

## Do older vs. younger adults regulate their emotions to aversive images differently?

- 1) Aging is associated with improvements in emotional status and a systematic bias in attention towards positive information
- 2) Since emotion regulation is essential for emotional status, aging regulatory abilities, however, reappraisal is cognitively demanding and relies on brain networks that decline with age

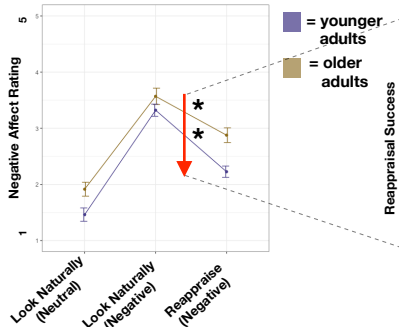
We collected both brain and behavioral data from younger adults ages 18-31 (n = 30, M<sub>age</sub> = 25, sd = 4, 21 F) and healthy older adults ages 61-74 (n = 31, M<sub>age</sub> = 65, sd = 4, 20 F)

Training to respond to three different cues

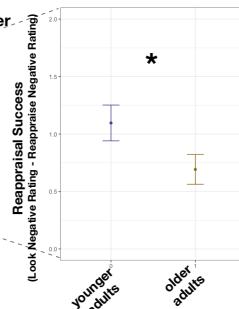
- 1) Look: Respond naturally
- 2) Minimize Reappraisal: Dampen negative feelings



## Both groups successfully reduce negative affect

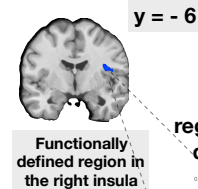
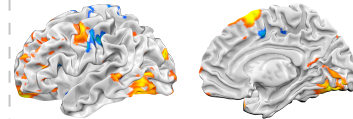


## Younger adults reduce more negative affect than older adults

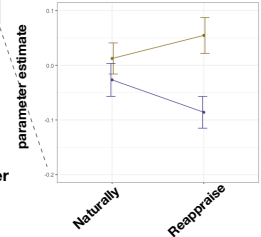


## What brain regions are active during minimizing reappraisal?

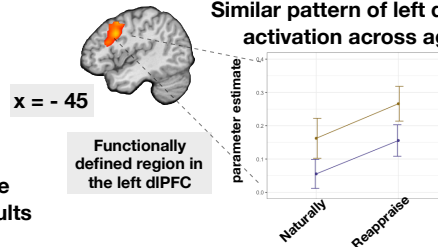
### Regions active during reappraisal for all participants



### Younger adults up-regulate and older adults down-regulate insula



### Similar pattern of left DLPFC activation across age



## Summary:

- 1) Minimizing emotional response to negative images is an effective emotion regulation strategy for both younger and older adults, though older adults show a slight disadvantage
- 2) Brain imaging data suggest older adults regulate using similar neural networks but are less effective at down-regulating insula response
- 3) We are following up on this work looking at other types of reappraisal strategies related to both positive and negative images. Additionally, we are conducting ecological momentary assessment to measure emotion regulation behavior in daily life

## References:

Carstensen, L. L., Turan, B., Scheibe, S., Ram, N., Ersner-Hershfield, H., Samanez-Larkin, G. R., ... & Nesselroade, J. R. (2011), Mather, M. (2016), Ochsner, K. N., Bunge, S. A., Gross, J. J., & Gabrieli, J. D. (2002), Reed, A. E., Chan, L., & Mikels, J. A. (2014)