

# Frontal theta activity distinguishes encoding of items and associations

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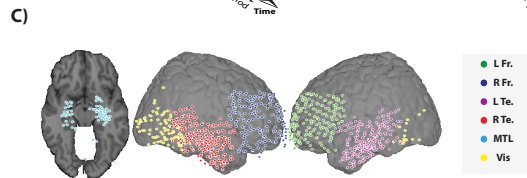
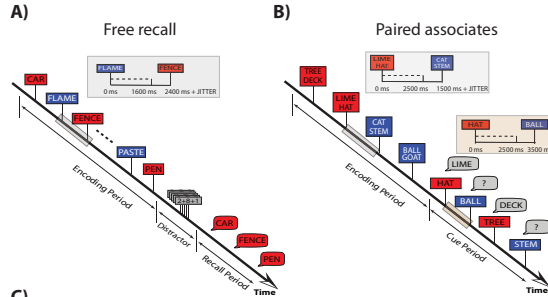
## Introduction

SME consists of gamma increases and theta decreases/increases (Sederberg et al, 2003; Caplan & Glaholt, 2007).

We compare the SME in free recall & paired associates using iEEG from 15 patients who performed in both tasks.

Goal: identify common/distinct neural mechanisms of episodic encoding.

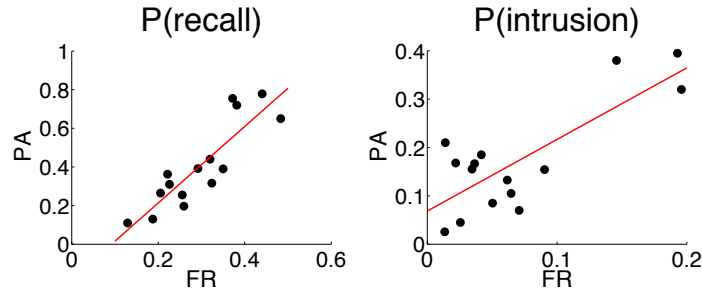
## Methods



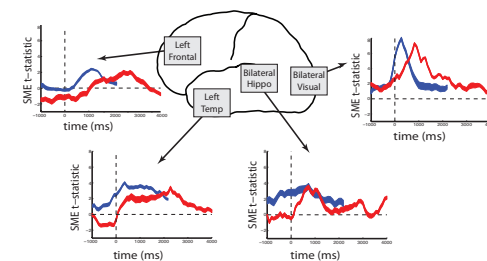
## References

Caplan, JB & Glaholt, MG (2007) *NeuroImage* 38:604-616  
 Molle et al (2002) *European Journal of Neuroscience* 15:923-928  
 Sederberg et al (2003) *Journal of Neuroscience* 26:809-814

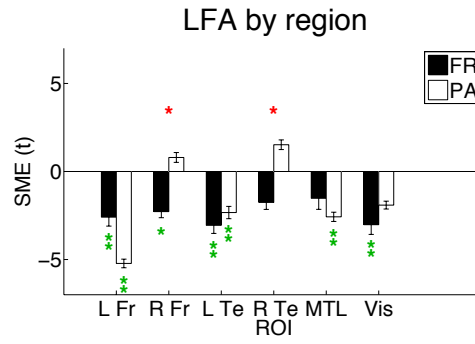
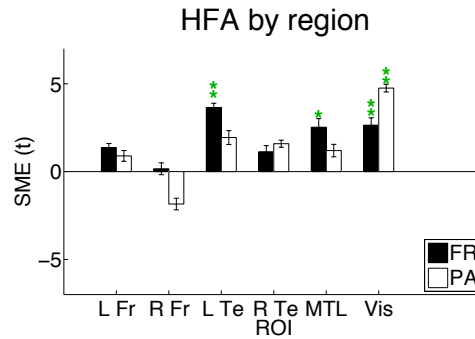
## Behavioral



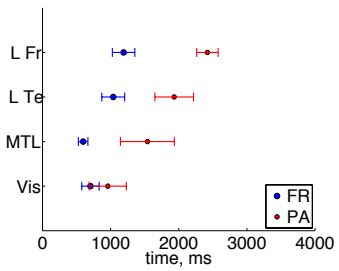
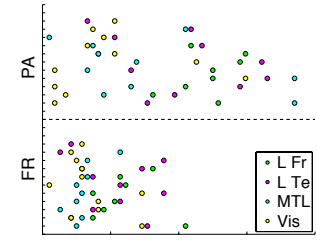
## Neural (cont)



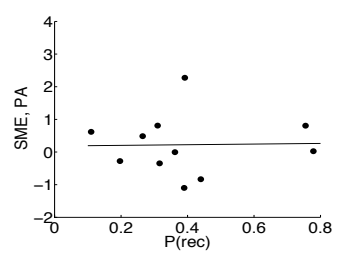
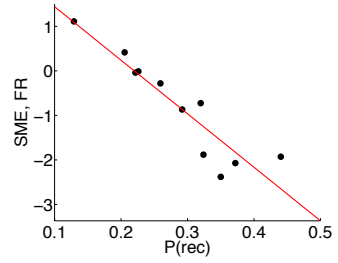
## Neural



## HFA, mean peak



## LFA, R frontal



## Conclusions

Behavioral performance highly correlated among tasks.  
 Widespread HFA increases as a common mechanism.  
 Right frontal LFA shifts as a distinct mechanism.

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