

July 29, 2008

Curriculum Vitae

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1 Address

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2 Education

1980 BS, Biology, with High Honors, University of Arizona, Tucson, AZ

1984 MD, University of Southern California School of Medicine, Los Angeles, CA

1988 Completed residency in Neurology, UT Southwestern School of Medicine, Dallas, TX

2005 PhD, Brain Science Program, Brown University, Providence, RI; Jointly advised by: [REDACTED], Ph.D (Neuroscience) & [REDACTED], Ph.D. (Applied Mathematics and Neuroscience)

3 Work Experience

1988-1991 Chief, Neurology Service, Keesler Technical Training Medical Center, Keesler AFB, MS

- 1991-1998** Assistant Professor, Neurology, University of Alabama at Birmingham, Birmingham, AL
- 1998-2000** Associate Professor, Neurology, University of Alabama at Birmingham, Birmingham, AL
- 1998-2000** Secondary Appointment, Psychology, University of Alabama at Birmingham, Birmingham, AL
- 1994-2000** Chief, Neurology Service, Birmingham VA Medical Center, Birmingham, AL
- 1997-2000** Deputy Chairman, Department of Neurology, University of Alabama at Birmingham, Birmingham, AL
- 1993-2000** Director, Clinical Core, University of Alabama at Birmingham Alzheimer's Disease Research Center, Birmingham, AL
- 2005-2007** Postdoctoral Associate, [REDACTED], Dept. of Neuroscience, Brown University, Providence RI
- 2007-present** Assistant Professor, Dept. of Psychology and Centre for Theoretical Neuroscience, Univ. Waterloo, Waterloo ON Canada

4 Publications

Articles

- [1] Roy Martin, H. Randall Griffith, Katherine Belue, Lindy Harrell, Edward Zamrini, Britt Anderson, Alfred Bartolucci, and Daniel Marson. Declining financial capacity in patients with mild alzheimer disease: A one-year longitudinal study. *Am. J. Geriatr. Psychiatry*, 16:209–219, March 2008. doi: 10.1097/JGP.0b013e318157cb00. URL <http://ajgponline.org/cgi/content/abstract/16/3/209>.
- [2] Justin S Huthwaite, Roy C Martin, H Randall Griffith, Britt Anderson, Lindy E Harrell, and Daniel C Marson. Declining medical decision-making capacity in mild ad: a two-year longitudinal study. *Behavioral Sciences & the Law*, 24:453–63, 2006. ISSN 0735-3936. doi: 10.1002/bsl.701. URL <http://www.ncbi.nlm.nih.gov/pubmed/16883623>. PMID: 16883623.
- [3] Britt Anderson, Ryan E. B. Mruczek, Keisuke Kawasaki, and David L. Sheinberg. Effects of familiarity on neural activity in monkey inferior temporal

- lobe. *Cerebral Cortex*, epub ahead of print, 2008. URL <http://dx.doi.org/10.1093/cercor/bhn015>.
- [4] Britt Anderson. Is neglect a disorder of prior probability. *Neuropsychologia*, 46:1566–1569, 2008. URL <http://dx.doi.org/10.1016/j.neuropsychologia.2007.12.006>.
- [5] Britt Anderson and David L. Sheinberg. Effects of temporal context and temporal expectancy on neural activity in inferior temporal cortex. *Neuropsychologia*, 46:947 – 957, 2008. URL <http://dx.doi.org/10.1016/j.neuropsychologia.2007.11.025>.
- [6] Britt Anderson, Mark I. Sanderson, and David L. Sheinberg. Joint decoding of visual stimuli by IT neurons’ spike counts is not improved by simultaneous recording. *Experimental Brain Research*, 176:1–11, 2007. URL <http://dx.doi.org/10.1007/s00221-006-0594-4>.
- [7] Britt Anderson, Matthew Harrison, , and David L. Sheinberg. A multielectrode study of IT in the monkey: Effects of grouping on spike rates and synchrony. *NeuroReport*, 17:407–411, 2006. URL <http://charlotte.neuro.brown.edu/~britt/pdf/neuroreport2006.pdf>.
- [8] Britt Anderson, Jessie J. Peissig, Jedediah Singer, and David L. Sheinberg. XOR style tasks for testing visual object processing in monkeys. *Vis. Res.*, 46: 1804 – 1815, 2005. URL <http://dx.doi.org/10.1016/j.visres.2005.11.023>.
- [9] Mark Mennemeier, Christopher A. Pierce, Anjan Chatterjee, Britt Anderson, George Jewell, Rachael Dowler, Adam J. Woods, Tannahill Glenn, and Victor W. Mark. Biases in Attentional Orientation and Magnitude Estimation Explain Crossover: Neglect is a Disorder of Both. *J. Cogn. Neurosci.*, 17 (8):1194–1211, 2005. URL <http://jocn.mitpress.org/cgi/content/abstract/17/8/1194>.
- [10] Britt Anderson. *g* as a consequence of shared genes. *Intelligence*, 29: 367 – 371, 2001. URL [http://dx.doi.org/10.1016/S0160-2896\(01\)00069-1](http://dx.doi.org/10.1016/S0160-2896(01)00069-1).
- [11] Britt Anderson, Mark Mennemeier, and Anjan Chatterjee. Variability not ability. another basis for performance decrements in neglect. *Neuropsychologia*, 38:785 – 796, 2000. URL [http://dx.doi.org/10.1016/S0028-3932\(99\)00137-2](http://dx.doi.org/10.1016/S0028-3932(99)00137-2).

- [12] Britt Anderson. Kohonen neural networks and language. *Brain and Language*, 70:86 – 94, 1999. URL <http://dx.doi.org/10.1006/brln.1999.2145>.
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- [14] Britt Anderson. A computational model of neglect dyslexia. *Cortex*, 35:201 – 218, 1999. URL <http://www.cortex-online.org/cortex.asp?action=toArticles&folderID=121>.
- [15] Britt Anderson. A proof of the need for the spatial clustering of interneuronal connections to enhance cortical computation. *Cerebral Cortex*, 9:2 – 3, 1999. URL <http://cercor.oxfordjournals.org/cgi/content/full/9/1/2>.
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- [18] Britt Anderson. Pieces of the true crossover effect in neglect. *Neurology*, 49:809 – 812, 1997. URL <http://www.neurology.org/cgi/content/abstract/49/3/809>.
- [19] B. Anderson and V. Rutledge. Age and hemispheric effects on dendritic structure. *Brain*, 119:1983 – 1990, 1996. URL <http://brain.oxfordjournals.org/cgi/content/abstract/119/6/1983>.
- [20] Britt Anderson. Axonal length correlates with dementia severity in Alzheimer’s disease. *Medical Science Research*, 24:271 – 273, 1996.
- [21] Britt Anderson. A mathematical model of line bisection in neglect. *Brain*, 119:841 – 850, 1996. URL <http://brain.oxfordjournals.org/cgi/content/abstract/119/3/841>.
- [22] B. Anderson and T. Harvey. Increased neuronal density in the frontal cortex of Albert Einstein. *Neuroscience Letters*, 210:161 – 164, 1996. URL [http://dx.doi.org/10.1016/0304-3940\(96\)12693-8](http://dx.doi.org/10.1016/0304-3940(96)12693-8).

- [23] Britt Anderson. Semantic neglect. *Journal of Neurology, Neurosurgery and Psychiatry*, 60:349 – 350, 1996.
- [24] S. Donaldson and B. Anderson. The backpropagation algorithm. implications for the biological bases of individual differences in intelligence. *Intelligence*, 21:327 – 345, 1995. URL [http://dx.doi.org/10.1016/0160-2896\(95\)90020-9](http://dx.doi.org/10.1016/0160-2896(95)90020-9).
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- [27] Britt Anderson. Dendrites and cognition: a negative pilot study in the rat. *Intelligence*, 20:291 – 308, 1995. URL [http://dx.doi.org/10.1016/0160-2896\(95\)90012-8](http://dx.doi.org/10.1016/0160-2896(95)90012-8).
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- [29] Britt Anderson. Speed of neuron conduction is not the basis of the IQ-RT correlation. results from a simple neural model. *Intelligence*, 19:317 – 323, 1994.
- [30] Britt Anderson. The volume of the cerebellar molecular layer predicts attention to novelty in rats. *Brain Research*, 641:160 – 162, 1994.
- [31] Britt Anderson. A role for animal research in the investigation of human mental retardation. *American Journal of Mental Retardation*, 99:50 – 59, 1994.
- [32] Britt Anderson. Evidence from the rat for a general factor that underlies cognitive performance and that relates to brain size: intelligence? *Neuroscience Letters*, 153:98 – 102, 1993.
- [33] C. G. Anderson and B. Anderson. Koelliker on Cajal. translated excerpts from *Errinerungen aus Meinem Leben*. *International Journal of Neuroscience*, 70: 181 – 192, 1993.
- [34] Britt Anderson. Spared awareness for the left side of internal visual images in patient’s with left sided extrapersonal neglect. *Neurology*, 43:213 – 216, 1993.

- [35] Britt Anderson. An inside-out theory of neglect. *Medical Hypotheses*, 39: 295 – 301, 1992.
- [36] Britt Anderson. Rat reasoning: a reliability and validity study. *Psychobiology*, 20:238 – 242, 1992.
- [37] Britt Anderson. Akinetic mutism as a consequence of obstructive hydrocephalus. successful treatment with a combination of bromocriptine and ephedrine. *Journal of Neurosurgery*, 76:152–155, 1992.
- [38] Britt Anderson. Open field and response flexibility measures in the rat. *Psychobiology*, 19:355 – 358, 1991.
- [39] Britt Anderson. A unified theory of mental illness. *Medical Hypotheses*, 29: 173 – 175, 1989.
- [40] E. D. Ross, B. Anderson, and A. Morgan-Fisher. Crossed aprosodia in strongly dextral patients. *Archives of Neurology*, 46:206 – 209, 1989.
- [41] Britt Anderson. Benvenuto Cellini and Reiter's disease. *Sexually Transmitted Diseases*, 16:47 – 48, 1989.
- [42] Britt Anderson. On morphogenesis. *Medical Hypotheses*, 26:183 – 186, 1988.
- [43] Britt Anderson. Is alpha-MSH deficiency the cause of Alzheimer's disease. *Medical Hypotheses*, 19:379 – 385, 1986.
- [44] J. A. Severson and B. Anderson. Chronic antidepressant treatment and mouse 3H-imipramine binding. *Journal of Neuroscience Research*, 16:429 – 438, 1986.
- [45] Britt Anderson. A proposed therapy for the encephalopathies of Reye's syndrome and hepatic encephalopathy. *Medical Hypotheses*, 15:415 – 420, 1984.
- [46] M. E. Hadley, B. Anderson, C.B. Heward, T.K. Sawyer, and V.J. Hruby. Calcium dependent prolonged effects on melanophores of [4-norleucine, 7-d-phenylalanine]-alpha melanotropin. *Science*, 213:1025, 1981.

Chapters

- [1] B. Anderson. Brain imaging and *g*. In H. Nyborg, editor, *The Scientific Study of General Intelligence*, page 669. Pergamon, 2003.
- [2] C. A. Marzi, E. Natale, and B. Anderson. Mapping spatial attention with reaction time in neglect patients. In H.-O. Karnath, A. D. Milner, and G. Vallar, editors, *The Cognitive and Neural Bases of Neglect*, pages 275 – 288. Oxford University Press, 2002.
- [3] L. B. Nabors and B. Anderson. Neurology. In P.G. Pappas, editor, *Cecil Review of Internal Medicine*, pages 194 – 206. W. B. Saunders, 2001.
- [4] B. Anderson. *G* in non-human animals. In *The Nature of Intelligence. Novartis Foundation Symposium*, pages 79 – 90. John Wiley and Sons, 2000. URL <http://dx.doi.org/10.1002/0470870850.ch5>.
- [5] B. Anderson and T. Head. Evidence for language comprehension in a severe sensory aphasic. In S. R. Hammeroff, A. W. Kaszniak, and A. C. Scott, editors, *Toward a Science of Consciousness*, pages 223 – 225. MIT Press, 1996.
- [6] B. Anderson and R. M. Rosenberg. Metabolic encephalopathy in genetic diseases. In A. I. Arieff and R. C. Griggs, editors, *Metabolic Brain Dysfunction in Systemic Disorders*, pages 437 – 453. Little Brown, 1992.
- [7] S. A. Stein, D.R. Shanklin, P.M. Adams, G.M. Mihailoff, M.B. Palnitkar, and B. Anderson. Thyroid hormone regulation of specific mRNAs in the developing brain. In G.R. DeLong, J. Robbins, and P.G. Condiff, editors, *Iodine and the Brain*, pages 59 – 78. Plenum, 1989.

5 Grant Support, 1998 to present

2000-2005 Consultant, Neglect and Neural Mechanisms of Magnitude Estimation (NIH), Mark Mennemeier, Ph.D., PI *Overview*: My role on this project was to develop mathematical models of the magnitude estimation of human subjects with hemispatial neglect following stroke in an effort to gain insight into the brain mechanisms of spatial attention.

1998-2004 Consultant, Financial Competency in Dementia (NIH), Dan Marson, J.D., Ph.D., PI *Overview*: My role on this grant was to assist in the design and validation of a clinical instrument to be used by physicians in assessing the financial capacity of patients with suspected dementia.

1999-2000 Physician Consultant, Xe Spect and fMR Imaging of Reorganization Post Stroke (NIH), Georg Deutsch, Ph.D., PI *Overview:* Referral of stroke patients for study of cortical reorganization.

1999-2000 PI, Clinical Core, Alzheimer's Disease Research Center ([REDACTED] M.D., Ph.D. Center PI) *Overview:* I was responsible for overseeing all aspects of clinical subject recruitment, assessment, and participation in the UAB ADRC activities. In addition, I was responsible for preparing this section of the ADRC grant application and administrative oversight of the Clinical Core after funding.

1997-1999 PI, Treatment of Hemispatial Neglect with Amphetamine (VISTAR - private research foundation of the Birmingham VAMC). *Overview:* This was a pilot project to study the effect of amphetamine in promoting recovery from hemispatial neglect after stroke.

1998-1999 Co-investigator, Neglect and Spatial Representations (NIH), Anjan Chatterjee, M.D. PI. *Overview:* Co-investigator for investigating brain mechanisms of spatial attention.

6 Teaching

6.1 Experience

1987 Overview of Neuroanatomy, Semester long course for Physical and Occupational Therapy Students, Texas Women's University, Dallas Texas. *Comment:* This was a standard weekly lecture course. I was responsible for lecture preparation, delivery, and all quiz/tests.

1988-1991 Neurology lectures for internal medicine residents, Keesler Technical Training Center, Keesler Air Force Base, MS. *Comment:* Intermittent formal lectures on neurology topics for the Internal Medicine Residency Training Program where I was an affiliated faculty.

1991-2000 Annual lectures on dementia, aphasia, or clinical pathological conferences for Year 1 medical students, University of Alabama Medical School, UAB, Birmingham, AL.

1991-2000 Miscellaneous lectures on Alzheimer's Disease diagnosis and treatment, Various continuing medical education programs.

1994-1997 Overview of Neurology. Lecture for American College of Physicians Internal Medicine Board Review Courses, Birmingham, AL. *Comment:* See subsection 6.2.

1991-2000 Ongoing practical lectures, conferences, and clinical supervision. Neurology Residency Training Program, University Alabama School of Medicine, UAB, Birmingham, AL. *Comment:* I was one of the neurology faculty for our residency training program, I was twice honored by the residents as the best teaching faculty (see subsection 6.2).

2003,2004 Teaching Assistant-Introduction to Neurobiology (██████████, Ph.D.), Brown University, Providence, RI. *Comment:* I was the TA for this summer, month long daily lecture course for advanced high school students. I assisted in grading and laboratories.

2003 Teaching Assistant, Computational Neuroscience Course (██████████, Ph.D.), Brown University, Providence, RI. *Comment:* I was the TA for this semester long advanced undergraduate/graduate level course.

2008 History of Psychology, Undergraduate Course University of Waterloo. *Comment:* I am developing this new semester long undergraduate course which will commence January 2008.

6.2 Honors

1997 & 1999 Best Teaching Faculty, Department of Neurology, UAB, Birmingham, AL

1995, 1996 Best Lecturer, Neurology-American College of Physicians Internal Medicine Board Review Courses *Comment:* National award based on class ratings of all neurology lecturers for the ACP Board Review Courses for the calendar year.

7 Committee Service

During my service at UAB (1991-2000) I was on several administrative committees including: Pharmacy and Therapeutics (VA), Research (Neurology Dept.), Executive (Neurology Dept.), Animal Care and Use (VA) as well as dissertation committees: ██████████ (Computer Science), ██████████ (Psychology).

2007 - present: member of the Food Drug Administration Peripheral and Central Nervous System Advisory Committee.

2007 - present: scientific consultant for JIEDDO, a joint US Department of Defense task force seeking to improve soldiers capabilities to avoid and detect improvised explosive devices. My role is to conduct a scientific literature search and prepare a review relevant to this mission.

2007 - 2009: organize and chair an invited paper session at the International Statistics Institute's biannual meeting in Durban South Africa 2009. The title is: Statistical Modelling and Data Analysis for Neural Coding.

8 Ad Hoc Reviewer

Neurology, Archives of Neurology, Annals of Neurology, Brain, Brain & Cognition, Neurocase, Neuropsychologia, Journal of the American Geriatrics Society, Human Heredity, NeuroImage, Intelligence, Journal of Cognitive Neuroscience, Experimental Brain Research.