CURRICULUM VITAE

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Education

1979-1985	Ph.D. Department of Psychology, University of Texas at Austin.
1976-1979	B.A., Psychology, Hebrew University, Jerusalem, Israel.

Professional Experience

1983 – 1985	Assistant Instructor, Department of Psychology, University of Texas at Austin, Austin, TX.
1985 – 1989	Assistant Professor, Department of Psychology, University of Health Sciences / Chicago Medical School, North Chicago, IL.
1989 – 1991	Assistant Professor, Department of Psychology, Memphis State University, Memphis, TN.
1991 – 1999	Associate Professor, Department of Psychology, University of Memphis (formerly Memphis State University), Memphis, TN.
1999 – 2001	Professor, Department of Psychology, University of Memphis, Memphis, TN.
1999 - 2000	Visiting Scientist, Neurobiology, Weizmann Institute of Science, Rehovot, Israel.
2001 - 2022	Professor, Department of Psychology and Director for Life-Span Cognitive Neuroscience, Institute of Gerontology, Wayne State University, Detroit, MI.
2006 - 2016	Visiting Scientist, Max Planck Institute for Human Development, Berlin, Germany.
2010 - 2022	Training faculty, Translational Neuroscience Program, School of Medicine, Wayne State University, Detroit, MI.
2011 - 2022	Adjunct Professor, Biomedical Engineering, Wayne State University, Detroit, MI.
2016 - current	Research Scientist (Wissenschaftlicher Mitarbeiter), Center for Lifespan Psychology, Max Planck Institute for Human Development, Berlin, Germany
2022 - current	Professor, Department of Psychology, Stony Brook University, Stony Brook, NY.

Current Funding

Principal Investigator:
National Institute on Aging grant 5R01AG011230-25: *Neural Correlates and Modifiers of Cognitive Aging*. Funding period: 7/1/16-6/30/21. Total costs: $3,608,750 No cost extension till May 31, 2024.
Co-investigator and collaborator
Glenn Foundation – American Federation of Aging Research (AFAR), grant A23019. Brain Iron-Mediated Effects of Inflammation and Mitochondrial Metabolic Dysfunction on Cognitive Aging / PI: A.M. Daugherty (Wayne State University). Period: 07/01/2023 – 06/30/2025. Total costs: $150,000.

Funding History

National Institute on Aging, R21 AG059160-01 *Task-related modulation of hippocampal glutamate, subfield volumes, and associative memory in younger and older adults: A longitudinal ^{1}H fMRS study*. Funding period: 6/1/2018-10/31/2022 (with NCE). Total costs: $423,148. (Co-PI: Jeffrey A. Stanley, Ph.D.)
National Institute on Aging, grant 5R37AG011230 (a MERIT award) Neural Correlates and Modifiers of Cognitive Aging. Funding period (with a one-year no-cost extension): 7/1/10-6/30/16, total costs: $2,939,399.
National Institute on Aging, grant 2R37AG011230 Neural Correlates and Modifiers of Cognitive Aging. Funding period: 7/1/05-6/30/10, total costs: $2,090,389, a MERIT award.
National Institute on Aging, grant R03-AG024630 "Hemodynamic predictors of brain and cognitive aging." $117,000 direct costs, funding period September 15, 2004 – June 30, 2007
National Institute on Aging, grant R01AG011230 Neural correlates of age-related differences in memory. Funding period: 1999-2005, with a no-cost extension.
National Institute on Aging, grant R01AG011230 Neural correlates of age-related differences in memory. Funding period: 1993-1999, with a no-cost extension.
President's Research Enhancement Program – Part II: Seed Grants for Project Development "Changes in Brain Energetics in the Course of Cognitive Training" Funding Period: September 2015-February 2018, $99,444.
Margaret M. and Paul B. Baltes Memorial Foundation for Advancement of Research in Lifespan Psychology and Gerontology. Award for implementation of International Baltes Conference on Aging – €35,000
Wayne State University, Office of the Vice-President for Research, Grant Boost award. 2015-2016. Age differences and Stability of Noninvasive Indices of Brain Energy Metabolism and Myelin Content - $35,000
Faculty Competition for Postdoctoral Fellows Award, Wayne State University 01/01/15-01/01/17 'Neural Correlates of Age-Related Differences in Memory: A Life-Span Approach.' (with Ofen, N. Co-PI), total award $60,000.

Co-Investigator and Collaborator

National Institute of Aging grant R01-AG18008 "Aging, fitness and neurocognitive function" (A.F. Kramer, University of Illinois, PI) Funding period 3/1/02-2/28/05

Sponsor:
National Institute on Aging, grant F31 AG058420-02 Age-Related Differences in the Hippocampal Glutamate Modulation during Association Learning: an *in vivo* Proton Functional Magnetic Resonance Spectroscopy (^{1}H fMRS) Study awarded to Chaitali Anand. Funding period:09/26/2017-09/26/2019, $96,600.

Membership in Professional Organizations

- American Association for Advancement of Science
- Society for Neuroscience
- Memory Disorders Research Society

Editorial Work

- Editorial board member: *Psychology and Aging*, 1999-
- Editorial board member *Neuropsychology Review*, 2011-
- Editorial board member *Neuropsychology,* 2007-2019
- Editorial board member *Journal of International Neuropsychological Society*, 2013-2019
- National Institute on Aging, member of the Human Aging and Development (HUD-2) study section (1995-1999).
- Special review panels member: National Institutes of Health (1996-current).

Consulting and Advising

- Advisory Board Member and Senior Faculty Fellow for the Center for Applied Cognitive Research on Aging (funded by the National Institute on Aging, Denise Park, PI), University of Georgia and University of Michigan (1992-1998).
- Universidad Nacional de Educacion A Distancia, Madrid, Spain. Consultant on Grant SEJ2004-21243-El Deterioro Cognitivo y Sensorial en el Envejecimiento y en las Enfermedades Neurodegenerativas [Cognitive and Sensory Decline in Aging and Neurodegenerative Disorders], PI: Prof. Ana Garriga Trillo, 2004-2006.
- University of Washington Consultant on NIH grant "Midlife Cognitive Change and Risk of Cognitive Decline" (Sherri Willis, PI) 2006-2013.
- University of Pittsburgh. Member of Advisory Committee for Advanced Center for Interventions and Services Research for Late-Life Mood Disorders (ACISR/LLMD), 2006.
- Kent State University, Consultant on NIH grant "Cognitive Benefits of Cardiac Rehabilitation in Heart Failure." (J. Gunstad, PI), 2008-2014.
- Institute for Exercise and Environmental Medicine, Dallas, TX, *Arterial aging, brain perfusion and exercise: Impact on brain structure and function.* (Rong Zhang, PI). 2010-2015.
- Internal Advisory Board Member, Michigan Alzheimer's Disease Center (MADC) 2016-2022.
- Advisory board chair: LifeBrain: Healthy Minds From 0-100 Years: Optimizing the Use of European Brain Imaging Cohorts - an international research project funded by the EU's Horizon 2020 program. 2017 – 2022.
- Hippocampal subfields methods harmonization group (HSG) Steering Committee member 2016- current.

Courses Taught

Undergraduate

- Abnormal Psychology
- Brain and Behavior
- Physiological Psychology
- Introduction to Psychology
- Cognitive Neuroscience of Aging

Graduate

- Cognitive Foundations of Neuropsychology
- Neuropathology and Behavior
- Cognitive Aging
- Cognitive Neuroscience
- Advanced Statistics: Multivariate Methods
- Introduction to Neuropsychology
- Functional Neuroanatomy (with brain dissection lab)

Publications

1. Raz, N., Willerman, L., Ingmundson, P., & Hanlon, M. (1983). Aptitude-related differences in auditory backward recognition masking. *Intelligence, 7,* 71-90.

2. August, G.J., Raz, N., Papanicolaou, A.C., Davis-Baird, T., Hirsh, S., & Hsu, L. (1984). Fenfluramine treatment of infantile autism: Electrophysiological, neurochemical, and behavioral effects. *Journal of Nervous and Mental Disease, 172*, 604-612.

3. Raz, N. & Willerman, L. (1985). Aptitude-related differences in auditory information processing: Effects of selective attention and target duration. *Personality and Individual Differences, 6,* 299-304.

4. August, J.G., Raz, N., & Davis-Baird, T. (1985). Effects of fenfluramine on behavioral and attentional variables in infantile autism. *Journal of Autism and Developmental Disorders, 15*, 97-107.

5. Papanicolaou, A.C., Loring, D.W., Raz, N., & Eisenberg, H. (1985). Relationship between stimulus intensity and the P300. *Psychophysiology, 22*, 326-329.

6. Papanicolaou, A.C., Raz, N., Loring, D.W., & Eisenberg, H.M. (1986). Brainstem evoked response suppression during speech production. *Brain and Language, 27*, 50-55.

7. Papanicolaou, A.C., Loring, D.W., Eisenberg, H.M., Raz, N., & Contreras, F. (1986). Auditory brainstem evoked responses in comatose head-injured patients. *Neurosurgery, 18*, 173-175.

8. Yeo, R.A., Turkheimer, E.N., Raz, N., & Bigler, E.D. (1987). Volumetric parameters of normal human brain: intellectual correlates. *Brain and Cognition, 6,* 15-23.

9. Raz, N., Willerman, L., & Yama, M. (1987). On sense and senses: Intelligence and auditory information processing. *Personality and Individual Differences, 8,* 201-210.

10. August, G.J., Raz, N., & Baird, T.D. (1987). Fenfluramine response in high- and low-functioning autistic children. *Journal of American Academy of Child and Adolescent Psychiatry, 26,* 342-346.

11. Pritchard, W.S., Raz, N., & August, G.J. (1987). Visual augmenting/reducing and P300 in autistic children. *Journal of Autism and Developmental Disorders, 17,* 231-242.

12. Pritchard, W.S., Raz, N., & August, G.J. (1987). Brief report: No effect of chronic fenfluramine on P300 component of the event-related potentials. *International Journal of Neuroscience, 35*, 105-110.

13. Raz, N., Raz, S., Yeo, R.A., Turkheimer, E., Bigler, E.D., & Cullum, C.M. (1987). Relationship between cognitive and morphological asymmetries in Alzheimer's dementia: A CT study. *International Journal of Neuroscience, 35*, 235-243.

14. Raz, S., Raz, N., Weinberger, D.R., Boronow, T., Pickar, D., Bigler, E.D., & Turkheimer, E.N. (1987). Morphological brain abnormalities in schizophrenia determined by computerized tomography: A problem of measurement? *Psychiatry Research, 22*, 91-98.

15. Raz, N., Pritchard, W.S., & August, G.J. (1987). Effects of fenfluramine on EEG power and brain stem evoked response (BSER) in infantile autism. *Neuropsychobiology, 18*, 105-109.

16. Raz, S., Raz. N., & Bigler, E.D. (1988). Ventriculomegaly in schizophrenia: Is the choice of controls important? *Psychiatry Research, 24,* 71-77.

17. Raz, N., Raz, S., & Bigler, E.D. (1988). Ventriculomegaly in schizophrenia, the role of control group, and the perils of dichotomous thinking. *Psychiatry Research, 26*, 245-248 [letter].

18. Raz, N., Millman, D., & Moberg, P.J. (1989). Auditory memory and age-related differences in two-tone frequency discrimination: Trace decay and interference. *Experimental Aging Research, 15*, 43-49.

19. Raz, S., & Raz, N. (1990). Structural brain abnormalities in the major psychoses: A quantitative review of the evidence from computerized imaging. *Psychological Bulletin, 108,* 93-108.

20. Raz, N., Millman, D. & Sarpel, G. (1990). Cerebral correlates of cognitive aging: Grey-white matter differentiation in the medial temporal lobes, and fluid vs. crystallized abilities. *Psychobiology, 18*, 475-481.

21. Raz, N., Millman, D., & Moberg, P.J. (1990). On mechanisms of age-related differences in frequency discrimination with backward masking: Speed of processing versus stimulus persistence. *Psychology and Aging, 5*, 475-481.

22. Raz, N., Millman, D., & Moberg, P.J. (1990). Effects of age and age-related differences in auditory information processing on fluid and crystallized intelligence. *Personality and Individual Differences, 11*, 1147-1152.

23. Raz, N., Torres, I.J., Spencer, W.D., White, K., Acker, J.D. (1992). Age-related regional differences in cerebellar vermis observed *in vivo*. *Archives of Neurology, 49,* 412-416.

24. Raz, N., Torres, I.J., & Acker, J.D. (1992). Age-related shrinkage of the mamillary bodies: Evidence from in vivo MRI. *NeuroReport*, 3, 713-716.

25. Raz, N., Torres, I.J., Spencer, W.D., Baertschi, J.C., Millman, D., Sarpel, G. (1993) Neuroanatomical correlates of age-sensitive and age-invariant cognitive abilities: An *in vivo* MRI investigation. *Intelligence, 17*, 407-421.

26. Raz, N., Torres, I.J., Spencer, W.D., & Acker, J.D. (1993) Pathoclysis in aging human cerebral cortex: Evidence from *in vivo* MRI morphometry. *Psychobiology, 21*, 151-160.

27. Spencer, W.D. & Raz, N. (1994) Remembering facts, source, and context: Can frontal dysfunction explain adult age differences? *Psychology and Aging, 9*, 149-159.

28. Torres, I.J. & Raz, N. (1994) Towards the neural basis of verbal priming: A Cognitive-neuropsychological synthesis. *Neuropsychology Review*, 4, 1-30.

29. DiGiulio, D.V., Seidenberg, M.S., O'Leary, D.S., & Raz, N. (1994). Procedural and declarative memory: A Developmental study. *Brain and Cognition, 25*, 79-91.

30. Raz, N., Torres, I., & Acker, J.D. (1995). Age, gender, and hemispheric differences in human striatum: A Quantitative review and new data from *in vivo* MRI morphometry. *Neurobiology of Learning and Memory, 63,* 133-142.

31. Raz, N., Torres, I.J., Briggs, S.D., Spencer, W.D., Thornton, A.E., Loken, W., Gunning, F.M., McQuain, J.D., Driesen, N.R., & Acker, J.D. (1995). Selective neuroanatomical abnormalities in Down's syndrome and their cognitive correlates: Evidence from MRI morphometry. *Neurology, 45*, 356-366.

32. Driesen, N.R. & Raz, N. (1995). Sex-, age-, and handedness-related differences in human corpus callosum observed *in vivo*. *Psychobiology, 23*, 240-247.

33. Spencer, W.D. & Raz, N. (1995). Differential age effects on memory for content and context: A meta-analysis. *Psychology and Aging, 10,* 527-539.

34. Dulaney, C., Raz, N., & Devine, C. (1996). Automatic and effortful processes in Down syndrome and nonspecific mental retardation. *American Journal of Mental Retardation, 100*, 418-423.

35. Raz, N., Gunning, F.M., Head, D., Dupuis, J.H., McQuain, J.M., Briggs, S.D., Thornton, A.E., Loken, W.J. & Acker, J.D. (1997). Selective aging of human cerebral cortex observed *in vivo*: Differential vulnerability of the prefrontal gray matter. *Cerebral Cortex, 7,* 268-282.

36. Raz, N. (1997). [invited comment on Luft et al]*, American Journal of Neuroradiology, 18*, 594-595.

37. Moberg, P.A. & Raz, N. (1997). Aging and olfactory recognition memory: Effect of encoding strategies and cognitive abilities. *International Journal of Neuroscience, 90*, 277-292.

38. Thornton, A.E. & Raz, N. (1997). Memory in multiple sclerosis: A quantitative review. *Neuropsychology*, *11*, 357-366.

39. Raz, N., Dupuis, J.H., Briggs, S.D., McGavran, C., & Acker, J.D. (1998). Differential effects of age and sex on the cerebellar hemispheres and the vermis: A prospective MR study. *American Journal of Neuroradiology*, *19,* 65-71.

40. Raz, N., Dixon, F.M., Head, D. P., Dupuis, J.H., & Acker, J.D. (1998). Neuroanatomical correlates of cognitive aging: Evidence from structural MRI. *Neuropsychology*, *12*, 95-106.

41. Gunning-Dixon, F.M., Head, D.P., McQuain, J.M., Acker, J.D., & Raz, N. (1998). Differential aging of the human striatum: A prospective MR study. *American Journal of Neuroradiology, 19,* 1501-1507.

42. Briggs, S.D., Raz, N., & Marks, W. (1999). Age-related deficits in generation and manipulation of mental images: I. The role of sensorimotor speed and working memory. *Psychology and Aging, 14,*427-435

43. Raz, N., Briggs, S.D., Marks, W., & Acker, J.D. (1999). Age-related deficits in generation and manipulation of mental images: II. The role of dorsolateral prefrontal cortex. *Psychology and Aging, 14*, 436-445.

44. Gunning-Dixon, F.M., & Raz, N. (2000). The cognitive correlates of white matter abnormalities in normal aging: A quantitative review. *Neuropsychology*, *14,* 224-232.

45. Raz, N., Williamson, A., Gunning-Dixon, F., Head, D., & Acker, J.D. (2000). Neuroanatomical and cognitive correlates of adult age differences in acquisition of a perceptual-motor skill. *Microscopy Research and Technique*, *a special issue on Neuroimaging and Memory*, 51, 85-93.

46. Raz, N., Gunning-Dixon, F., Head, D., Williamson, A., & Acker, J.D. (2001). Age and sex differences in the cerebellum and the ventral pons: A Prospective MR study of healthy adults. *American Journal of Neuroradiology, 22,* 1161-1167.

47. Head, D., Raz, N., Gunning-Dixon, F., Williamson, A., & Acker, J.D. (2002). Age-related shrinkage of the prefrontal cortex is associated with executive, but not procedural aspects of cognitive performance. *Psychology and Aging, 17*, 72-84.

48. Thornton, A.E., Raz, N., & Tucker, K.A. (2002). Memory in multiple sclerosis: Contextual encoding deficits. *Journal of the International Neuropsychological Society*, 8:395-409.

49. Colcombe S, Erickson KI, Raz N, Webb AG, Cohen NJ, McAuley E, et al. (2003). Aerobic fitness reduces brain tissue loss in aging humans. *Journal of Gerontology, A: Biological Sciences and Medical Sciences*, 58A, 176–180.

50. Raz, N., Rodrigue, KM., Kennedy, KM, Dahle, C., Head, D, Acker, JD (2003). Differential age-related changes in the regional metencephalic volumes in humans: A five-year follow-up. *Neuroscience Letters*, *349,* 163-166.

51. Raz, N, Rodrigue, KM, Kennedy, KM, Head, D., Gunning-Dixon, FM, Acker JD. (2003). Differential aging of the human striatum: Longitudinal evidence. *American Journal of Neuroradiology*, 24, 1849-1856.

52. Korman, M., Raz, N., Flash, T., & Karni, A. (2003). Multiple shifts in the representation of a motor sequence during the acquisition of skilled performance. *Proceedings of the National Academy of Science USA,* 100, 12492-12497.

53. Gunning-Dixon, F.M., & Raz, N. (2003). Neuroanatomical correlates of selected executive functions in middle-aged and older adults: A prospective MRI study. *Neuropsychologia, 41,* 1929-1941.

54. Raz, N., Rodrigue, KM, & Acker, JD (2003). Hypertension and the brain: Vulnerability of the prefrontal regions and executive functions. *Behavioral Neuroscience, 17,* 1169-1180.

55. Raz, N., Gunning-Dixon, F., Head, D., Williamson, A., Rodrigue, K., Acker, J.D. (2004). Aging, sexual dimorphism, and hemispheric asymmetry of the cerebral cortex: Replicability of regional differences in volume. *Neurobiology of Aging*, 25, 377-396.

56. Raz, N, Rodrigue, KM, Head, D., Kennedy, KM, Acker JD. (2004). Differential aging of the medial temporal lobe: A study of a five-year change. *Neurology*, *62*, 433-439.

57. Rodrigue, KM & Raz, N. (2004). Shrinkage of the entorhinal cortex over five years predicts memory performance in healthy adults. *The Journal of Neuroscience*, 24, 956–963.

58. Raz, N., Rodrigue, KM, Kennedy, KM, & Acker, J.D. (2004). Hormone replacement therapy and age-related brain shrinkage: regional effects. *NeuroReport*, 15, 2531-2534.

59. Erickson, KI, Colcombe, SJ, Raz, N., Korol, DL., Scalf, P., Webb, A., Cohen, NJ, McAuley, E., Kramer, AF. (2005). Selective sparing of brain tissue in postmenopausal women receiving hormone replacement therapy. *Neurobiology of Aging,* 26, 1205-1213.

60. Kennedy, KM, & Raz, N. (2005). Age, sex, and regional brain volumes predict perceptual-motor skill acquisition. *Cortex,* 41, 560-569.

61. Rodrigue, K.M., Kennedy, KM, & Raz, N. (2005). Aging and longitudinal change in perceptual-motor skill acquisition in healthy adults. *Journal of Gerontology: Psychological Sciences*, 60B, P174-181.

62. Raz, N., Lindenberger, U., Rodrigue, K.M., Kennedy, K.M., Head, D. Williamson, A., Dahle, C., Gerstorf, D., & Acker, J.D. (2005). Regional brain changes in aging healthy adults: General trends, individual differences, and modifiers. *Cerebral Cortex,* 15, 1676-1689.

63. Thornton, W.J.L & Raz, N. (2006). Aging and the role of working memory resources in visuospatial attention. *Aging, Neuropsychology, and Cognition,* 13, 36–61.

64. Raz N, Rodrigue KM (2006). Differential aging of the brain: Patterns, cognitive correlates and modifiers. *Neuroscience and Biobehavioral Reviews,* 30:730-748. Epub 2006 Aug 17.

65. Kennedy, K. M., Rodrigue, K. M., & Raz, N. (2006). Fragmented pictures revisited: Long-term changes in repetition priming, relation to skill learning, and the role of cognitive resources. *Gerontology, 53,* 148-158.

66. Moffat SD, Kennedy KM, Rodrigue KM, Raz N. (2007). Extrahippocampal contributions to age differences in human spatial navigation. Cerebral Cortex.17, 1274-1282. Epub 2006 Jul 20.

67. Raz, N., Rodrigue, K. M., & Haacke, E.M. (2007). Brain aging and its modifiers: Insights from *in vivo* neuromorphometry and Susceptibility Weighted Imaging. *Annals of New York Academy of Science,* 1097, 84-93.

68. Raz, N., Rodrigue, K.M., Kennedy, K.M., & Acker, J.D. (2007). Vascular health and longitudinal changes in brain and cognition in middle-aged and older adults. *Neuropsychology*, 21, 149-157.

69. Raz, N, (2007). Which side of plasticity? A comment on Greenwood. *Neuropsychology*, 21, 676-677.

70. Raz, N., Lindenberger, U., Ghisletta, P., Rodrigue, K.M., Kennedy, K.M., & Acker, J.D. (2008). Neuroanatomical correlates of fluid intelligence in healthy adults and persons with vascular risk factors. *Cerebral Cortex,* 18, 718-726; 2007 Jul 5; [Epub ahead of print]

71. Kennedy, K.M., Partridge, T., & Raz, N. (2008). Age-related differences in acquisition of perceptual-motor skills: Working memory as a mediator. *Aging, Neuropsychology, and Cognition,* 15, 165 - 183 [Epub ahead of print Feb 22 2007]

72. Head, D., Rodrigue, K.M., Kennedy, K.M., & Raz, N. (2008). Neuroanatomical and cognitive mediators of age-related differences in episodic memory. *Neuropsychology*, 22:491-507.

73. Raz, N. Dahle, C., Rodrigue, K.M., Kennedy, KM, Land, S., & Jacobs, B.S. (2008). Brain-Derived Neurotrophic Factor Val66Met polymorphism, blood glucose, and memory in healthy adults: The synergy of genetic and vascular risks. *Frontiers in Human Neuroscience, 2,* article 12, 1-6.

74. Kennedy KM, Erickson KI, Rodrigue KM, Voss MW, Colcombe SJ, Kramer AF, Acker JD, Raz N. (2009). Age-related differences in regional brain volumes: a comparison of optimized voxel-based morphometry to manual volumetry. *Neurobiology of Aging, 30*, 1657-1676. Epub 2008 Feb 13. doi:10.1016/j.neurobiolaging.2007.12.020.

75. Raz, N, Rodrigue, K.M., Kennedy, K.M., & Land, S. (2009). Genetic and vascular modifiers of age-sensitive cognitive skills: Effects of COMT, BDNF, ApoE and hypertension. *Neuropsychology. 23,* 105-116.

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77. Kennedy, K.M. & Raz, N. (2009) Aging white matter and cognition: Differential effects of regional variations in diffusion properties on memory, executive functions, and speed. *Neuropsychologia,* 47, 916–927.

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79. Head, D., Kennedy, KM, Rodrigue, KM, & Raz, N. (2009). Age differences in perseveration: Cognitive and neuroanatomical mediators of performance on the Wisconsin Card Sorting Test. *Neuropsychologia,* 47, 1200-1203.

80. Kennedy, K.M., Hope, K., & Raz, N. (2009). Lifespan adult faces: Norms for age, familiarity, memorability, mood, and picture quality. *Experimental Aging Research,* 35: 268–275,

81. Dahle, C.L., Jacobs, B.S., & Raz, N. (2009). Aging, vascular risk and cognition: Blood glucose, pulse pressure, and cognitive performance in healthy adults. *Psychology and Aging,* 24, 154-162.

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91. Raz, N. & Lindenberger, U. (2010). News of cognitive cure for age-related brain shrinkage is premature: A comment on Burgmans et al. (2009). *Neuropsychology*, 24, 255-257.

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