The neural representation of context and its role in free recall
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1 Introduction
- Subjective experience is ever-changing
- Episodic memories include information about both content and context
- Previous studies have shown content reinstatement during recall
- Models incorporating a representation of context that becomes associated with each studied item can explain the contiguity effect
- We tested whether ECoG recordings in 64 neurosurgical patients showed patterns consistent with the context reinstatement hypothesis

2 Methods
- Patients are implanted with subdural and depth electrodes by clinical teams. Experiments are administered on a bedside laptop computer.

3 Results
- We identified a gradually changing component of neural activity that evolved on the same time scale as item presentations during a free recall experiment
- The patterns of neural activity recorded during study of a given word were reinstated during recall, and showed graded similarity to neighboring list items
- These findings provide the first neural evidence for temporal context reinstatement in humans

4 Conclusions
- We tested whether ECoG recordings in 64 neurosurgical patients showed patterns consistent with the context reinstatement hypothesis
- Previous studies have shown content reinstatement during recall
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5 Bibliography

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