



**2nd Annual Eleanor M. Saffran  
Cognitive Neuroscience Conference**

“Dynamic Interactions of Language With Other  
Cognitive Processes: Implications for Treatment  
of Language Disorders”

**Sponsored by the Eleanor M. Saffran Center  
for Cognitive Neuroscience**

Department of Communication Sciences  
College of Health Professions  
Temple University

and

**Philadelphia Neuropsychology Society**

Department of Communication Sciences  
Temple University— Weiss Hall 109  
1701 N. 13th Street  
Philadelphia, PA 19122-6085

**Date:** Monday, September 24<sup>th</sup>, 2007

**Time:** Registration begins at 8:15am  
Conference from 9:00 am to 4:30 pm  
Reception from 4:30 pm to 6:00 pm

**Location:** Kiva Auditorium  
Ritter Annex, Cecil B. Moore & 13th Street

## **2<sup>nd</sup> Annual Eleanor M. Saffran Cognitive Neuroscience Conference**

### **Dynamic Interaction of Language with other Cognitive Processes: Implications for Treatment of Language Disorders**

The Temple University Department of Communication Sciences and Eleanor M. Saffran Center for Cognitive Neuroscience is pleased to present the 2<sup>nd</sup> Annual Eleanor M. Saffran Cognitive Neuroscience Conference. Dr. Eleanor M. Saffran was one of the pioneers of Cognitive Neuropsychology with a career spanning some 35 years. Two remarkable features of Eleanor's career were the diversity of topics she researched and her extraordinary ability to focus on the most intriguing aspects of a problem. Eleanor's research led to important developments in our understanding of agrammatism, deep dyslexia, word deafness, short-term memory deficits, word production, sentence processing, semantics, and visual cognition. It is fitting that a conference held in her honor be focused on the dynamic interactions of language and cognition.

Seven leading researchers will present their work and address the influences of cognitive processes such as attention, intention, short-term memory, spatial and temporal processes on language function. The conference promises to provide excellent, innovative information for researchers and clinicians interested in all aspects of language. Each presentation will be followed by a fifteen minute question and answer session and there will be additional opportunities for discussion during the breaks and reception. This program has been approved by ASHA for .6 CEU and by the APA for 6.0 credits.

#### **American Speech-Language-Hearing Association**

#### **Continuing Education**

Temple University is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to offer continuing education activities in speech-language pathology and audiology. This program is offered for 0.6 CEU (advanced level; professional area). ASHA approval of CE Provider status does not imply endorsement of any course content, specific products, or clinical procedures.



#### **Philadelphia Neuropsychology Society**

#### **Continuing Education**

The Philadelphia Neuropsychology Society (PNS) is approved by the American Psychological Association to offer continuing education for psychologists. The Philadelphia Neuropsychology Society maintains responsibility for the program.



**Conference Proceedings**

**8:15-9:00** Continental breakfast and registration

**9:00** Welcome

Nadine Martin, Ph.D., Department of Communication Sciences, Temple University

**9:15** Opening remarks

Ron Brown, Ph.D., Dean of the College of Health Professions, Temple University.

**9:30** *The disordered attention hypothesis in aphasia: Theoretical accounts and recent evidence*

Malcolm McNeil, Ph.D. & Will Hula, Ph.D, University of Pittsburgh

- Participants will be able to articulate the theoretical and clinical motivations for searching for an attentional account of the language disorders in persons with aphasia
- Participants will be able to identify the primary theoretical approaches to studying attention
- Participants will be able to differentiate the distinguishing features between “resource allocation” and “bottleneck”/“psychological refractory period (PRP)” experimental approaches to studying aphasia

**10:30** *An intention manipulation for treatment of naming in aphasia*

Bruce Crosson Ph.D., Department of Clinical & Health Psychology, University of Florida

- Participants will be able to describe the interface between attentional systems and language in the treatment of aphasia
- Participants will be able to articulate results of a treatment designed to shift lateralization of word production in aphasia
- Participants will be able to recognize fMRI findings following treatment designed to relateralize language production

**11:30** *Disorders of executive function and their role in language processing*

Randi Martin, Ph.D., Department of Psychology, Rice University

- Participants will be able to identify the components of executive function and the tasks that can be used to identify them
- Participants will be able to identify the neural structures thought to be involved in aspects of executive function
- Participants will be able to identify the possible relation between the inhibitory component of executive function and language processing, including word retrieval and sentence comprehension.

**12:30 – 1:30** Lunch

**1:30** *Three questions regarding phonological short-term memory: What is it? Does it causally affect vocabulary growth? Does it matter for specific language impairment (SLI)?*

Prahlad Gupta, Ph.D., Department of Psychology, University of Iowa

- Participants will be able to identify the role of serial ordering mechanisms in word learning and verbal short-term memory
- Participants will be able to articulate how impairment of such mechanisms would affect processing in a system dependent on them

**2:30** *Space and language*

Anjan Chatterjee, M.D. Department of Neurology, University of Pennsylvania.

- Participants will be able to demonstrate an understanding about the neural interface of spatial and linguistic representations
- Participants will be able to identify the patterns of brain damage associated with deficits in spatial language

**3:30** *Speech perceived through a damaged temporal window: Lessons from aphasia and word deafness*

Gerry Stefanatos, D. Phil., Moss Rehabilitation Research Institute & Temple University

- Participants will be able to describe the fundamental differences in symptomology in Wernicke’s aphasia and pure word deafness
- Participants will be able to identify the symptoms of Landau-Kleffner syndrome
- Participants will be able to describe the role of brain mechanisms that underlie our ability to analyze rapid changes in sound to speech perception

**4:30-6:00** Reception at the Eleanor M. Saffran Center for Cognitive Neuroscience, 9th Floor, Ritter Annex

## PRESENTERS

**Ron Brown, Ph.D.**, Dean of the College of Health Professions at Temple University holds a Ph.D from Georgia State University and a B.A. from Emory University. He is a fellow of the American Psychological Society, the American Psychological Association, the Society of Pediatric Psychology and is a Diplomate in clinical health psychology of the American Board of Professional Psychology. During his career, Dr. Brown has received more than \$11 million in research funding from the federal government and foundations to study issues such as maternal alcohol use on achievements of children when they reach school age, learning impairments among survivors of childhood cancer, and the oral health of African-American adolescents who have diabetes.

**Anjan Chatterjee, M.D.** received his BA from Haverford College in Philosophy and his M.D. from University of Pennsylvania where he now an associate professor and director of the ChatLab of Cognitive Neurology in the Center for Cognitive Neuroscience. He serves on the editorial boards for the *Journal for Cognitive Neuroscience*, *Cognitive and Behavioral Neurology*, *Cognitive Neuropsychology*, *Behavioral Neurology and Empirical Studies of the Arts*. In 2002, Dr. Chatterjee received the Norman Geschwind Prize in Behavioral and Cognitive Neurology from the American Academy of Neurology and in 2005 he received the honor of being named one of the "Best Doctors in America". Dr. Chatterjee's research is directed at understanding the architecture and neural bases for human cognition. Using experimental and neuroimaging techniques he investigates language and meaning, visual, spatial and temporal processing, visual aesthetics, and neuroethics.

**Bruce Crosson, Ph.D.**, received his B.A. from Southern Methodist University in 1972 and his Ph.D. in Psychology from Texas Tech University in 1978. Currently, he is Professor of Clinical & Health Psychology and Neurology at the University of Florida and a University of Florida Research Foundation Professor. He is Head of Functional Neuroimaging in Rehabilitation for the University of Florida College of Health Professions. At present, Dr. Crosson serves as Associate Editor for the *Journal of the International Neuropsychological Society*. Dr. Crosson's research interests lie at the intersection between language and other cognitive processes. In particular, his current research focuses on the interface between intention, attention, and language. Currently, he pursues this research through studies of treatment for aphasia, through functional neuroimaging studies, and through study of subcortical functions in language. His study of the Treatment of Intention and Attention in Aphasia is currently funded by NIDCD.

**Prahlad Gupta, Ph.D.**, received his M.S. in Computational Linguistics and a Ph.D. in Psychology from Carnegie Mellon University. Prior to becoming an Associate Professor at the University of Iowa, Dr. Gupta was a Beckman Institute Fellow at the Beckman Institute for Advanced Science and Technology at the University of Illinois. He is a member of the Cognitive Science Society, American Psychological Society, Cognitive Neuroscience Society, and the Psychonomic Society. Dr. Gupta's research interests include the relationship between language processing/learning, working memory, implicit memory, and explicit memory, as well as the neural and computational bases of these processes.

**Will Hula, Ph.D.**, received his B.A. in Russian and his M.S. in Speech-Language Pathology from University of North Carolina at Chapel Hill. Dr. Hula received his Ph.D. in Communication Sciences and Disorders from the University of Pittsburgh in May of 2007, where he has worked closely with Dr. Malcolm McNeil. Dr. Hula was awarded in 2007, the *New Investigators Travel Fellowship* to attend NIDCD-supported Research Symposium in Clinical Aphasiology and received Honorable Mention from the School of Health and Rehabilitation Sciences for "Best Graduate Student Research". His research interests include resource allocation and central bottleneck theories of attention as they relate to normal and disordered language processes and the assessment of language performance and communicative functioning in aphasia and other neurogenic communication disorders.

## Registration Form

Registration is **required** via **fax** (215-204-6334), **email** (fpkohen@temple.edu) or by **mailing** the registration form below.

This conference, including morning refreshments, is presented free of charge. CEU credit and/or an optional lunch is available for a fee (see below). On-line and fax registrants, who choose the optional lunch and/or CEU credits must indicate their selection. Lunch and/or CEU payment for fax and on-line registrants will be taken at the conference.

(Please print clearly & complete all information)

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone (W) \_\_\_\_\_ (H) \_\_\_\_\_

Email \_\_\_\_\_

Employer \_\_\_\_\_

Title or Position \_\_\_\_\_

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### CEU Fee

If you would like to receive CEU credits there is a fee of \$30.00

Please select your affiliation

ASHA       APA       Check Enclosed

Make checks payable to TU Department of Communication Sciences  
Checks will be accepted during registration the morning of the conference

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Lunch Selection (please  your choice)

Cost: \$11.25

Turkey       Tuna       Grilled Vegetable

Lunch Fee Enclosed

Make check payable to Temple University  
Checks will be accepted for lunch during registration the morning of the conference  
however, lunch orders must be completed with initial registration via mail, fax, or email.

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Please remit registration form (and payments if applicable) to:

Nadine Martin, Ph.D.  
Department of Communication Sciences  
Temple University– Weiss Hall, Room 109  
1701 N. 13th Street  
Philadelphia, PA 19122-6085  
Fax: 215-204-6334

so that it is received no later than September 1st, 2007

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Need additional information or have questions?

Call Francine Kohen at 215-204-4752

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## PRESENTERS

### **DR. ELEANOR M. SAFFRAN COGNITIVE NEUROSCIENCE CONFERENCE ENDOWMENT**

In 2005, the Dr. Eleanor M. Saffran Cognitive Neuroscience Conference Fund was established through generous gifts from Dr. Saffran's family, friends and colleagues. Over \$7,000 was raised in that initial effort. In addition, her daughter, Dr. Jenny Saffran, and her husband, Dr. Seth Pollak, have expressed their intention to make a gift to create a permanent endowment, which will provide funds to help sustain the conference in perpetuity.

We would like to invite you to be part of this important effort by making a contribution of any amount that will be added to this endowment. You may make your gift online at [www.alumni.temple.edu](http://www.alumni.temple.edu) (please be sure to indicate that you wish for your gift to be applied toward the Saffran Endowment), or by contacting Ashley Lomery, Director of Development of the College of Health Professions, at the phone number or address below. Your contribution is fully tax-deductible to the extent provided by law.

Please keep in mind that you may make a pledge to be fulfilled over a five-year period, and donors of \$1,000 or more are afforded membership in the Conwell Society at Temple University, which is a leadership group of alumni, friends and parents. Conwell members are recognized annually for their support in our Honor Roll and are also invited to a special University event each fall.

Thank you in advance for your support of our efforts to permanently create the Dr. Eleanor M. Saffran Cognitive Neuroscience Conference Endowment. If you have any questions, or would like to make a gift, please contact:

*Ashley Lomery, Director of Development, College of Health Professions  
Temple University, 3307 N. Broad Street, 316 Jones Hall, Philadelphia, PA 19140  
Tel: 215.707.9780 Fax: 215.707.7819  
email: [ashley.lomery@temple.edu](mailto:ashley.lomery@temple.edu)*

**Nadine Martin, Ph.D.**, received her B.A. from Hofstra University in 1974 and a M.Ed degree in Speech and Language Pathology from Northeastern University in 1975. In 1982 she worked in the Center for Cognitive Neuroscience as research assistant to Eleanor Saffran. She received a Ph.D. in Cognitive Psychology from Temple University in 1987. She continued on at the Center for Cognitive Neuroscience in the Department of Neurology at Temple University as a researcher and Associate Professor until 2002, when the Center moved to the Department of Communication Sciences. Dr. Martin is currently an Associate Professor of Communication Sciences and serves as the current Director of the Eleanor M. Saffran Center for Cognitive Neuroscience. Her NIH-supported research focuses on the relationship between word processing and short-term memory and the implications for rehabilitation of word retrieval disorders.

**Randi C. Martin, Ph.D.**, obtained a B.A. from the University of Oregon, and an M.A. and Ph.D. in Psychology from Johns Hopkins University. She is currently the Elma W. Schneider Professor of Psychology at Rice University, where she is Chair of the Psychology Department. Dr. Martin is also the editor of the *Journal of Experimental Psychology: Learning, Memory, and Cognition*. Her professional areas of interest are cognitive neuropsychology, psychology of language, working memory, and reading. The emphasis of her research is on the relationship between short-term memory and language processing, the time course of semantic and phonological processes involved in word and phrase production and in the role of working memory in planning multi-word utterances.

**Malcolm R. McNeil, Ph.D.**, received his B.S. and M.A. from Northern Michigan University and his Ph.D. in speech pathology from the University of Denver. He currently is a Distinguished Service Professor and Chair in the Department of Communication Science and Disorders and an adjunct professor in the Department of Otolaryngology in the School of Medicine at the University of Pittsburgh. In addition, Dr. McNeil is a Senior Research Scientist with the Veterans Affairs Pittsburgh Healthcare System's Speech Pathology and Audiology Service, as well as cofounder and codirector of the Pittsburgh Aphasia Treatment, Research, and Education Center. His primary research interests are in the areas of motor speech disorders, attention and resource allocation in information processing, and the mechanisms of phonological and phonetic language translation into speech movements using perceptual, acoustic and physiologic (kinematic, force and electromyographic) measures.

**Gerry A. Stefanatos, D. Phil.**, received his B.A. from McGill University and his doctoral degree in Clinical Neuropsychology from the University of Oxford, where he worked jointly in the University Laboratory of Physiology and at the Medical Research Council Neuropsychology Unit based in the University Department of Clinical Neurology. Following a postdoctoral fellowship at the University of Western Ontario, he took his first faculty position in the Department of Psychiatry at the University of Texas Health Science Center in San Antonio. He has since been on the faculty of the Medical College of Pennsylvania, Widener University, Thomas Jefferson University and Moss Rehabilitation Research Institute in Philadelphia. In the fall semester of 2007, Dr. Stefanatos joined Temple University's Department of Communication Sciences and Disorders as both department chair and research scientist. His Neuropsychology Research Laboratory is now part of the Eleanor M. Saffran Center for Cognitive Neuroscience. His current research focuses on examining the efficacy of behavioral and psychopharmacologic treatments and in understanding brain plasticity and the neural changes that accompany recovery and learning.

## Directions to Temple University's Main Campus & Parking

### From the PA Turnpike:

Take PA Turnpike to Exit 326 (Philadelphia/Valley Forge). Follow I-76 East for 13 miles to Exit 340B. Take Exit 340B onto US-1 North toward Roosevelt Blvd. Take Broad Street/ 611 Exit. Turn right onto Broad Street (611 South). Follow Broad Street to Cecil B. Moore Avenue or Oxford Street for parking.

### From the Northeast Extension of the PA Turnpike:

Take Exit 20 (Mid-County) to I-476 South (Blue Route) approximately 5 miles to I-76 East. Follow I-76 East to Exit 340B. Take Exit 340B and continue to follow using above directions From the PA Turnpike.

### From the NJ Turnpike via Benjamin Franklin Bridge:

Take New Jersey Turnpike to Exit 4; then follow Route 73 North one mile to Route 38 West. Follow Route 38 approximately six miles to cross Benjamin Franklin Bridge. From bridge follow signs to Vine Street Local Traffic and proceed one mile to Broad Street. Turn right. Proceed on Broad Street (611 North) to Cecil B. Moore or Oxford Street for parking.

### From South Jersey:

Take Atlantic City Expressway West to Route 42 North. 42 North becomes I-76 West. Follow I-76 West to I-676 North. Merge onto I-676 North. Follow to Camden/Benjamin Franklin Bridge. Cross the Benjamin Franklin Bridge into Philadelphia and use above directions From the NJ Turnpike via Benjamin Franklin Bridge.

### From points North of Philadelphia via I-95:

Take I-95 South to Girard Avenue Exit. Follow Girard Avenue for 2.3 miles to Broad Street. Turn right onto Broad Street (611 North) and proceed to Cecil B. Moore or Oxford Street for parking.

### From points South of Philadelphia via I-95:

Take I-95 to Exit for Central Philadelphia/I-676 West. Note: This is a LEFT lane exit. Follow 676 West to Broad Street Exit. Exit to left lane and turn left onto Vine Street. Stay in left lane for one block to Broad Street and turn left. Proceed on Broad Street (611 North) to Cecil B. Moore or Oxford Street for parking.

\*Visitor's Parking Lot 3 - \$9

From points North: At Cecil B. Moore Avenue make a left. Continue on Cecil B. Moore to Visitor's Parking Lot Area # 3 (between Broad & 13th Streets). Entrance is on the right.

From points South: At Cecil B. Moore Avenue make a right. Continue on Cecil B. Moore to Visitor's Parking Lot Area # 3 (between Broad & 13th Streets). Entrance is on the right.

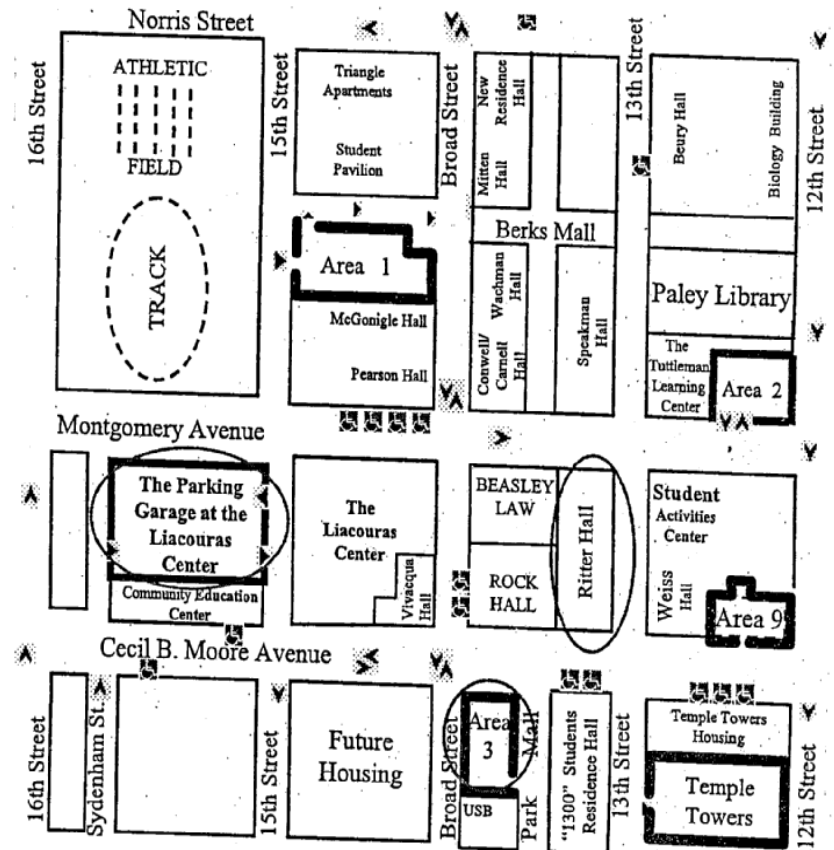
\*\*Liacouras Center Parking Garage - \$9

From points North: At Cecil B. Moore Avenue turn right. Continue on Cecil B. Moore to 16th Street. Make a right onto 16th Street. Continue on 16th Street to Montgomery Avenue. Follow posted signs for the Liacouras Center Parking Garage.

From points South: At Oxford Street make a left. Continue on Oxford to 16th Street. Make a right onto 16th Street. Continue on 16th Street to Montgomery Avenue. Follow posted signs for the Liacouras Center Parking Garage.

For main campus map go to <http://www.temple.edu/maps>

## CAMPUS MAP



Conference held at Ritter Hall (Ritter Annex)

Parking – Liacouras Center parking garage, Area 3, & handicapped spaces marked on map