# Tracking ACT Processes in ERP for OCD: Single-Case Design Study

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# Disclosures (support):

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# Background

- Shift from treatment protocols towards transdiagnostic, evidence-based processes of change (e.g., Hayes & Hoffmann, 2017; Rosen & Davison, 2003)

- Interventions for OCD (ACT; ERP; CT) may work by processes other than those predicted by respective theories (Twohig, Whittal, Cox, & Gunter, 2010)

# Aim of this study

- Rather than compare ACT against another treatment (e.g., ERP), 4 sessions of ACT were embedded within an ERP protocol to examine if ACT processes are uniquely impacted by ACT interventions

# Hypotheses

- The combination of ERP and ACT will result in clinically significant improvement for adults with OCD
- ACT processes will not exhibit demonstrable shifts in expected direction until the ACT phase of treatment

# Multiple Baseline Single Case Design

- Non-concurrent ABCB design

- 18-session protocol

Phases:

- **A** = Baseline

- **B** = Exposure and Response Prevention

- **C** = ACT

| | Baseline | | Phase: ERP | | | | Phase: ACT or ERP | | | | Phase: ERP or ACT | | | | Phase: ERP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sessions: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Condition A | AA | | BBBB | | | | CCCC | | | | BBBB | | | | BBBB | | | |
| Condition B | AA | | BBBB | | | | BBBB | | | | CCCC | | | | BBBB | | | |

# ERP

- **Adapted from**:
  - *ERP for OCD Therapist Guide* (2nd ed; Foa, Yadin, & Lichner, 2012)
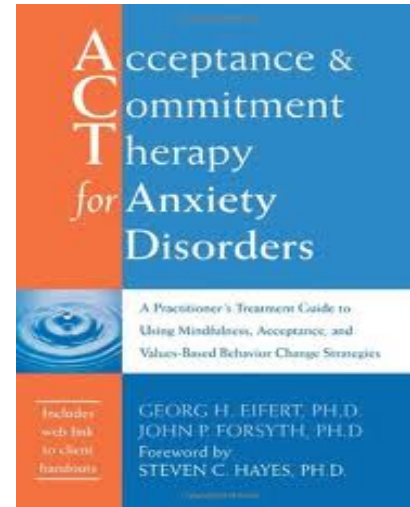  - *ERP for OCD Workbook* (2nd ed; Yadin, Foa, & Lichner, 2012)

- **<u>Some changes</u>**:
  - Adapted for 45-minute sessions
  - Phone contact not scheduled
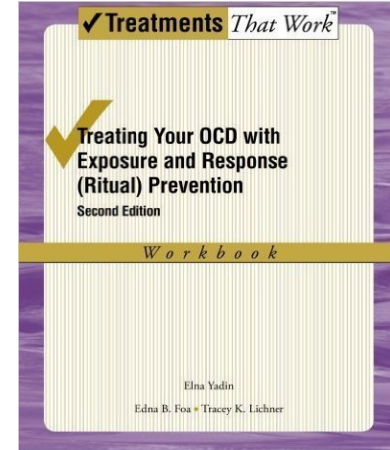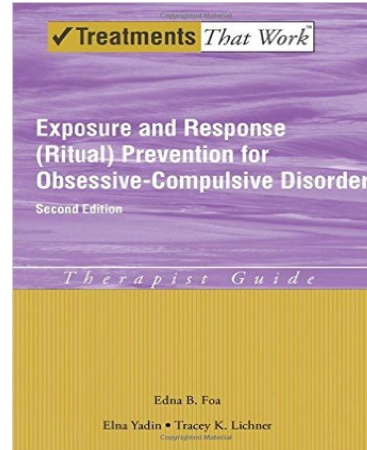
# ACT Block (adapted from Eifert & Forsyth, 2005)

- **Session A**
  - Acceptance of Thoughts and Feelings exercise
  - Tug-of-War with a Monster
  - Finger Traps
- **Session B**
  - Passengers on the Bus
  - Misc. defusion with thoughts on cards
- **Session C**
  - Acceptance of Anxiety exercise
  - Willingness Switch
  - Bull's Eye (*ACT Made Simple*, adapted from Dahl & Lundgren)
- **Session D**
  - Chessboard metaphor
  - Prepare to return to ERP

# *Participants*

| P1 | P2 | P3 | P4 |
|---|---|---|---|
| early 30's | late 30's | late 20's | early 30's |
| Caucasian | Caucasian | Caucasian | Latina |
| Female | Female | Female | Female |
| No meds | Cymbalta; Adderall | No meds | No meds |

# Measures

- **Clinician-administered**
  - *SCID-R Module F20-24 [pre-treatment assessment only]*
  - *Yale-Brown Obsessive Compulsive Scale* (Y-BOCS; Goodman et al., 1989)
  - Y-BOCS Symptom Checklist
- **Self-report**
  - *Obsessive-Compulsive Inventory – Revised* (OCI-R; Foa, Huppert, et al., 2002)
  - *Acceptance and Action Questionnaire-II* (AAQ-II; Bond et al., 2011)
  - *Cognitive Fusion Questionnaire – 7* (CFQ7; Gillanders et al., 2014)
  - *Philadelphia Mindfulness Scale* (PHLMS; Cardociotto et al., 2008)
    - "Awareness" and "Acceptance" subscales

# Assessment scores for pre- and post-treatment

| | P1 | | P2 | | P3 | | P4 | |
|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| Y-BOCS | 20 | **8 (-60%)** | 22 | 18 (-18%) | 25 | **13 (-48%)** | 30 | 15 **(-50%)** |
| AAQ-II | 39 | 32 (-18%) | 39 | 35 (-10%) | 34 | 18 (-47%) | 25 | 26 (4%) |
| CFQ7 | 38 | 35 (-8%) | 41 | 28 (-32%) | 45 | 16 (-64%) | 44 | 27 (-39%) |
| PHLMS | | | | | | | | |
| Aware | 44 | 47 (7%) | 31* | 32 (3%) | 37 | 34 (-8%) | 37 | 34 (-8%) |
| Accept | 16 | 27 (69%) | 14 | 26 (86%) | 16 | 34 (113%) | 22 | 29 (32%) |
| OCI-R | 32 | 20 (-38%) | 25 | 21 (-16%) | 34 | 15 (-56%) | 38 | 16 (-58%) |

Y-BOCS = Yale Brown Obsessive Compulsive Scale; AAQ = Acceptance and Action Questionnaire; CFQ7 = Cognitive Fusion Questionnaire – 7;

PHLMS = Philadelphia Mindfulness Scale; OCI-R; Obsessive-Compulsive Inventory – Revised.
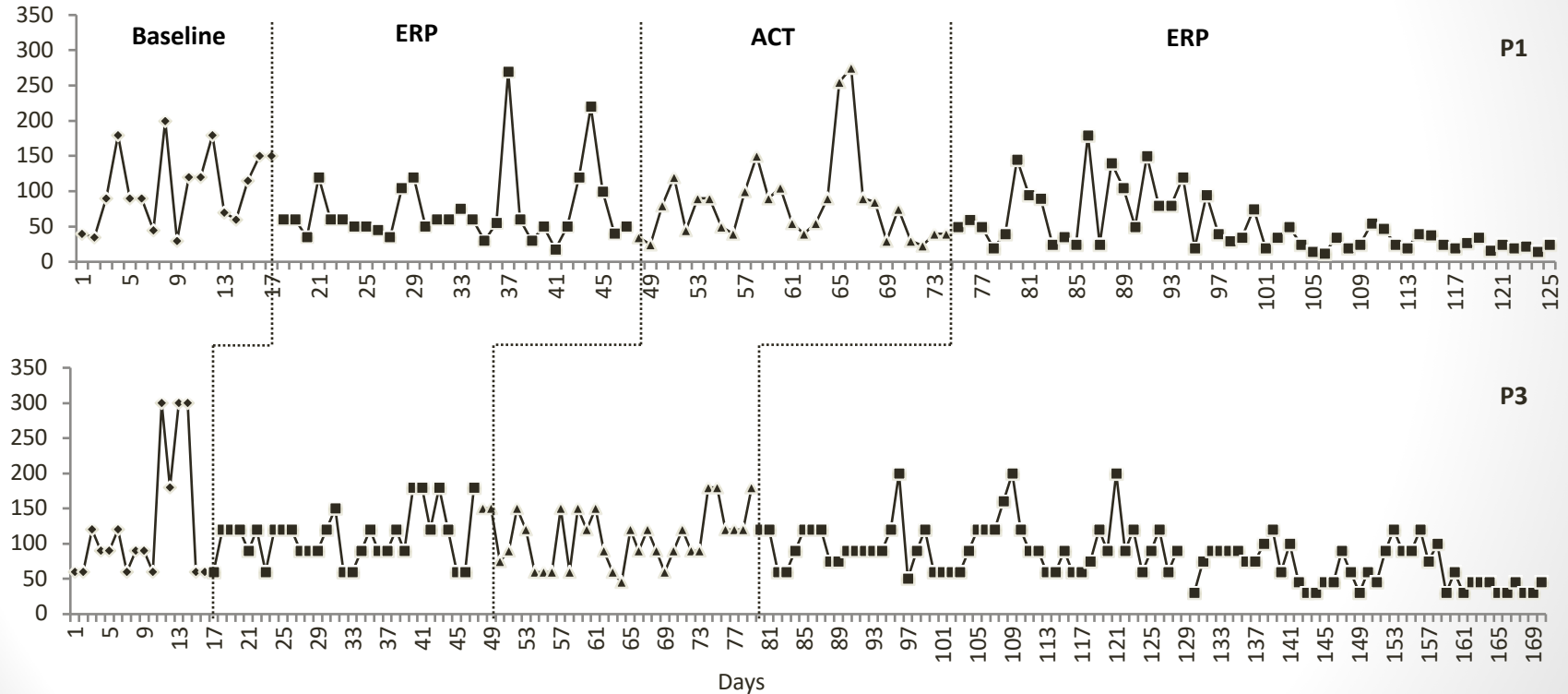
* 1 item blank - "not sure"
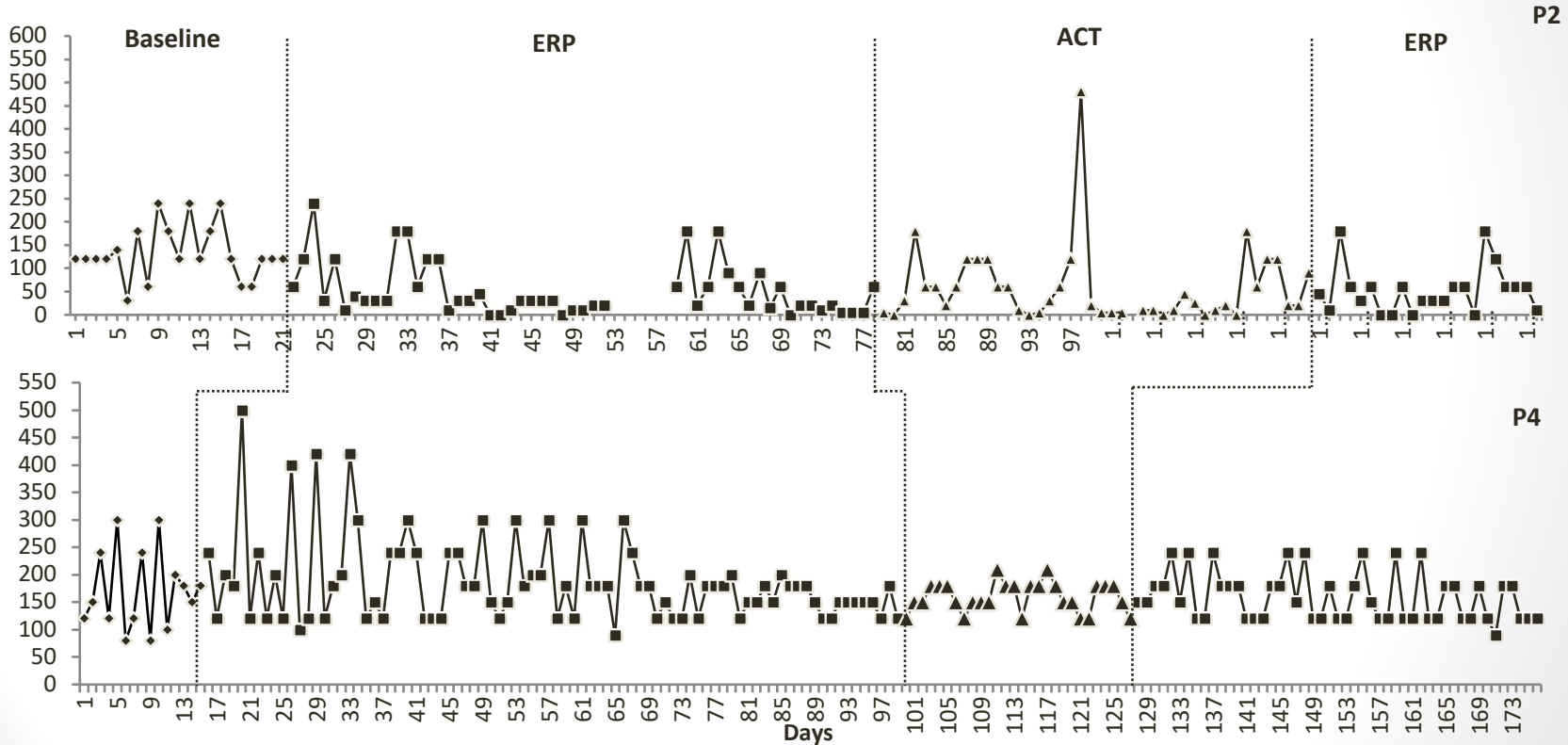
# ACT Daily Process items

The following questions ask about how things have been going for you over the past day. Please read each statement carefully, and then rate on the scale provided as to how much the statement applies to you *over the past day.* Leave voice mail or enter rating online each day.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Whenever I had *bothersome thoughts* over the past day, I tended to... | 1 Just notice them without trying to change them | 2 | 3 | 4 | 5 | 6 | 7 Try to change them or get rid of them |
| 2 | Whenever I had *bothersome feelings* over the past day, I tended to... | 1 Just notice them without trying to change them | 2 | 3 | 4 | 5 | 6 | 7 Try to change them or get rid of them |
| 3 | When I have *thoughts that I "know" are unrealistically negative*... | 1 I'm able to see them as just thoughts and not as the truth | 2 | 3 | 4 | 5 | 6 | 7 I can't help but take them as the truth |
| 4 | In terms of the *effect of my emotions on my behavior*, my distress... | 1 Does <u>not</u> prevent me from doing anything of importance | 2 | 3 | 4 Keeps me from doing some important things | 5 | 6 | 7 Prevents me from doing many important things |
| 5 | **Number of minutes** spent on rituals | [Can use Self-Monitoring form to track] | | | | | | |

Forman, E.M., Chapman, J.E., Herbert, J.D., Goetter, E.M., Yuen, E.K., & Moitra, E. (2012). Using session-by-session measurement to compare mechanism of action for acceptance and commitment therapy and cognitive therapy. *Behavior Therapy, 43*, 341-354.
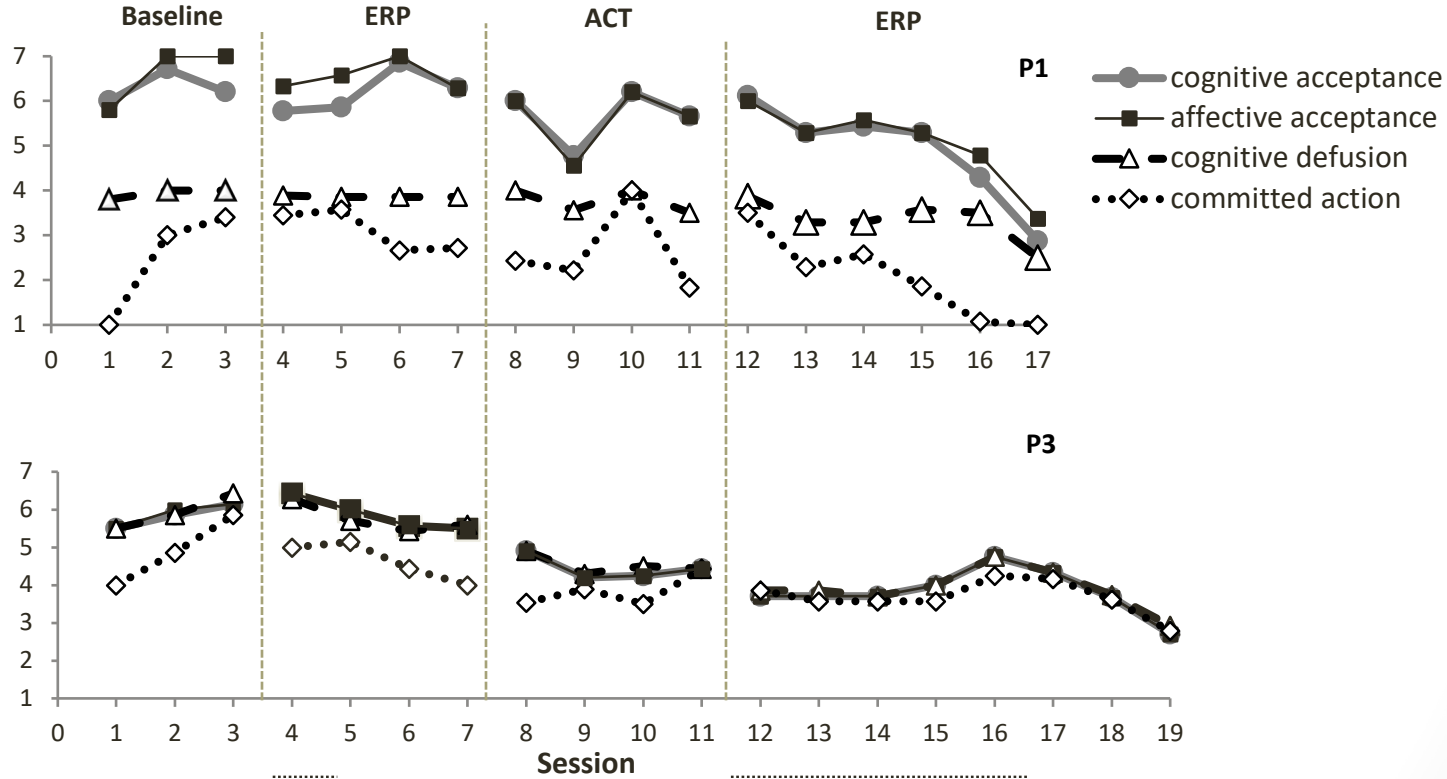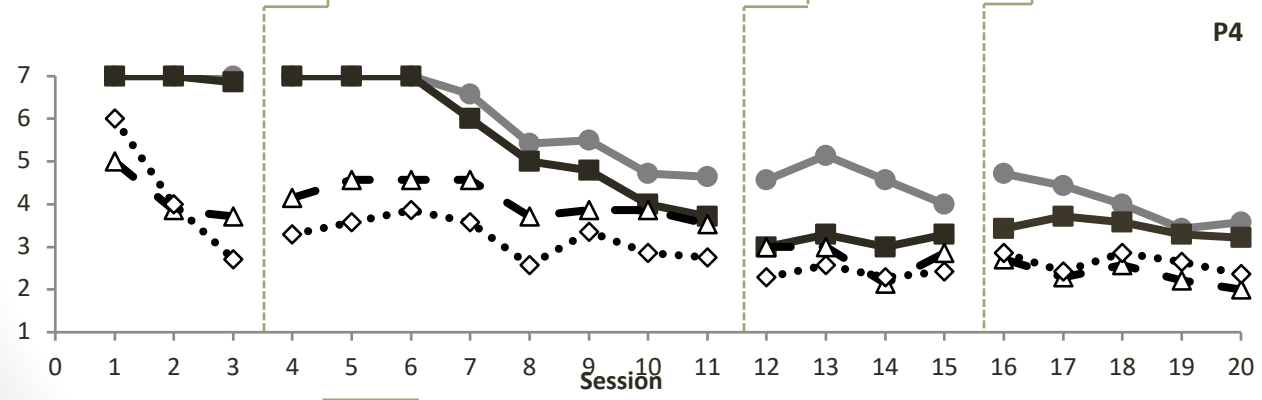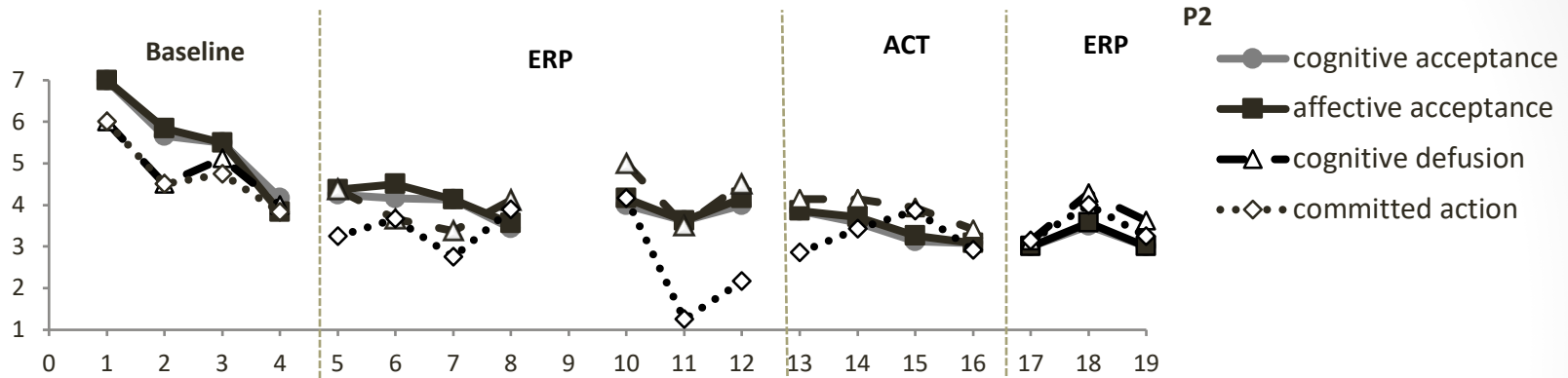
# Results: Daily Rituals (minutes)

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# Results: ACT Processes

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# Hypotheses

A. The combination of ERP and ACT **did** result in clinically significant improvement for 3 of 4 participants with OCD (*no surprise*)

B. ACT processes were **not** uniquely targeted by ACT interventions compared to ERP. ERP appeared to strengthen utilization of acceptance-based strategies, both before and after ACT interventions.

# ERP strengthens ACT processes

- RCT comparing ACT+ERP to ERP for OCD alone (Twohig et al., in press)
  - No significant difference in increases in psychological flexibility between to two treatments
- Are ACT and ERP more alike than different? (e.g., Tolin, 2009)

# Conclusions

- ERP appears to strengthen acceptance-based processes
  - ACT is considered an exposure-based treatment (e.g., Luoma, Hayes, & Walser, 2017)
  - Exposure may strengthen any of the core ACT processes (Thompson, Luoma, & LeJeune, 2013)
  - Consistent with inhibitory learning theory – fear toleration (e.g., Arch & Abramowitz, 2015; Craske et al., 2014)

# Limitations

- Small sample – generalizability
- Reliance on self-report measures
- Stable baselines were not established for all processes across all participants