Introduction

- A 2018 study recreated two components of mindfulness-based cognitive therapy (MBCT), a popular intervention that focuses on being mindful of the present.
- This resulted in two types of meditation: open monitoring (OM) and focused attention (FA)2. OM typically involves acceptance of emotions, while FA demands focus on a neutral stimulus while disengaging with others.
- This thesis compares the two conditions via performance on a self-referential encoding task (SRET) before and after intervention is administered (MBCT, OM or FA) to a patient.

SRET

The SRET is a task in which patients must choose whether adjectives (positive or negative) apply to them. Depressed patients typically tend to endorse more negative rather than positive words3.

Drift Diffusion Model (DDM)

This thesis uses the DDM to model both response times (RTs) and response choices. While the DDM has multiple parameters, this thesis focuses on drift rate, or the rate of accumulation of information/ease of processing, and non-decision time - or the time spent before or after information accumulation for a decision actually occurs4.

- Interventions like OM typically affect performance on affective tasks (like the SRET) while those like FA improve executive control5 (needed while switching between tasks, which is reflected in non-decision time).
- A positive change in affective evaluation involves a greater drift rate (easier processing) of positive words, and smaller drift rate towards negative words (harder processing).

Process of Reaching Final Model

(with drift rate conditioned on valence of word and session: i.e pre-treatment or post-treatment)

The SRET aims to semi-objectively assess this bias

Results

Findings were similar to those from behavioral data.

Conclusions

- Depression is typically associated with negative cognitive biases, such that depressed patients tend to have an easier time processing negative over positive content6.

References