Relationship between Childhood Unpredictability and Emotional Schema Adaptation in Young Adults

Sapna Patel, Anna Vannucci, Ariel Katz, Nate Martin, Medina Shah, & Nim Tottenham

DEVELOPMENTAL
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Introduction and Methods

- **Childhood adversity** is linked to **alterations** on **emotional learning processes** and **cognitive flexibility**.

- Recent push to shift viewing impacts of **childhood adversity** as **adaptive** rather than detrimental.
  - Initial evidence to suggest **unpredictable caregiving environments** are **linked to improved cognitive flexibility**.

- Currently, no studies have looked at **emotional schema learning** processes.

Objective: To examine the relationship between childhood unpredictability and young adults' ability to adapt previously learned emotional schemas.

Hypothesis: Higher levels of childhood unpredictability will be linked to a greater ability to adapt previously learned emotional schemas.

Study Design:

- **QUIC:** assesses levels of **social, emotional, and physical predictability** in the childhood environment

What noise will this Fribble make?

1 = Good   2 = Neutral   3 = Bad

- **Fribbles** (example shown to the right): **objects**, each with an **associated valence** based upon body color
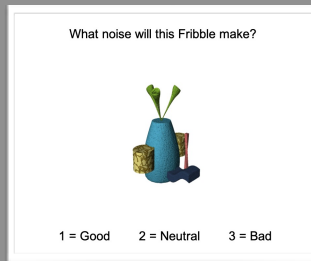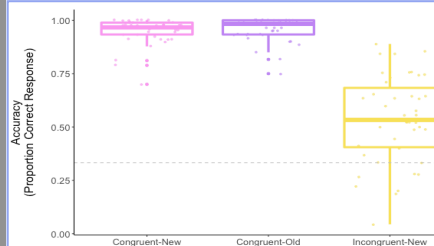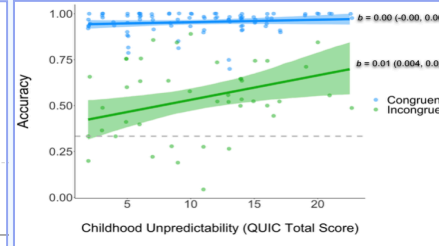
Participants:

- Recruited 66 individuals online using Prolific
  - 47 individuals included for analysis
- Age: 18-25, mean = 23.6 yrs
- Gender: 45% female, 49% male, 6% other
- Race'Ethnicity: 15% Asian, 9% Black, 17% Hispanic/Latinx, 57% White
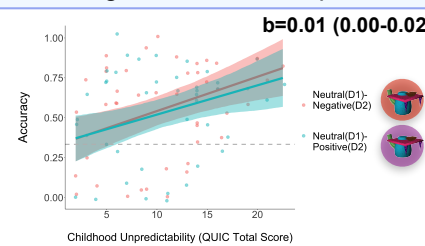
Results

Accuracy x Trial Type
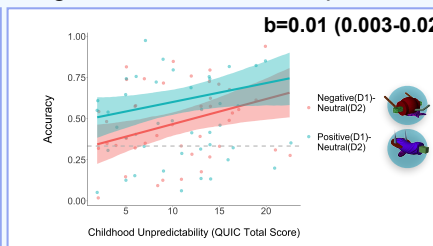
Accuracy by Trial Type x QUIC

$b = 0.00\ (-0.00, 0.00)$
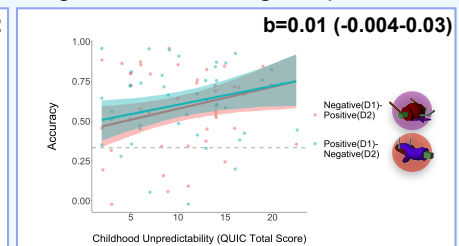$b = 0.01\ (0.004, 0.02)$

Incongruent Accuracies

Neu-Neg vs Neu-Pos Adaptation — $b=0.01\ (0.00-0.02)$

Neg-Neu vs Pos-Neu Adaptation — $b=0.01\ (0.003-0.02)$

Neg-Pos vs Pos-Neg Adaptation — $b=0.01\ (-0.004-0.03)$

Task Design

Day 1 — Emotional Schema Acquisition

Day 2 — Emotional Schema-based Learning & Adaptation
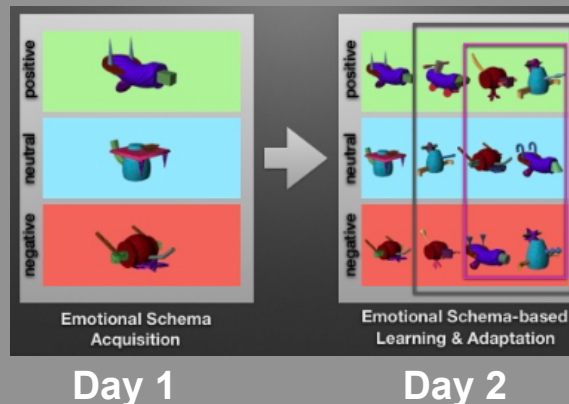
Discussion

- **Higher** levels of **childhood unpredictability** are associated with an **increased ability** to **accommodate new, incongruent information** into previously learned **emotional schemas**, especially for changes from:
  - **Negative to neutral schemas**
  - **Neutral to positive and negative schemas**

- **No association** between childhood unpredictability and accuracy when **shifting away** from **positive schemas**

- Results support neural **adaptation frameworks** of childhood unpredictability