

BIOGRAPHICAL SKETCH

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NAME Zald, David H.		POSITION TITLE Associate Professor	
eRA COMMONS USER NAME (credential, e.g., agency login) Zaldd			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Michigan, Ann Arbor	BA	1989	Film-Video/Psychology
University of Minnesota, Minneapolis	PhD	1997	Psychology
Ann Arbor VA Med Ctr/University of Michigan Medical Center, Ann Arbor	Internship	1995-1996	Neuropsychology
University of Minnesota Med Ctr/Minneapolis VA Medical Center, Minneapolis	Postdoc	1997-2000	Neuroimaging

A. Positions and Honors

Positions and Employment

- 1991-1994 Psychiatric Interviewer, Dept. of Family Studies, Univ. of Minnesota, Minneapolis, MN
- 1992-1993 Teaching Assistant (intellectual and neuropsychological assessment), Univ. of Minnesota Graduate Program in Clinical Psychology, Minnesota, Minneapolis, MN
- 1994-1996 Instructor, Dept. of Psychology, Univ. Minnesota, Minneapolis, MN
- 1996-1997 Neuropsychology Intern, VA Medical Center/Univ. of Michigan Hospital, Ann Arbor, MI
- 1999-1999 Instructor, Dept. of Psychology, Univ. of Minnesota, Minneapolis, MN
- 1997-2000 Research Physiologist, Cognitive Neuroimaging Unit, VA Medical Center, Minneapolis, MN & Research Fellow, Division of Neuroscience Research in Psychiatry/Pharmacology, Univ. of Minnesota, Minneapolis, MN
- 2000-2007 Assistant Professor, Dept. of psychology & Integrated Neuroscience Program, Vanderbilt University, Nashville, TN

Honors

- 1987 University of Michigan Phi Beta Kappa/ University of Michigan James B. Angell Scholar
- 1988 University of Michigan Senior Class Honors
- 1989 Hebrew University Faye Grand Memorial Scholarship
- 1990 University of Minnesota Graduate School Fellowship
- 1991 University of Minnesota, Dept. of Psychology / NIMH Predoctoral Training Award
- 1994 University of Minnesota Eva O. Miller Fellowship
- 1996 American Neuropsychiatric Association Young Investigator Award

B. Selected peer-reviewed publications (in chronological order)

1. Zald DH & Kim SW: The anatomy and function of the orbitofrontal cortex, I: Anatomy, neurocircuitry and relevance to obsessive-compulsive disorder. *J Neuropsychiatry Clin Neurosci* 1996; 8:125-138.
2. Zald DH & Kim SW: The anatomy and function of the orbitofrontal cortex, II: Function and relevance to obsessive-compulsive disorder. *J Neuropsychiatry Clin Neurosci* 1996; 8:249-261.
3. Zald DH and Pardo JV: Olfaction, emotion and the human amygdala: Amygdalar activation during aversive olfactory stimulation. *Proc Natil Acad Sci* 1997; 94:4119-4124.
4. Zald DH, Donndelinger MJ, Pardo JV: Elucidating dynamic brain interactions with across-subjects correlational analyses of PET Data: The functional connectivity of the amygdala and orbitofrontal cortex during olfactory tasks. *J Cereb Blood Flow Metab* 1998; 18:896-905.

5. Zald DH, Lee JR, Fluegel KW, Pardo JV: Aversive gustatory stimulation activates limbic circuits in humans. *Brain* 1998;121: 1143-1154.
6. Small DM, Zald DH, Jones-Gotman, M, Zatorre RJ, Pardo JV, Frey S, Petrides M: Human cortical gustatory areas. *Neuroreport* 1999; 10:7-14.
7. Zald DH & Pardo JV: The functional neuroanatomy of voluntary swallowing. *Ann Neurology* 1999; 46:281-286.
8. Curtis CE, Zald DH, Lee JT & Pardo JV: Object and spatial alternation at minimal delays activate the human hippocampus. *Neuroreport* 2000; 11:2203-2207.
9. Royet JP, Zald DH, Versace R, Costes N, Lavenne F & Gervais R: Emotional responses to pleasant and unpleasant olfactory, visual, and auditory stimuli: A PET study. *Journal of Neuroscience* 2000; 20:7752-7759.
10. Curtis CE, Zald DH, & Pardo JV: Organization of working memory within the prefrontal cortex. A PET study of self-ordered working memory. *Neuropsychologia* 2000; 38:1503-1510.
11. Zald DH, & Depue RA: Serotonergic functioning inversely correlates with positive and negative affect in healthy males. *Personality and Individual Differences* 2001; 30:71-86.
12. Zald DH, & Pardo JV. (2000). Functional neuroimaging of the olfactory system in humans. *International Journal of Psychophysiology*, 36, 165-181.
13. Royet JP, Hudry J, Zald DH, Godinot D, Gregoire MC, Lavenne F, Costes N & Holley A: Functional neuroanatomy of different olfactory judgments. *Neuroimage* 2001; 13:506-519.
14. Zald DH, Matson DL & Pardo JV: Brain activity in the ventromedial prefrontal cortex correlates with individual differences in negative affect. *Proc of the Natl Acad of Sci* 2002; 99:2450-2454.
15. Zald DH, Hagan MC & Pardo JV: Neural correlates of tasting concentrated quinine and sugar solutions. *Journal of Neurophysiology* 2002; 87:1068-1075.
16. Zald DH, Curtis CE, Folley B & Pardo JV: Prefrontal contributions to delayed spatial and object alternation: a positron emission tomography study. *Neuropsychology* 2002; 16:182-189.
17. Zald DH & Pardo JV: The neural correlates of aversive auditory stimulation. *Neuroimage* 2002; 16:746-753.
18. Hagen M, Zald DH, Thorton T & Pardo JV: Somatosensory representations in the human inferior frontal lobe. *J Neurophysiol* 2002 ;88:1400-1406.
19. Zald DH: The human amygdala and the emotional evaluation of sensory stimuli. *Brain Res Rev* 2003; 41:88-123.
20. Zald DH, Boileau I, El Deredy W, Gunn R, McGlone F, Dichter G & Dagher A: Dopamine transmission in the human striatum during monetary reward tasks. *Journal of Neuroscience* 2004; 24:4105-4112.
21. Zald DH, Curtis CE, Chernitsky L & Pardo JV: The frontal lobe and the acquisition of object alternation. *Neuropsychology* 2005; 19:97-105.
22. Woodward ND, Purdon SE, Meltzer H & Zald DH: Neuropsychological change to second generation antipsychotic treatment in schizophrenia: a review and meta-analysis. *Int J Neuropsychopharmacology* 2005; 8:457-472.
23. Most SB, Chun MM, Widders DM & Zald DH: Attentional rubbernecking: Involuntary attention to emotionally negative pictures induces blindness for targets. *Psychonomic Bull Rev* 2005 12, 654-661.
24. Gottfried J, & Zald DH: On the scent of human olfactory orbitofrontal cortex: Meta-analysis and comparison to non-human primates. *Brain Res. Rev.* 2005; 50:287-304.
25. Kilpatrick L, Zald DH, Pardo JV, & Cahill L: Gender differences in functional connectivity of the amygdala. *Neuroimage* 2005; 30:452-61.
26. Riccardi P, Zald D, Park S, Li R, Ansari MS, Dawant B, Anderson S, Woodward N, Schmidt D, Baldwin R, & Kessler R. Gender differences in the dopaminergic responses to amphetamine. *Am J Psychiatry* 2006;163: 1639-1641.
26. Riccardi P, Li R, Ansari MS., Zald D, Park S, Dawant B, Anderson S, Doop M, Woodward N, Schmidt D, Baldwin R & Kessler R: Amphetamine induced displacement of [¹⁸F]Fallypride in striatum and extrastriatal regions. *Neuropsychopharmacology* 2006; 31:1016-1026.
27. Smith SD, Most SB, Branick L & Zald, D. An "emotional blink" of attention elicited by aversively conditioned stimuli. *Emotion* 2006; 6:523-527.
28. Zald DH. The rodent orbitofrontal cortex gets time and direction. *Neuron* 2006;51:395-397.

29. Woodward ND, Meltzer H, Purdon SE, Zald DH. A meta-analysis of cognitive change with haloperidol in clinical trials of second generation antipsychotics: dose effects and comparison to practice effects. *Schizophrenia Research* 2007;89: 211-24.
30. Fecteau S, Pascual-Leone A, Zald DH, Liguori P, Théoret H, Boggio P, Fregni F. Activation of healthy prefrontal cortex by transcranial direct current stimulation reduces risky decision making. *J Neuroscience* 2007 27, 6212-8.
31. Most SS, Smith SD, Levy B, Cooter A & Zald DH. The naked truth: Emotional blindness induced by erotic stimuli. *Cognition and Emotion* 2007; 21:964-981.
32. Zald DH. Orbital versus dorsolateral prefrontal cortex: Anatomical insights into content vs. process differentiation models of the prefrontal cortex. *Annals New York Acad. of Sci.* 2007; 1121:395-406.
33. Yang E, Zald DH, Blake, R. Fearful expressions gain preferential access to awareness during continuous flash suppression. *Emotion* 2007; 7, 882-886.
34. Hakyemez HS, Dagher A, Smith SD, Zald DH. Striatal dopamine transmission in healthy humans during passive unpredictable monetary reward and novelty. *Neuroimage* 2008; 39:2058-65.
35. Smith SD, Abou-Khalil B, Zald DH. Post-traumatic stress disorder in a patient with no left amygdala. *Journal of Abnormal Psychology* 2008; 117, 479-484.
36. Lishner D, Cooter A, Zald DH. Improving the assessment of emotional valence using empirically derived descriptor spacing. *Cognition and Emotion* (In press).
37. Lishner DA, Cooter AB, Zald DH. Emotional reactions following observation of emotional facial expressions: A stronger test of the mimicry-feedback explanation of emotional contagion, *J Nonverbal Behav.* (In press).

C. Research Support

Ongoing Research Support

1 R01 MH074567 Zald (PI) 07/15/07-06/30/12
NIMH

Role of the Amygdala in the Emotional Modulation of Attention

This study examines the ability of emotional stimuli to modulate attention in patients who undergo removal of their left or right amygdala for the treatment of intractable epilepsy.

1 R01 DA019670 Zald (PI) 04/10/06-12/31/09
NIDA

Individual Differences in Extrastriatal Dopamine

This study examines whether there are personality or genetic predictors of subjective and cognitive responses, caused by oral d-amphetamine. It also examines the correlates of individual differences in striatal and extrastriatal D2/D3 binding, and the amount of striatal DA release induced by amphetamine using the high affinity PET ligand [¹⁸F]Fallypride.

Completed Research Support

BCS-0332219 Zald (PI) 2003-2007
NSF

Neuroimaging of Neurotransmitter Release in Humans during Cognitive and Behavioral Tasks

[C-11]-raclopride PET studies aimed at measuring endogenous dopamine release in the striatum of human subjects during cognitive and behavioral tasks. Parallel studies are performed using fMRI.