Treating cognition in depression

or

Effects of depression treatment on cognition

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Funding: NIMH, VA, Dana Foundation, NARSAD, Cohen Foundation, Brain Resource, Stanford Neurosciences Institute
Consulting: Otsuka

Key questions

1. Does treating depression improve cognition?

    - Related to symptoms?
    - Related to baseline cognition?
    - Control for test-retest?

2. How do you know if cognition improved?

    - Effect size?
    - Consistency across measures?
    - Relationship to clinical measures?

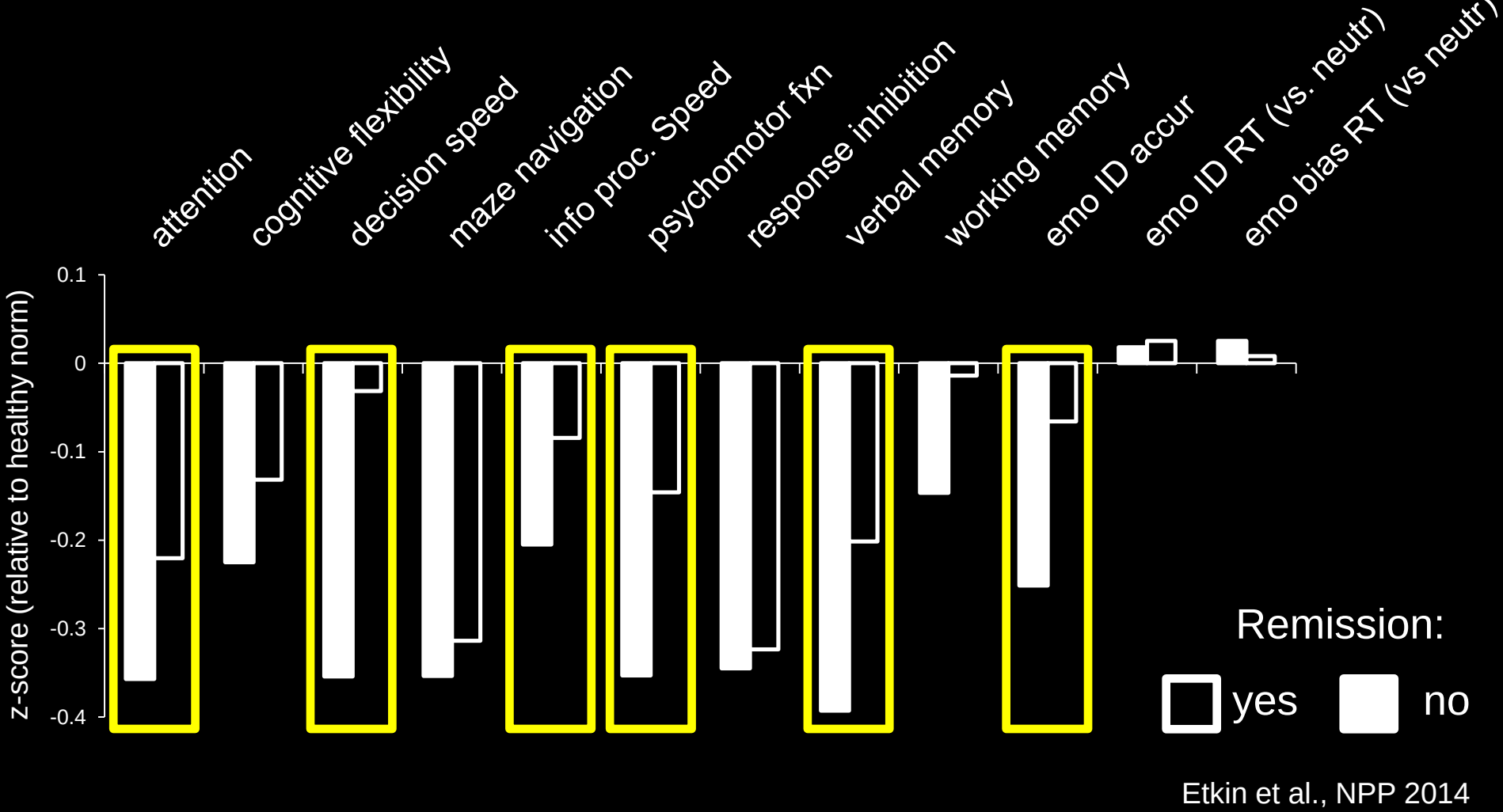
3. What would a cognition-targeting treatment look like?

    - What is the target cognitive construct?
    - Neurobiology? Behavior?
    - Is our current definition of depression sufficient?
    - How specific are deficits/interventions for depression?

Cognition and antidepressants: iSPOT-D

N=1008; randomized to one of 3 medications; broad cognitive battery

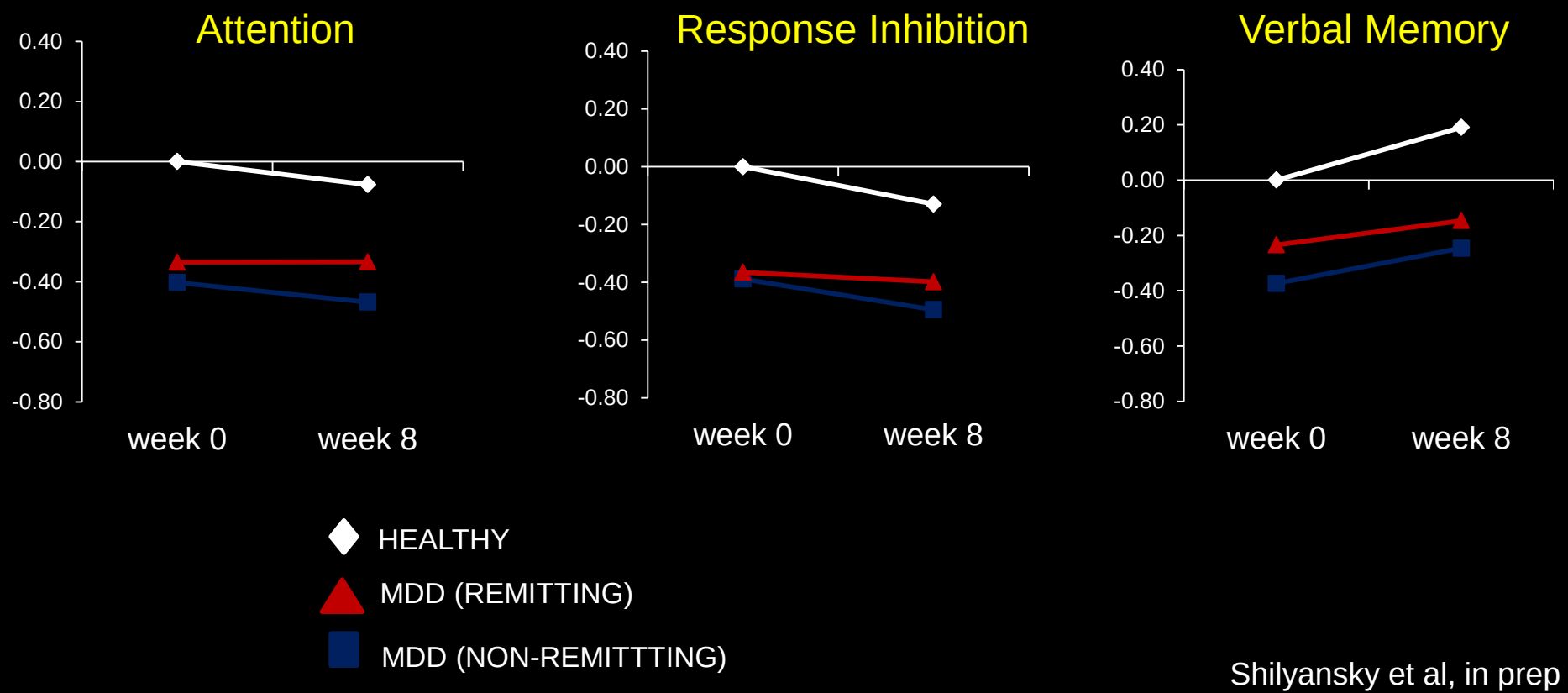
Worse cognitive task performance in future non-remitters:



Etkin et al., NPP 2014

Cognition and antidepressants: iSPOT-D

- Change in cognitive task performance
- Repeated testing of healthy participants



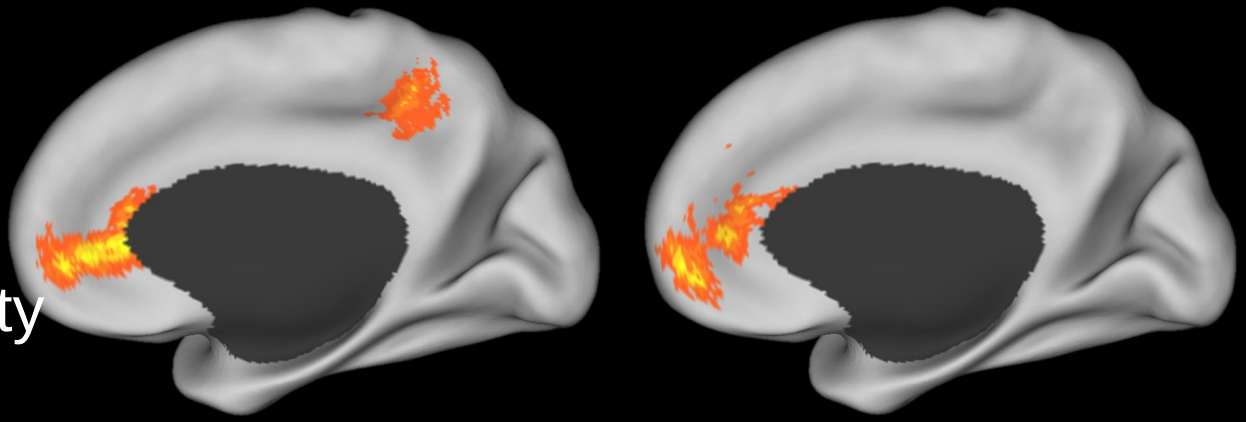
Shilyansky et al, in prep

Targeted neuromodulation: rTMS

- Pre/post resting fMRI: 5 wks Left DLPFC rTMS

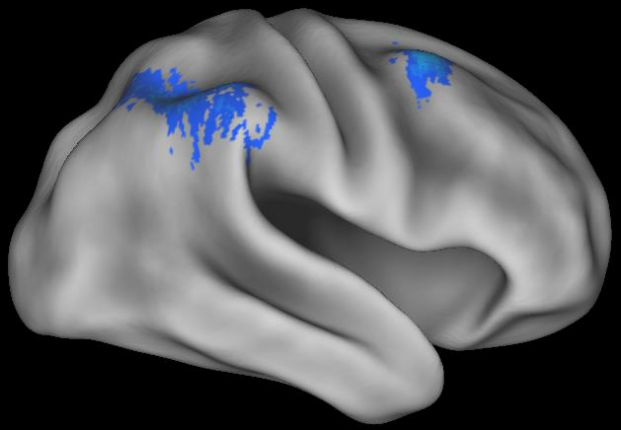
Intra-DMN

executive-DMN



Reduced abnormal DMN and executive-DMN hyperconnectivity

Intra-executive



But no change to executive hypoconnectivity

Liston, *Biol Psych,* 2014