

# You are enjoying this poster: Investigating hypnosis as a tool for emotion regulation during fMRI

Benjamin M. Silver, Faustine Corbani, Philip R. Muskin, Lila Davachi, Kevin N. Ochsner

## INTRODUCTION

We investigated the impacts of hypnotically-induced relaxation on emotion regulation and on functional connectivity (FC) within related brain networks.

**Q1: Does hypnotically-induced relaxation differentially alter brain networks?**

*H1A: Increased FC in the default mode network*

*H1B: Increased FC in attention and control networks*

**Q2: Do altered brain networks predict subsequent affective responses and emotion regulation?**

*H2A: Differences in emotional reactivity*

*H2B: Differences in mindful regulation*

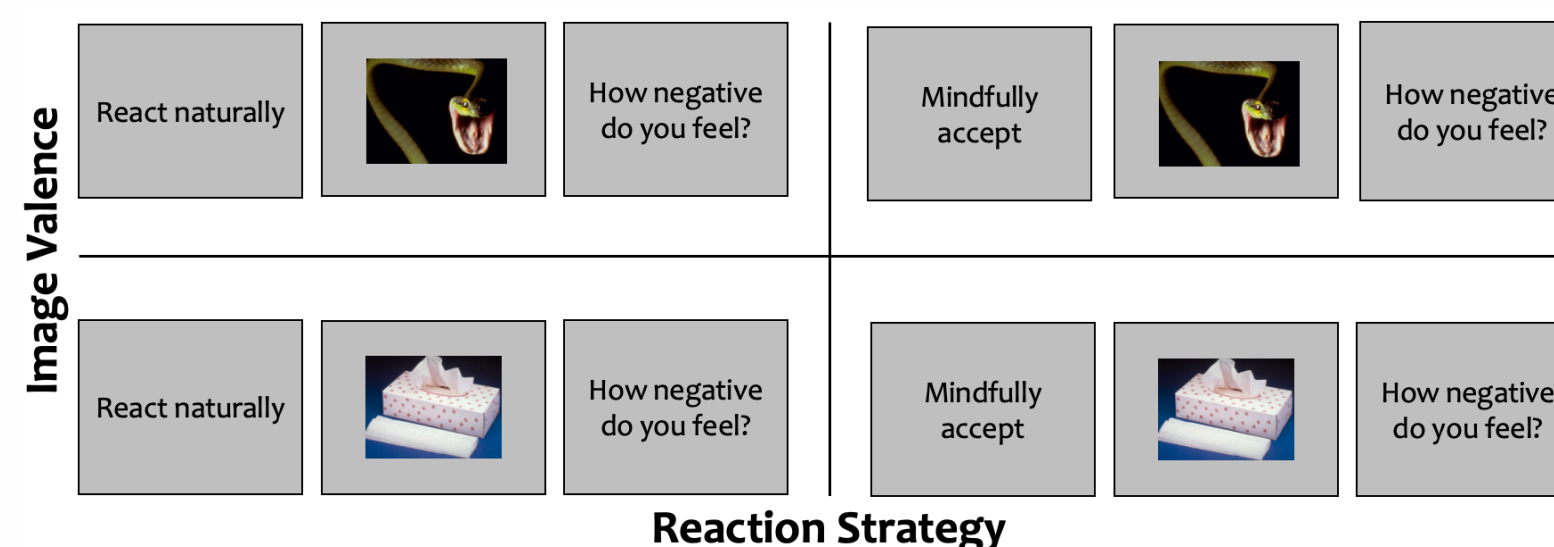
## METHODS

### Participants

Hypnosis	Nature	Control	Total
19	20	19	58

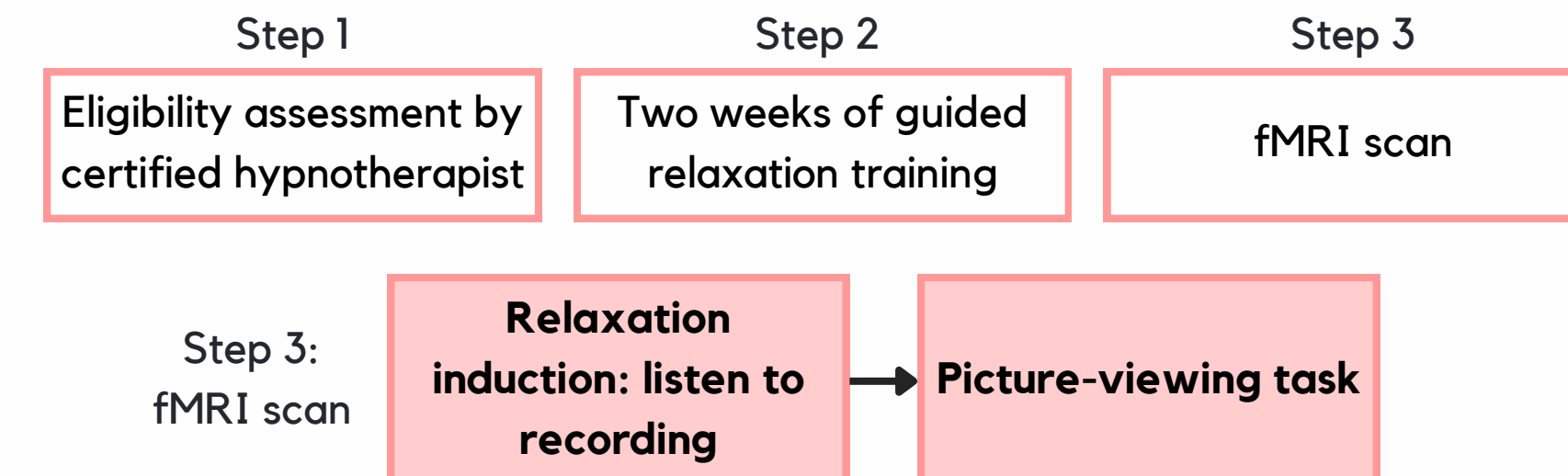
Participants in the Hypnosis group listened to a hypnotic induction recording from a certified hypnotherapist. The Nature group listened to nature sounds, and the Control group did not listen to any recording.

### Mindfulness task

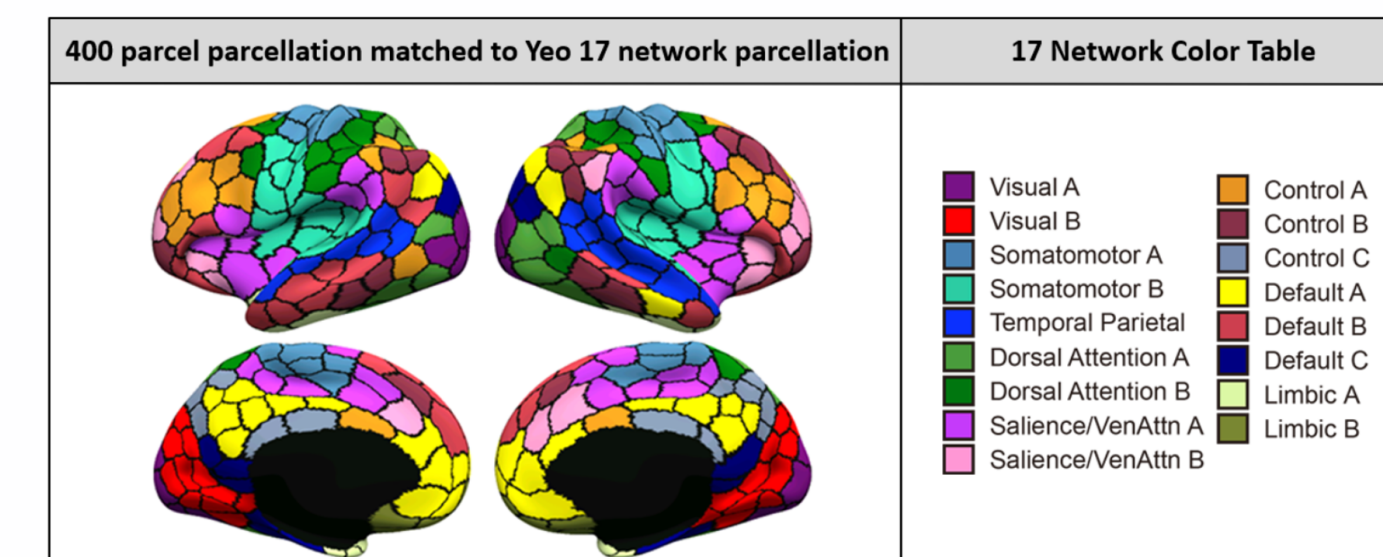


Participants viewed negative and neutral images, and were instructed to either react naturally or to mindfully accept before providing negative affect ratings.

### Procedures



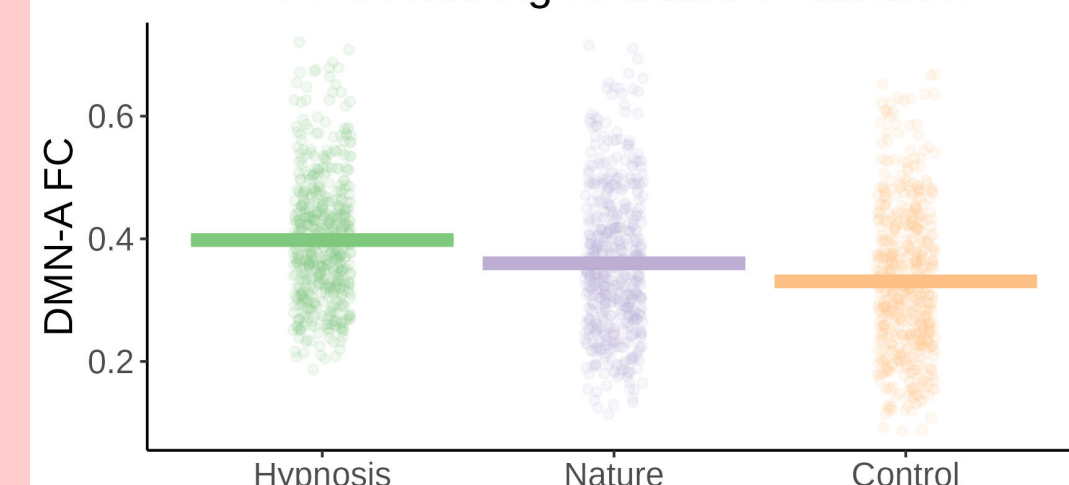
### fMRI analyses



We conducted a between-groups comparison of within-network FC during the relaxation induction, using the Schaefer and Yeo parcellations.

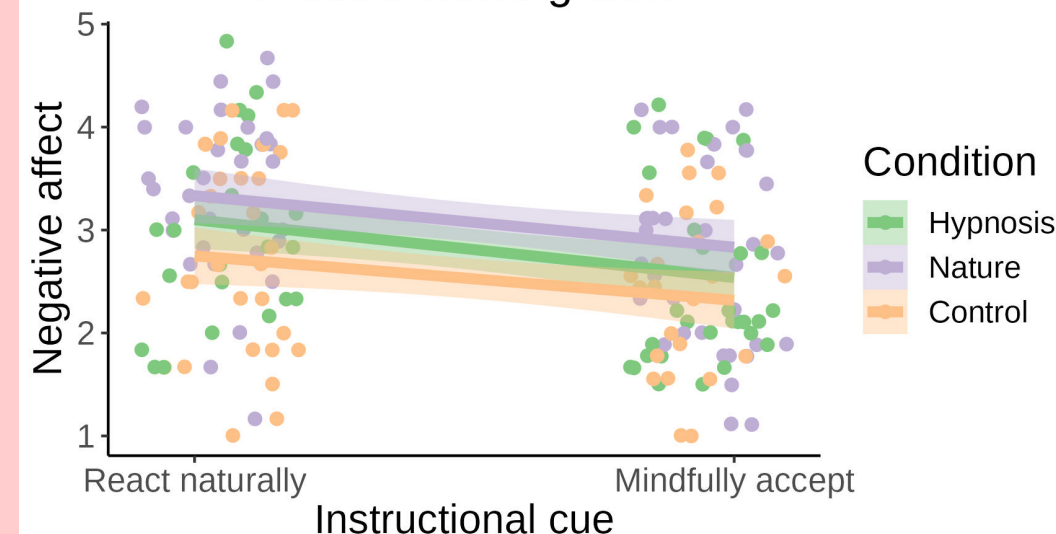
## RESULTS

Average functional connectivity within DMN-A during relaxation induction



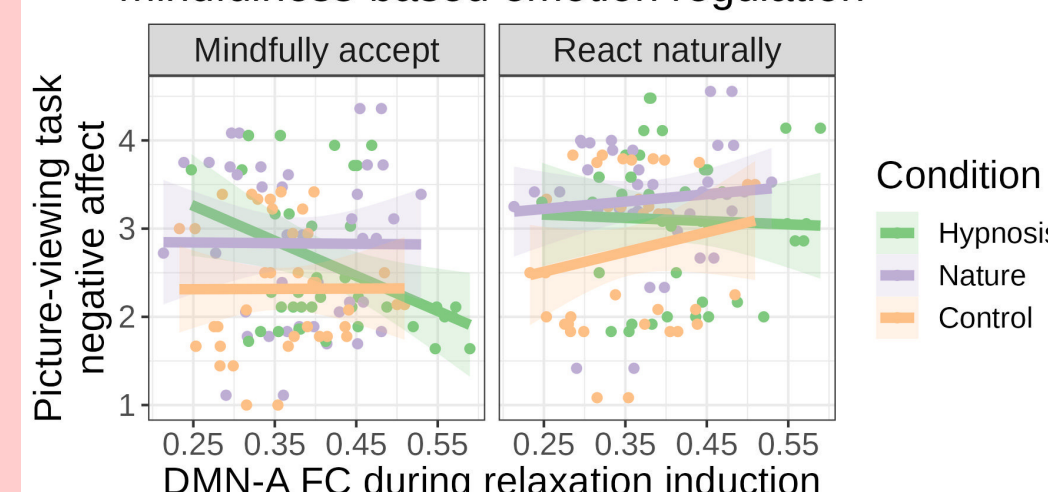
Q1 results: Functional connectivity in the DMN was higher during hypnotic induction than when listening to nature sounds ( $B = 0.07$ ,  $p = 0.003$ ).

Picture-viewing task



Q2 results: Participants reported lower negative affect when instructed to be mindful ( $B = -0.28$ ,  $p = 0.005$ ), but there were no differences between groups.

Neural marker of hypnosis predicts mindfulness-based emotion regulation



Q2 results: Higher DMN-A functional connectivity during hypnotic induction predicted lower negative affect when instructed to be mindful ( $B = -3.98$ ,  $p = 0.013$ ).

## CONCLUSIONS

Hypnotically-induced relaxation elicits greater FC in parts of the DMN.

Individuals who experience higher FC during induction also exhibit better subsequent emotion regulation.

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bms2202@columbia.edu  
@bnjmnsivr  
benjamin-silver.com