Vita

Thomas E. Jerde

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A. Personal History

For this information, please contact me directly.

B. Educational History

Brown University

Majors: Neuroscience, Music, and Philosophy

Degrees: Sc.B. (Neuroscience), A.B. (Music and Philosophy), awarded 5/03, Magna Cum Laude, Phi Beta Kappa

GPA (major): 4.0 (Neuroscience), 3.8 (Music), 3.6 (Philosophy), 3.8 overall

Relevant Courses:

Elementary Psychology (lab), Language and the Brain, Intro to Neuroscience, Principles of Neurobiology, Dynamical Systems Approach to Cognitive Science, Neural Systems, Intro to Computer Science (lab), Computational Neuroscience, fMRI Theory and Practice (lab), Human Sensory Processing (lab), Experimental Design, Neuroimaging and Language, Independent Study (lab).

Activities: Brown University Orchestra (rotating principal flute and stage manager), co-founder of Brown New Music, Brown Zen Community student coordinator, Community Service Breaks Project leader, Green Party.

Stanford University (admitted 4/03, matriculation deferred to 9/04)

Major: Neurosciences Ph.D. program

C. Research Experience

1. Undergraduate research fellow/independent study, Brown University Department of Neuroscience. Enrolled for academic credit for three semesters, full time during summer of 2002. Behavioral analysis of two-dimensional continuous manual tracking in humans contrasting random and memorized path conditions for performance-based classification, to be used in future imaging study of event-related activation patterns in frontal, motor, and parietal cortex. Designed experiment and data-collection software (Matlab/PsychToolbox scripts), collected and analyzed data. Advisors: J. Donoghue, Ph.D., and J. Sanes, Ph.D.

2. Graduate-level lab course on the theory and practice of fMRI, Fall semester 2001. The final project for the course was a pilot study investigating neural activation patterns during a color-object association stroop task. Responsibilities included programming the task software, behavioral testing and subject training, designing the event-related experiment, administration of the behavioral task during scans, and assisting in the imaging analysis using AFNI. Professor: J. Sanes, Ph.D.

3. Undergraduate Research Intern, University of Minnesota, Twin Cities, Department of Neuroscience. 6/01-8/01; 12/01-1/02. Designed experiment, collected and analyzed joint angle data of fluent signers during ASL fingerspelling. Developed automated fingerspelling recognition, quantified and characterized information content in hand shapes and coarticulation in dynamic fingerspelling using discriminant functions and principal components analysis. Advisors: M. Flanders, Ph.D. and J. Soechting, Ph.D.

D. Membership in Professional Associations

Society for Neuroscience (student member).

E. Fellowships

National Science Foundation, Graduate Research Fellowship (tenure of 3-year fellowship to begin 9/04 at Stanford University).

Borroughs Wellcome Brain Science Program, Summer Undergraduate Research Fellowship, Brown University, 2002.

University of Minnesota Computational Neuroscience Undergraduate Summer Research Program, supported by a National Science Foundation Integrative Graduate Education and Research Traineeship (NSF IGERT), 2001.

F. Presentations

Jerde T.E., Hutchison, E.R., Donoghue J.P., Sanes J.N. Explicit and implicit learning of continuous manual tracking sequences. Society for Neuroscience 33rd Annual Meeting. New Orleans, LA. Nov. 8-12, 2003. (poster, *upcoming*)

Jerde T.E., Soechting J.F., Flanders M. Information content and coarticulation in ASL fingerspelling. Society for Neuroscience 32nd Annual Meeting. Orlando, FL. Nov. 2-7, 2002. (slide presentation, first author presenting)

G. Publications

Jerde T.E., Soechting J.F., Flanders M. Coarticulation in fluent fingerspelling. Journal of Neuroscience. 2003 Mar 15;23(6):2383-93.

Jerde T.E., Soechting J.F., Flanders M. Biological constraints simplify the recognition of hand shapes. IEEE Transactions on Biomedical Engineering. 2003 Feb;50(2):265-9.

H. Statement of Research and Professional Interests

I intend to pursue a career in research related to cognitive neuroscience or cognitive neuropsychology. In my undergraduate research experiences I studied neural control of

movement, primarily using psychophysical methods. For my doctoral work, I intend to focus on neuroscience issues related to cognition, using psychophysics and functional neuro-imaging. Specific areas of interest include language processing, attention and awareness, problem-solving, musical and auditory processing, and philosophy of mind. My ultimate career goal is to serve as a professor with research and teaching responsibilities.

I. Languages and Skills

Intermediate/advanced knowledge of German, Mandarin Chinese, some Japanese.

Programming ability in Matlab (plus PsychToolbox) and Labview. Familiarity and troubleshooting capability with Mac OS and Windows, Microsoft Office, Adobe products.

Flutist, pianist, composer.

J. References

Martha Flanders, Ph.D. fland001@umn.edu
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John F. Soechting, Ph.D. john@shaker.med.umn.edu
Department of Neuroscience, University of Minnesota, Twin Cities 612-625-7961

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