# Who is the Most Memorable American President?

# Episodic vs. semantic memory loss and president recall in Alzheimer's disease

# G. Devi, <sup>1,2,3</sup> E. Zhivotovskaya,<sup>1</sup> S. Schultz<sup>1</sup>

<sup>1</sup> The New York Memory Services, NY, NY, USA; <sup>2</sup> Departments Of Medicine (Neurology) And Psychiatry, Lenox Hill Hospital, NY, NY, USA; <sup>3</sup> Depts. Of Neurology and Psychiatry, New York University School Of Medicine, NY, NY, US

Presented European Federation of Neurological Sciences

Madrid 8/27/2008

#### **Background/Rationale**

Episodic memory loss is a hallmark of Alzheimer's disease (AD), with recall of recent events becoming progressively difficult. We assessed a commonly used tool, the recollection of U.S. presidents, in evaluating episodic vs. semantic memory loss among AD patients compared to spouse controls.

#### Methods

Thirty-six patients (12 men, 24 women) with possible or probable AD were asked to "give the names of five U.S. presidents" and concurrently administered the MMSE. Twenty-three spouses (12 men, 11 women) were controls. The year 1980 demarcated 'remote' vs. 'recent' presidents. Results

Patients were older, had lower MMSE scores (p<0.001), and recalled fewer presidents than controls (p<0.005), after controlling for age. Among patients, men were more educated than women (p<0.05) and recalled more presidents (p<0.001). No gender differences were observed in controls.

## Conclusions

Patients with Alzheimer's disease preferen-tially recalled remote presidents, suppor-ting retention of semantic memory in this group. There were no gender differences between groups.

## References

 Neuropsychologia: 1996a;34:537:551.
D.P., Butters, N., & Chan, A.S. The deterioration of semantic memory in Alzheimen's disease. Canadian J Exper Psy JR-11.1. A.E. Price B.H. Memory Dystunction. NE.M. 2005;352:692-9. Fisman M. Hachinski V. et al. A new definition of Atzheimer's disease: A hippocampal dementia. y S. Baulac M. Chiras J. et al. Amygdatohippocampal MR volume measurements in the early stag

latkins KE, Connelly A, Van PW, Mishkin M. Differential effects of earl impaired early in the course of Alzheimer's d izzo AA, McCleary R, et al. Gender comparisons of cognitive per dults without dementia. Arch Neurol. 1996;53(5):436-9.

KD: Roberts, RJ. Memory for recent U.S. presidents in patients with cerebral dis van EV. Shear PK. Stein N., Yesavage JA. Tinkle

n in Auzheimer's disease and Parkinson's disease. Neuropsychology. 2000:14(2 thefft, BK: De S. Hamsher, K. Aging and remote memory Declines: preliminary fi (2)175-186. MR: Sc

186. gracis di Authemers disease. Arch Neur. 1985 42:1097-1105. Salipcillere apparation of U.S. presidents. Amer J Psychology. 1991;104(1):1-33. Shan P.K., ed. a. lener, phys. I. and the apparation of the ap . The semantic and episodic subcomponents of famous person k

white the Processing of the Constraint of Second (Jul Ed.). Adrigator, VA. American Psychiatric enters forcess: *VLrg*, 1946 (2020) 33(1)(5):65-70, 1947; 112 (1947) 12 (1947) CRF. Evaluating demonstrate screening loss. *Neurology*, 1999; 52(2):224:227, GR, Cack M, Solaward V, Standard M, Cabda ML, Ularo IR. Screening for demonta with the memory Labort A, et al. Prelimeny screening for mild cognitive investment 7:21(1):122-135. Dementias: Diagnosis, Treatment, and Research (3rd Ed.). Arlington, VA: America

aminary screening for mild cognitive impairment: using the CANS-MCI to determine eimer's Disease. Philadelphia, PA, July, 2004.

presidential winners are... George Washington

And the remote



Abraham Lincoln



And the recent presidential winners are... William Clinton



George W. Bush



## Table 1: Alzheimer's Patients vs. Controls: **Demographics & President Recall Data**

			Patients (N=36)	Controls (N=23)	P value
Age (years)			78.47 ± 9.24	73.52 ± 7.91	0.04
Education <sup>[1]</sup>			$1.89\pm0.67$	$\textbf{2.26} \pm \textbf{0.96}$	NS
MMSE scores <sup>121</sup>			$24.53 \pm 4.87$	28.70 ± 1.66	0.005
No. of presidents recalled (out of 5) <sup>b</sup>			3.50 ± 1.58	$5.00\pm0.00$	<0.001
Presidents most recalled	Remote	Washington	(18/36) 50%	(10/23) 44%	NS
		Jefferson	(12/36) 33%		
		Lincoln	(16/36) 44%	(9/23) 39%	
		F.D. Roosevelt	(8/36) 22%		
		Kennedy		(9/23) 39%	
	Recent	Clinton		(14/23) 61%	<0.001
		G.W. Bush	(11/36) 31%	(9/23) 39%	

□ 0=less than high school; 1=high school; 2=college; 3=grad/med/law ☑ Age controlled for as appropriate, but had no significant effect on MMSE and number of presidents recalled. p values are from Student's t tests.

#### Contact

Gayatri Devi, M.D. Clinical Associate Professor, Depts. of Neurology and Psychiatry, New York University School of Medicine; Director, The New York Memory Services 65 East 76th Street, New York, NY 10021; (212) 517-6881 gd@nymemory.org

Devi, G., Zhivotovskaya, E., Schulz, S. Which presidents are most memorable? American Journal of Alzheimer's Disease and Other Dementias. 2008 June 30 [Epub ahead of print].