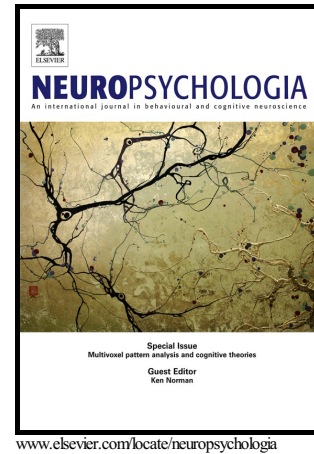


# Author's Accepted Manuscript

Lingering representations of stimuli influence recall organization

Stephanie C.Y. Chan, Marissa C. Applegate, Neal W Morton, Sean M. Polyn, Kenneth A. Norman



PII: S0028-3932(17)30035-0  
DOI: <http://dx.doi.org/10.1016/j.neuropsychologia.2017.01.029>  
Reference: NSY6250

To appear in: *Neuropsychologia*

Received date: 8 September 2016  
Revised date: 24 January 2017  
Accepted date: 26 January 2017

Cite this article as: Stephanie C.Y. Chan, Marissa C. Applegate, Neal W Morton, Sean M. Polyn and Kenneth A. Norman, Lingering representations of stimuli influence recall organization, *Neuropsychologia*, <http://dx.doi.org/10.1016/j.neuropsychologia.2017.01.029>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and a review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# Lingering representations of stimuli influence recall organization

Stephanie C.Y. Chan<sup>a,\*</sup>, Marissa C. Applegate<sup>a</sup>, Neal W Morton<sup>b</sup>, Sean M. Polyn<sup>c</sup>,  
Kenneth A. Norman<sup>a,d</sup>

<sup>a</sup>Princeton Neuroscience Institute, Princeton University, Princeton,  
New Jersey, United States of America

<sup>b</sup>Center for Learning and Memory, The University of Texas at Austin,  
Austin, Texas, United States of America

<sup>c</sup>Department of Psychology, Vanderbilt University, Nashville,  
Tennessee, United States of America

<sup>d</sup>Department of Psychology, Princeton University, Princeton,  
New Jersey, United States of America

scychn@gmail.com  
mca2179@columbia.edu  
neal.morton@austin.utexas.edu  
sean.polyn@vanderbilt.edu  
knorman@princeton.edu

\*Corresponding author. 1 Emerson Place, Apt 7G Boston, MA 02114

## Abstract

Several prominent theories posit that information about recent experiences lingers in the brain and organizes memories for current experiences, by forming a temporal context that is linked to those memories at encoding. According to these theories, if the thoughts preceding an experience X resemble the thoughts preceding an experience Y, then X and Y should show an elevated probability of being recalled together. We tested this prediction by using multi-voxel pattern analysis (MVPA) of fMRI data to measure neural evidence for lingering processing of preceding stimuli. As predicted, memories encoded with similar lingering thoughts about the category of preceding stimuli were more likely to be recalled together. Our results demonstrate that the “fading embers” of previous stimuli help to organize recall, confirming a key prediction of computational models of episodic memory.

Keywords: memory, temporal context, free recall, multi-voxel pattern analysis, fMRI

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات