The Relationship Between Automatic Action Biases in Clinically Anxious Children and their Parents

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Disclosures

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Anxiety Disorders in Youth

- Up to 32% prevalence by adolescence
  (Merikangas et al., 2010)

- Impairment in social, academic, and family settings
  (Mychailyszyn et al., 2010)

- **Goal**: Improve understanding of factors that contribute to youth anxiety
Explaining Youth Anxiety

• Self-Report
  ▫ Child’s perceptions about their own anxiety
  ▫ Parent’s perceptions about their child’s anxiety
  ▫ Parent’s anxiety
    • High concordance with parent/child anxiety diagnoses (Hughes et al., 2009)

• Limitations
  ▫ Children may vary on level of insight
  ▫ Parents may be unaware of how their child is thinking/feeling
  ▫ Parents may not accurately report their own anxiety
Explaining Youth Anxiety

• **Observable Behavior** (e.g., Behavioral Approach Tests, Behavioral Challenge Tasks) (DiBartolo & Grills, 2006; Najmi et al., 2012)
  ▫ Youth approach/avoidance behavior
  ▫ Parent approach/avoidance behavior
    • Parents model anxiety-related behavior (Fisak & Grills-Taquechel, 2007)

• **Limitations**
  ▫ Expensive/time intensive
  ▫ Hard to quantify
  ▫ Hard to standardize
  ▫ Response biases/experimenter demand
Explaining Youth Anxiety

• Implicit Bias are useful in the study of anxiety (Roefs et al., 2011 for a review)

• Examples:
  ▫ Attentional biases (Mogg et al., 2012)
  ▫ Interpretation biases (Affrunti & Ginsburg, 2012; Blossom et al., 2013)
Explaining Youth Anxiety

• Implicit Bias (e.g., automatic action tendencies)
  (Rinck & Becker, 2007; Najmi et al., 2010)
  ▫ Youth *automatic* approach/avoidance biases
  ▫ Parent *automatic* approach/avoidance biases

• Advantages
  ▫ Standardized, quantifiable
  ▫ Reduced response biases/experimenter demand
  ▫ Easy method of assessing behavioral tendencies
Approach-Avoidance Task (AAT)

- Method of assessing automatic action tendencies: Approach-Avoidance Task (Rinck & Becker, 2007; Roefs et al., 2011)

- Biased automatic action tendencies related to anxiety in adults (Heurer et al., 2007; Najmi et al., 2010; Roelofs et al., 2010)

- Youth: AAT bias related to spider fears and acquisition of fear to novel animals (Klein et al., 2011; Huijding et al., 2009)
Current Study
Participants

- 21 clinically anxious youths (age 8-17) and their parents
- Diagnosed with a primary anxiety disorder using the ADIS-IV-C/P (Silverman & Albano, 1996)
AAT “Pull” Trial
AAT “Push” Trial
Approach Avoidance Task (AAT)

- **Facial Stimuli** (NimStim; Tottenham et al., 2009)
  - Emotional faces (disgust, happy)
  - Neutral

- No-contingency between pushing and pulling for each valence type (50/50); 288 trials

- Parents and youth completed the same assessment

- Bias Scores
  
  - **Approach/Pull Bias:** $RT_{\text{emotional face}} - RT_{\text{neutral face}}$
    - Higher scores = greater difficulty approaching emotional faces

  - **Avoidance/Push Bias:** $RT_{\text{emotional face}} - RT_{\text{neutral face}}$
    - Lower scores = more tendency to avoid emotional faces
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Predictors

Strategy: Step-wise regression approach with domains of interest (Amir et al., 2011; Fournier et al. 2009)

Youth/Parent Report of Symptoms
- SCARED-C (Screen for Child Anxiety Related Emotional Disorders; Birmaher et al., 1999)
- SCARED-P (Screen for Child Anxiety Related Emotional Disorders; Birmaher et al., 1999)
- DASS-Anxiety (Depression Anxiety and Stress Scale; Lovibond & Lovibond, 1995)

Approach System
- Youth approach bias
- Parent approach bias

Avoidance System
- Youth avoidance bias
- Parent avoidance bias
Outcome Measure

Pediatric Anxiety Rating Scale (PARS; Research Units on Pediatric Psychopharmacology Anxiety Study Group, 2002)

- Clinician judgment based on youth/parent report
  - Frequency of anxiety symptoms
  - Severity of anxiety symptoms
  - Severity of physical symptoms
  - Avoidance of anxiety-provoking situations
  - Interference with family/home life
  - Interference with peer/adult relationships, performance outside the home
# Regressions by Domain

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**Outcome: PARS**

Domain 1: $R^2 = .28, p = .163$.
Domain 2: $R^2 = .04, p = .745$.
Domain 3: $R^2 = .48, p = .005$.  

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## Overall Regression

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**Outcome: PARS**

\[ R^2 = .62, \ p = .002. \]
Summary

• **First study**
  - AAT in clinically anxious youth
  - Examine the role of parental automatic behavioral biases

• **Understand youth anxiety severity by:**
  - Asking parents how anxious their kids are
  - Youth automatic avoidance of emotional stimuli
  - Parental automatic avoidance of emotional stimuli
Implications for Treatment

• Existing treatment of choice (i.e., CBT) targets overt avoidance behavior
  ▫ Unclear to what extent CBT modifies implicit avoidance

• AAT as a training tool to facilitate overt behavioral approach
  ▫ Social approach behavior (Taylor & Amir, 2012)
  ▫ Approach of contamination-related stimuli (Amir et al., 2013)
Role of the Parent in Treatment

- Treatment may also need to address parental automatic avoidance tendencies

- Mixed research on the augmentative effects of parental component for youth anxiety CBT (Barmish & Kendall, 2005; Breinhoist et al., 2012)

- Inconsistent results due to failure to specify and measure mechanism? (Breinhoist et al., 2012)
  - Family interventions are efficacious when a specific mechanism is clearly defined and measured (e.g., family accommodation) (Storch et al., 2010)
Limitations

- Small sample
- No control group
- Combined disgust/happy faces for emotional faces bias
- No measure of overt behavior
- Longitudinal data
Thank you for your attention