



# Variability and Adaptiveness of Emotion Regulation In Current and Remitted Depression

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## INTRODUCTION

- Emotion regulation (ER) difficulties may contribute to depression onset and relapse
- Although ER strategies have been categorized as adaptive or maladaptive, their efficacy and utility may be variable and context-dependent
- Rigid or inflexible ER behavior, as reflected by low variability in the use of ER strategies, may be a critical vulnerability factor for depression
- Existing studies on ER variability in depression produced mixed findings and used measures that contained methodological issues
- The present study evaluated ER variability using a novel measure, the ER diversity index, in currently depressed, remitted depressed, and never depressed individuals

## HYPOTHESES

- 1) The ER diversity index would better predict depression status than existing ER variability measures, including the iSD and the flexibility score
- 2) Individuals with current and remitted depression would exhibit less ER variability than healthy individuals

## METHOD AND ANALYSES

### Participants

- Currently depressed (CD; n = 58), remitted depressed (RD; n = 65) and non-clinical control (NC; n = 55) individuals were recruited from the community
- The Mini International Neuropsychiatric Interview (MINI) was administered to confirm participant diagnostic status

### Procedure

- Participants completed the Cognitive Emotion Regulation Questionnaire (CERQ) to assess their use of nine ER strategies
  - Adaptive: acceptance, putting into perspective, positive refocusing, positive reappraisal, refocus on planning
  - Maladaptive: rumination, catastrophizing, self-blame, other-blame

### Analyses

- The ER diversity index is computed by the following formula

$$ER\ diversity = - \sum_{i=1}^s p_i * \ln(p_i)$$

- S = total number of ER strategies
- $p_i$  = proportion of the maximum score across all ER strategies made up of the  $i$ th ER strategy score

## RESULTS

### Hypothesis 1

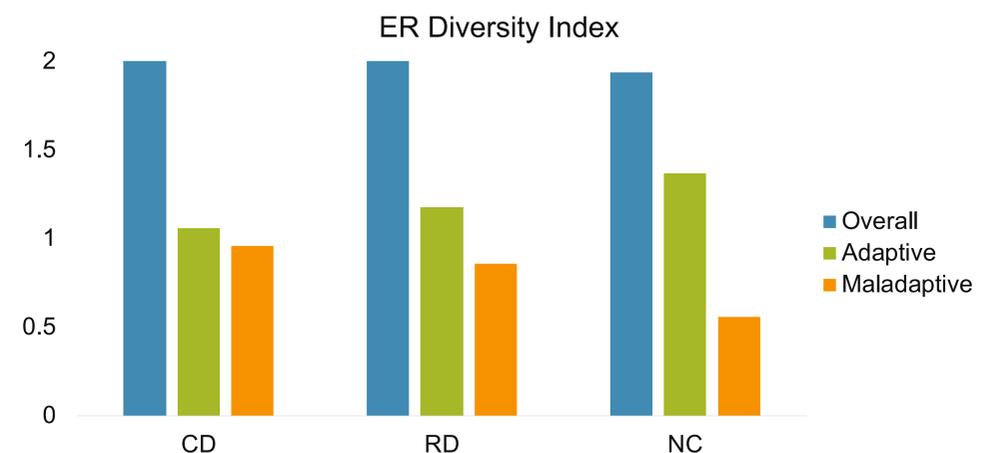
- Fit indices (AIC, BIC) were computed for multinomial logistic regression models with ER variability measures as predictors of depression group
- The ER diversity index model had lower AIC and BIC values than both the iSD and the flexibility score models

	Model Information				
	$\chi^2$	p	R <sup>2</sup>	AIC	BIC
Flexibility Score	6.75	.034	.047	350.43	362.74
iSD	12.45	.002	.085	344.75	357.03
ER Diversity Index	16.76	<.001	.11	340.45	352.73

### Hypothesis 2

- Parameter estimates of the multinomial logistic regression models with the ER diversity index were examined
- Compared to the NC group, the CD and RD groups had greater variability in the use of overall and maladaptive ER strategies but less variability in the use of adaptive ER strategies

	Model Information				
	$\chi^2$	p	R <sup>2</sup>	AIC	BIC
Adaptive ER diversity index	91.65	<.001	.49	265.56	277.83
Maladaptive ER diversity index	100.78	<.001	.53	256.43	268.71



## CONCLUSIONS

- The diversity index may be a more valid measure of ER variability than existing measures, such as the iSD and the flexibility score
- Both variability in ER strategy use and the adaptiveness of the ER strategies should be considered in research examining the link between depression and ER
- Future research is needed to determine the replicability of these findings and to examine other aspects of ER flexibility in depression (e.g., context sensitivity)