

### Evaluating the Impact of Cognitive Fusion on Forms of Repetitive Thinking and Depression

Shannon B. Underwood, Eric D. Tifft, Max Z. Roberts, & John P. Forsyth The University at Albany, State University of New York



# Cognitive fusion accounts for most of the effect of rumination on depressive symptoms in a

## non-clinical sample of undergraduates.

#### Background

- Rumination is a key cognitive feature of depressive and anxiety disorders.
  - Greater rumination is associated with prolonging and deepening episodes of depression (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008) and increases risk for subsequent depressive episodes (Spasojević & Alloy, 2001).
- Current research aims to identifying the cognitive processes underlying types of repetitive thinking (Quertret & Cropley, 2013).
  - Fusion with the content of rumination may be a core cognitive process that explains relations between rumination and various psychological

#### Results



outcomes.

- Indeed, cognitive fusion mediates the effect of rumination on depressive symptoms in a medical sample of Brazilian women (Lucena-Santos, et al., 2017).
- The present study seeks to extend previous work by examining cognitive fusion as a mediator of relations between rumination and depression in a non-clinical sample.

#### Methods

- Participants (N = 395,  $M_{age} = 19.00$ ,  $SD_{age} = 2.36$ ; 69% female) were a diverse sample of undergraduates recruited at the University at Albany, SUNY who completed a battery of psychological measures as part of a larger online study examining meditation use.
- Assessment included:
  - Ruminative Responses Scale (RRS;  $\alpha = .88$ ; 22 items; X)





Figure 1. Partial Mediating Effects of Cognitive Fusion Note: Numerical values are standardized regression coefficients. Number in parenthesis represents value of the unmediated path. \*\*p < .01, \*\*\*p < .001

#### Discussion

- In the present study, cognitive fusion partially mediated the relation between rumination and depressive symptoms.
  - Approximately 60% of effect observed between rumination and depressive symptoms is accounted for by cognitive fusion.
  - Future research should examine possible omitted mediator variables that could complete this model, such as experiential avoidance and inflexible attention.
- The present findings add to existing work suggesting that cognitive fusion may denote a core cognitive process that underlies the deleterious relations between rumination and depressive symptomatology.
- Disengaging from the emotional response to rumination (i.e., cognitive defusion) has been shown to be one of the most useful intervention strategies available for rumination (Quertret & Cropley, 2013).
  Clinical implications include emphasizing cognitive defusion, rather than changing the frequency or content of ruminative thinking.
- Cognitive Fusion Questionnaire (CFQ ;  $\alpha = .95$ ; 7 items; M)
- Beck Depression Inventory (BDI;  $\alpha = .92$ ; 21 items; Y)
- Significant relations between  $X \rightarrow Y, X \rightarrow M$ , and  $M \rightarrow Y$  were established prior to testing the mediation model.
- Cross-sectional mediation analyses were conducted utilizing Hayes
   Process Macro Version 3.3 for SPSS (Hayes, 2012).
- Significance of the indirect effect of the model was tested with bootstrapping (Preacher & Hayes, 2004) using 10,000 replication samples.

For further information please contact: Shannon Underwood (sunderwood2@albany.edu)



Lucena-Santos, P., Carvalho, S., Pinto-Gouveia, J., Gillanders, D., & Oliveira, M. S. (2017). Cognitive Fusion Questionnaire: Exploring measurement invariance across three groups of Brazilian women and the role of cognitive fusion as a mediator in the relationship between rumination and depression. Journal of Contextual Behavioral Science, 6(1), 53-62.

Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on psychological science*, *3*(5), 400-424. Spasojević, J., & Alloy, L. B. (2001). Rumination as a common mechanism relating depressive risk factors to depression. *Emotion*, *1*(1), 25. Querstret, D., & Cropley, M. (2013). Assessing treatments used to reduce rumination and/or worry: A systematic review. *Clinical psychology review*, *33*(8), 996-1009.