

An ecological momentary assessment (EMA) investigation of cognitive processes for responding to difficult thoughts

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Disclosure

- We have not received and will not receive any commercial support for this study or presentation.

Background

- Approach to thoughts is key difference between traditional CBT and ACT (e.g., Hayes et al., 2011)
- Very little research directly comparing cognitive defusion and restructuring (Deacon et al., 2011; Larsson et al., 2016; Moffitt et al., 2012; Yovel et al., 2014)
- No studies in a natural, untrained context
- Evaluating effects of restructuring and defusion as they occur in daily life could illuminate key similarities and differences and identify their impact in context
- Hypothesized that restructuring and defusion might function differently for thoughts with complex relational frames (self-relevant thoughts, important thoughts)

Study questions

- 1) Does use of cognitive defusion or cognitive restructuring in daily life predict values progress?
- 2) Are the effects of these strategies dependent upon characteristics of the thoughts targeted, such as self-relevance, importance, believability, and willingness?

Study design

- Observational study using ecological momentary assessment
- All study procedures completed online
- 1 week of very brief surveys delivered to mobile phones 4x/day
- Baseline online survey
- Unfunded; participants were college students who received study credits for classes

Measures

Values

- Since the last prompt, were you able to do what matters to you?
- Since the last prompt, how content were you with the amount and types of things you did?
- Since the last prompt, were your actions in line with the kind of person you want to be?

Instructions: Take a moment to think about any challenging or negative thoughts that have come up for you since the last prompt. Keep these thoughts in mind while answering the remaining questions.

Context questions

- Frequency, believability, importance, willingness, + self-relevance of thoughts

Restructuring

- Since the last prompt, how much did you challenge the accuracy of your thoughts?
- Since the last prompt, how much did you try to think more realistic or helpful thoughts?

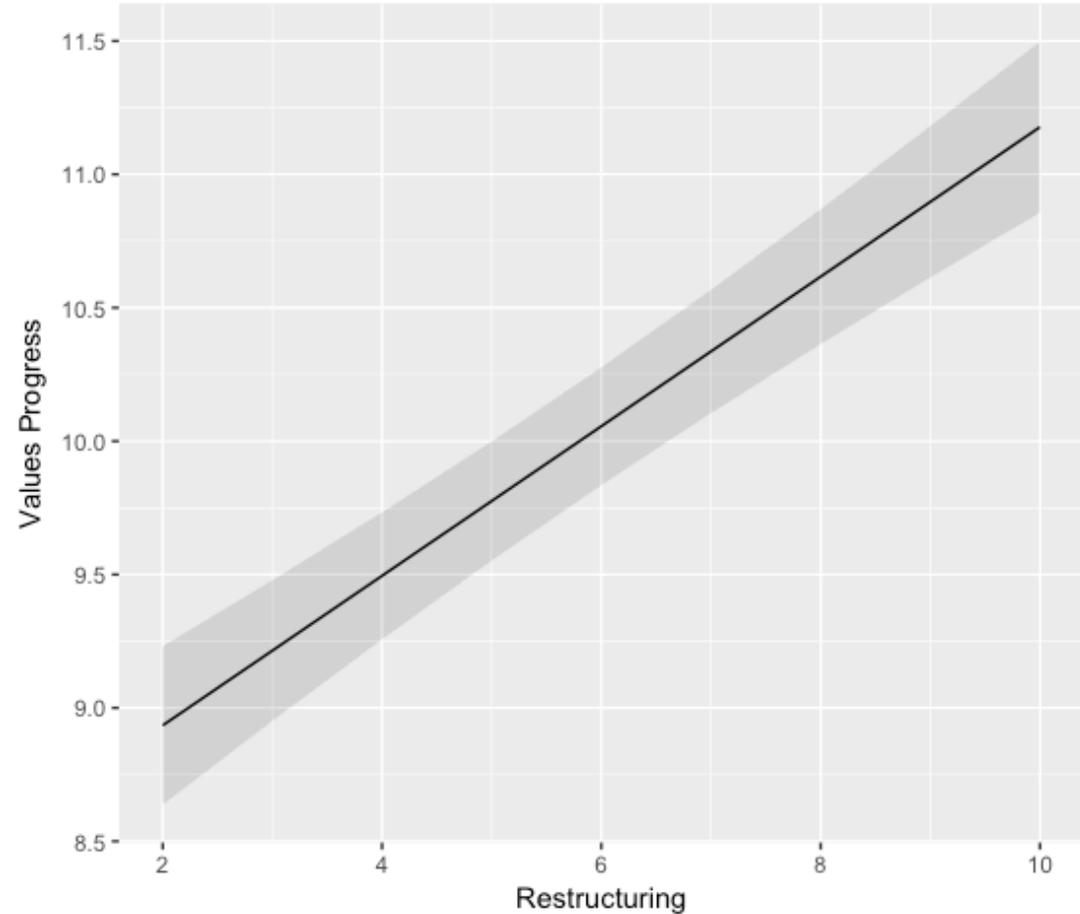
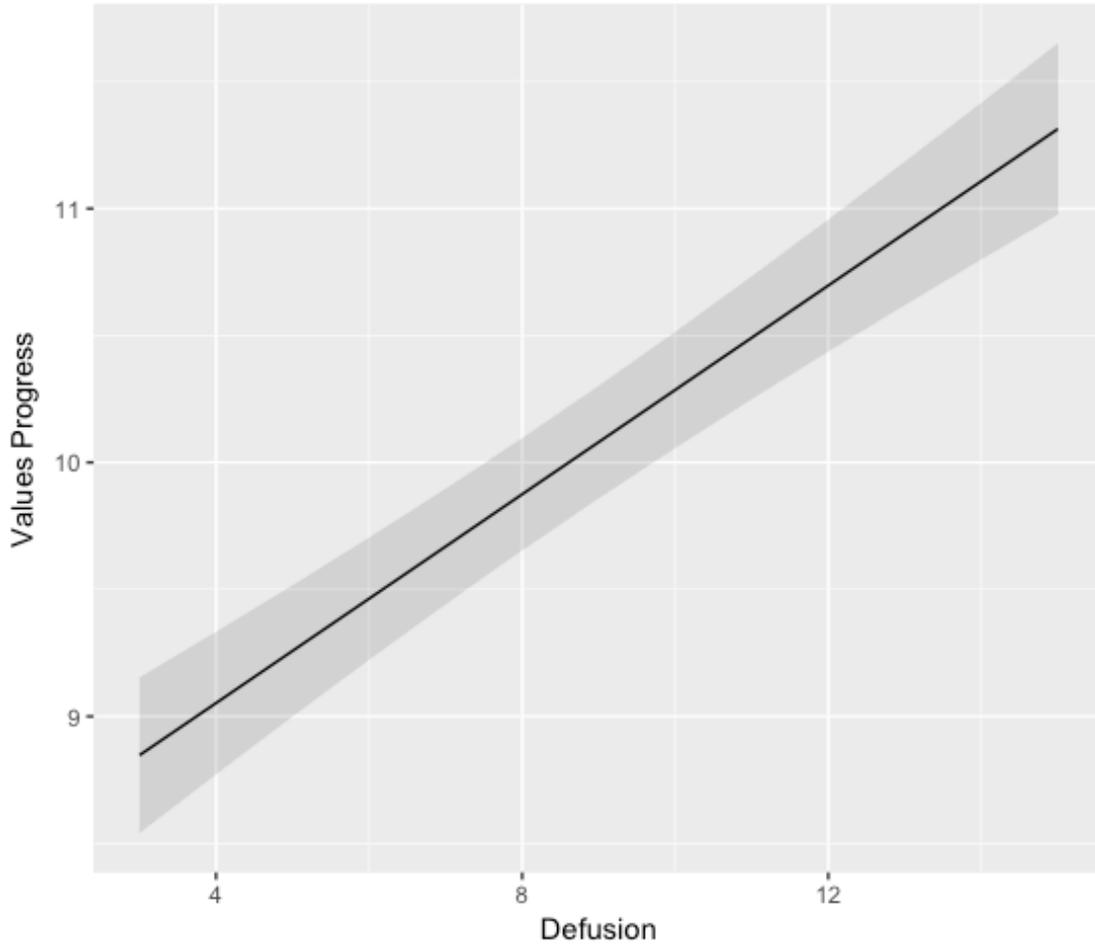
Defusion

- Since the last prompt, how much did you recognize that your thoughts are just thoughts?
- Since the last prompt, how much did you recognize that thoughts aren't facts?
- Since the last prompt, how much did you try to let your thoughts come and go without struggling with them?

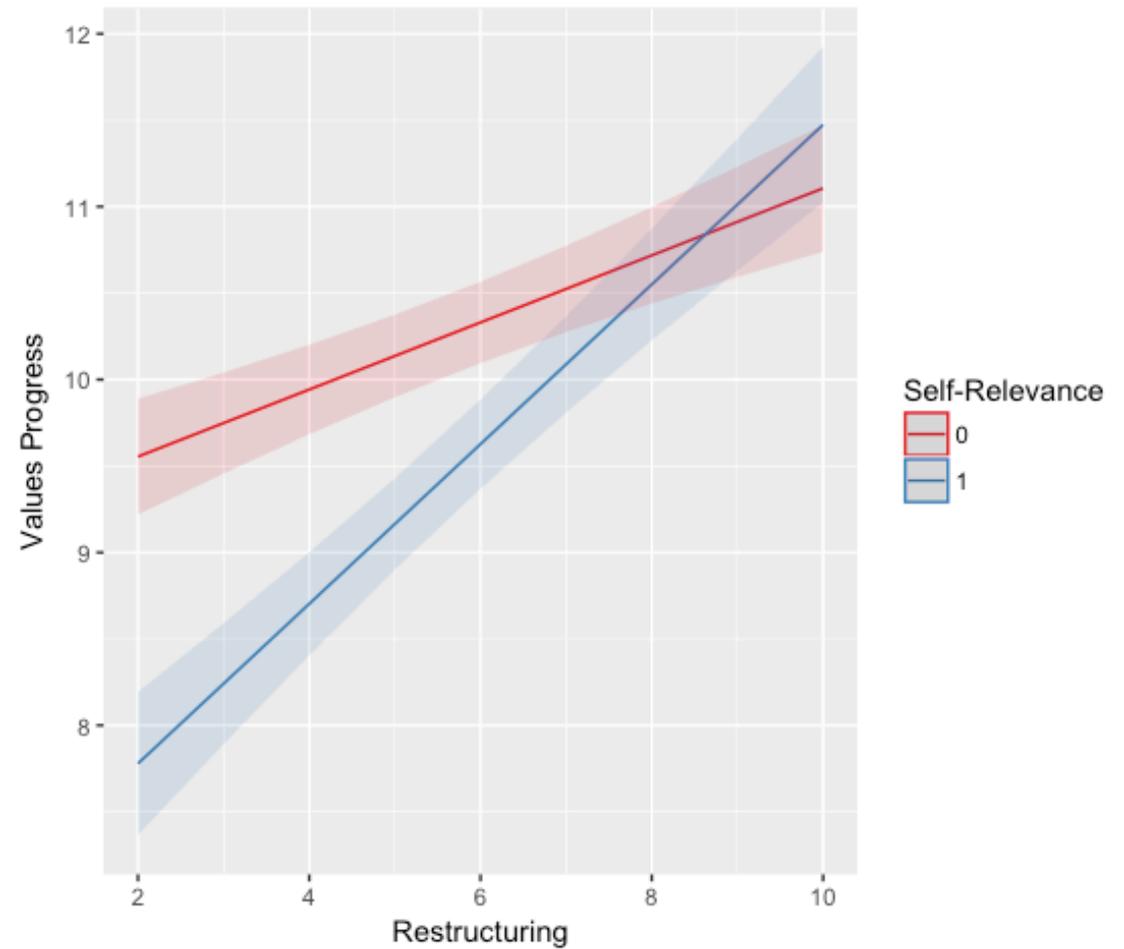
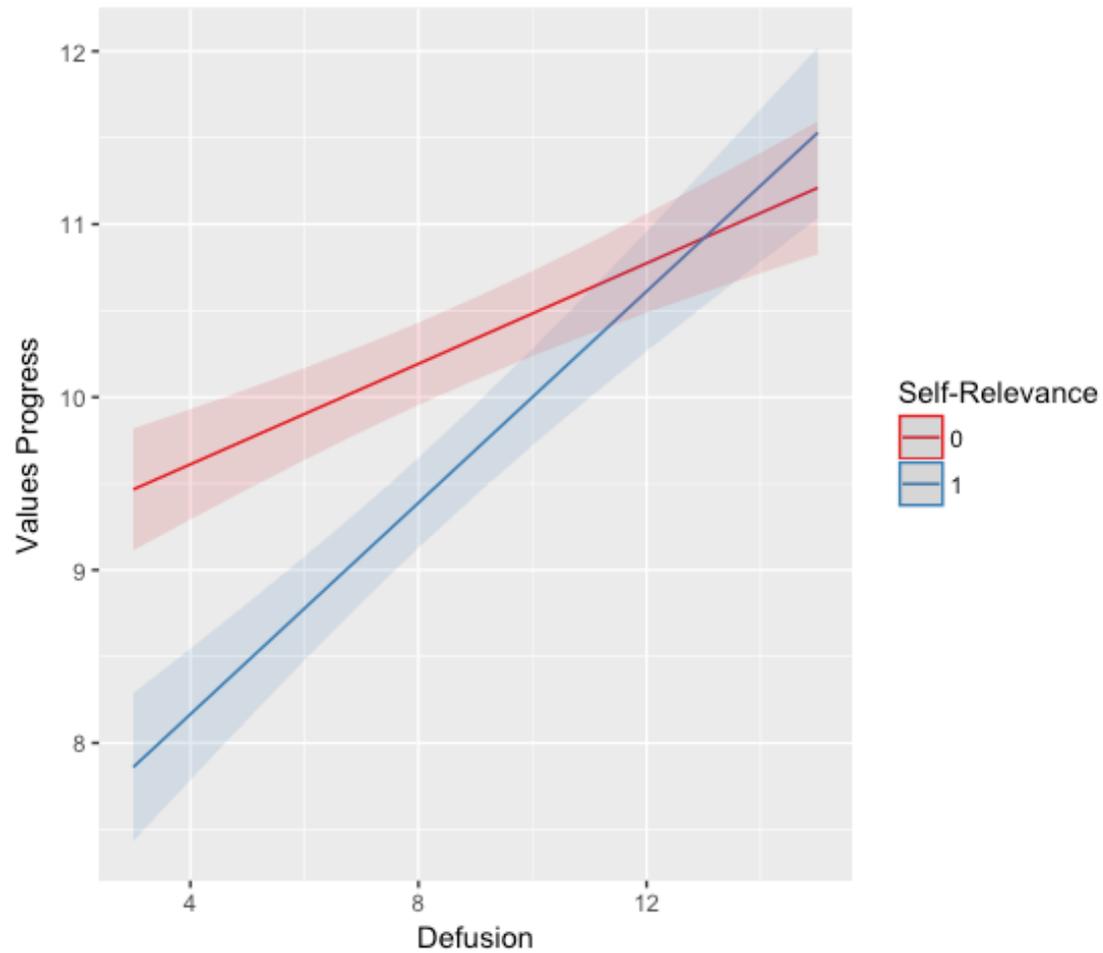
Participants

- 195 participants
- 188 downloaded mobile app
- 2852 mobile phone surveys were completed (57% completion)
- Age M = 21.84
- 71% Female, 29% Male
- 4.6% Hispanic, 95.9% White
- Median household income 60-80k/year
- Unscreened; 47.17% exceeded GHQ-12 cutoff (Goldberg et al., 1997) for clinically significant distress

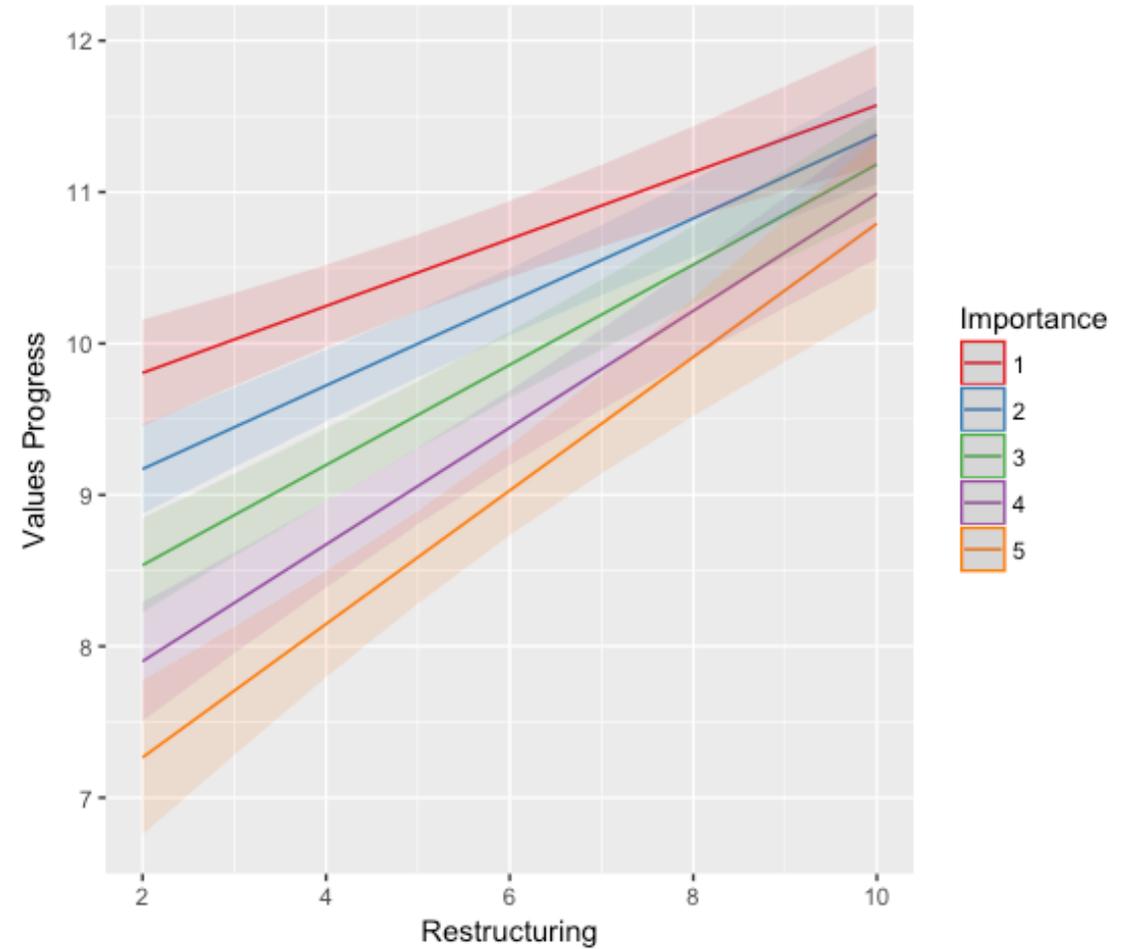
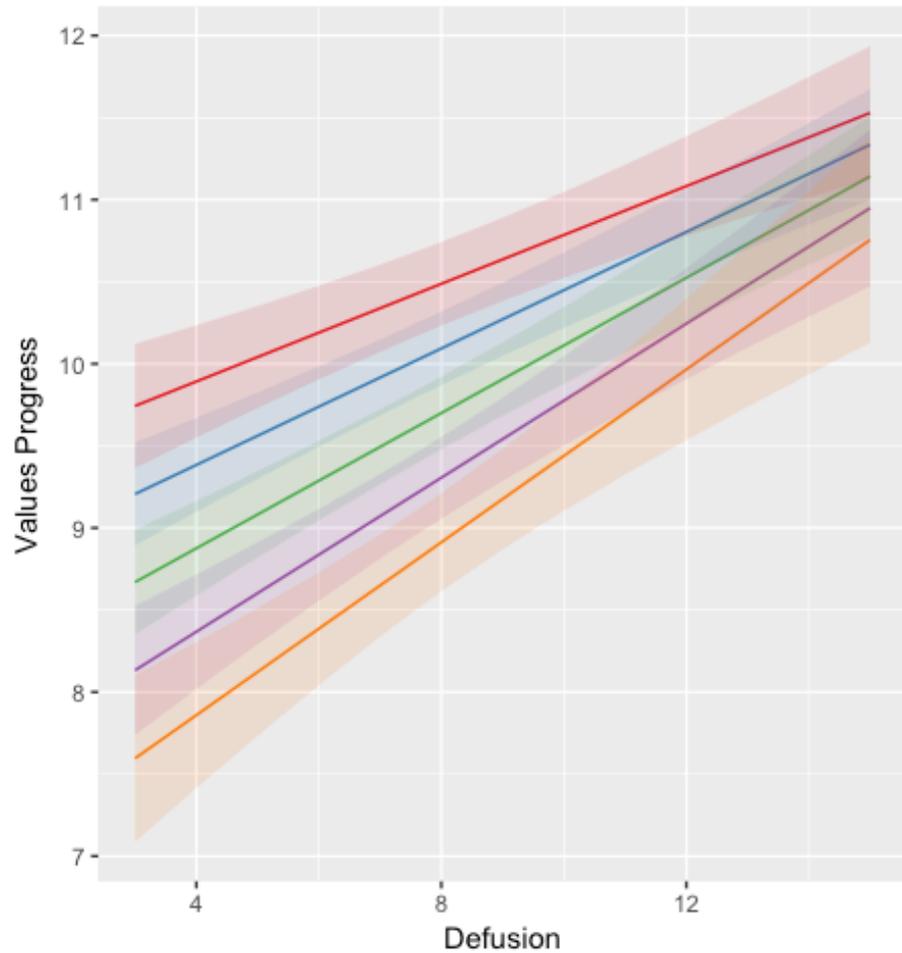
Defusion and restructuring are both significantly associated with values progress



Self-relevance significantly moderates association between defusion/restructuring and values progress

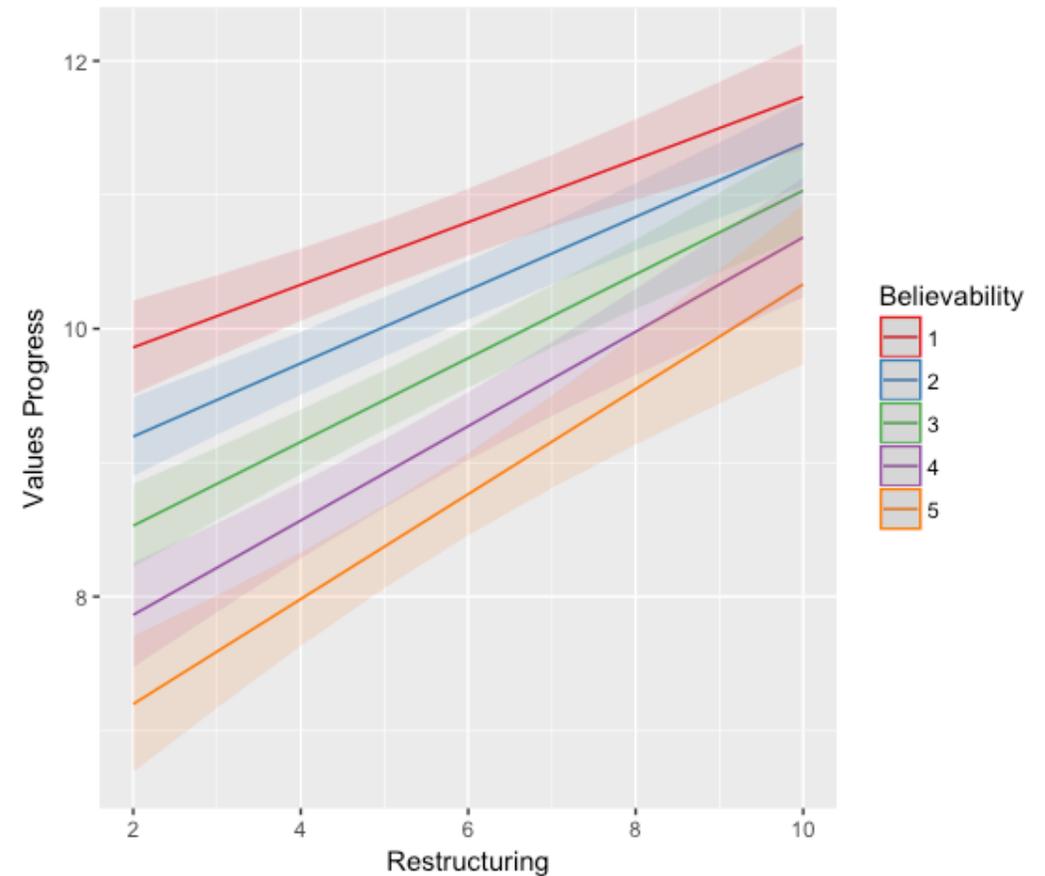
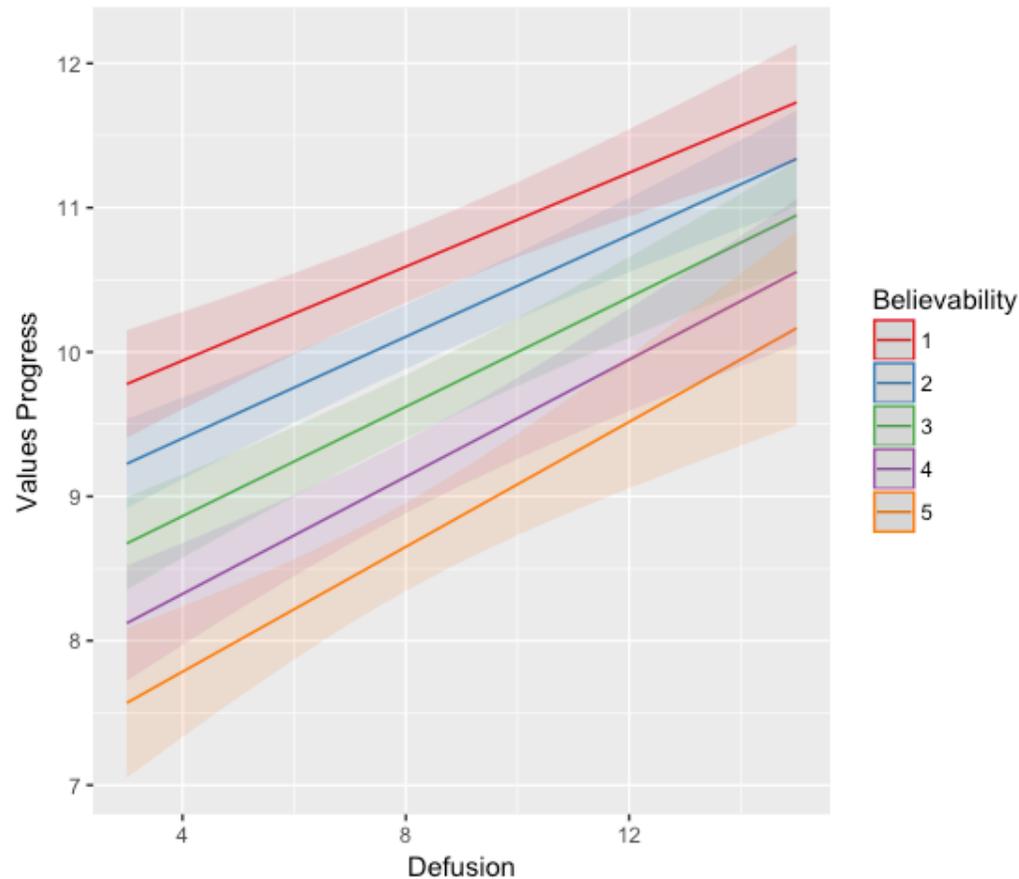


Importance of thought significantly moderates association between defusion/restructuring and values progress

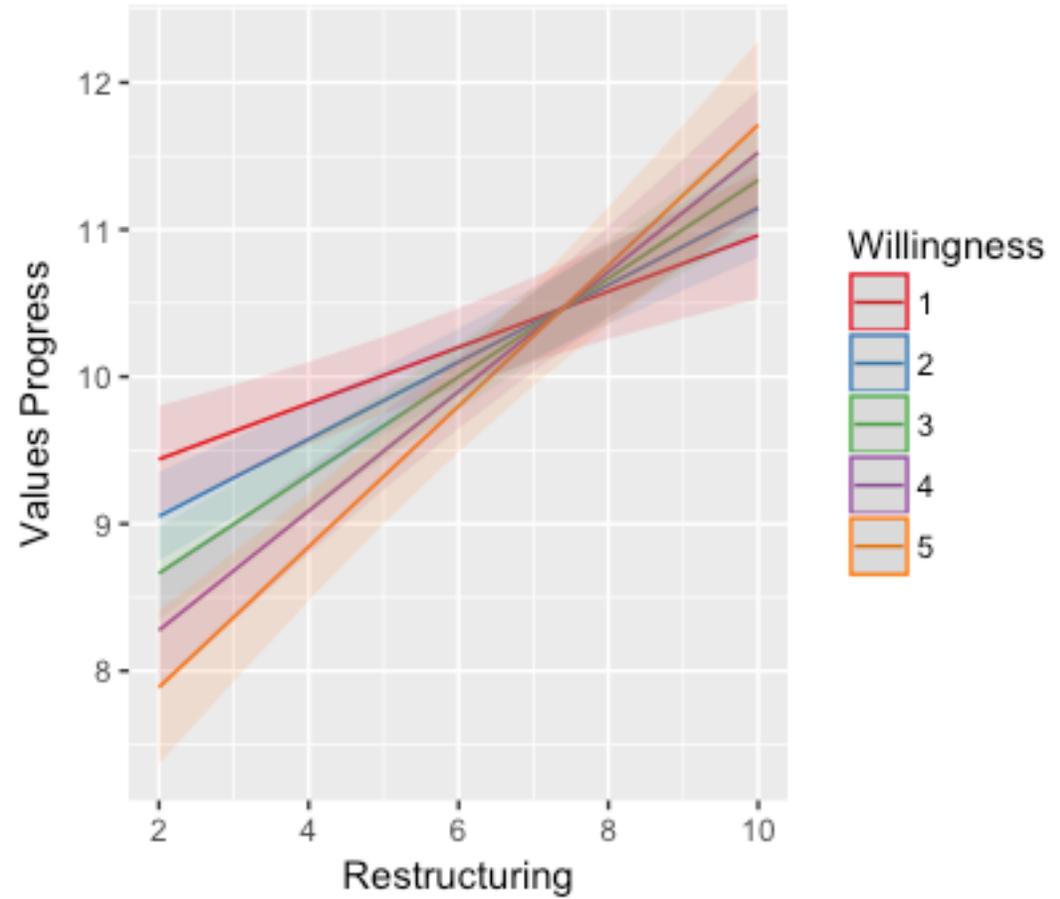
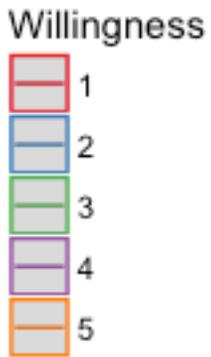
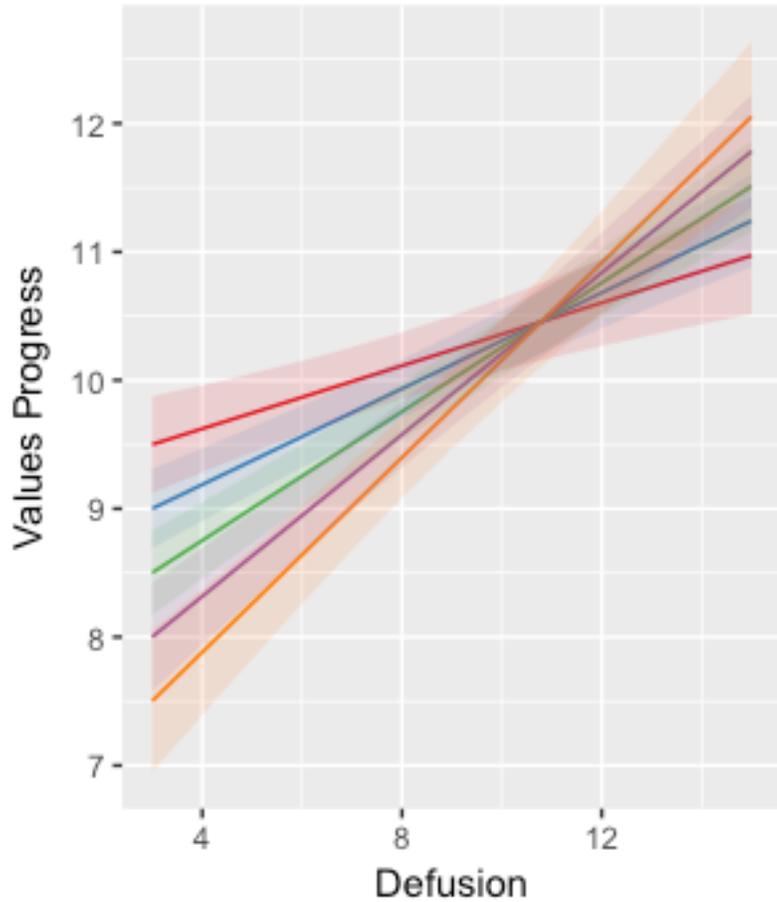


Believability significantly moderates association between restructuring and values progress

- No significant interaction for defusion



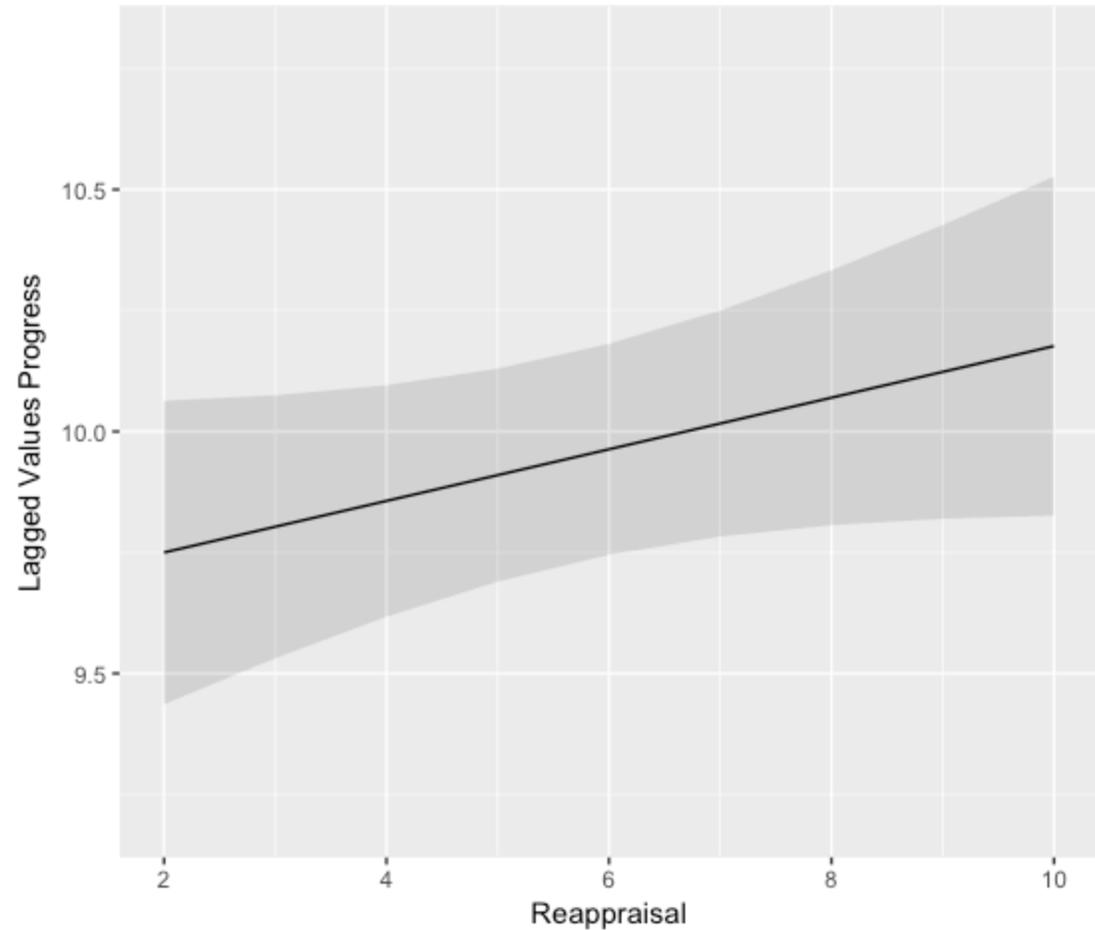
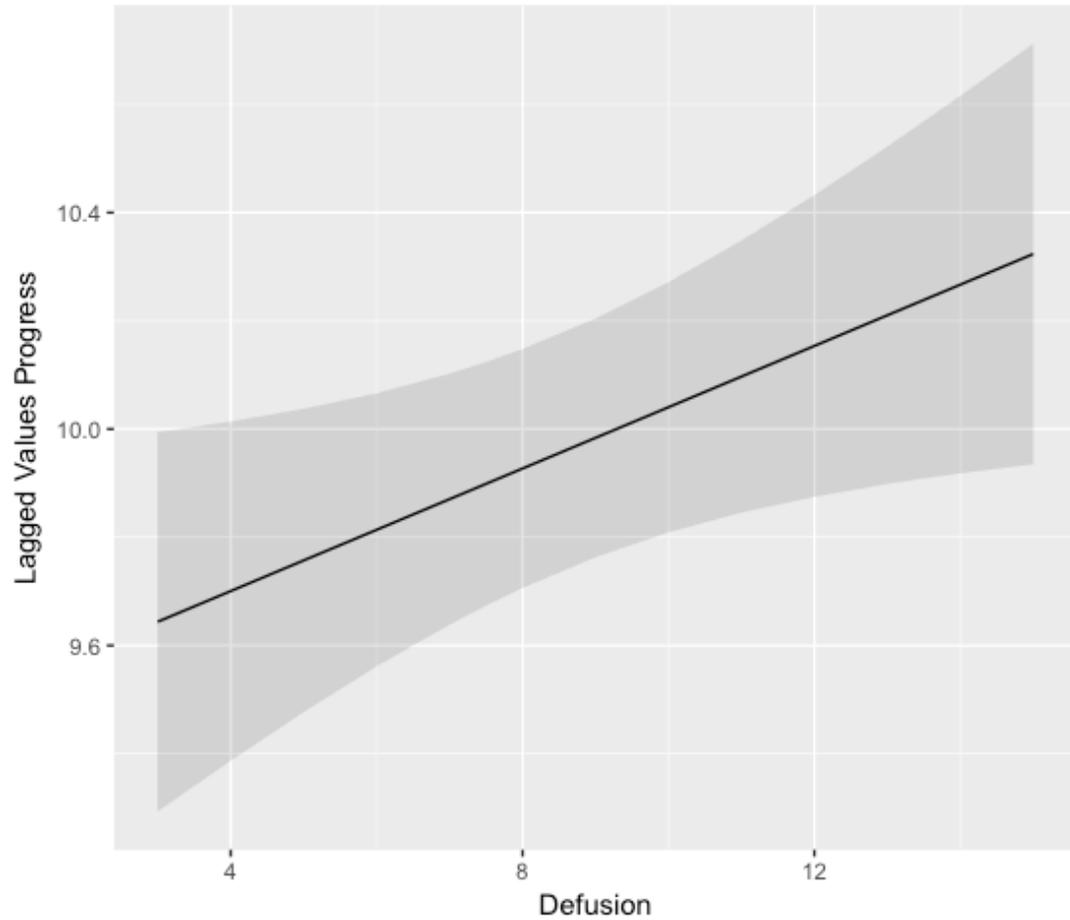
Willingness significantly moderates association between defusion/restructuring and values progress



Summary of interactions

- Defusion and restructuring both interacted with:
 - Self-relevance, importance, believability, and willingness
 - In predicting values progress
 - With one exception (no interaction for defusion and believability)
- Correlation between defusion and restructuring in the moment:
 - $r = 0.63, p < 0.001$

Defusion significantly predicted values progress over time; restructuring did not



Discussion

- Untrained participants reported moderate use of both defusion and reappraisal to respond to difficult thoughts; large correlation between the two
- Defusion and restructuring were both associated with higher values progress over the same time period

Discussion

- Defusion had a larger association with values progress when thoughts were self-relevant or important, or when they were highly willing to have the thought
- Restructuring had a larger association with values progress when thoughts were self-relevant, important, or believable, or when they were highly willing to have the thought

Discussion

- Use of defusion predicted later values progress, while restructuring did not

Limitations and future steps

- Use of novel EMA items
 - Validation
- White college student sample
 - Replication
- Directly connecting EMA research and RFT
- Comparing individuals with and without ACT experience
- Continuing EMA research to determine effects of ACT processes and their interactions in the moment
 - Context that supports/impedes naturalistic engagement in ACT processes

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