A Quantitative Review of Two Attention-Based Measures of Pedophilic Sexual Interest

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Background

Sexual interest in children is a strong predictor of sexual re-offending against children (Hanson & Morton-Bourgon, 2004)

Common treatment target (McGrath, Cumming, Buchard, Zeoli, & Ellerby, 2010)
Background

Issues with phallometric assessment methods (Akerman & Beech, 2012; Winters, Christoff, & Gorzalka, 2009)

• Intrusive
• Expensive
• Susceptible to faking
Attention-based measures
Attention-based measures

**Rationale:** Individuals process information differently when distracted by sexually attractive stimuli

**Advantages:**
- Non-intrusive
- Inexpensive
- Less susceptible to faking?
Current study

To what extent do attention-based measures of pedophilic interest actually reflect pedophilic interest?

Logic:

• If attention-based measures of pedophilic interest are valid, then they should be associated with independent indicators of sexual interest in children, such as
  a) Sexual offending against children
  b) Victim characteristics associated with pedophilic interest
Current study

Research question: Are attention-based measures associated with independent indicators of pedophilic interest?

Quantitative review of:
- Rapid serial visual presentation (RSVP) task
- Choice reaction time (CRT) task
RSVP

Rapid serial visual presentation task
RSVP task

- Sexually attractive image
- Increased attentional blink
- Fail to detect subsequent stimuli
<table>
<thead>
<tr>
<th></th>
<th>T1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>Animal</td>
<td></td>
</tr>
<tr>
<td>Train L</td>
<td>Train R</td>
<td></td>
</tr>
<tr>
<td>Chair L</td>
<td>Chair R</td>
<td></td>
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</tbody>
</table>

This table represents a layout on a computer screen with columns labeled T1 and T2, and rows labeled Child, Train L, Chair L, Animal, Train R, and Chair R.
RSVP: Results

• Sex offenders against children tended to be less accurate than individuals who have not sexually offended against children at identifying Time 2 images when they followed an image of a child.
RSVP: Results

Cohen’s $d$ and 95% Confidence Intervals

Beech et al. (2008)  
Crooks et al. (2009)  
Zappala et al. (2016)

Weighted average $d = 0.24$, 95% CI[-0.02; 0.49], $k = 3$, $n = 311$
CRT

Choice reaction time task
CRT task

- Sexually attractive image
- Increased attention to image
- Slower reaction times
CRT: Results

• Sex offenders against children tended to have slower reaction times when viewing child vs. adult images compared to individuals who have not sexually offended against children.
CRT: Results

Cohen’s $d$ and 95% Confidence Intervals

Weighted average $d = 0.98$, 95% CI [0.62; 1.35], $k = 2$, $n = 275$
CRT: Results

• Scores on the CRT were moderately associated with victim characteristics indicative of pedophilic interest (Screening Scale for Pedophilic Interests; Seto & Lalumière, 2001).
CRT: Results

Correlation $r$ and 95% Confidence Intervals

Dombert et al. (2015)  
Mokros et al. (2010)

Weighted average $r = .27$, 95% CI [.15; .38], $k = 2$, $n = 254$
Conclusions/future directions

- **Small to large** associations between attention-based measures and indicators of pedophilic interest (i.e., sexual offending against children and victim characteristics indicative of pedophilic interest)
- More research needed on the RSVP and CRT tasks (still very early!)
- Alternative explanations for effects?
- Future research should examine whether it would be beneficial to use a combination of measures during assessment
Thank you!

Questions?
Contact me: Chloe.Pedneault@carleton.ca
Visit Aggressive Cognitions and Behaviour Research lab website: http://carleton.ca/acbrlab
References


Studies included in quantitative review


