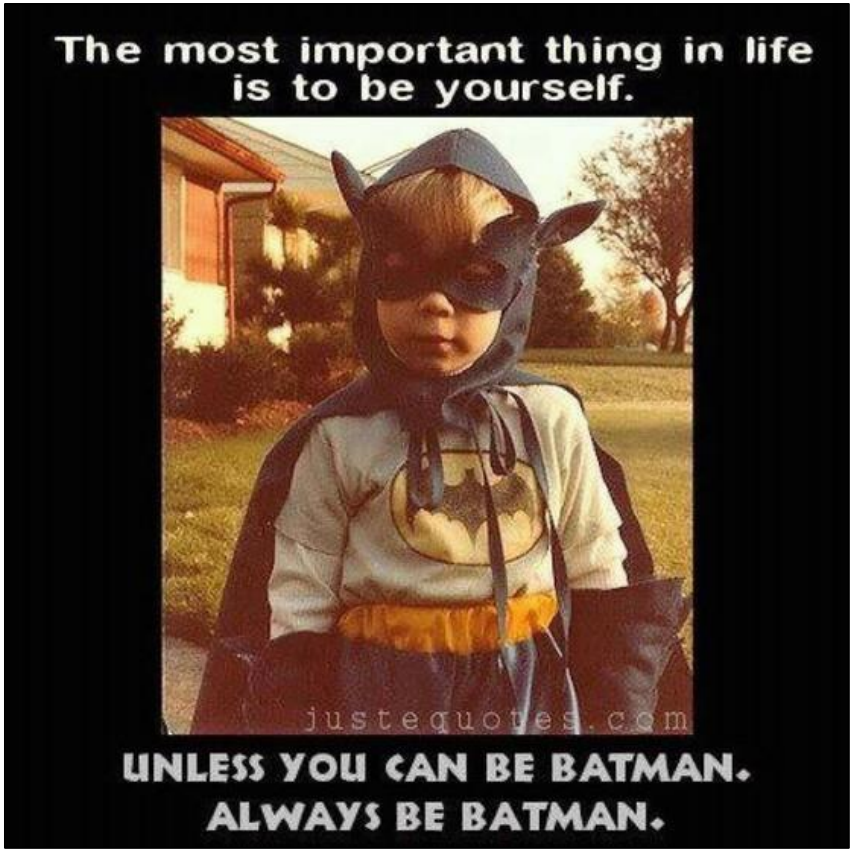
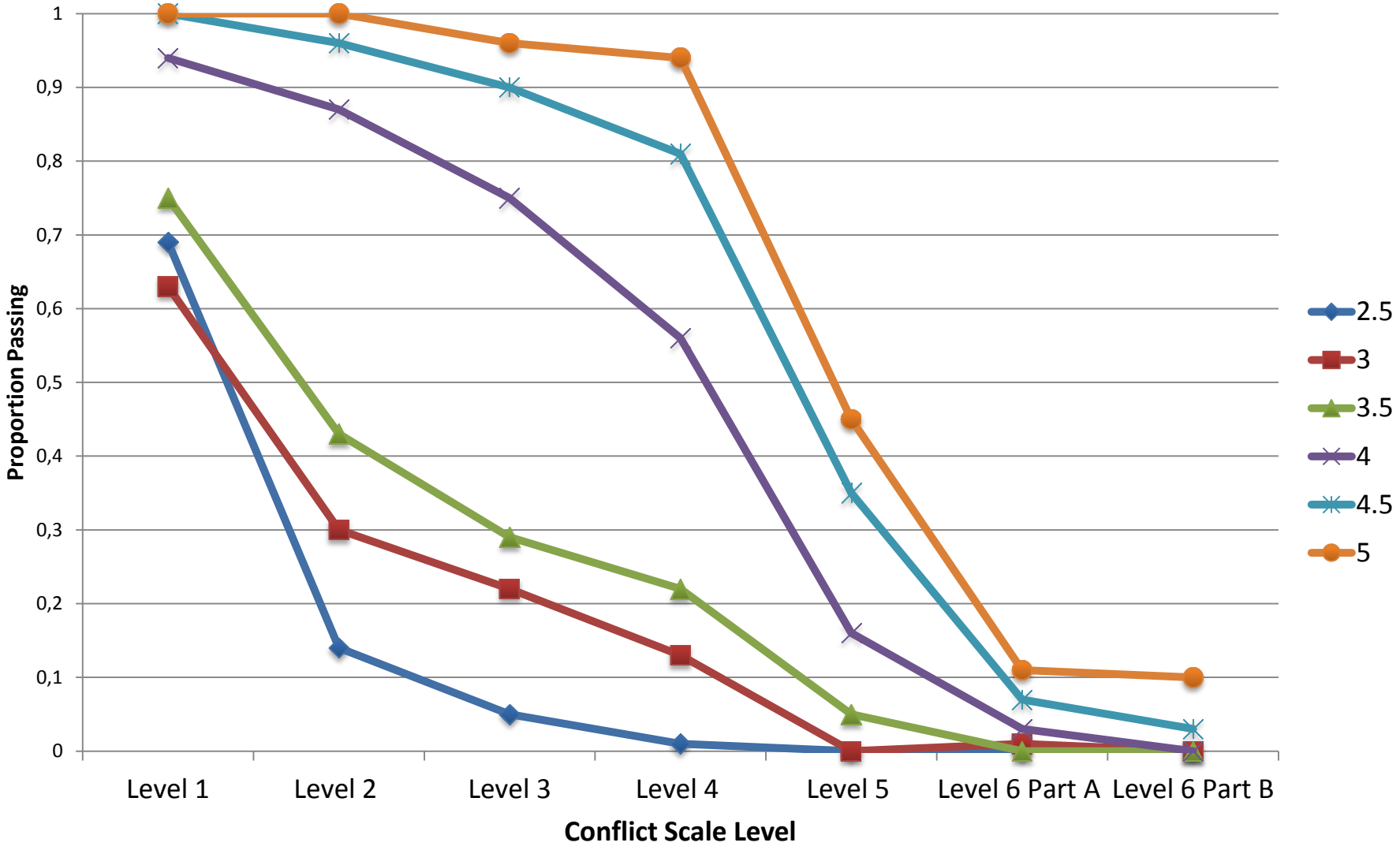
- **Research Assistants**: Rebecca Matour, Daniel Friedman, Zachary Holmquist, Hannah Saunders, MJ Heise, Kristen Johnson



Age differences

- Why didn't distancing work for 3-year-olds?
  - Previous studies were hot tasks
  - Differential EF Scale task demands?
  - Statistical power?

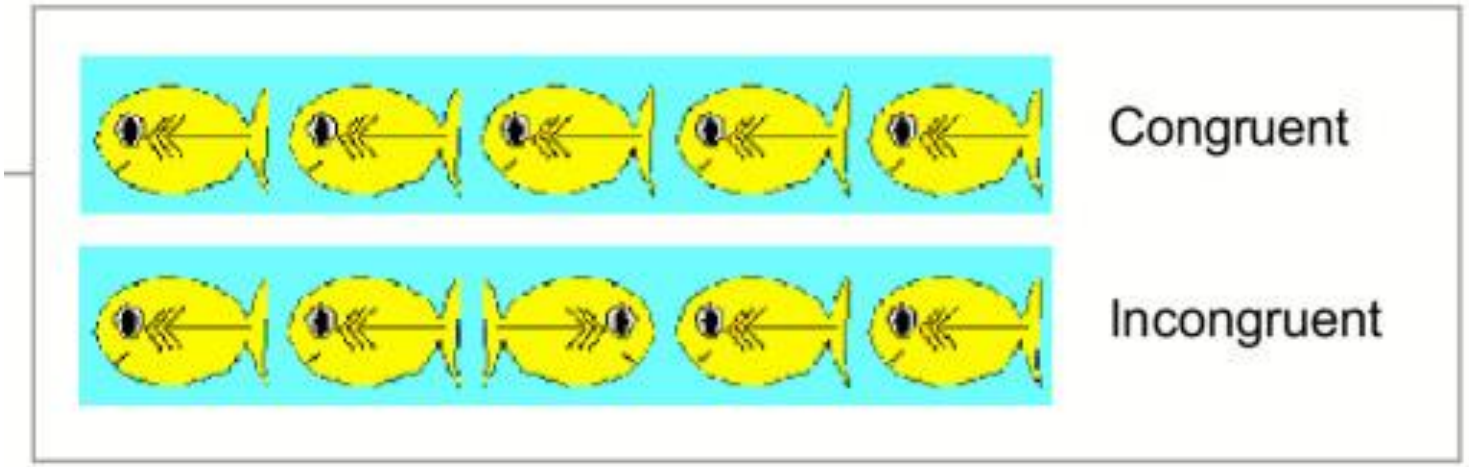
Proportion of Children Passing Conflict Levels by Age Group (*N* = 600)



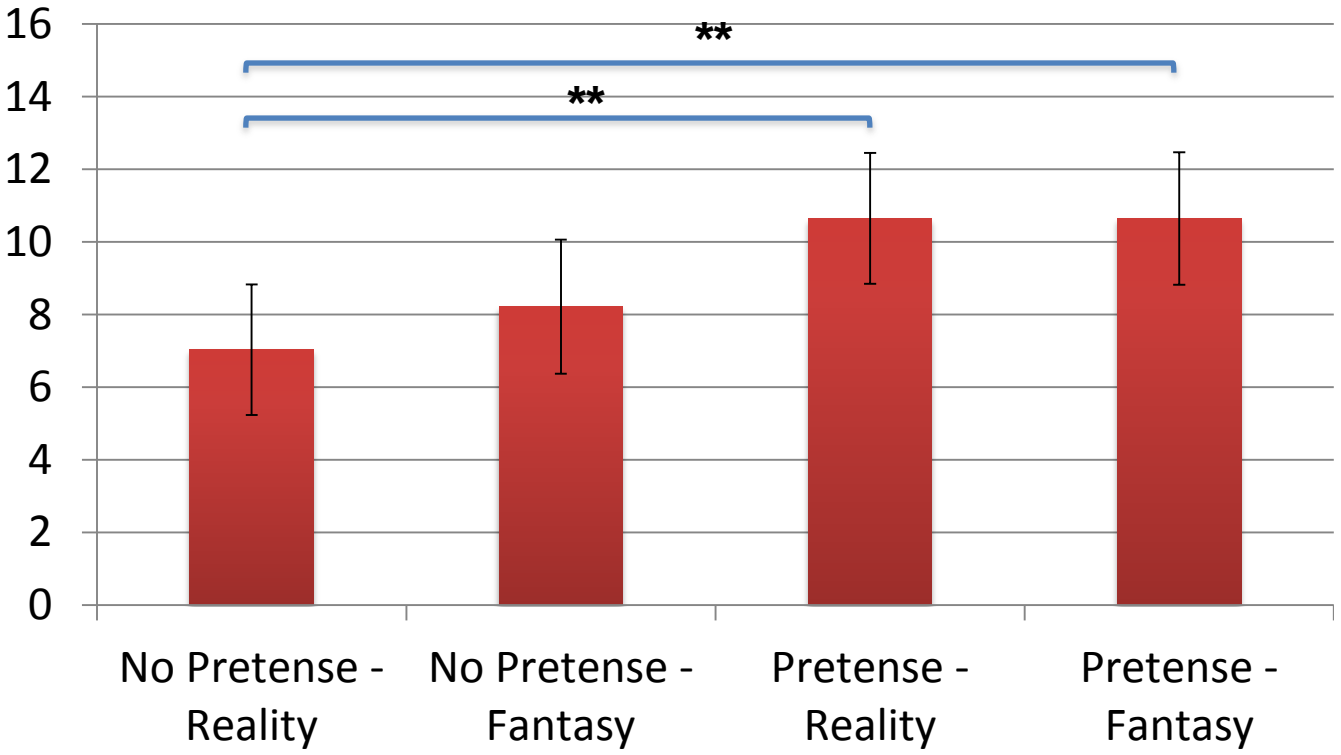
Carlson, 2012

Quality of role model?

Flanker



Pretense Priming Conditions



Note. *N* = 60. ** $p < 0.01$. Bars represent 95% C.I.s. Differences between Fantasy Control and Pretense conditions, *p*s = 0.06.