Brain and Language

Editor-in-Chief:

Steven Small
University of California at Irvine, Irvine, California, USA

Aims & Scope
An interdisciplinary journal, Brain and Language focuses on the neurobiological mechanisms underlying human language. The journal covers the large variety of modern techniques in cognitive neuroscience, including lesion-based approaches as well as functional and structural brain imaging, electrophysiology, cellular and molecular neurobiology, genetics, and computational modeling. All articles must relate to human language and be relevant to an elaboration of its neurobiological basis. Along with an emphasis on neurobiology, journal articles are expected to take into account relevant data and theoretical perspectives from psychology and linguistics.

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Welcome to the Ninth Annual Meeting of the Society for the Neurobiology of Language

On behalf of the SNL Board and the local organisers, I welcome you to Baltimore. This year we have organised an interesting and wide-ranging programme, using a variety of different formats. For those of you who like your thrills we have a new addition to the programme – the Poster SLAM – where, in ONE minute, presenters will whet our appetites by highlighting the most exciting findings of their research. We can follow these presentations up afterwards by chatting to presenters over their posters during the regular poster sessions.

We also have four distinguished keynote speakers who will present their cutting-edge research on a wide variety of key topics in the neurobiology of language, ranging from: recovery from acute stroke and how it relates to reorganisation of the neural networks involved in language functions (Argye Hillis), to ways in which we might bridge the gap between deep learning and neuroscience in order to better understand the neural computations involved in language and cognition (Yoshua Bengio), the emergence of language in infants, based on characterizing the properties of early brain organization and how this changes during development (Ghislaine Dehaene-Lambertz), and research using eCOGs to map the detailed functional organization of the encoding of speech sounds for speech perception and production (Edward Chang). We have also included a Symposium in which four speakers discuss their perspectives on how interdisciplinary research combining computational and and data-driven methods with neuroimaging data provides new opportunities for understanding language and the brain.

We will also hear from Carolyn McGettigan & Jason Yeatman who are the first recipients of our new Early Career Award. This award was initiated to honour researchers in the early stages of their careers for their high quality research and academic citizenship. Carolyn and Jason are the first awardees. They will, before describing their research, each briefly tell us a little about how they became interested in the neurobiology of language.

The core of our programme, however, remains the poster sessions, giving plenty of opportunity for discussion on the very latest research in the neurobiology of language by researchers from 24 countries around the world. We also include two slide sessions which are always very popular.

We have arranged two social events. First, a reception to be held at the world-renowned National Aquarium immediately following our opening night talk by Dr Diana Reiss on marine mammal communication. This looks to be an experience no-one will want to miss, so be sure to be there early. We will also have a social hour during the posters on Thursday evening. These events should provide lots of opportunity to mingle with colleagues from around the world.

I would like to thank the SNL Programme Committee for putting together this exciting scientific programme: David Corina, Patti Adank, Matt Davis & Karen Emmorey, and our meeting planners, Shauney Wilson and Shawna Lampkin, for helping to organize this year’s meeting. I would like to thank our abstract reviewers who always ensure the excellent quality of our presentations.

Steve Small, who founded SNL with Pascale Tremblay, also deserves our special thanks for continuing to obtain NIH funding to support our meetings. We also thank our sponsors (Brain & Language; Language, Cognition & Neuroscience; and Rogue Research Inc.) for their generous support for the meeting.

I look forward to seeing you all at this year’s meeting.

Lorraine K Tyler
Chair, Society for the Neurobiology of Language
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Baltimore Inner Harbor Map

The Ninth Annual Meeting of the Society for the Neurobiology of Language will be held November 8–10, 2017 at the Sheraton Inner Harbor Hotel in Baltimore, Maryland.
Schedule of Events

All events are held at the Sheraton Inner Harbor Hotel, except the Opening Night Reception, which is being held at the National Aquarium.

**Wednesday, November 8, 2017**

7:00 am – 5:30 pm  
Meeting Registration  
Chesapeake Gallery

8:15 – 9:00 am  
Continental Breakfast  
Harborview Gallery

8:40 – 9:00 am  
Opening Remarks: Lorraine Tyler, Chair  
Chesapeake Ballroom

9:00 – 10:00 am  
**Keynote Lecture: Argye Hillis**  
Chesapeake Ballroom

10:00 – 10:30 am  
Coffee Break  
Harborview Gallery

10:05 – 10:20 am  
Poster Slam Session A  
Chesapeake Ballroom

10:30 – 11:45 am  
Poster Session A  
Harborview and Loch Raven Ballrooms

11:45 am – 1:00 pm  
Lunch On Your Own

1:10 – 2:30 pm  
Slide Session A  
Chesapeake Ballroom

2:30 – 3:00 pm  
Coffee Break  
Harborview Gallery

2:35 – 2:50 pm  
Poster Slam Session B  
Chesapeake Ballroom

3:00 – 4:15 pm  
Poster Session B  
Harborview and Loch Raven Ballrooms

4:30 – 5:30 pm  
**Marine Communication Talk: Diana Reiss**  
Chesapeake Ballroom

7:00 – 10:30 pm  
Opening Night Reception  
Offsite at the National Aquarium

10:00 – 11:15 am  
Poster Session C  
Harborview and Loch Raven Ballrooms

11:15 am – 12:00 pm  
**Early Career Award Presentations:**  
Carolyn McGettigan and Jason Yeatman  
Chesapeake Ballroom

12:00 – 1:30 pm  
Buffet Lunch Served  
Various Locations

1:30 – 3:30 pm  
**Invited Symposium:**  
Leila Wehbe, Odette Scharenborg, Barry Devereux, John Hale  
Chesapeake Ballroom

**Thursday, November 9, 2017**

7:00 am – 7:00 pm  
Meeting Registration  
Chesapeake Gallery

7:30 – 8:15 am  
Continental Breakfast  
Harborview Gallery

8:15 – 8:30 am  
Announcements  
Chesapeake Ballroom

8:30 – 9:30 am  
**Keynote Lecture: Yoshua Bengio**  
Chesapeake Ballroom

9:30 – 10:00 am  
Coffee Break  
Harborview Gallery

9:35 – 9:50 am  
Poster Slam Session C  
Chesapeake Ballroom

10:00 – 11:15 am  
Poster Session E  
Harborview and Loch Raven Ballrooms

11:20 am – 12:40 pm  
Slide Session B  
Chesapeake Ballroom

12:40 – 1:30 pm  
Future Planning and Closing Remarks: Karen Emmorey, Chair-Elect and Pascale Tremblay, 2018 Local Organizing Committee Chair  
Chesapeake Ballroom
Keynote Lecture: Argye Hillis

Argye Hillis
Professor of Neurology, Physical Medicine & Rehabilitation, and Cognitive Science, Johns Hopkins University

Professor Hillis serves as the Executive Vice Chair of Neurology, and Director of the Cerebrovascular Division. She began her career as a Speech-Language Pathologist and Director of Neurological Rehabilitation, focusing on studies of novel treatments of aphasia and communication disorders after right hemisphere stroke. She also studied Cognitive Neuropsychology in the Cognitive Science Department at Johns Hopkins, where she later became a faculty member. Her research focused on identifying the cognitive processes underlying language and spatial representations through the study of aphasia and hemispatial neglect, and how these investigations might help focus rehabilitation. Dr. Hillis then completed medical training and neurology residency at Johns Hopkins, and integrated her training in the fields of Speech-Language Pathology and Cognitive Science with Neurology to continue her investigations of aphasia and right hemisphere cognitive and communicative impairments and how they recover. Her research combines longitudinal task-related and task-free functional imaging and structural imaging with detailed cognitive and language assessments to reveal the dynamic neural networks that underlie language and cognitive functions, such as empathy and prosody. Her lab studies changes from the acute stage of stroke through the first year of recovery, to improve our understanding how language and other cognitive functions recover after stroke and how to facilitate recovery.

ROAD BLOCKS IN BRAIN MAPS: LEARNING ABOUT LANGUAGE FROM LESIONS

Wednesday, November 8, 9:00 – 10:00 am
Chesapeake Ballroom

Chair: Brenda Rapp, Cognitive Science Department, Johns Hopkins University

Just as Google Maps can provide several ways of looking at routes between hubs or points of interest, various brain mapping techniques yield different ways of looking at structural and functional connections between processing areas critical for various language tasks. Lesions to the brain present road blocks, but there are generally alternative routes for information to flow from one critical area to another. These alternative routes may take longer, and errors can arise from “off roading”; but eventually the routes are made more efficient and effective as they are used more. I will discuss how various approaches to brain mapping of language at distinct times after “road blocks” can yield converging information about critical hubs and how one can get around them to recover language. I will illustrate with studies of task-related and resting state fMRI, connectome-symptom mapping, as well as structural and perfusion imaging studies of word comprehension and naming in stroke survivors at different stages of recovery. I will show that posterior superior temporal gyrus is one of the critical hubs for both word comprehension and naming early after stroke, but there important alternative routes that may be available depending on the size of the lesion.
Keynote Lecture: Yoshua Bengio

Yoshua Bengio
Professor, Director of MILA, Department of Computer Science and Operations Research and Canada Research Chair in Statistical Learning Algorithms, University of Montreal, Canada

Yoshua Bengio is the world-leader expert on Deep Learning and author of the best selling book on that topic. His research objective is to understand the mathematical and computational principles, which give rise to intelligence through learning. He contributed to a wide spectrum of machine learning areas and is well known for his theoretical results on recurrent neural networks, kernel machines, distributed representations, depth of neural architectures, and the optimization challenge of deep learning. His work was crucial in advancing how deep networks are trained, how neural networks can learn vector embeddings for words, how to perform machine translation with deep learning by taking advantage of an attention mechanism, and how to perform unsupervised learning with deep generative models. He is the author of three books and more than 300 publications, is among the most cited Canadian computer scientists and is or has been associate editor of the top journals in machine learning and neural networks.

BRIDGING THE GAP BETWEEN BRAINS, COGNITION AND DEEP LEARNING

Thursday, November 9, 8:30 – 9:30 am
Chesapeake Ballroom

Chair: Matt Davis, MRC Cognition and Brain Sciences Unit, Cambridge

Connectionist ideas from three decades ago have fuelled a revolution in artificial intelligence with the rise of deep learning methods. Both the older connectionist ideas and the newer ones owe a lot to inspiration from the brain, but the gap between deep learning and neuroscience remains wide. We lay down some of these old ideas, based on learning distributed representations in order to jointly optimize by a gradient-based method all the modules of the system with respect to an objective function linked to a task or to capturing many aspects of the observed data. We also discuss the new ideas from deep learning, including a discussion of the newly acquired theoretical understanding of the advantages brought by jointly optimizing a deep architecture. Finally, we summarize some of the recent work aimed at bridging the remaining gap between deep learning and neuroscience, including approaches to implement functional equivalents to backpropagation in a more biologically plausible way, as well as ongoing work connecting language, cognition, reinforcement learning and the learning of abstract representations.
Keynote Lecture: Ghislaine Dehaene-Lambertz

Ghislaine Dehaene-Lambertz

Pediatrician, Director of the Developmental Brain Imaging Lab, INSERM U992, Neurospin/CEA, Paris-Saclay, France

Ghislaine Dehaene-Lambertz and her team investigate the development of cognitive functions in infants and children using brain imaging techniques. Their goal is to understand how complex cognitive functions, such as language, music, mathematics, etc... emerge in the human brain, thanks to a thorough description of the brain initial structural and functional organization. She published pioneering work using high-density event-related potentials (Nature 1994), functional resonance magnetic imaging (Science 2002) or optical topography (PNAS 2003-2013) to study language acquisition, and the neural signatures of consciousness (Science 2013) in the infant brain. She is the recipient of several national and international awards (Prix Justine and Yves Sergent 2013, Grand Prix Scientifique de la Fondation de France, 2015, et de L’Institut de France, 2016).

THE HUMAN INFANT BRAIN: A NEURAL ARCHITECTURE ABLE TO LEARN LANGUAGE

Thursday, November 9, 4:00 – 5:00 pm
Chesapeake Ballroom

Chair: Patti Adank, University College London

Although different human languages use different sounds, words and syntax, most children acquire their native language without difficulties following the same developmental path. Once adults, they use the same specialized networks, located primarily in the left hemisphere around the sylvian fissure, to process speech. Thanks to the development of brain imaging, we can now study the early functional brain organization and examine on which cerebral resources, infants rely to learn their native language. Although these studies are still sparse, several characteristics are noticeable: first, parallel and hierarchical processing pathways are observed before intense exposure to speech with an efficient temporal coding in the left hemisphere and, second, frontal regions are involved from the start in infants’ cognition. These observations are certainly not sufficient to explain language acquisition but illustrate a new approach that relies on a better description of infants’ brain activity during linguistic tasks, which compared to results in animals and human adults should clarify the emergence of language in the human species.
Keynote Lecture: Edward Chang

Edward Chang
Professor of Neurosurgery, UC San Francisco

Dr. Chang specializes in functional neurosurgery, with particular expertise in brain mapping for the safe treatment of refractory epilepsy, cranial nerve disorders, and brain tumors. His research focuses on the discovery of higher-order neurological function in humans, such as speech and neuropsychiatric processing.

DISSECTING THE FUNCTIONAL REPRESENTATIONS OF HUMAN SPEECH CORTEX

Friday, November 10, 8:30 – 9:30 am
Chesapeake Ballroom

Chair: Lorraine Tyler, University of Cambridge

Our work seeks to understand the representations encoded by neural populations in the human speech cortex. In this presentation, I will cover new discoveries on speech sound encoding in the superior temporal plane/gyrus for speech perception, and vocal tract movement encoding in the ventral sensorimotor cortex for speech production. These findings advance new, highly-detailed models of functional organization (maps) of speech cortex, but more importantly, move us closer to an algorithmic understanding of speech-related cortical computations.

Save The Date
SNL 2018
August 16–18, 2018
Québec City, Canada
Opening Night Reception

Wednesday, November 8, 7:00 – 10:30 pm
National Aquarium

SNL invites you to our Opening Night Reception on Wednesday, November 8, 7:00 pm at the world-renowned National Aquarium, just steps away from this year’s meeting venue. Join your colleagues for an elegant evening of food, drinks and stimulating conversation against the backdrop of a spectacular aquatic wonderland.

The National Aquarium is widely considered to be one of the world’s greatest aquaria. Its mission is to inspire conservation of the world’s aquatic treasures. With breathtaking views of the Baltimore Inner Harbor and five levels of award-winning exhibits, the reception at the National Aquarium promises to be a once-in-a-lifetime experience.

Don’t miss this occasion to experience one of the world’s greatest aquariums and an opportunity to socialize with colleagues and friends before the meeting commences.

REFLECTING ON DOLPHIN COMMUNICATION & COGNITION

4:30 - 5:30 pm, Chesapeake Ballroom

Speaker: Diana Reiss
Chair: Clara D. Martin, Basque Center on Cognition, Brain and Language (BCBL), Spain

Diana Reiss is a cognitive psychologist, a marine mammal scientist, and a professor in the Department of Psychology at Hunter College and the Animal Behavior and Comparative Psychology Doctoral program at The Graduate Center, CUNY. Her research focuses on dolphin cognition and communication, comparative animal cognition, and the evolution of intelligence.

CHILDHCARE AT SNL

Thanks to generous funding from the National Institutes of Health, SNL is pleased to offer free onsite childcare as part of the 2017 meeting! Back by popular demand, childcare will allow you to enjoy time with colleagues, while the little ones create their own fun memories in Baltimore.

This year, we have contracted with A Helping Hand, an event childcare service. Activities will include age appropriate arts and crafts, educational activities, interactive games, skits, dancing, and much more! All A Helping Hand staff are Infant and Child CPR certified, First Aid certified, background checked, and trained to care for children from newborn and up.

Childcare will be offered free of charge for children 0-12 years of age. Space is limited and will be filled on a first-come, first-served basis. Chidcare is in the Potomac Room on the third floor of the Sheraton Inner Harbor Hotel.

To reserve a spot, please see the Registration Desk in the Chesapeake Gallery on the third floor of the Sheraton Inner Harbor Hotel.

Childcare Schedule

Wednesday, November 8, 8:15 am – 6:15 pm
Thursday, November 9, 7:45 am – 7:45 pm
Friday, November 10, 7:45 am – 2:15 pm
Society for the Neurobiology of Language 11

Invited Symposium

Computational and quantitative methods in understanding the neurobiology of language

Thursday, November 9, 1:30 – 3:30 pm, Chesapeake Ballroom

Speakers: Leila Wehbe, University of California, Berkeley
Odette Scharenborg, Radboud University Nijmegen
Barry Devereux, Queen’s University, Belfast and University of Cambridge
John Hale, Cornell University, New York
Chair: Lorraine Tyler, University of Cambridge

Modern methods in computational and quantitative linguistics incorporate a wealth of data on language, from statistical information about the acoustic and phonological regularities of speech and syntactic structure, to distributed models of word semantics and utterance meaning. An emerging area of interest is the integration of computational linguistics, big data, computational modelling and neuroimaging methods to study the neurobiology of language. This approach is attractive because it allows theoretical claims about different properties of language function to be explicitly formulated and quantified, using statistical data about specific linguistic phenomena derived from the linguistic environment.

In this symposium, the 4 speakers will discuss their perspective on how interdisciplinary approaches that combine computational and data-driven methods with cognitive theory provide new opportunities for understanding language and the brain.

MODELING BRAIN RESPONSES TO NATURAL LANGUAGE STIMULI

Leila Wehbe works on studying language representations in the brain when subjects engage in naturalistic language tasks. She uses functional neuroimaging and natural language processing and machine learning tools to build predictive models of brain activity as a function of the stimulus language features. She completed her PhD in the Mitchell Lab in Carnegie Mellon University where she focused on modeling the different processes engaged in natural reading.

Abstract

Due to the complexity of language processing, most neurobiology-of-language studies focus on answering a specific hypothesis by using highly controlled stimuli. While controlled experiments are often seen as hallmarks of good science, the natural interdependence of language properties such as syntax and semantics makes it nearly impossible to vary only one of them in a controlled experiment. As a result, carefully handcrafted stimuli either fail to be “controls”, as they unintentionally vary many parameters simultaneously, or they can be highly artificial and run the risk of not generalizing beyond the experimental setting. For studying language, we argue that naturalistic experiments along with predictive modeling provide a promising alternative to the controlled approach. These studies sample the stimulus space broadly and then learn the relationship between stimulus features and brain activity. In this talk, I will outline some details of this approach using a specific example in which subjects read a complex natural text while their functional neuroimaging data was acquired. Different natural language processing tools were used to annotate the semantic, syntactic and narrative features of the stimulus text. Encoding models were then fit to predict brain activity as a function of the different language features. The performance of these models allows us to formulate and test hypotheses about the function of different brain regions. I will describe the spatio-temporal functional brain language maps we built using this approach. I will also present a new online engine (boldpredictions.gallantlab.org) we have built which allows researchers to compare the results of our naturalistic language experiments with more traditional controlled experiments.
**INSIGHTS INTO THE COGNITIVE PROCESSES UNDERLYING SPEECH PROCESSING IN THE PRESENCE OF BACKGROUND NOISE**

Odette Scharenborg is an associate professor at the Centre for Language Studies, Radboud University Nijmegen, The Netherlands, and a research fellow at the Donders Institute for Brain, Cognition and Behaviour at the same university. Her research interests focus on narrowing the gap between automatic and human spoken-word recognition. She did a PhD, on the same topic, with Lou Boves and Anne Cutler in Nijmegen, the Netherlands. Odette is interested in the question where the difference between human and machine recognition performance originates, and whether it is possible to narrow this difference, and investigates these questions using a combination of computational modelling and behavioural experimentation. In 2008, she co-organised the Interspeech 2008 Consonant Challenge, which aimed at promoting comparisons of human and machine speech recognition in noise in order to investigate where the human advantage in word recognition originates. She was one of the initiators of the EU Marie Curie Initial Training Network “Investigating Speech Processing In Realistic Environments” (INSPIRE, 2012-2015). In 2017, she will be co-organising a 6-weeks Frederick Jelinek Memorial Summer Workshop on Speech and Language Technology on the topic of the automatic discovery of grounded linguistic units for languages without orthography. She is currently PI on a 5-year (Vidi) project funded by the Netherlands Organisation for Scientific Research on the topic of non-native spoken-word recognition in noise.

**Abstract**

Most people will have noticed that communication in the presence of background noise is more difficult in a non-native than in the native language – even for those who have a high proficiency in the non-native language involved. Why is that? I will present results of several behavioural experiments and computational modelling studies investigating the effect of background noise on native and non-native spoken-word recognition, in particular, on the underlying processes of multiple word activation and the competition between candidate words. These results show that the effects of background noise on spoken-word recognition are remarkably similar in native and non-native listening. The presence of noise influences both the multiple activation and competition processes: It reduces the phonological match between the input and stored words and consequently increases the set of candidate words considered for recognition during spoken-word recognition resulting in delayed and elongated phonological competition. Moreover, both native and non-native listeners flexibly adjust their reliance on word-initial and word-final information when a change in listening conditions demands it.

**THE SPATIO-TEMPORAL DYNAMICS OF LANGUAGE COMPREHENSION: COMBINING COMPUTATIONAL LINGUISTICS AND RSA WITH MEG DATA**

Barry Devereux received a B.Sc. in Mathematics and Computer Science and a Ph.D. in Cognitive Science from University College Dublin, Ireland, before going on to do postdoctoral training in cognitive neuroscience and the neurobiology of language at the Centre for Speech, Language and the Brain, Dept. of Psychology, University of Cambridge. His work investigates spoken language comprehension and object processing from a multidisciplinary perspective, combining computational modelling of language and object processing with cognitive theory and neuroimaging. From July 2017, he is an assistant professor in Cognitive Signal Processing at Queen’s University, Belfast.

**Abstract**

Spoken language comprehension involves cortical systems supporting several complex and dynamic processes, from acoustic analysis and word recognition, to building syntactic structure and representing sentence meaning. Recent advances in computational and quantitative linguistics have seen an explosion in the availability of language data and increasingly sophisticated language models relevant to these processes. In a series of MEG experiments where participants listened to natural sentences, we investigate how lexically-driven expectations and syntactic structure-building interact over time by analysing how corpus-derived statistical models of lexico-syntactic information influence the multivariate spatiotemporal dynamics of incremental language comprehension in the brain. The results of these experiments demonstrate how quantitative measures of specific linguistic properties can yield a detailed picture of processes of integration during sentence comprehension in the brain.
WORD-BY-WORD NEURO-COMPUTATIONAL MODELS OF HUMAN SENTENCE PROCESSING

John Hale serves as Associate Professor of Linguistics at Cornell University. He received his PhD from Johns Hopkins University in 2003 under the direction of Paul Smolensky. His early work on information-theoretical complexity metrics was honored with awards such as the EW Beth dissertation prize. He is the author of Automaton Theories of Human Sentence Comprehension and principal investigator in the NSF-ANR joint project “Neuro-computational models of natural language” in collaboration with Jonathan R. Brennan, Christophe Pallier and Éric de La Clergerie. For more information, browse https://courses.cit.cornell.edu/jth99/.

Abstract

The “mapping problem” (Poeppel 2012) between language structures and brain mechanisms stands in the way of a truly computational neurobiology of language. This talk offers a candidate solution, rooted in time-series predictions about comprehension effort. Such predictions are derived by traversing representations such as syntactic phrase structure trees in the manner of an incremental parsing algorithm. The resulting values serve to predict, word-by-word, neural signals such as BOLD collected during naturalistic listening. Using multiple regression, one can model incremental comprehension at many different levels of structure simultaneously. The results point to a spatial division of labor, isolating specific types of comprehension work to specific anatomical regions.

THURSDAY EVENING SOCIAL HOUR

Thursday, November 9, 6:15 – 7:30 pm, Harborview and Loch Raven Ballrooms

Join your colleagues for Social Hour during the Thursday evening poster session. Your first drink is on us! You’ll find a drink ticket in the back of your badge.
Abstract Merit Awards

The Society for the Neurobiology of Language Abstract Merit Awards are given to the students and postdocs who submitted the highest ranked abstracts.

**Graduate Student Merit Award Winners**

**Esti Blanco-Elorrieta**, New York University, USA  
**Kiefer Forseth**, University of Texas Medical School at Houston, USA

**Post Doctoral Merit Award Winners**

**Claudia Männel**, Max Planck Institute for Human Cognitive and Brain Sciences, University of Leipzig, Germany  
**Dorian Pustina**, University of Pennsylvania, USA

Travel Awards

This year, the Society for the Neurobiology of Language granted 24 Travel Awards. The awards, funded by the National Institutes of Health (NIH), help to cover travel and registration costs for the 2017 Society for the Neurobiology of Language Meeting in Baltimore.

Through the travel awards, SNL aims to encourage and foster the participation of junior scientists who are members of underrepresented groups.

The 2017 Travel Award winners are:

**Jane Aristia**, University of Lille, France  
**Jose Ceballos**, University of Washington, USA  
**Kulpreet Cheema**, University of Alberta, Canada  
**Linda Drijvers**, Donders Institute, Radboud University, The Netherlands  
**Giulia Elli**, Johns Hopkins University, USA  
**Danielle Fahey**, University of South Carolina, USA  
**Xiaoping Fang**, University of Pittsburgh, USA  
**Emilia Fló Rama**, Universidad de la República, Uruguay  
**Rachida Ganga**, Utrecht Institute of Language, The Netherlands  
**Ezequiel Gleichgerrcht**, Medical University of South Carolina, USA  
**Jixing Li**, Cornell University, USA  
**Linda Lönnqvist**, University of Helsinki, Finland  
**Laura Morett**, University of Alabama, USA  
**Emma Nguyen**, University of Connecticut, USA  
**Andrea Olguín**, University of Cambridge, UK  
**Claudia Peñaloza**, Boston University, USA  
**Eleni Peristeri**, Aristotle University, Greece  
**Yanina Prystauka**, University of Connecticut, USA  
**Rachel Romeo**, Harvard University & MIT, USA  
**Roy Seo**, University of Washington, USA  
**Christine Tseng**, University of California, Berkeley, USA  
**Robert Wiley**, Johns Hopkins University, USA  
**Marina Zhukova**, Saint-Petersburg State University, Russia  
**Naama Zur**, University of Haifa, Israel
Early Career Awards

The Society for the Neurobiology of Language is pleased to announce the 2017 Early Career Award winners: Carolyn McGettigan and Jason Yeatman.

Thursday, November 9, 11:15 am - 12:00 pm, Chesapeake Ballroom
Chair: Jonathan Peelle, Washington University in St. Louis

Carolina McGettigan
Professor
Department of Psychology, Royal Holloway,
University of London

Carolyn McGettigan started her career at Cambridge where she gained a first class honours degree in Natural Sciences in 2003 followed by a PhD from UCL in 2007. She then completed postdoctoral work in London and Leipzig before taking up a lectureship in 2012 at Royal Holloway, University of London, where she was promoted to Professor in 2017. Dr. McGettigan’s early research investigated the comprehension of degraded speech, and the wider role of the human voice in communication (including the perception of laughter, and the modulation of identity in speech production). Her current research focuses on the neurobiology of the human voice as a highly complex and flexible social signal, with which listeners can convey and perceive linguistic, emotional and indexical information. Dr. McGettigan has published 44 articles and chapters with an H index of 13 (WoS), and has won a number of awards, attesting to her cutting-edge research in the neurobiology of language. Moreover, she has an exceptional record as a science communicator and in public engagement.

STUDYING THE SOCIAL LIFE OF VOICES

While it is readily accepted that the human face is a social stimulus, the wider cognitive neuroscience community tends to see the voice as a medium for language. In this talk, I will describe how my research programme attempts to forefront the para-linguistic and non-verbal roles of the voice, both in its production and perception. This will include examples from my recent studies of vocal flexibility in speech production, in which we have used functional MRI and vocal tract MR imaging to probe the processes of imitation. I will also describe the insights we have gained from studies of vocalizations such as laughter and crying. Throughout, I will highlight some of the people and experiences that have most influenced my career so far.

Jason Yeatman
Assistant Professor
Institute for Learning & Brain Sciences (I-LABS),
Department of Speech & Hearing Sciences,
University of Washington

Jason Yeatman received his Ph.D. in 2014 from Stanford University, and after a one-year appointment as a research scientist at the Institute for Learning and Brain Sciences at the University of Washington (UW), Seattle, Dr. Yeatman was appointed Assistant Professor in the Department of Speech and Hearing Sciences at UW. Dr. Yeatman’s research on white matter and reading development has led to novel models of the biological mechanisms that drive changes in the white matter and to a better understanding of the relationship between principles of brain development and learning to read. Additionally, he has been at the forefront of developing new MRI methods for quantifying white matter tissue properties and algorithms for analyzing these data. Three years after having received his Ph.D., he has co-authored 33 peer reviewed journal articles (10 as lead author). Dr. Yeatman has clearly distinguished himself in productivity and creativity early in his career.

WHITE MATTER PLASTICITY AND LEARNING TO READ

Reading instruction prompts the emergence of neural circuits that are specialized for rapidly translating printed symbols into sound and meaning. Understanding how these circuits differ in children with dyslexia, and change with learning, is an important scientific challenge that holds practical implications for education. In this talk I will present new data linking changes in the white matter to the process of learning to read. Combining intensive reading intervention programs, with longitudinal MRI measurements, we find that altering a child’s educational environment can dramatically change white matter circuits and behavior over the timescale of weeks.
Attendee Resources

ATM
An ATM is located in the main lobby of the hotel.

Abstracts
The full text of poster, slide, and symposium abstracts can be found in the SNL 2017 Abstracts book, which can be downloaded in PDF format from www.neurolang.org.

Audio-Visual
An LCD projector (e.g., for PowerPoint presentations) will be provided in the ballroom; however, computers are NOT provided. Presenters must bring their own computers and set them up BEFORE the start of the session in which they are presenting. The stage is set with two lecterns which can be used for alternating between speakers. A switch box is provided to switch the projector display between lecterns. To avoid setup problems affecting your presentation, presenters are strongly encouraged to arrive at their scheduled room a minimum of 30 minutes before their talk.

Baggage Check
A secure space will be allocated for luggage. Please contact a bellman for assistance.

Certificate of Attendance
A Certificate of Attendance is included on the back of your official meeting badge. If you require any amendments, we will be happy to email/mail a copy after the meeting. Please contact us at info@neurolang.org.

Childcare
Thanks to the funding from the National Institutes of Health, SNL is pleased to be able to offer onsite childcare at this year’s meeting in Baltimore. See “Childcare at SNL” on page 10.

Contact Us
To contact us onsite, visit the Registration Desk, or send an email to info@neurolang.org. We will respond to your email at our earliest opportunity.

Copying, Printing and Office Supplies
A Business Center is located in the hotel lobby. Boarding passes and up to five pages may be printed free of charge.

Disclaimer
The SNL Program Committee reserves the right to make changes to the meeting program at any time without notice. This program was correct at the time of printing.

Food Service
Complimentary food and beverage service is available to all registered attendees at the following times:

Wednesday
Continental Breakfast, 8:15 – 9:00 am Harborview Gallery
Coffee Break, 10:00 – 10:30 am Harborview Gallery
Afternoon Coffee, 2:30 – 3:00 pm Harborview Gallery

Thursday
Continental Breakfast, 7:30 – 8:15 am Harborview Gallery
Coffee Break, 9:30 – 10:00 am Harborview Gallery
Buffet Lunch, 12:00 – 1:30 pm Various locations on the 2nd and 3rd floors
Afternoon Coffee, 3:30 – 4:00 pm Harborview Gallery

Friday
Continental Breakfast, 7:30 – 8:15 am Harborview Gallery
Coffee Break, 9:30 – 10:00 am Harborview Gallery

Future Meetings
SNL 2018 will be held August 16-18, 2018 in Québec City, Canada.

Guest Policy
Guests are allowed complimentary entry into one SNL session (for the purposes of seeing the poster or slide of the person they are a guest of). Guests are welcome to attend the Opening Night Reception.

Guests must register at the SNL Registration Desk upon arrival and must be accompanied by the SNL attendee. Guests must wear a badge for entrance into the session they are attending and for social events as well.

Internet Access
Internet access is complimentary in the guest rooms at the Sheraton Inner Harbor Hotel. Wifi in the meeting space is also available. See the Registration Desk for the login instructions.
Lost & Found

Please check with the SNL Registration Desk for lost and found items.

Meeting Rooms

All general sessions (Keynotes, Invited Symposium, Slides, and Poster Slams) are held in Chesapeake Ballroom.

Messages

A bulletin board will be available for messages and job postings near the SNL Registration Desk.

Mobile Phones

Attendees are asked to silence their mobile phones when in sessions.

Name Badges

For security purposes, all attendees must wear their name badges to all sessions and social functions. Entrance into sessions is restricted to registered attendees only. If you misplace your name badge, please go to the Registration Desk for a replacement.

Parking

There is covered parking available at the Sheraton Inner Harbor Hotel. SNL attendees will receive the discounted price of $18.00 per day for self parking.

Phone Charging Station

For your convenience, a phone charging station is located at the Registration Desk.

Poster Sessions

Posters are located in the Harborview and Loch Raven Ballrooms. See “Poster Schedule” on page 23. 
Poster Slam Sessions are located in the Chesapeake Ballroom. See “Poster Slam Schedule” on page 20.

Registration

The SNL Registration Desk is located in Chesapeake Gallery on the third floor of the Sheraton Inner Harbor Hotel. The Registration Desk hours are:

Wednesday, November 8, 7:00 am – 5:30 pm
Thursday, November 9, 7:00 am – 7:00 pm
Friday, November 10, 7:30 am – 1:40 pm

Social Events

Opening Night Reception at the National Aquarium

Join your colleagues on Wednesday, November 8 at 7:00 pm for an elegant evening of food, drinks and stimulating conversation against the backdrop of the world-renowned National Aquarium. The National Aquarium is a short, picturesque stroll from the Sheraton Inner Harbor Hotel. Directions to the National Aquarium are available at the VSS Registration Desk. For guests needing extra assistance getting to the event, please contact the VSS Registration Desk.

Thursday Evening Social Hour

Attendees are invited to enjoy a special Social Hour in the Harborview and Loch Raven Ballrooms during the Thursday evening poster session. Your first drink is on us! You’ll find a drink ticket in the back of your badge.

Social Media

Join the SNL discussion on Twitter!
• Follow @SNLmtg for meeting information
• Follow SNL colleagues (like @kemmorey1)
• Tag meeting-related tweets with #snlmtg17
• Join in the conversation by searching for tweets tagged #snlmtg17

Smoking

Smoking, including the use of e-cigarettes, is not permitted inside the Sheraton Inner Harbor Hotel. Three designated outdoor smoking areas are available. These are located outside the main entrance to the hotel, on the second floor skywalk, and on the third floor terrace.

Speakers

Please ensure that you are available at least thirty minutes before the start of the session. See “Audio-Visual” on page 16.
Sponsors and Exhibitors

The Society for the Neurobiology of Language thanks the following companies for their support of our 2017 meeting. Please visit our exhibitors in the Chesapeake Gallery.

**Brain & Language (Elsevier)** Gold Sponsor and Exhibitor

An interdisciplinary journal, *Brain & Language* focuses on the neurobiological mechanisms underlying human language. The journal covers the large variety of modern techniques in cognitive neuroscience, including lesion-based approaches as well as functional and structural brain imaging, electrophysiology, cellular and molecular neurobiology, genetics, and computational modeling. All articles must relate to human language and be relevant to an elaboration of its neurobiological basis. Along with an emphasis on neurobiology, journal articles are expected to take into account relevant data and theoretical perspectives from psychology and linguistics.

**Language, Cognition and Neuroscience (Routledge)** Silver Sponsor

*Language, Cognition and Neuroscience* publishes high-quality papers taking an interdisciplinary approach to the study of brain and language, and promotes studies that integrate cognitive theoretical accounts of language and its neural bases. The Journal publishes both high quality, theoretically-motivated cognitive behavioural studies of language function, and papers which integrate cognitive theoretical accounts of language with its neurobiological foundations.

**Rogue Research Inc.** Silver Sponsor and Exhibitor

Rogue Research develops the Brainsight® family of products, including Brainsight TMS. Our unique Brainsight NIRs system allows acquisition during TMS and simultaneous fNIRS along with EEG, fMRI or MEG. Brainsight cTMS provides unequalled control of the TMS pulse parameters. Brainsight Vet and surgical robot extends navigation to small animal surgery.

**ANT-NA** Exhibitor

ANT-NA provides complete solutions for clinical neurodiagnostics and neuroscience research.

**Brain Vision, LLC** Exhibitor

Brain Vision is the leader in innovation for EEG research. We offer full integration of EEG with many leading eye tracking and audiometry systems. We provide flexible and robust solutions for high density, active EEG, wireless EEG, dry EEG, high-end ABR integration, and a wide range of bio-sensors like GSR, EKG, Respiration, and EMG. We integrate language research paradigms and EEG with other modalities such as fMRI, TMS, fNIRS, tES/HDtES and MEG. If you want to hear how our research solutions can improve your language paradigms, please talk to us. Let us help you push the edge of what is possible.

**Cortech Solutions, Inc.** Exhibitor

Cortech Solutions is your source for EEG, NIRS, fMRI, TMS, and other functional neuroimaging tools. We are your sales and support contact in the US for leading brands from around the world, including Biosemi ActiveTwo EEG / ERP, Cambridge Research Systems vision science tools, including the BOLDscreen fMRI compatible display and LiveTrack eye-tracking, Mag and More PowerMAG TMS, Artinis Oxycon NIRS, and more. Leave the technology to us – you focus on the science!

**Rogue Resolutions** Exhibitor

At Rogue Resolutions, we specialize in bringing together and combining technologies, techniques and services for neuroscience and in doing so, help our customers to conduct robust, credible, replicable and cutting edge research. We achieve this by offering state of the art equipment combined with unrivalled service and support from our experienced team of product and application specialists.
Slide Sessions

Slide Session A

Wednesday, November 8, 1:10 – 2:30 pm
Chesapeake Ballroom
Chair: Karen Emmorey, San Diego State University
Speakers: Kiefer Forseth, Neal Fox, Esti Blanco-Elorrieta, Lotte Schoot

1:10 pm
A1  Predictive Neural Instruments of Early Auditory Cortex
   Kiefer Forseth¹, Gregory Hickok³, Nitin Tandon¹,²; ¹Vivan L Smith Department of Neurosurgery, University of Texas Medical School at Houston, ²Memorial Hermann Hospital, Texas Medical Center, Houston, ³Department of Cognitive Sciences, University of California, Irvine

1:30 pm
A2  Transforming continuous temporal cues to a categorical spatial code in human speech cortex
   Neal Fox¹, Matthias Sjerps¹,²,³, Matthew Leonard¹, Edward Chang¹; ¹University of California, San Francisco, ²University of California, Berkeley, ³Radbound University

1:50 pm
A3  Turning a language “off” is cognitively effortful, but turning a language “on” is not: MEG evidence from bimodal language switching
   Esti Blanco-Elorrieta¹,⁴, Karen Emmorey²; ¹Department of Psychology, New York University, ²School of Speech, Language and Hearing Sciences, San Diego State University, ³Departments of Linguistics, New York University, ⁴NYUAD Institute, Abu Dhabi, United Arab Emirates

2:10 pm
A4  Spatiotemporal dissociations for fulfilling and violating predictions at multiple levels of representation: A multimodal approach
   Lotte Schoot¹,², Lin Wang¹,², Nate Delaney-Busch¹,², Eddie Wlotko¹,², Edward Alexander¹,², Minjae Kim¹,², Lena Warnke¹,², Arim Choi Perrachione¹,², Sheraz Kaul¹, Matti Hamalainen¹, Gina Kuperberg¹,²; ¹Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, ²Department of Psychology, Tufts University, ³Moss Rehabilitation Research Institute

Slide Session B

Friday, November 10, 11:20 am – 12:40 pm
Chesapeake Ballroom
Chair: Michal Ben-Shachar, Bar Ilan University
Speakers: Laurel Buxbaum, Benjamin Gagl, Thomas M.H. Hope, Elissa L. Newport

11:20 am
B1  The role of conflict and feedback in action error monitoring and correction: evidence from conduite d’approche
   Laurel Buxbaum¹, Cortney Howard⁴, Tamer Soliman⁴, Louisa Smith⁴; ¹Moss Rehabilitation Research Institute, ²University of Colorado, Boulder

11:40 am
B2  Visual word recognition relies on a sensory prediction error signal
   Benjamin Gagl¹,², Jona Sassenhagen¹, Sophia Haan¹, Fabio Richlan³, Christian J. Fiebach¹,²; ¹Department of Psychology, Goethe University Frankfurt, ²Center for Individual Development and Adaptive Education of Children at Risk (IDeA), Frankfurt am Main, Germany, ³Centre for Cognitive Neuroscience, University of Salzburg

12:00 pm
B3  Predicting language outcomes after stroke: is structural connectomics necessary?
   Thomas M.H. Hope¹, Alex P. Leff¹, Cathy J. Price¹; ¹University College London

12:20 pm
B4  Developmental plasticity and language reorganization after perinatal stroke
   Elissa L. Newport¹,², Barbara Landau¹, Anna Greenwald¹,², Catherine E. Chambers¹, Peter E. Turkeltaub¹,², Alexander W. Dromerick¹,², Madison M. Berl³, Jessica Carpenter³, William D. Gaillard³; ¹Georgetown University Medical Center, ²MedStar National Rehabilitation Network, ³Johns Hopkins University, ⁴Children’s National Medical Network
Poster Slam Schedule

A Poster Slam is a new type of event that provides a fast-paced and entertaining showcase for posters. Sixty posters, twelve from each poster session, have been selected to present a one-minute, one-slide overview of their poster. A Poster Slam session will take place before each poster session. Participants will present their Slam on the main stage in the Chesapeake Ballroom. Presenters will highlight an exciting or provocative finding, highlight how their data or technique addresses current issues in the Neurobiology of Language, or challenges current dogma.

### Session Date Time Room
Session A Wednesday, November 8 10:05 – 10:20 am Chesapeake Ballroom
Session B Wednesday, November 8 2:35 – 2:50 pm Chesapeake Ballroom
Session C Thursday, November 9 9:35 – 9:50 am Chesapeake Ballroom
Session D Thursday, November 9 5:50 – 6:05 pm Chesapeake Ballroom
Session E Friday, November 10 9:35 – 9:50 am Chesapeake Ballroom

Information for Presenters

SNL staff will be present in the main auditorium for an Information Session during which we will explain logistics and information about your Poster Slam session. We will provide you with details about where to line up, use of the microphone, timing, and so on. It is highly recommended that you attend your Information Session.

You must arrive no later than your Speaker Arrival Time shown below. This is 15 minutes prior to your session start time. Proceed to the stage and identify yourself. SNL staff will line you up and provide last minute instructions as necessary.

### Session Date Information Session Speaker Arrival Time
Session A Wednesday, November 8 7:15-7:45 am 9:50 am
Session B Wednesday, November 8 12:00-12:30 pm 2:20 pm
Session C Thursday, November 9 7:15-7:45 am 9:20 am
Session D Thursday, November 9 12:00-12:30 pm 5:35 pm
Session E Friday, November 10 7:15-7:45 am 9:20 am

Poster Slam Sessions

For poster details, see “Poster Sessions” on page 25.

**Poster Slam Session A**

Wednesday, November 8, 10:05 – 10:20 am
Chesapeake Ballroom

**Chair:** David Corina, University of California, Davis

- **A9** Auditory attention and predictive processing co-modulate speech comprehension in middle-aged adults  
  **Sarah Tune**

- **A10** Semantic context reverses the polarity of P200 effects during word planning  
  **Daniel Kleinman**

- **A11** Transcranial 10-Hz stimulation but also eye closure modulate auditory attention  
  **Malte Wöstmann**

- **A23** Impact of aging and aphasia on incremental sentence production: eye-tracking while speaking  
  **Jiyeon Lee**

- **A34** White Matter Connectivity and Lexical Access in Aphasia  
  **William Hula**

- **A43** Dissociating the roles of ventral versus dorsal pathways in language production: an awake language mapping study  
  **Stephanie Ries**

- **A44** Different contextual effects modulate the representation of word meaning in the human brain  
  **Christine Tseng**

- **A54** Gliosis+ for continuous lesion quantification in VLSM to map brain-language relationships  
  **Lisa Krishnamurthy**

- **A67** Spontaneous fluctuations of dorsal and ventral reading networks in bilinguals  
  **Jaione Arnaez-Telleria**

- **A69** Processing of contrastive pitch accent in native and L2 English speakers  
  **Aleuna Lee**

- **A73** Stress-timing via Oscillatory Phase-locking in Naturalistic Language  
  **Phillip M. Alday**

- **A77** A tDCS study of the implicit learning of foreign cognate and non-cognate words  
  **Joshua Payne**
**Poster Slam Session B**

**Wednesday, November 8, 2:35 – 2:50 pm**

**Chesapeake Ballroom**

*Chair: Clara D. Martin, Basque Center on Cognition, Brain and Language (BCBL), Spain*

**B12** Mental Self-Government of Brain’s Multi-Leveled Reading and Writing Systems: Before and After Multi-Leveled Language Instruction  
*Todd Richards*

**B24** Investigating the neural mechanisms of syntactic expectations  
*Leon O. H. Kroczek*

**B33** The neural representation of concrete and abstract verb processing in aphasia  
*Reem S. W. Alyahya*

**B34** Left hemisphere frontotemporal effective connectivity during semantic feature judgments: Differences between patients with aphasia and healthy controls  
*Erin Meier*

**B36** Changes in neural activity during a semantic verification task as a result of treatment in persons with aphasia  
*Shreya Chaturvedi*

**B50** Representations of amplitude modulations in auditory onsets, ramp tones, and speech in the human superior temporal gyrus  
*Yulia Oganian*

**B58** Enhancing Speech Motor Learning With Noninvasive Brain Stimulation  
*Adam Buchwald*

**B59** Orthographic priming for tactile Braille alphabet in the ventral Occipito-Temporal cortex of congenitally blind  
*Katarzyna Rączy*

**B66** Areas predicting tDCS effects in primary progressive aphasia (PPA)  
*Kyrana Tsapkini*

**B69** Ventral occipito-temporal responses to written texts and fingerspelling in congenitally deaf adults  
*Tae Twomey*

**B73** The visual representation of lipread words in posterior temporal cortex studied using an fMRI-rapid adaptation paradigm, functional localizers, and behavior  
*Lynne E. Bernstein*

**B75** Inferior frontal gyrus activation is modulated by phonetic competition: An fMRI study of clear and conversational speech  
*Xin Xie*


**Poster Slam Session C**

**Thursday, November 9, 9:35 – 9:50 am**

**Chesapeake Ballroom**

*Chair: Matt Davis, MRC Cognition and Brain Sciences Unit, Cambridge*

**C11** The time-course of statistical learning in patients with left hemisphere stroke  
*Kathryn D. Schuler*

**C13** The cortical organization of syntactic processing in American Sign Language: Evidence from a parametric manipulation of constituent structure in fMRI and MEG  
*William Matchin*

**C24** Speeded grammatical processing in Tourette syndrome  
*Cristina Dye*

**C32** Morpho-lexical Recognition Ability and Related Brain Regions in Individuals with Mild Cognitive Impairment, Alzheimer’s Dementia, and Cognitively Normal Elderly  
*JungMoon Hyun*

**C34** Mapping Both Lesion and Behaviour Structures in Stroke Aphasia  
*Ying Zhao*

**C41** Language and multiple demand regions jointly predict individual differences in sentence comprehension: Evidence from a network approach  
*Qiuhai Yue*

**C42** Extracting Single Word Voxel Patterns from Self-Paced Reading using Simultaneous Eye-Tracking and Multiband fMRI  
*Benjamin Schloss*

**C48** Cognitive Control Mediates Age-Related Reductions in Adaptation to Speaker-Specific Predictability  
*Shruti Dave*

**C57** The intensity of sensory-perceptual features regulates conceptual processing in the anterior temporal lobe’s semantic hub  
*Jet M. J. Vonk*

**C66** Speech processing and plasticity in the right hemisphere predict real-world foreign language learning in adults  
*Zhenghan Qi*

**C68** The language network of polyglots  
*Olessia Jouravlev*

**C76** Cortical entrainment depends on temporal predictability, not periodicity  
*Geoffrey Brookshire*
Poster Slam Session D
Thursday, November 9, 5:50 – 6:05 pm
Chesapeake Ballroom
Chair: James Magnuson, University of Connecticut

D12 Decoding the P600: late ERP positivities to syntactic mismatch share neural patterns with nonlinguistic oddballs, but not face or semantic manipulation patterns  Jona Sassenhagen

D20 Frontal Shift of the Imageability Effect on N400 in Elders  Chih-Ting Chang

D21 Developmental change in cerebellar white matter pathways is associated with reading proficiency in children  Lauren R. Borchers

D22 Can microstructural properties of cerebellar pathways improve prediction of reading skills in children?  Lisa Bruckert

D23 Language pathway development requires childhood language acquisition: Effects of sensorimotor modality and language deprivation on brain connectivity for language  Qi Cheng

D32 Using background connectivity to index recovery of function in acquired language impairments  Yuan Tao

D49 The fate of the unexpected: Downstream repetition effects for prediction violations  Melinh K. Lai

D51 Regions that preferentially respond to verbs or nouns are more sensitive to semantic differences among words in their preferred grammatical class: An MVPA fMRI study.  Giulia V. Elli

D61 Cross-linguistic differences in MMN asymmetry: Voicing underspecification in Japanese  Yasuaki Shinohara

D62 Tracking phoneme processing during continuous speech perception with MEG  Christian Brodbeck

D74 Manual directional gestures facilitate learning of Mandarin tones  Anna Zhen

D76 Investigating voice imitation using fMRI and real-time anatomical MRI of the vocal tract  Carolyn McGettigan

Poster Slam Session E
Friday, November 10, 9:35 – 9:50 am
Chesapeake Ballroom
Chair: Patti Adank, University College London

E9 Language exposure is associated with the cortical thickness of young, low-SES children  Rachel Romeo

E10 Becoming a balanced, proficient bilingual: Predictions from age of acquisition & genetic background  Kelly A. Vaughn

E20 Functional subspecialization of Broca’s area in the controlled selection of verbal and nonverbal representations and fluent sentence production.  Denise Y. Harvey

E21 Lower axon density in residual temporal white matter is related to semantic paraphasia prevalence  Emilie McKinnon

E23 Interventions for Primary Progressive Aphasia: A scoping review  Yara Inuy

E24 Decoding the cortical sensitivity of spoken acoustic variability in persons with aphasia  Caroline Niziolek

E28 Robust Electrophysiological Indices of Semantic Surprisal during Natural, Ongoing Speech Processing.  Michael Broderick

E34 Electrophysiological Evidence for Memory Retrieval during Referential Processing  Hossein Karini

E52 Investigating brain mechanisms of natural reading by combining EEG, MEG and eye-tracking  Olaf Hauk

E56 Multimodal MRI converging evidence on the role of ventro-occipito-temporal cortex in reading: Integrating opposing views  Garikoitz Lerma-Usabiaga

E78 Phase entrainment of neural oscillations with tACS causally modulates fMRI responses to intelligible speech  Benedikt Zoefel

E80 Enhanced accuracy of lesion to symptom mapping with multivariate sparse canonical correlations  Dorian Pustina
# Poster Schedule

Poster sessions are scheduled on Wednesday, November 8 through Friday, November 10. Poster sessions are one hour and fifteen minutes long. Presenting authors are expected to be present the entire time. Posters are located in Harborview and Loch Raven Ballrooms. You may post your materials on the board assigned to you starting at the scheduled “Set-up Begins” time shown below. Please note that any posters not removed by “Teardown Complete” time will be discarded. Do not leave personal items in the poster room.

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>Posters</th>
<th>Topics</th>
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| **Poster Session A**  
Wednesday, November 8  
10:30 - 11:45 am  
*Harborview and Loch Raven Ballrooms* | A1, A46 - A47, A57  
A2 - A11  
A12 - A13  
A14 - A22  
A23, A35, A56  
A24 - A34, A53  
A36 - A44  
A45, A69  
A48 - A52, A54  
A58  
A59 - A68  
A70 - A73  
A75 - A78 | Computational Approaches  
Control, Selection, and Executive Processes  
Grammar: Morphology  
Grammar: Syntax  
Language Therapy  
Language Disorders  
Meaning: Lexical Semantics  
Meaning: Prosody, Social and Emotional Processes  
Methods  
Perception: Orthographic and Other Visual Processes  
Multilingualism  
Perception: Auditory  
Phonology and Phonological Working Memory | Setup Begins: 8:00 am  
Teardown Complete: 12:15 pm |
| **Poster Session B**  
Wednesday, November 8  
3:00 - 4:15 pm  
*Harborview and Loch Raven Ballrooms* | B1 - B10  
B11 - B12, B68 - B69  
B13 - B14, B45  
B15 - B24  
B25, B35 - B36, B66  
B26 - B34  
B37 - B44  
B46, B59 - B65  
B47 - B50 | Control, Selection, and Executive Processes  
Writing and Spelling  
Grammar: Morphology  
Grammar: Syntax  
Language Therapy  
Language Disorders  
Meaning: Lexical Semantics  
Perception: Orthographic and Other Visual Processes  
Perception: Auditory  
Phonology and Phonological Working Memory | Setup Begins: 12:30 pm  
Teardown Complete: 4:45 pm |
| **Poster Session C**  
Thursday, November 9  
10:00 - 11:15 am  
*Harborview and Loch Raven Ballrooms* | C1, C14  
C2 - C11  
C13  
C15 - C25  
C26 - C34, C37  
C35, C59  
C36  
C38 - C43  
C44 - C48  
C49 - C57 | Computational Approaches  
Grammar: Syntax  
Signed Language and Gesture  
Language Development  
Language Disorders  
Meaning: Prosody, Social and Emotional Processes  
Writing and Spelling  
Meaning: Combinatorial Semantics  
Meaning: Discourse and Pragmatics  
Meaning: Lexical Semantics  
Grammar: Morphology  
Speech Motor Control and Sensorimotor Integration | Setup Begins: 8:00 am  
Teardown Complete: 3:30 pm |

Society for the Neurobiology of Language
## Poster Session D
**Thursday, November 9**
6:15 – 7:30 pm
*Harborview and Loch Raven Ballrooms*

<table>
<thead>
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<th>D1, D64</th>
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<td>D3 - D13</td>
<td>Grammar: Syntax</td>
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<td>D14, D72</td>
<td>Language Therapy</td>
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<td>Language Development</td>
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<td>D23</td>
<td>Signed Language and Gesture</td>
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<td>D24 - D32</td>
<td>Language Disorders</td>
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<td>D34 - D39</td>
<td>Meaning: Combinatorial Semantics</td>
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<td>D40 - D43</td>
<td>Meaning: Discourse and Pragmatics</td>
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<tr>
<td>D44, D52</td>
<td>Meaning: Prosody, Social and Emotional Processes</td>
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<tr>
<td>D45 - D51</td>
<td>Meaning: Lexical Semantics</td>
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<td>D53</td>
<td>Computational Approaches</td>
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<tr>
<td>D54, D74 - D78</td>
<td>Speech Motor Control and Sensorimotor Integration</td>
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<td>D55 - D63</td>
<td>Perception: Speech Perception and Audiovisual Integration</td>
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<tr>
<td>D65 - D68</td>
<td>Perception: Auditory</td>
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Setup Begins: 3:45 pm
Teardown Complete: 8:00 pm

## Poster Session E
**Friday, November 10**
10:00 – 11:15 am
*Harborview and Loch Raven Ballrooms*

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<td>Language Genetics</td>
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<td>E24, E46, E57, E79</td>
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<td>E31 - E34</td>
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<td>E35, E45</td>
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<td>E36 - E43</td>
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<td>E58 - E67</td>
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<td>Signed Language and Gesture</td>
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<td>E71 - E78</td>
<td>Perception: Speech Perception and Audiovisual Integration</td>
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Setup Begins: 8:00 am
Teardown Complete: 11:45 am

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### NATIONAL SCIENCE FOUNDATION FUNDING

The National Science Foundation funds research related to the neurobiology of language through its Cognitive Neuroscience, Linguistics, Perception-Action-and-Cognition, Developmental Sciences and newly-created Science of Learning program.

During SNL 2017, Program Officers for the Linguistics and Cognitive Neuroscience programs will be on site. Attendees are welcome to contact them in advance to arrange meetings (Dr. William Badecker; wbadecke@nsf.gov; Dr. Uri Hasson; uhasson@nsf.gov).
Poster Sessions

Poster Session A

Wednesday, November 8, 10:30 – 11:45 am, Harborview and Loch Raven Ballrooms

Computational Approaches

A1  Alpha and theta power are sensitive to semantic but not syntactic retrieval interference  Ashley Lewis1, Julie Van Dyke1; 1Haskins Laboratories

Control, Selection, and Executive Processes

A2  Verbal and Nonverbal Fluency Predicts Volume of the Anterior Cingulate Gyrus  Jennifer E. Schlak1, Hannah L. Travis1, Andrew E. Molnar1, Ruchi Brahmacari1, George W. Hynd2, Michelle Y. Kibby1; 1Southern Illinois University-Carbondale, 2Oakland University

A3  Reduced Stroop competition between tool action “neighbors” in left hemisphere stroke  Harrison Stoll1, Tamer Soliman1, Laurel Buxbaum1; 1Moss Rehabilitation Research Institute

A4  Depression alters limbic-sensorimotor brain interactions during implicit emotional speech production  Kevin Sitek1,2, Gregory Ciccarelli1,2, Mathias Goncalves1, Thomas Quattieri1,2, Satrajit Ghosh1,2; 1MIT, 2Harvard University

A5  Brain and Clinical Predictors of Unique Brain Connectivity for Adjacent Levels of Language in the Reading Brain: Managing a Complex, Multi-Leveled System  Virginia Berninger1, Todd Richards1, Robert Abbot1; 1University of Washington, Seattle

A6  Fluent Speech in the Presence of Severe Verbal Working Memory Dysfunction  Christopher Barkley1, Zhenhong Hi2, Angela Birnbaum1, Ilo Leppik1, Susan Marino1; 1University of Minnesota, 2University of Florida

A7  Task difficulty affects language production: Behavioral and fMRI evidence  Haoyun Zhang1, Anna Eppes1, Anne Beatty-Martínez1, Christian Navarro-Torres1, Michele Díaz2; 1Pennsylvania State University, 2University of California, Riverside

A8  Tracking the time course of associative and categorical context effects in spoken word production  Andus Wing-Kuen Wong1, Ho-Ching Chiu1, Jie Wang2, Siu-San Wong1, Jinlu Cao2, Hsuan-Chih Chen2; 1City University of Hong Kong, 2Chinese University of Hong Kong

A9  Auditory attention and predictive processing co-modulate speech comprehension in middle-aged adults  Sarah Tune1, Malte Wöstmann1, Jonas Obler1; 1University of Lübeck, Germany

A10  Semantic context reverses the polarity of P200 effects during word planning  Daniel Kleinman1, Kara Federner1; 1University of Illinois at Urbana-Champaign

A11  Transcranial 10-Hz stimulation but also eye closure modulate auditory attention  Malte Wöstmann1, Lea-Maria Schmitt1, Johannes Vosskuhl1, Christoph S. Herrmann1, Jonas Obler1; 1Department of Psychology, University of Lübeck, Germany, 2Department of Psychology, Oldenburg University, Germany

Grammar: Morphology

A12  Language impairment and improvement in Parkinson’s disease: what, when, and why  Karim Johari1, Jana Riefegerste2, Matthew Walenski3, Farzad Ashrafi4, Roohbeh Behroozmand5, Michael T Ullman1; 1University of South Carolina, USA, 2University of Potsdam, Germany, 3Northwestern University, USA, 4Shahid Beheshti University of Medical Sciences, Iran, 5University of South Carolina, USA, 6Georgetown University, USA

A13  The brain differentiates between known and unknown word compositions but not between transparent and opaque meaning composition: ERP-evidence from the processing of German nominal compounds and pseudo-compounds  Carsten Eulitz1, Eva Smolka1; 1University of Konstanz, Department of Linguistics

Grammar: Syntax

A14  An ALE-based meta-analysis of neuroimaging studies of sentence comprehension  Matthew Walenski1, Eduardo Europa2, David Caplan4, Cynthia K. Thompson1,2,3; 1Department of Communication Sciences and Disorders, Northwestern University, Evanston, IL, USA, 2Cognitive Neurology and Alzheimer’s Disease Center, Northwestern University, Evanston, IL, USA, 3Department of Neurology, Northwestern University, Evanston, IL, USA, 4Massachusetts General Hospital, Department of Neurology, Harvard Medical School, Boston, MA, USA

A15  Neural Correlates Modulated by the Word Category Information During Complicated Hierarchical Syntactic Structure Processing: An fMRI study  Luqiao Chen1, Yongchen Fu1, Huitao Kang1, Liping Feng2; 1Beijing Normal University

A16  EEG responses to two A-movement phenomena: unaccusatives and passives  Jon Sprouse1, Susi Wurmbrand1; 1University of Connecticut
A17 Noun and verb processing in French during sentence comprehension – an event-related potential study
Lauren Fromont1,2, Phaedra Royle1,2, Karsten Steinhaeuer1,3; 1Université de Montréal, 2Centre for Research on Brain, Language, and Music, 3McGill University

A18 Syntactic Constituent Rate Effects in EEG
Ellen Lau1, Mina Hirzel1, Natalia Lapinskaya2, Jeffrey Lidz1; 1University of Maryland, College Park, 2McMaster University

A19 ERP responses to active versus “passive” gap filling
Laura Snider1, Jon Sprouse1; 1University of Connecticut

A20 Tracking the dynamics of wh-dependency resolution inside and outside of islands: An ERP investigation
Lauren Covey1, Alison Gabriele1, Robert Fiorentino1; 1University of Kansas

A21 EEG tracking of grammatical structures with different clodoe probabilities in connected speech
Adria Rofes1,2, Giovanni Di Liberto1, Emily Teoh1,3, Robert Coer1, Sonja Kotz2, Edmund Lator1,3, Brian Lawlor1, Paul Dockree1; 1Trinity College Dublin, Ireland, 2Johns Hopkins University, USA, 3Rochester University, USA, 4St James’s Hospital, Ireland, 5Maastricht University, Netherlands

A22 Using ERPs to investigate the comprehension of passive versus active sentences in English
Carrie N. Jackson1, Heidi Lorimor2, Janet G. van Hell1; 1Pennsylvania State University, 2Bucknell University

Language Therapy

A23 Impact of aging and aphasia on incremental sentence production: eye-tracking while speaking
Jiyeon Lee1, Grace Man1, Jennifer Frederick1; 1Purdue University

Language Disorders

A24 Is the Middle Frontal Gyrus Implicated in Reading?
Maria Stacy1, Sarah Dyer1, Michelle Kirby2; 1Southern Illinois University-Carbondale

A25 Semantic control does not relate to domain-general components of executive function.
Curtiss Chapman1, Randi Martin1; 1Rice University

A26 Analysis of executive and attentional (dys)function in chronic stroke aphasia
Rahel Schumacher1, Matthew A. Lambon Ralph1; 1Neuroscience and Aphasia Research Unit, School of Biological Sciences, University of Manchester

A27 Lexical Selection and Multiword Speech in Acute Stroke
Tatiana Schnur1, Randi Martin1; 1Baylor College of Medicine, 2Rice University

A28 (Morpho)syntactic production in agrammatic aphasia: Testing three hypotheses within a cross-linguistic approach
Valantis Caverzasi1,2, Maria Luisa Mandelli1, Christa Watson1, Marita Meyer1, Fumiko Hoeft1, Claudia Gandini Wheeler-Kingshott1,2,6, Elsy J Marco2,3, Bruce L Miller10, Robert Hendren1, Kevin Shapiro1, Maria Luisa Gorno-Tempini1,7, 1Dyslexia Center, Department of Neurology, University of California, San Francisco, San Francisco, CA, USA, 2Biomedical Sciences PhD, Department of Brain and Behavioral Sciences, University of Pavia, Pavia, Italy, 3Langley Porter Psychiatry Institute Langley Porter Psychiatric Hospital and Clinics, Department of Psychiatry, University of California, San Francisco, CA, USA, 4Queen Square MS Centre, Department of Neuroinflammation, UCL Institute of Neurology, Russel Square House, London, United Kingdom, 5Department of Brain and Behavioral Sciences, University of Pavia, Pavia, Italy, 6Brain MRI 3T Mondino Research Center, C. Mondino National Neurological Institute, Pavia, Italy, 7Department of Neurology, University of California, San Francisco, San Francisco, CA, USA, 8Department of Psychiatry, University of California, San Francisco, San Francisco, CA, USA, 9Department of Pediatrics, University of California, San Francisco, San Francisco, CA, USA, 10Memory and Aging Center, Department of Neurology; University of California, San Francisco, San Francisco, CA, USA

A30 Distinct spatiotemporal patterns of neuronal functional connectivity in primary progressive aphasia variants
Kamalini Ranasinghe1, Leighton Hinkley1, Alexander Beagle1, Danièle Mizuiri1, Susanne Honma1, Ariane Welch1, Isabel Hubbard1, Maria Luisa Mandelli1, Zachary Miller1, Coleman Garrett1, Alice La1, Adam Boex1, John Houde1, Bruce Miller1, Keith Vossel1, Maria Luisa Gorno-Tempini1, Srikantan Nagarajan1; 1University of California San Francisco

A31 The role of executive functions in anaphora resolution in non-fluent variant Primary Progressive Aphasia
Eleni Peristeri1, Ianthi-Maria Tsimpli2, Kyriana Tsapkini1; 1Department of English Language and Linguistics,
A32  A quick bedside language assessment  Sarah M. Schneck¹, Dana K. Eriksson², Jillian Lucanie¹, Stephen M. Wilson¹; ¹Vanderbilt University Medical Center, ²University of Arizona

A33  White matter matters in the recovery of language in post-stroke aphasia  Erin Meter¹, Jeffrey Johnson¹, Yansong Geng¹, Swathi Kiran¹; ¹Boston University, Sargent College of Health and Rehabilitation Sciences

A34  White Matter Connectivity and Lexical Access in Aphasia  William Hula¹,², Juan Fernandez-Miranda³, David Fernandes-Cabral³, Michelle Gravier¹, Michael Walsh Dickey¹,², Fang-Cheng Yeh¹, Sandip Panesar¹, Vijay Roxethu¹, Sudhir Pathak¹, Patrick Doyle¹,²; ¹VA Pittsburgh Healthcare System, ²University of Pittsburgh, ³University of Pittsburgh Medical Center

A35  Increased connectivity with right hemisphere homologues of language areas following melody-based intervention in a patient with aphasia  Tali Bitan¹,², Cristina Saveroña³, Tijana Simic²,³, Cheryl Jones², Joanna Glazer¹, Brenda Colella¹, Catherine Wiseman-Hakes³, Robin Green¹,³, Elizabeth Rochon²,³; ¹University of Haifa, Israel, ²University of Toronto, Canada, ³Toronto Rehabilitation Institute, Canada, ⁴Canadian Partnership for Stroke Recovery, Heart and Stroke Foundation, Canada

A36  The mental lexicon across the lifespan: Word associations from L1 and L2 speakers of Norwegian with and without dementia  Pernille Hansen¹, Ingeborg Sophie Ribu¹, Malene Bøyum¹; ¹University of Oslo

A37  No evidence for semantic predictions? Inability to decode predictable semantic categories from EEG during silent pauses in spoken language  Edvard Heikel¹, Jona Sassenhagen¹, Christian J. Fiebach¹; ¹Goethe University Frankfurt

A38  Investigating the Behavioral and Physiological Effects of Acute Exercise on Novel Word Learning in Older Adults: Feasibility and Preliminary Data  Amy D. Rodriguez¹, Kyle Hortman¹,², Jeffrey H. Botright¹,², Monica Coulter¹, Joe R. Nocera¹, Kevin Mammino¹, Susan Murphy¹,², Paul Weiss¹,², Bruce A. Crosson¹,²; ¹VA RR&D Center for Visual and Neurocognitive Rehabilitation, ²Emory University, ³Georgia State University

A39  Semantic similarity effect for written words in left perirhinal cortex: influence of type of property retrieved, visual versus nonvisual  Antonietta Gabriella Liuzzi¹, Patrick Dupont¹, Ronald Peeters², Simon De Deyne³, Gerrit Storms³, Rik Vandenberghe⁴, ¹Laboratory for Cognitive Neurology, Department of Neurosciences, KU Leuven, Belgium, ²Radiology Department, University Hospitals Leuven, 3000 Leuven, Belgium., ³Laboratory of Experimental Psychology, Humanities and Social Sciences Group, KU Leuven, Belgium, ⁴Neurology Department, University Hospitals Leuven, 3000 Leuven, Belgium

A40  Lexical access in inferential naming  Raphael Fargier¹, Giulia Krethlow¹, Eric Ménétré², Marina Laganaro¹; ¹Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland

A41  Furry hippos & scaly sharks: blind individuals’ knowledge of animal appearance  Judy Sein Kim¹, Giulia Elli¹, Marina Bedny¹; ¹Johns Hopkins University

A42  Context and prediction in spoken word recognition: Early left frontotemporal effects of lexical uncertainty and semantic constraint  Anastasia Klimovich-Smith¹, Barry Devereux¹, Billi Randall¹, William Marslen-Wilson¹, Lorraine K. Tyler¹; ¹University of Cambridge

A43  Dissociating the roles of ventral versus dorsal pathways in language production: an awake language mapping study  Stephanie Ries¹, Vitoria Pini²,³, David Perry¹, Sandon Griffin¹, Kesshi Jordan⁴, Robert Knight⁴, Mitchel Berger⁴; ¹School of Speech, Language, and Hearing Sciences & Center for Clinical and Cognitive Neuroscience, San Diego State University, San Diego, CA, USA., ²Donders Centre for Cognition, Radboud University, Nijmegen, The Netherlands., ³Department of Medical Psychology, Radboud University Medical Centre, Nijmegen, The Netherlands., ⁴Department of Neurological Surgery, University of California, San Francisco, CA, USA., ⁵Helen Wills Neuroscience Institute and Department of Psychology, University of California at Berkeley, Berkeley, CA, USA., ⁶Department of Neurology, University California, San Francisco, CA, USA., ⁷UC Berkeley - UCSF Graduate Program in Bioengineering, San Francisco, CA, USA.

A44  Different contextual effects modulate the representation of word meaning in the human brain  Christine Tseng⁵, Leila Wehbe¹, Fatma Deniz¹, Jack Gallant¹; ¹University of California, Berkeley
Meaning: Prosody, Social and Emotional Processes

A45 The cognitive and neural oscillatory mechanisms underlying the facilitating effect of rhythm on speech comprehension Xinong Li1, Jinyan Xia1; 1Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences (Beijing, China)

Computational Approaches

A46 Episodic and semantic components of lexical knowledge: a computational model Alvaro Cabana1, Emilia Flo1, Camila Zagal-Leisob1, Juan C. Valle-Lisboa2; 1Facultad de Psicología, Universidad de la República, Montevideo, Uruguay

A47 Neuro-computational modelling of parallel incremental prediction and integration during speech comprehension Hun Choi1, Billi Randall1, Barry Devereux1, Lorraine Tyler1; 1University of Cambridge

Methods

A48 Using Kinect technology to assess word learning Andrés Méndez1, Rossana Guerra1, Leonel Gómez2; 1Universidad de la República

A49 MrAnats: Magnetic Resonance-based Adaptive NeuroAnatomy Teaching Software Paul Fillmore1, Matthew Parham1; 1Baylor University

A50 Effects of laterality, handedness, and coil orientation on size and morphology of Motor Evoked Potentials (MEPs) recorded from lip muscles. Patti Adank1, Dan Kennedy-Higgins1, Helen Nuttall1, 1Department of Speech, Hearing and Phonetic Sciences, University College London, Chandler House, 2 Wakefield Street, London, UK, WC1N 1PF, 2Department of Psychology, Lancaster University, Lancaster, UK, LA1 4YF

A51 Test-retest reliability comparison of RSA and GLM approaches in a language task Ryan Staples1, Einar Menci1, Jeffrey Malins1, Daniel Brennan1, Ken Pugh1, Robin Morris2; 1Haskins Laboratories, 2Georgia State University, 3University of Connecticut

A52 ICA-based classifiers mitigate task correlated motion artifacts for overt-speech fMRI paradigms in aphasia Venkatagiri Krishnamurthy1,2, Lisa Krishnamurthy1,2, Kaundinya Gopinath1, Michelle Benjamin4,5, Bruce Crosson2,3,5, Atchar Sudhakar1, Kaundinya Gopinath1, Bruce Crosson2,3,5,7; 1Dept. of Physics & Astronomy, Georgia State University, Atlanta, GA, United States, 2Center for Visual and Neurocognitive Rehabilitation, Atlanta VAMC, Decatur, GA, United States, 3Dept. of Neurology, Emory University, Atlanta, GA, United States, 4Brooks Rehabilitation, Jacksonville, FL, United States, 5University of Florida, Gainesville, FL, United States, 6Brooks Rehabilitation, Jacksonville, FL, United States, 7Dept. of Psychology, Georgia State University, Atlanta, GA, United States

Language Disorders

A53 Comparison between the effect of online and offline transcranial direct current stimulation on naming latency in healthy adults Mohammed F. ALHarbi1,2, Esther S. Kim1; 1Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, AB T6G 2G4, Canada, 2College of Medical Rehabilitation Sciences, Taibah University, Madinah, Saudi Arabia

Methods

A54 Gliosis+ for continuous lesion quantification in VLSM to map brain-language relationships Lisa Krishnamurthy1,2, Venkatagiri Krishnamurthy1,2, Amy Rodriguez3, Michelle Benjamin4,5, Keith McGregor2,3,5, Atchar Sudhakar1, Kaundinya Gopinath1, Bruce Crosson2,3,5,7; 1Dept. of Physics & Astronomy, Georgia State University, Atlanta, GA, United States, 2Center for Visual and Neurocognitive Rehabilitation, Atlanta VAMC, Decatur, GA, United States, 3Dept. of Neurology, Emory University, Atlanta, GA, United States, 4Brooks Rehabilitation, Jacksonville, FL, United States, 5University of Florida, Gainesville, FL, United States, 6Brooks Rehabilitation, Jacksonville, FL, United States, 7Dept. of Radiology & Imaging Sciences, Emory University, Atlanta, GA, United States

Language Therapy

A56 Comparing Frontal and Parietal tDCS Montages for Reducing Anomia Symptoms in People with Dementia Carlos Roncero1, Erik Service1, Alex Thiel1, Stephan Probst1, Howard Chertkow1; 1Lady Davis Institute, Jewish General Hospital

Computational Approaches

A57 Verbal IQ is determined by brain health, which is modulated by cardiovascular risk factors Barbara Khalibinzu Marebwan1, Robert J. Adams1, Julius Fridriksson2, Gayennell Magwood3, Leonardo Bonilha3; 1Medical University of South Carolina, 2University of South Carolina
Perception: Orthographic and Other Visual Processes

A58 Sight or Sound? Individual Differences in the Neural and Cognitive Mechanisms of Single Word Reading  Simon Fischer-Baum1, Jeong Hwan Kook1, Yoseph Lee1, Aurora Ramos-Núñez2, Marina Vannucci1; 1Rice University

Multilingualism

A59 Lateralization differences on semantic processing between native speakers and proficient learners of Mandarin Chinese  Chia-Ho Lai1, Shu-Kai Hsieh1, Chia-Lin Lee3, I-Wen Su1, Te-Hsin Liu1, Chia-Rung Lu1, I-Ni Tsai1, Tai-Li Chou1; 1National Taiwan University

A60 Right hemisphere contribution in syntactic category processing in L2 —ERP and fMRI data from learners of Mandarin Chinese  Chia-Ho Lai1, Chih Yeh1, Po-Heng Chen1, Chia-Lin Lee3, Shu-Kai Hsieh1, I-Wen Su1, Te-Hsin Liu1, Chia-Rung Lu1, I-Ni Tsai1, Tai-Li Chou1; 1National Taiwan University

A61 Auditory and visual word processing in child and adult second language learners: Electrophysiological and behavioral evidence of cross-language interaction  Katharine Donnelly Adams1, Fatemeh Abdollahi1, Ping Li1, Janet G. van Hell1; 1The Pennsylvania State University

A62 Speech perception in noise in a native and a second language: A functional magnetic resonance imaging (fMRI) investigation  Shanna Kousaie1, Shari Baumi1, Natalie Phillips1,3,4,5,6, Vincent Gracco1,2,6, Debora Titone1,2, Jen-Kai Chen1, Xiaiqian J. Chaiyi, Denise Klein1,6,1,1; 1Neuropsychology/Cognitive Neuroscience Unit, Montreal Neurological Institute, McGill University, Montreal, QC, Canada, 2School of Communication Sciences and Disorders, Faculty of Medicine, McGill University, Montreal, QC, Canada, 3Centre for Research on Brain, Language and Music, McGill University, Montreal, QC, Canada, 4Department of Psychology/Centre for Research in Human Development, Concordia University, Montreal, QC, Canada, 5Bloomfield Centre for Research in Aging, Lady Davis Institute for Medical Research and Jewish General Hospital/McGill University, Montreal, QC, Canada, 6Haskins Laboratories, New Haven, CT, USA

A63 Effect of language context on accented words in bilinguals  Hia Datta1, Arielle Mayer1; 1Molloy College

A64 Learning words from a new language changes processing of native language words  Gabriela Meade1,2, Phillip J. Holcomb1; 1San Diego State University, 2University of California, San Diego

A65 Variability in BOLD correlates of semantic judgment reduces with proficiency among L2 learners  Angela Grant1,2, Ping Li1, 1The Pennsylvania State University, 2Concordia University

A66 Context-dependent filtering in the caudate nucleus of the basal ganglia as a predictor of second-language learning aptitude  Jose M. Ceballos1,2, Brianna L. Yamasaki1,2, Chantel S. Prat1,2; 1University of Washington, 2Institute for Learning & Brain Sciences

A67 Spontaneous fluctuations of dorsal and ventral reading networks in bilinguals  Jaione Arnaez-Telleria1, Myriam Oliver1, Manuel Carreiras1,2, Pedro M. Paz-Alonso1; 1BCBL. Basque Center on Cognition, Brain and Language, Donostia-San Sebastian, Spain., 2Ikerbasque, Basque Foundation for Science, Bilbao, Spain.

A68 The Role of Basal Ganglia Filtering Mechanisms in Second Language Aptitude  Brianna L. Yamasaki1, Jose M. Ceballos1, Chantel S. Prat1; 1University of Washington

Meaning: Prosody, Social and Emotional Processes

A69 Processing of contrastive pitch accent in native and L2 English speakers  Aleuna Lee1, Lauren Stookey1, Edith Kaan1; 1University of Florida

Perception: Auditory

A70 The Motor System’s [Modest] Contribution to Speech Perception  Ryan Stokes1, Jonathan H. Venezia1, Gregory Hickok1; 1University of California - Irvine

A71 The role of prosody on processing wh-questions and wh-declaratives: An auditory ERP study  Yang Yang1,2, Leticia Pablos1,2, Stella Gryllia1,2, Niels Schiller1,2, Lisa Cheng1,2; 1Leiden University Center for Linguistics, 2Leiden Institute for Brain and Cognition

A72 Convergence of spoken and written language processing in the superior temporal sulcus  Stephen M. Wilson1, Alexa Bautista1, Angelica McCarron2; 1Vanderbilt University Medical Center, 2University of Arizona

A73 Stress-timing via Oscillatory Phase-locking in Naturalistic Language  Phillip M. Alday1,2, Andrea E. Martin1,2, Max Planck-Institute for Psycholinguistics, 3University of South Australia, 4University of Edinburgh
Phonology and Phonological Working Memory

A75 Phonological Feature Repetition Suppression in the Left Inferior Frontal Gyrus  Kayoko Okada1, William Matchin2, Gregory Hickok1; 1Loyola Marymount University, 2University of California, San Diego, 3University of California, Irvine

A76 Brain responses to intensive intervention for reading disability  Einar Mencl1,2, Stephen Frost1, Dan Brennan1, Jeff Malins1, Kenneth Pugh1,2, Robin Morris2; 1Haskins Laboratories, 2Yale University, 3University of Connecticut, 4Georgia State University

A77 A tDCS study of the implicit learning of foreign cognate and non-cognate words  Joshua Payne1, Paul Mullins1, Marie-Josephte Tainturier1, 2Bangor University

Speech Motor Control and Sensorimotor Integration

A79 Oral cavity numbing reduces sensorimotor adaptation to altered auditory feedback  Hardik Kothare1,2, Inez Raharjo1,2, David Klein3, Danielle Mizuiri1, Kamalini Ranasinghe1, Shethal Beareddy1, Steven W. Cheung1, Srikanth Nagarajan1, John F. Houde1; 1University of California, San Francisco, 2University of California, Berkeley, 3New York University

Writing and Spelling

A80 Electrophysiological correlates of internal performance monitoring in typed language production  Svetlana Pinet1, Nazbanou Nozari1; 1Johns Hopkins University

Poster Session B

Wednesday, November 8, 3:00 – 4:15 pm, Harborview and Loch Raven Ballrooms

Control, Selection, and Executive Processes

B1 The role of individual differences in inhibition on sentence choice during speech  Malathi Thothathiri1, Daniel Evans1; 1The George Washington University

B2 Sentence comprehension under conflict in aphasia  Malathi Thothathiri1, Edward Wlotko2; 1The George Washington University, 2Moss Rehabilitation Research Institute

B3 Lexical Planning in Sentence Production Is Highly Incremental: Evidence from ERPs  Liming Zhao1,2, Yufang Yang1; 1Academy of Psychology and Behavior, Tianjin Normal University, 2Institute of Psychology, Chinese Academy of Sciences

B4 Prediction under Load: The Effects of Cognitive Load Presence and Type on Anticipation and Competition in Spoken Language Processing  Kate Pirog Revill1; 1Emory University

B5 Neural tracking of attended continuous speech in monolinguals and early bilinguals  Andrew Olguin1, Tristan Bekinschtein1, Mirjana Bozic1; 1University of Cambridge

B7 Prediction-related activity in the medial prefrontal cortex reflects processing of cataphor cues  Andrew Jahn1, Dave Kush2, Ashley Lewis1, Julie Van Dyke1; 1Haskins Laboratories, 2Norwegian University of Science and Technology

B8 Spatiotemporal neuronal activation patterns during verbal fluency tasks  Shawniqua T. Williams1, Preya A. Shah1, Vitória Piai2, Heather Gatens3, Abba Krieger1, Timothy H. Lucas, II1, Brian Litt1; 1University of Pennsylvania, 2Radboud University

B9 Electrophysiological evidence for the time course of syllabic and sub-syllabic processing in Cantonese Chinese spoken word production  Andus Wing-Kuen Wong1, Ho-Ching Chiu1, Jie Wang2, Siu-San Wong1, Hsuan-Chih Chen2; 1City University of Hong Kong, 2Chinese University of Hong Kong

B10 Role of Left Hemisphere Language Areas in Visuospatial Working Memory  Juliana Baldo1, Selvi Paulraj1,2, Krista Parker1, Brian Curren1; 1VA Northern California Health Care System, 2University of Illinios at Urbana-Champaign

Writing and Spelling

B11 Tracking keystroke sequences at the cortical level  Svetlana Pinet1,2, Gary S. Dell3, F.-Xavier Alario2; 1Johns Hopkins University, 2Aix-Marseille Universite & CNRS, 3University of Pittsburgh

B12 Mental Self-Government of Brain’s Multi-Leveled Reading and Writing Systems: Before and After Multi-Leveled Language Instruction  Todd Richards1, Kevin
B13 Incremental working memory effects across consecutive nominal constituents: An ERP study  Alicia Parrish1, Kaylin Smith1, Alan Beretta1; 1Michigan State University

B14 Neural correlates of processing case and inflection: fMRI evidence from Russian  Anna Chrabaszcz 1, Maxim Kireev2, Svyatoslav Medvedev2, Kira Gor3; 1University of Pittsburgh, 2N. P. Bechterevo Institute of the Human Brain, 3University of Maryland

B15 Event-Related Potentials Indicate a Role for Word Frequency in L1 and L2 Grammatical Processing  David Abugaber1, Irene Finestrat1, Alicia Luque1, Kara Morgan-Short1; 1University of Illinois - Chicago

B16 Phrase Structure Building Evidenced by Differential Network Modulations  Chiao-Yi Wu1,2, Emiliano Zaccarella2, Angela D. Friederici2; 1Nanyang Technological University, 2Max Planck Institute for Human Cognitive and Brain Sciences

B17 Asymmetric Binarity as a Cognitive Universal: The Rhythm of Syntactic Structure  Danielle Fahey1, Dirk-Bart den Ouden1; 1University of South Carolina

B18 VOS Preference in Truku Sentence Processing: Evidence from Event-Related Potentials  Masataka Yano1,2, Keiyu Nitiyuni1, Hajime Ono3, Sachiko Kyiiama1, Mamami Sat01, Apay, Ai-yu Tang0, Daichi Yasunaga0, Masatoshi Koizumi1; 1Tohoku University, 2Japan Society for the Promotion of Science, 3Tsuda University, 4Okinawa International University, 5National Dong Hwa University, 6Kanazawa University

B19 A meta-analysis of seven FMRI-studies on artificial grammar learning  Julia Udden1; 1Department of Psychology and Linguistics, Stockholm University, Stockholm, Sweden

B20 Isolating syntactic structure-building in the brain: An MEG study on Bosnian-Croatian-Serbian  Diogo Almeida1, Aida Tali2, Željko Bošković2, Jon Sprouse2; 1New York University Abu Dhabi, 2University of Connecticut

B21 The Left Inferior Frontal Gyrus is Necessary for Syntactic Phrase Formation: Evidence from Transcranial Magnetic Stimulation  Lars Meyer1, Anne Elsner1, Philipp Kuhnke1, Angela D. Friederici1, Gesa Hartwigsen1; 1Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

B22 Selective interference with sentence production by direct electrocortical stimulation of the inferior frontal gyrus  Edward F. Chang1, Garret Kurteff1, Stephen M. Wilson2; 1University of California, San Francisco, 2Vanderbilt University Medical Center

B23 Cortical tracking of linguistic structures: the role of covert prosody  Anastasia Glushko1,2, David Poeppel1,4, Max Wolpert1,2, Toivo Glat2, Karsten Steinhauser1,2; 1McGill University, 2The Centre for Research on Brain, Language and Music, 3New York University, 4Max Planck Institute for Empirical Aesthetics, 5University of Groningen

B24 Investigating the neural mechanisms of syntactic expectations  Leon O. H. Kroczek1, Angela D. Friederici1, Thomas C. Gunter1; 1Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

B25 Effects of morphosyntactic therapy and TDCS on the spontaneous speech of individuals with aphasia  Vânia de Aguiar1,3, Adrià Rofes2,3, Roelien Bastiaanse4, Rita Capasso5, Marialuisa Gandolfi6,7, Nicola Smania6,7, Giorgio Rossi6, Gabriele Micelli1; 1Department of clinical Speech and Language Studies, Trinity College Dublin, Dublin, Ireland, 2Global Brain Health Institute, Trinity College Dublin, Ireland, 3International Doctorate in Experimental Approaches to Language And the Brain (IDEALAB) Universities of Groningen (The Netherlands), Newcastle (UK), Potsdam (Germany), Trento (Italy) and Macquarie University (Australia), 4Center for Language and Cognition, Rome, Italy, 5Neuromotor and Cognitive Rehabilitation Research Centre, LIso Neurological Rehabilitation, Azienda Ospedaliera Universitaria Integrata (AOUI) of Verona, Verona, Italy, 6Department of Neurological and Movement Sciences, University of Verona, Verona, Italy, 7Department of Neurology, Santa Maria del Carmine Hospital, Rovereto, Italy, 8Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy

B26 Prominence in sentence comprehension in schizophrenic subjets: An ERP study  María Francisca Alonso-Sánchez1, Lucía Zepeda-Rivera1, Aland Astudillo1; 1Universidad Santo Tomás, 2Universidad de Valparaíso

B27 Structural connectivity subserving verbal fluency revealed by lesion-behavior mapping in stroke patients  Mingyang Li1, Yumei Zhang2, Luping Song3,
Ruiwang Huang1, Junhua Ding2, Yuxing Fang3, Yangwen Xu1, Zaiizhu Han1; 1National Key Laboratory of Cognitive Neuroscience and Learning & IDG/McGovern Institute for Brain Research, Beijing Normal University, Beijing, China, 100875, 2Department of Neurology, Beijing Tiantan Hospital, Capital Medical University, Beijing, China, 3Rehabilitation College and China Rehabilitation Research Center, Capital Medical University, Beijing, China, 100038, 4Center for the Study of Applied Psychology, Key Laboratory of Mental Health and Cognitive Science of Guangdong Province, School of Psychology, South China Normal University, Guangzhou, China, 510631.

B28 Impoverished Remote Semantic Memory in Mild Cognitive Impairment Nathaniel B. Klooster1,2, Arun Pilania1, David A. Wolk1, Anjan Chatterjee1,2; 1University of Pennsylvania, 2Moss Rehabilitation Research Institute

B29 Similarity-based interference effects in reflexive binding: Empirical evidence from aphasia Maria Varkanitsa1,2, David Caplan1; 1Massachusetts General Hospital - Harvard Medical School, 2University College London

B30 Brain Network Reorganization for Language after Complete Prenatal Hemispheric Infarction Salomi S. Asaridou1, Özlem Ece Demir-Lira2, Danny Sui1, Susan Levine1, Steven L. Small1; 1Department of Neurology, University of California, Irvine, 2Department of Psychology, The University of Chicago

B31 Lesion predictors of response to semantically-based naming treatment in chronic aphasia Michelle Gravier1, Michael Dickey1,2, William Hula1,2, Patrick Doyle1,2; 1VA Pittsburgh Healthcare System, 2University of Pittsburgh

B32 Predicting Western Aphasia Battery Subscores from the Spatial Distributions of Localized Brain Lesions Grant Walker1, Gregory Hickok1, Julius Fridriksson2; 1University of California, Irvine, 2University of South Carolina

B33 The neural representation of concrete and abstract verb processing in aphasia Reem S. W. Alyahya1,2, Ajay Halai1, Paul Conroy1, Matthew A. Lambon Ralph1; 1Neuroscience and Aphasia Research Unit, University of Manchester, United Kingdom, 2King Fahad Medical City, Saudi Arabia

B34 Left hemisphere frontotemporal effective connectivity during semantic feature judgments: Differences between patients with aphasia and healthy controls Erin Meier1, Swathi Kiran1; 1Boston University, Sargent College of Health and Rehabilitation Sciences

**Language Therapy**

B35 Transcranial Direct Current Stimulation Changes Functional Connectivity in Primary Progressive Aphasia Bronte N. Ficek1, Zeyi Wang2, Kimberly Webster1,3, Brian Caffo2, Kyrana Tsapkini1; 1Department of Neurology, Johns Hopkins Medicine, Baltimore, MD, 2Department of Biostatistics, Johns Hopkins School of Public Health, Baltimore, MD, 3Department of Otolaryngology, Johns Hopkins Medicine, Baltimore, MD

B36 Changes in neural activity during a semantic verification task as a result of treatment in persons with aphasia Shreya Chaturvedi1, Jeffrey Johnson1, Yansong Geng2, Erin Meier1, Swathi Kiran1; 1Boston University

**Meaning: Lexical Semantics**

B37 Hemispheric Processing of Iconic and Arbitrary Words: A Line Bisection Study Vijayachandra Ramachandra1, Rachel Panick1, Cara Maher1, Gabriella Trezza1, Brittney Coan1; 1Marywood University

B38 Neural Correlates of Semantic Coherence in English and Chinese Speakers during Natural Language Comprehension Jixing Li1, Christophe Pallier2, Yiming Yang1, John Hale1; 1Cornell University, 2INSERM-CEA Cognitive Neuroimaging Unit, 3Jiangsu Normal University

B39 State-dependant organization of the functional connectome with age Perrine Ferré1, Yassine Benhajali1, Jason Steffener2, Yaakov Stern3, Yves Joanette1, Pierre Bellec1; 1Centre de Recherche de l’Institut Universitaire de Montréal, 2University of Ottawa, 3Columbia University

B40 Commonalities in the neural encoding of sentence meaning across widely distributed brain regions Andrew Anderson1, Edmund Lalor1, Leonardo Fernandino2, Rajeev Raizada1, Scott Grimm1, Vanjue Lin1, Xixi Wang1; 1University of Rochester, 2Medical College of Wisconsin

B41 Multivariate pattern analysis reveals semantic information in brain areas activated for nonwords Hillary Levinson1, Samantha Mattheiss1, William W. Graves2; 1Rutgers University

B42 ERP and fMRI exploration of the organizational structure of abstract versus concrete words in neurotypical adults Chaleece Sandberg1; 1Penn State University

B43 How using concepts changes them: A graph theory approach Yoed N. Kenett1, Zareh Kalousiani1, Sharon L. Thompson-Schill1, 1University of Pennsylvania
B44  Distinguishing Metaphors that Differ in their Encoded Force Patterns  Vesna Gamez-Djokic1, Elisabeth Wehling2, Lisa Aziz-Zadeh3; 1University of Southern California, 2University of California, Berkeley

Grammar: Morphology
B45  Morphological processing in Chinese: An ERP study  Lin Chen1, You Li2, Charles Perfetti3; 1Sun Yat-sen University, 2South China Normal University, 3University of Pittsburgh

Perception: Orthographic and Other Visual Processes
B46  Letters to the left of me, letters to the right: Examining parafoveal flanker effects during word recognition  Trevor Brothers1, Matthew J. Traxler1, Tamara Y. Swaab2; 1University of California, Davis

Perception: Auditory
B47  Asymmetrical MMNs to socially-marked biological sounds: a potential challenge to the phoneme underspecification hypothesis  Roberto Petrosino1, Diogo Almeida2, Andrea Calabrese3, Jon Sprouse4; 1University of Connecticut, 2New York University - Abu Dhabi
B48  Language effects for theta oscillatory activity within cortical sensory processing  Monica Wagner1, Silvia Ortiz-Mantilla1, Valerie Shafer1; 1St. John’s University, 2Rutgers University, 3The Graduate Center, CUNY
B49  Neurobiological mechanisms of efficient encoding: A pilot EEG study.  Nicholas Walker1, Christian Stilp2, Keith Kleunder3, Julia Evans4, Meredith Scheppele1; 1University of Texas at Dallas, 2University of Louisville, 3Purdue University
B50  Representations of amplitude modulations in auditory onsets, ramp tones, and speech in the human superior temporal gyrus  Yulia Oganian1,2, Edward Chang1,2; 1Department of neurological surgery, University of California, San Francisco, 2Center for Integrative Neuroscience, University of California, San Francisco

Language Genetics
B51  Translational research in dyslexia: genetic rodent models inform understanding of mechanisms in humans  Tracy Centanni1,2,3, Fujiy Chert4, Anne B Booker1, Andrew M Sloan5, Sara D Beach2, Ola Ozernov-Palchik6, Sidney C May7, Michael P Kilgard8, Joseph J LoTurco9, Dimitrios Pantazis2, Tiffany P Hogan10, John DE Gabrieli11; 1Texas Christian University, 2Massachusetts Institute of Technology, 3University of Texas at Dallas, 4University of Connecticut, 5Harvard University, 6Tufts University, 7MCH Institute of Health Professions

Phonology and Phonological Working Memory
B52  Converging evidence from univariate and multivariate fMRI analyses suggests a phonological buffer in the left supramarginal gyrus  Qiuhai Yue1, Randi C. Martin2, A. Cris Hamilton3, Nathan S. Rose4; 1Rice University, Houston, TX, USA, 2University of Notre Dame, Notre Dame, IN, USA
B53  Auditory Cortex Represents Abstract Phonological Features: A Mismatch Negativity Study of English Volicing  Philip Monahan1, Jessamyn Schertz1; 1University of Toronto
B54  Neural encoding of T3 sandhi in Mandarin Chinese speakers in speech production  Caicai Zhang1,2, Xunan Huang1, Stephen Politzer-Ahles3, Jie Zhang2, Gang Peng1,2; 1The Hong Kong Polytechnic University, 2Shenzhen Institutes of Advanced Technology, 3The University of Kansas

Perception: Speech Perception and Audiovisual Integration
B55  Lexical tone processing with and without awareness in Cantonese-speaking congenital amusics: Evidence from event-related potentials  Caicai Zhang1,2, Jing Shao1; 1The Hong Kong Polytechnic University, 2Shenzhen Institutes of Advanced Technology

Phonology and Phonological Working Memory
B56  Lesion Localization of a Shared Phonologic Representation Deficit on Reading, Rhyming, Repetition, and Short-Term Memory Tasks  Sara Pillay1,2, Peter Kraegel1, Colin Humphries1, Diane Book1, Jeffrey Binder1; 1Medical College of Wisconsin
B57  Processing Demands of Word Frequency on Verbal working Memory as measured by functional near-infrared spectroscopy (fNIRS)  Amy Berglund1, Julia L. Evans1, Andrea W. Fung1, Chen Song1, Fenghua Tian1, Holly Watkins1; 1University of Texas at Dallas, 2University of Texas at Arlington

Speech Motor Control and Sensorimotor Integration
B58  Enhancing Speech Motor Learning With Noninvasive Brain Stimulation  Adam Buchwald1, Mara Steinberg Lowe1, Holly Calhoun1, Rebecca Wellner1, Stacey Rimikis1; 1New York University
B59  Orthographic priming for tactile Braille alphabet in the ventral Occipito-Temporal cortex of congenitally blind  Katarzyna Rączy1, Aleksandra Sadowska1, Jakub Szewczyk1, Paweł Hańczur1, Ewa Sumera1, Marianna Boros1, Maksymilian Korczyk1, Anna Bereś1, Marcin Szwed2; 1Jagiellonian University, 2Warsaw University of Technology, 3Institute for the Blind and Partially Sighted Children

B60  Lexical Decision with Emotional Words: A Pupil Dilation Study  Sahura Ertuğrul1, Didem Gökçay2; 1Cognitive Science, Middle East Technical University, Ankara, 2Medical Informatics, Middle East Technical University, Ankara

B61  Do Different Types of Script Induce Differences in Hemispheric Lateralization During Reading? Evidence from a Cross Linguisitic MEG Study.  Kefei Wu1, Diogo Almeida1; 1New York University Abu Dhabi

B62  Using Representations from Artificial Neural Network Models of Reading to Reveal Neural Activation Patterns for Different Reading Computations  William Graves1, 2Rutgers University - Newark

B63  Uncovering the cascade of computations involved in ambiguity resolution using MEG decoding  Laura Gwilliams1,2, Jean-Rémi King1; 1New York University, 2NYUAD Institute

B64  Dynamics of Brain Functions and Reading in Different Languages OR Why is it hard to read Arabic?  Zohar Eviatar1; 1University of Haifa

B65  The rhythm of semantics: Temporal expectancy and context-based prediction in a picture association paradigm  Cybelle M. Smith1, Kara D. Federmeier1; 1University of Illinois at Urbana-Champaign

Language Therapy

B66  Areas predicting tDCS effects in primary progressive aphasia (PPA)  Kyrana Tsapkini1, Kim Webster1, Bronie Ficek1, Chiadi Onyike2, Brenda Rapp1, Argye Hillis1, Constantine Frangakis1; 1Department of Neurology, Johns Hopkins University, Baltimore, MD, 2Department of Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD, 3Department of Cognitive Science, Johns Hopkins University, MD, 4Department of Biostatistics, Johns Hopkins School of Public Health, Baltimore, MD

Meaning: Prosody, Social and Emotional Processes

B67  The ATL causally mediates the expansion of working memory capacity for famous faces  Rocco Chiou1, Matthew A. Lambon Ralph1; 1University of Manchester, United Kingdom

Writing and Spelling

B68  Investigating the functional neural circuitry for spelling using graphical models  Kulpreet Cheema1, Dr. William Hodgetts1,2, Dr. Jacqueline Cummine3; 1Faculty of Rehabilitation Medicine, University of Alberta, 2The Institute for Reconstructive Sciences in Medicine

B69  Ventral occipito-temporal responses to written texts and fingerspelling in congenitally deaf adults  Tae Twomey1, Dafydd Waters1, Cathy Price1, Mairéad MacSweeney1; 1University College London

Perception: Speech Perception and Audiovisual Integration

B70  Dynamic Adaption During Lexically-Guided Perceptual Learning in People with Aphasia  David Saltzman1, Kathrin Rothernich1, Emily Myers1; 1University of Connecticut

B71  Speech processing with one hemisphere: word repetition in a patient with right hemispherotomy  Chad S. Rogers1, Michael Jones1, Catherine Huyt Drazen1, Matthew D. Smyth1, Jarod Roland1, Nico Dosenbach1, Jonathan E. Peelle1; 1Washington University School of Medicine

B73  The visual representation of lipread words in posterior temporal cortex studied using an fMRI-rapid adaptation paradigm, functional localizers, and behavior  Lynne E. Bernstein1, Silvio P. Eberhardt1, Xiong Jiang2, Maximillian Riesenhuber2, Edward T. Auer1; 1Department of Speech, Language, and Hearing Sciences, 550 Rome Hall, George Washington University, Washington, District of Columbia 20052, USA, 2Department of Neuroscience, Georgetown University Medical Center, Research Building Room WP-12, 3970 Reservoir Rd. NW, Washington, District of Columbia 20007, USA

B74  Alpha and beta oscillations in the language network, motor and visual cortex index the semantic integration of speech and gestures in clear and degraded speech  Linda Drijvers1,2, Asli Ozyurek1,2, Ole Jensen1; 1Radboud University, Centre for Language Studies, Nijmegen, The Netherlands, 2Radboud University, Donders Institute for Brain, Cognition, and Behaviour, Nijmegen, The Netherlands, 3Max Planck Institute for Psycholinguistics,
Nijmegen, The Netherlands, ¹School of Psychology, Centre for Human Brain Health, University of Birmingham, United Kingdom

B75 Inferior frontal gyrus activation is modulated by phonetic competition: An fMRI study of clear and conversational speech ¹Xin Xie, Emily Myers; ¹University of Rochester, ²University of Connecticut

B76 N400 modulated by word onset duration but not information content during spoken word recognition ¹Jonathan Brennan, Emma Sarraff, Max Cantor, Dave Embick; ¹University of Michigan, ²University of Colorado, ³University of Pennsylvania

B77 Phoneme Perception Deficits from Unilateral Left Hemisphere Stroke: A Voxel-Based Lesion Correlation Study ¹Jeffrey Binder, Sara B. Pillay, Colin J. Humphries, Peter Kraegel, Diane S. Book; ¹Medical College of Wisconsin, Milwaukee, WI, USA

Signed Language and Gesture

B78 Trial-by-trial N400 variability reflects temporal gesture-speech integration ¹Laura Moretti, Nicole Landi, Julia Iarvin, James McPartland; ¹Yale Child Study Center, ²University of Alabama, ³Haskins Laboratories, ⁴Southern Connecticut State University

C1 The Effects of Background Noise on Native and Non-native Spoken Word Recognition: An Artificial Neural Network Modelling Approach ¹Themis Karaminis, Florian Hintz, Odette Scharenborg; ¹Centre for Language Studies, Radboud University, Nijmegen, the Netherlands; ²Max Planck Institute for Psycholinguistics, Nijmegen, the Netherlands; ³Donders Institute for Brain, Cognition, & Behavior, Radboud University Nijmegen, the Netherlands

C2 Neural synchronization of syntactic priming during face-to-face communications ¹Wenda Liu, Xiaolu Bai, Hui Zhao, Yuhang Long, Lifen Zheng, Chunming Lu; ¹Beijing Normal University

C3 Both syntactic and prosodic cues guide sentence processing in the left inferior frontal gyrus ¹Constantijn L van der Burght, Tomás Goucha, Angela D Friederici, Jens Kreitewolf, Gesa Hartwigsen; ¹Max Planck Institute for Human Cognitive and Brain Sciences, ²University of Lübeck

C4 Beyond Speech Entrainment: Delta-Band Oscillations Align Neural Excitability with High-Level Linguistic Information ¹Lars Meyer, Matthias Gumbert; ¹Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, ²University of Trento, Trento, Italy

C5 Priming sentence production and comprehension in aging ¹Grace Man, Emily Hosokawa, Holly Branigan, Jiyeon Lee; ¹Purdue University, ²University of Edinburgh

C6 Frontotemporal connectivity during syntactic movement processing ¹Eduardo Europa, Darren R Gitelman, Swathi Kiran, Cynthia K Thompson; ¹School of Communication, Northwestern University, ²Feinberg School of Medicine, Northwestern University, ³Advocate Lutheran General Hospital, ⁴Rosalind Franklin University of Medicine and Science, ⁵College of Health & Rehabilitation, Boston University, ⁶Cognitive Neurology and Alzheimer’s Disease Center, Northwestern University

C7 Conceptual number agreement processing and coreference establishing in Brazilian Portuguese: An ERP study. ¹Juliana Andrade Feiden, ²Srdan Popov, Roelien Bastiaanse; ³International Doctorate for Experimental Approaches to Language and Brain (IDEALAB), Universities of Groningen (NL), Newcastle (UK), Potsdam (DE), Trento (IT), Macquarie University (AU), ²Center for Language and Cognition Groningen (CLCG), University of Groningen, Groningen, The Netherlands

C8 An fMRI Study of Syntactic Complexity Effect of Chinese Relative Clauses ¹Yanyu Xiong, ²Chunglin Yang, Sharlene Newman; ³Indiana University

C9 Left-lateralized syntactic category processing is modulated by interhemispheric inhibition in healthy young right-handers with familial sinistrality background ¹Yi-Lun Weng, Min-Hsin Chen, Chia-Lin Lee; ³National Taiwan University, Taiwan

C10 The (non-)satiation of P600/SPS effects to distinct grammatical violations ¹Emma Nguyen, Jon Sprouse; ¹University of Connecticut

C11 The time-course of statistical learning in patients with left hemisphere stroke ¹Kathryn D. Schuler, Mackenzie E. Fama, Peter E. Turkeltaub, Elissa L. Newport; ¹Georgetown University, ²Center for Brain Plasticity and Recovery
Signed Language and Gesture

C13 The cortical organization of syntactic processing in American Sign Language: Evidence from a parametric manipulation of constituent structure in fMRI and MEG
William Matchin1, Agnes Villwock1, Austin Roth1, Deniz Ilkbasaran2, Marla Hatrak3, Tristan Davenport3, Eric Halgren4, Rachel Mayberry5; 1University of California San Diego

C14 Localizing Structure-building and Memory Retrieval in Naturalistic Language Comprehension
John Hale1, Shohini Bhattachary1, Jonathan R. Brennan2, Jixing Li3, Wenching Liu4, Christophe Pallier3, R. Nathan Spreng1; 1Cornell University, 2University of Michigan, 3INSERM-CEA Cognitive Neuroimaging Unit

Language Development

C15 Associating children’s reading and mathematics subskills with resting-state functional connectivity
Alexandra Cross1, Reshma Ramadajal2, Christine L. Stager3, Maureen W. Lovett4; 1University of Western Ontario, 2Erasmus University Rotterdam, 3Thames Valley District School Board, 4The Hospital for Sick Children, 5University of Michigan, 6INSEMEREAU Cognitive Neuroimaging Unit

C16 ERP correlates of syntactic processing in cochlear implant users.
Luca Artesini1, Mara Dighero1, Valeria Giannelli1, Debora Musola2, Francesco Vespignani2, Francesco Pavani1,2,3; 1CIMEC - Center for Mind/Brain Sciences, University of Trento, Rovereto, Italy, 2DiPSCo - Department of Psychology and Cognitive Sciences, University of Trento, Rovereto, Italy, 3Centre de Recherche en Neuroscience de Lyon, Lyon, France, 4Cooperativa Logogenia®, Italy

C17 Lesion Sites Associated with Apraxia of Speech: Report of a new case and implications for Neural Models of Speech Production
Venugopal Balasuramanian1, Ludo Max2; 1Seton Hall University, NJ, 2University of Washington, Seattle

C18 Literacy Environment Differentially Influences Brain Structural Covariance
Tin Nguyen1, Stephanie Del Tufo1,2,3; 1University of California San Diego, 2Peabody College of Education and Human Development, 3Vanderbilt University Institute of Imaging Science

C19 A window for word-learning: Measuring dynamic neural responses during statistical language learning
Nicolette Noonan1, Lisa Archibald2, Marc Joanisse3; 1The University of Western Ontario

C20 Development of the lateral lemniscus and its relation to receptive vocabulary: A diffusion-weighted imaging study
Anthony Dick1, Dea Garcia2, Heidy Zetina3; 1Florida International University

C22 Insight into spoken word processing in young children using eye movements
Elizabeth Simmons1,2, Rhea Paul3, Rachel Theodore4, Monica Li1,2, James Magnuson1; 1University of Connecticut, 2CT Institute for Brain and Cognitive Sciences, 3Sacred Heart University

C23 Neurocognitive Correlates of Child and Adult Syntactic Processing: Evidence from Classroom Second Language Learners
Fatemeh Abdollahi1, Janet G. van Hell1; 1The Pennsylvania State University

C24 Speeded grammatical processing in Tourette syndrome
Cristina Dye1, Matthew Walensi2, Adam Takacs3, Karolina Janacsek4, Andrea Kober5, Dezso Nemeth6, Stewart H. Mostofsky7, Michael T. Ullman1; 1Newcastle University, United Kingdom, 2Northwestern University, United States, 3University of Glasgow, United Kingdom, 4Eötvös Loránd University, Hungary, 5Johns Hopkins University, United States, 6George-town University, United States

C25 Sentence prosody cues object category learning at 6 months
Claudia Männel1,2, Maria Teixido1, Laura Bosch8, Angela D. Friederici1, Manuela Friedrich1,2, Max Planck Institute for Human Cognitive and Brain Sciences Leipzig, 2University of Leipzig, 3University of Barcelona, 4Humboldt-Universität zu Berlin

Language Disorders

C26 Chinese dyslexic children’s alteration in the large-scale brain functional network comparing phonological and semantic reading tasks
Jiali Hu1, Xin Liu1, Yue Gao2, Yu Zhou1, Li Liu3; 1Beijing Normal University

C27 Comprehension of sentences with structurally defined gaps in primary progressive aphasia: Evidence from eye-tracking
Matthew Walensi1, Jennifer E. Mack1, M. Marsei Mesulam1, Cynthia K. Thompson1,2,3; 1Department of Communication Sciences and Disorders, Northwestern University, Evanston, IL, USA, 2Cognitive Neurology and Alzheimer’s Disease Center, Northwestern University, Evanston, IL, USA, 3Department of Neurology, Northwestern University, Evanston, IL, USA

C28 Atypical phonemic discrimination but not audiovisual speech integration in children with the broader autism phenotype, autism, and speech sound disorder.
Julia Irwin1,2, Trey Avery1, Jacqueline Turcios1, Lawrence Brancazio1, Barbara Cook3, Nicole Landi2; 1Haskins Laboratories, 2University of Connecticut, 3Southern Connecticut State University
C29 Oscillatory Abnormalities in Primary Progressive Aphasia  Aneta Kielar1,2, Tiffany Deschamps2, Regina Jokel1,2, Jed Meltzer1,2,3; 1University of Arizona, 2Baycrest Health Sciences Toronto, Ontario, Canada, 3Canadian Partnership for Stroke Recovery, Ottawa, Ontario, Canada, 4University of Toronto, Toronto, Ontario, Canada

C30 Examining gray matter differences in a single treatment non-responder with semantic variant primary progressive aphasia  Isabel Hubbard1, Stephanie Grasso2, Heather Dial2, Maria Luisa Mandelli1, Maria Luisa Gorno-Tempini1, Maya Henry1; 1University of California San Francisco, 2University of Texas at Austin

C31 Watch your mouth: A Neuropsychological Case Study of Evoked Pupillary Responses to Profanity in Aphasia with Coprolalia  Alexandra Kelly1, Ally Dworetzky1, Helen Felker2, Bonnie Zuckerman2, Medha Raghuveendra1, Jordan Dawson1, Rachel Bastomski2, Jamie Reilly1; 1Eleanor M. Saffran Center for Cognitive Neuroscience, 2Department of Communication Sciences and Disorders Temple University, Philadelphia, Pennsylvania USA, 3Washington University in Saint Louis, Saint Louis, Missouri USA, 4Basque Center for Brain and Cognitive Science, San Sebastian, Spain

C32 Morpho-lexical Recognition Ability and Related Brain Regions in Individuals with Mild Cognitive Impairment, Alzheimer’s Dementia, and Cognitively Normal Elderly  JungMoon Hyun1, Alexandre Nikolaev2,3, Yawu Liu4, Eve High5, Minna Lehtonen6, Sameer Ashaie1, Tuomo Hänninen1, Merja Hallikainen1, Hilikka Soininen2,3; 1Northwestern University, 2University of Eastern Finland, 3University of Helsinki, 4Kuopio University Hospital, 5University of California, Riverside, 6Abo Akademi University, Turku, Finland

C33 Structural Brain Differences in Good and Poor Comprehenders Identified through a Regression-Based Quantitative Method  Kayleigh Ryherd1, Clint Johns2, Andy Jahn1, Julie Van Dyke2, Landi Nicole1,2; 1University of Connecticut, 2Haskins Laboratories

C34 Mapping Both Lesion and Behaviour Structures in Stroke Aphasia  Ying Zhao1, Ajay Halai3, Matthew Lambon Ralph2; 1Neuroscience and Aphasia Research Unit, School of Biological Sciences, University of Manchester

Meaning: Prosody, Social and Emotional Processes

C35 No Acoustic Evidence from RHD for a Right Hemisphere Role in Prosody Production: A Meta-Analysis  Ethan Weed1, Riccardo Fusaroli1; 1Aarhus University

C36 Selective involvement of posterior perisylvian regions in sublexical processing: Evidence from brain tumor patients  Fleur van Ierschot1,2, Wencwe Veenstra3,4, Barbara Santini1, Michiel Wagemakers1, Hanne-Rinck Jeltema1, Gianpietro Pinna2, Roelien Bastiaansen3, Gabriele Miceli1,2; 1International Doctorate for Experimental Approached to Language and Brain (IDEALAB), 2University of Trento, 3University of Groningen, 4University Medical Center of Groningen, 5University of Verona

Language Disorders

C37 Individual differences in the cortical activity dynamics of auditory word processing in adolescents with SLI using anatomically constrained magnetoencephalography (aMEG)  Nicholas Walker1, Julia L. Evans1,2, Timothy T. Brown1, Amy Berglund1, Meredith Scheppele1, Andrea W. Fung1; 1University of Texas at Dallas, 2UCSD

Meaning: Combinatorial Semantics

C38 Elementary composition in Language processing: an EEG study  Emilia Fló1, Álvaro Cabana1, Juan C Valle Lisboa1, Facultad de Psicología, Universidad de la República

C39 ERP effects for quantifier complexity, priming, and truth-value in an auditory/visual verification task  Aniello De Santo1, Jonathan Rawski1, John E. Drury1; 1Stony Brook University

C40 The effect of multimodal predictability on the N400  Christine Anken1, Maria Staudte1, Heiner Drenhaus1, Matthew W. Crocker1; 1Saarland University

C41 Language and multiple demand regions jointly predict individual differences in sentence comprehension: Evidence from a network approach  Qiuhai Yue1, Randi C. Martin1, Simon Fischer-Baum1, Michael W. Deem1; 1Rice University, Houston, TX, USA

C42 Extracting Single Word Voxel Patterns from Self-Paced Reading using Simultaneous Eye-Tracking and Multiband fMRI  Benjamin Schloss1, Chun-Ting Hsu1, Ping Li1; 1Pennsylvania State University

C43 Neural evidence for representationally-specific pre-activation: Evidence from Representational Similarity Analysis over time and space  Lin Wang1,2, Gina Kuperberg2,3, Ole Jensen2,3; 1Department of Psychiatry and the Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, USA, 2Department of Psychology, Tufts University, Medford, MA, USA, 3Centre for Human Brain Health, University of Birmingham, Birmingham, UK
Meaning: Discourse and Pragmatics

C44 ERPs reveal listeners’ sensitivity to discourse history in comprehension  Si On Yoon¹, Kara D. Federmeier¹; ¹University of Illinois, Urbana-Champaign

C45 Linguistic cues modulate, but don’t eliminate, the influence of event knowledge: Evidence from the N400  Elisabeth Rabs¹, Heiner Drenhaus¹, Francesca Delogu¹, Matthew Crocker¹; ¹Saarland University

C46 On-line expectation management during discourse comprehension  Geertje van Bergen¹, Marlou Rasenberg¹,², Joost Rommers³; ¹Max Planck Institute for Psycholinguistics, ²Radboud University, ³Donders Institute for Brain, Cognition and Behaviour

C47 Connecting events: an ERP study of causal connectives  Gina Kuperberg¹,², Einaí Shetreet¹; ¹Tufts University, ²Massachusetts General Hospital, ³Tel Aviv University

C48 Cognitive Control Mediates Age-Related Reductions in Adaptation to Speaker-Specific Predictability  Shruti Dave¹, Trevor Brothers¹, Matthew Traxler¹, Tamara Swaab¹; ¹University of California, Davis

Meaning: Lexical Semantics

C49 Orthographic influences on Chinese spoken language in the brain: task-dependent effects as revealed by event-related fMRI  Pei-Chun Chao¹, Wei-Fan Chen¹, Jie-Li Tsai³, Chia-Ying Lee¹; ¹National Yang-Ming University, Taiwan, ²Academia Sinica, Taiwan, ³National Chengchi University, Taiwan

C50 The Loci of the Semantic Relatedness Paradox during Speech Production  Tao Wei², Tatiana Schnur²; ¹Beijing Normal University, ²Baylor College of Medicine

C51 Developmental changes during semantic judgments to Chinese characters: A Longitudinal Study of Effective Connectivity  Li-Ying Fan¹,², Tai-Li Chou¹,²,³; ¹School of Linguistic Sciences and Arts, Jiangsu Normal University, China, ²Collaborative Innovation Center for Language Ability, Jiangsu Normal University, China, ³Department of Psychology, National Taiwan University, Taiwan

C52 ANY ERP effects  Hongchen Wu¹, Jun Lyu¹, Aydogan Yanilmez¹, John E. Drury¹; ¹Stony Brook University

C53 Incremental learning and lexical access: Evidence from aphasia  Julia Schuchard¹, Erica L. Middleton¹; ¹Moss Rehabilitation Research Institute

C54 Direct Encoding of Semantic and Orthographic Neighborhood Reveals The Organization of Lexical Access  Jona Sassenhagen¹, Benjamin Gaglioti¹,², Christian J. Fiebach¹; ¹Goethe University Frankfurt, ²IDeA Center for Individual Development and Adaptive Education, Frankfurt

C55 Age-related brain activation changes during rule repetition in word-matching  Ikram Methqal¹, Basile Pinsard¹, Maximiliano A. Wilson², Oury Monchi³, Jean-Sebastien Provost³, Mahnoush Amiri³, Yves Joannette³; ¹Centre de Recherche de l’Institut Universitaire de Gériatrie de Montréal, Montréal, Québec, Canada, ²Centre de Recherche de l’Institut Universitaire en Santé Mentale de Québec, QC, Canada, ³Hotchkiss Brain Institute, University of Calgary, Calgary, Canada

C56 Clustering Abstract Concepts into Distinct Categories  Catherine Walsh¹, Stephen J. Gotts¹, Alex Martin¹; ¹Laboratory of Brain and Cognition, National Institute of Mental Health

C57 The intensity of sensory-perceptual features regulates conceptual processing in the anterior temporal lobe’s semantic hub  Jet M. J. Vonk¹,², H. Isabel Hubbard¹, Maria Luisa Mandelli², Roel Jonkers¹, Adam M. Brickman¹, Bruce L. Miller¹, Maria Luisa Gorno-Tempini², Loraine K. Obler¹; ¹The Graduate Center of the City University of New York, ²Memory and Aging Center, University of California San Francisco, ³University of Groningen, ³The Taub Institute for Research on Alzheimer’s Disease and the Aging Brain, Columbia University

Grammar: Morphology

C58 Tracking the neurophysiological correlates during the computation of agreement dependencies: the access of grammatical feature and associative representations in spoken language  Jane Arista¹, Angèle Brunellièrè²; ¹University of Lille, CNRS, UMR 9193 - SCALab - Sciences Cognitives et Sciences Affectives, P-59000 Lille, France

Meaning: Prosody, Social and Emotional Processes

C59 Effects of cortical thickness on pause duration in neurotypical adults’ speech: Evidence for the role of the left middle temporal gyrus in lexical retrieval  Georgia Angelopoulou¹, Dimitrios Kasselimitis¹,², Maria Varkanitsa³, Panagiotis Fotiadis³, Charalambos Themistocleous³, Dimitrios Tsolakopoulos³, Christally Grillou¹, Foteini Christidi³, Efstratios Karavasilis³, George Argiropoulos³, George Velonakis³, Sofia Karanassou¹, Zoi Nikitopoulou³, Petros Roussos³, Dionysis Goutos³, Ioannis Eodokimidis³, Constantin Potagas³; ¹Eginition University Hospital - National and Kapodistrian University of Athens,
SNL 2017 Program

Speech Motor Control and Sensorimotor Integration

C60  Graph Theoretical Approaches Show a Relationship Between Resting State Functional Connectivity in Younger and Older Adults and Phonological Aspects of Language Production  Victoria Gertel, Kerem Oktar, Michele Diaz; 1Pennsylvania State University, 2Pomona College

Multilingualism

C61  Electrophysiological activity in native, dialectal and foreign accented speech processing  Clara Martin, Alejandro Pérez, Sendy Caffarra; 1BCBL, 2Ikerbasque

C63  Individual difference in language proficiency shapes the functional plasticity of language control in bilingual word production  Yongben Fu, Yanjing Wu, Chunming Lu, Taomei Guo; 1Beijing Normal University, 2Shenzhen University

C64  Effects of Frequency and Construction on the Interpretation of Chinese Quadrisyllabic Idiomatic Expressions: An fMRI Study  Te-Hsin Liu, I-Wen Su, Chia-Ho Lai, Shu-Kai Hsieh, Chia-Lin Lee, Chia-Rung Lu, I-Ni Tsai, Tai-Li Chou; 1National Taiwan University

C65  Individual differences in age of acquisition predict fine-grained white matter microstructure in bilinguals  Emily Nichols, Marc Joannis, Yue Gao, Li Liu; 1University of Western Ontario, 2Beijing Normal University

C66  Speech processing and plasticity in the right hemisphere predict real-world foreign language learning in adults  Zhenghan Qi, Michelle Han, Yunxin Wang, Carlo de los Angeles, Qi Liu, Keri Garel, Ee San Chen, Susan Whithfield-Gabrieli, John D. E. Gabrieli, Tyler K. Perrachione; 1Massachusetts Institute of Technology, 2Boston University

C67  Multi-voxel pattern analysis reveals the impact of language learning experience on the brain's intrinsic functional connectivity  Xiaojian Chai, Shanna Kousaie, Debra Titone, Shari Baum, Denise Kleinn, 1Neuropsychology/Cognitive Neuroscience Unit, Montreal Neurological Institute, McGill University, Montreal, QC, Canada, 2Centre for Research on Brain, Language and Music, McGill University, Montreal, QC, Canada, 3Department of Psychology, McGill University Montreal, QC, Canada, 4School of Communication Sciences and Disorders, Faculty of Medicine, McGill University, Montreal, QC, Canada, 5Department of Neurology and Neurosurgery, Faculty of Medicine, McGill University, Montreal, QC, Canada

C68  The language network of polyglots  Olessia Journiaux, Zachary Mineroff, Evelina Fedorenko; 1Massachusetts Institute of Technology, 2Carleton University, 3Harvard Medical School, 4Massachusetts General Hospital

C69  Bilingual experience shapes language control networks: the role of L2 AoA and social context of language usage  Jason Gullifer, Xiaqian Chai, Veronica Whitford, Irina Pivneva, Shari Baum, Denise Kleinn, Debra Titone; 1McGill University, 2Massachusetts Institute of Technology, 3Harvard University

Signed Language and Gesture

C70  Picture-Word Interference in Bimodal Bilinguals  Megan Matt, Katherine J. Midgley, Phillip J. Holcomb, Gabriela Meade, Zed Svecikova Sehyr, Karen Emmorey; 1San Diego State University, 2UCSD

Perception: Speech Perception and Audiovisual Integration

C71  Neural Correlates of Atypical Categorical Perception in Dyslexia  Sara Beach, Tracy M. Centanni, Ola Ozernov-Palchik, Sidney C. May, Dimitrios Pantazis, Tyler K. Perrachione, John D. E. Gabrieli; 1Harvard University, 2Massachusetts Institute of Technology, 3Tufts University, 4Boston University

C72  Brain-behavior relationships in implicit learning of non-native phonetic categories  Sahil Luthra, Pamela Fuhrmeister, Peter J. Molfese, Sara Guediche, Sheila E. Blumstein, Emily B. Myers, Dimitrios Pantazis, Tyler K. Perrachione, John D. E. Gabrieli; 1Massachusetts Institute of Technology, 2Basque Center on Cognition, Brain and Language, 3Brown University, 4Haskins Laboratories

C73  Neural entrainment to acoustic edges in speech  Maria Oana Cucu, Nina Kazanina, Conor Houghton; 1University of Bristol

C74  Tonal triggers to word-level and sentence-level predictions  Pelle Soderstrom, Merle Horne, Mikael Roll; 1Lund University

C75  Early Sensory Changes in Neural Processing Gate Generalized Perceptual Learning  Shannon Heald, Sophia Uddin, Stephen Van Helder, Joel Snyder, Howard Nusbaum; 1The University of Chicago, 2University of Nevada, Las Vegas
C76  Cortical entrainment depends on temporal predictability, not periodicity  Geoffrey Brookshire1, Daniel Casasanto1,2; 1University of Chicago, 2Cornell University

C77  When Do Words Get in the Way? An EEG Investigation of the Interaction between Talker and Linguistic Cues in Speech Processing  Philip Monahan1, Chandan Narayan2; 1University of Toronto, 2York University

C78  High gamma neural responses dissociate between the acoustic and linguistic analysis of temporal speech structure  Gregory Cogan1, John Pearson2, Michael Haglund3, Saurabh Sinha4, Tobias Overath2; 1Duke University School of Medicine, 2Duke University

C79  Effects of Signal Quality on Audiovisual Integration in Cochlear Implant Users  Hannah Shatzer1, Mark Pitt1, Aaron Moberly1, Jess Kerlin2, Antoine Shalin3; 1Ohio State University, 2University of California, Davis

Poster Session D

Thursday, November 9, 6:15 – 7:30 pm, Harborview and Loch Raven Ballrooms

Animal Communication

D1  von Economo and fork neurons in vocal forebrain nuclei of vocal learning birds: neural basis of Vocal learning and language  Shubha Srivastava1; 1Kashi Naresh Government Post Graduate College, Gyanpur U P India

D2  Linking white matter integrity to syntactic category processing - an ERP and DTI study  Wan-ting Lin1, Chen-Hsiang Weng2, Min-Hsin Chen3, Wen-Yih Isaac Tseng4, Joshua Oon Soo Goh5, Chia-Lin Lee6; 1National Taiwan University

D3  On the neural dynamics of syntactic prediction  K. Strijkers1, V. Chanoine2, D. Munding3, A.-S. Dubarry4, A. Trébuchon5, J.-M. Badier6, F.-X. Alario3; 1Aix Marseille Univ, CNRS, LPL, Aix-en-Provence, France, 2Aix-Marseille Univ, Brain and Language Research Institute, Aix-en-Provence, France, 3Aix Marseille Univ, CNRS, LPC, Marseille, France, 4Aix Marseille Univ, INSERM, INS, Inst Neurosci Syst, Marseille, France

D4  ERP responses to two types of subject island violations and constructions with substantially similar processing dynamics  Jayeon Park1, Jon Sprouse2; 1University of Connecticut

D5  In search of syntax: The case of English post-nominal modification  Graham Flick1, Liina Pylkkänen1,2; 1New York University Abu Dhabi, 2New York University

D6  The role of structural repair and presentation modality in (dis)agreement processing in Dutch: An ERP study  Srdan Popov1,2, Roelien Bastiaanse3; 1International Doctorate for Experimental Approaches to Language and Brain (IDEALAB), Universities of Groningen (NL), Newcastle (UK), Potsdam (DE), Trento (IT), Macquarie University (AU), 2Center for Language and Cognition Groningen (CLCG), University of Groningen, The Netherlands

D8  Incremental commitment and revision in Icelandic compound processing  Kaylin Smith1, Alicia Parrish1, Alan Beretta1; 1Michigan State University

D9  Investigating task-modulated syntactic prediction with MEG  Phoebe Gaston1, Chia-Hsuan Liao1, William Matchin2, Ellen Lau3; 1University of Maryland, College Park, 2University of California San Diego

D10  A syntax area in the posterior superior temporal sulcus  William Matchin1, Gregory Hickok2; 1UC San Diego, 2UC Irvine

D11  EEG correlates of covert dependency formation in Mandarin wh-questions  Chia-Wen Lo1, Jonathan Brennan1; 1University of Michigan

D12  Decoding the P600: late ERP positivities to syntactic mismatch share neural patterns with nonlinguistic oddballs, but not face or semantic manipulation patterns  Jona Sassenhagen1, Christian J. Fiebach1; 1Goethe University Frankfurt, 2IDeA Center for Individual Development and Adaptive Education, Frankfurt

D13  Test-retest reliability of language evoked potentials  Matthew Walenski1, Elena Barbieri1, Brianne Dougherty1, Cynthia K. Thompson1,2,3; 1Department of Communication Sciences and Disorders, Northwestern University, Evanston, IL, USA, 2Cognitive Neurology and Alzheimer’s Disease Center, Northwestern University, Evanston, IL, USA, 3Department of Neurology, Northwestern University, Evanston, IL, USA

Language Therapy

D14  Aligning sentence structures in a language game: evidence from healthy aging and aphasia  Jiyeon Lee1, Grace Man1, Victor Ferreira2, Nick Gruber3; 1Purdue University, 2University of California San Diego

D15  Resting-state connectivity during second language learning in deaf individuals  Velia Cardin1, Elena Kremnova2, Elina Zmeikina3, Anna Komarova4, Valeria Vinogradova2,3, Tatiana Davidenko1,4, Bencie Wolf5;
Signed Language and Gesture

D23 Language pathway development requires childhood language acquisition: Effects of sensorimotor modality and language deprivation on brain connectivity for language Qi Cheng1, Eric Halgren1, Rachel Mayberry1; 1University of California, San Diego

Language Disorders

D24 Same but different: comprehension of spatial terms in highly verbal individuals with autism and typically developing controls Agata Bochynska1, Valentyn Vulchanov1, Mila Vulchanova1; 1Norwegian University of Science and Technology, NTNU Trondheim

D25 Connections between implicit learning and reading fluency: an fMRI investigation Ola Ozernov-Palchik1,2, Tracy Centanni2,4, Sara Beach2,3, Sidney May2, Meredith Brown1, John Gabrieli1; 1Tufts University, 2Massachusetts Institute of Technology, 3Harvard University, 4Texas Christian University

D26 Neural network of verbal, nonverbal and amodal semantic processing deficits in semantic dementia Yan Chen1, Keliang Chen1, Junhua Ding1, Yumei Zhang1, Qing Yang2, Yingru Lo2, Qihao Guo2, Zaizhu Han1; 1Beijing Normal University, 2Fudan University, 3Beijing Tiantan Hospital

D27 How does iReadMore therapy change the reading network connectivity in patients with central alexia? Sheila Kerry1, Zoe Woodhead2,3, Oscar Aguilar1,4,5, Jenny Crinion1, Will Penny4, Yeon-Ong Hoon4, Alex Leff1,3,4; 1Institute of Cognitive Neuroscience, University College London, 17 Queen Square, London, WC1N 3AR, UK, 2Department of Experimental Psychology, University of Oxford, UK, 3Department of Brain Repair and Rehabilitation, Institute of Neurology, University College London, UK, 4Wellcome Trust Centre for Neuroimaging, University College London, 12 Queen Square, London, WC1N 3BG, UK, 5Facultad de Psicología, Pontificia Universidad Javeriana, Bogotá, Carrera 7, No. 40 – 62, Colombia.

D28 Sentence Repetition Impairment in Primary Progressive Aphasia: A Voxel-Based Morphometry (VBM) study Sladjana Lukic1, Maria Luisa Mandelli1, Ariane Welch1, Yann Cobigo1, H. Isabel Hubbard1, Maria Luisa Gorno-Tempini1; 1Memory and Aging Center, Department of Neurology, University of California San Francisco

D29 Implicit verbal structure learning in Developmental Verbal/Orofacial Dyspraxia due to FOXP2 mutation: An fMRI study Georgios P.D. Argyropoulos1, Mortimer Mishkin1, Faranbeh Vargha-Khademi1,2; 1UCL Great Ormond Street Institute of Child Health, London, UK, 2National
D30 Semantic Comprehension Errors in Pure Word Deafness L. Robert Slevc1, Ryan A. Simmons2, Randi C. Martin3; 1University of Maryland, 2Duke University, 3Rice University

D31 What Matters about White Matter Argye Hillis1, Amy Wright1, Sadhvi Saxena1, Bonnie Breining1, Rajani Sebastian2, Donna Tippet1; 1Johns Hopkins University School of Medicine

D32 Using background connectivity to index recovery of function in acquired language impairments Yuan Tao1, Brenda Rapp1; 1Johns Hopkins University

Meaning: Combinatorial Semantics

D34 Verb constraint and semantic integration Ben Rickles1,2, Gwen A. Frishkoff1; 1Georgia State University, 2University of Oregon

D35 Effects of Aging on Semantic-Syntactic Integration in Chinese Classifier-noun Agreement Chia-Ju Chou1, Chih-Ting Chang1, Jie-Li Tsai1, Chia-Ying Lee1; 1National Yang-Ming University, 2National Chiao-Tung University, 3Academia Sinica

D36 Predicting the negative: investigating the comprehension of negated sentences in an event-related potential study Viviana Hase1, Markus Werning1; 1Institute for Philosophy II, Ruhr University Bochum, Germany

D37 The P600 - not the N400 - indexes semantic integration Francesca Delogu1, Harm Brouwer1, Matthew Crocker1; 1Saarland University

D38 Quick and easy composition of event concepts in the left (but not the right) anterior temporal lobe Songhee Kim1, Liina Pylkkänen1; 1New York University, 2NYU Abu Dhabi Institute

D39 A distributed and dynamic architecture underlies the retrieval of social concepts Ingrid Olson1, Yin Wang1, Jessica A. Collins1, Jessica Koski1, Tehila Nugi1, Alhtanasia Metoki1; 1Temple University

Meaning: Discourse and Pragmatics

D40 Semantic activity differs during comprehension and production of sentences Clara Scholl1, Alice Jackson1, Michael Wolmets1; 1Johns Hopkins University Applied Physics Laboratory

D41 Neural measures of sensitivity to the acquisition of space-time mappings in an artificial semiotic system Tania Delgado1, Tessa Verhoef1, Esther Walker1, Seana Coulson1; 1UC San Diego

D42 Functional connectivity between cognitive control and episodic memory systems in event comprehension Zachary Ekues1,2, Pedro Paz-Alonso1, Nicholas Hindi1, Sarah Solomon1, Gerry Altmann1; 1University of Connecticut, 2The Connecticut Institute for the Brain and Cognitive Sciences, 3Basque Center on Cognition, Brain and Language, 4University of Kentucky, 5University of Pennsylvania

D43 Individual Competence in Reading Comprehension and Fluid Intelligence Modulates Right DLPFC Activity when Reading Scientific Texts Chun-Ting Hsu1, Benjamin Schloss1, Ping Li1; 1Pennsylvania State University

Meaning: Prosody, Social and Emotional Processes

D44 Neural Mechanisms Underlying Social Criticism and Praise Shan Gao1,2, Ting Gou1; 1School of Foreign Languages, University of Electronic Science and Technology of China, Chengdu, China, 2Key Laboratory for NeuroInformation of Ministry of Education, University of Electronic Science and Technology of China, Chengdu, China

D45 Effect of methylphenidate on semantic unification: Evidence from an EEG study in the healthy population Yingying Tan1, Peter Hagoort1; 1Max Planck Institute for Psycholinguistics

D46 Brain oscillation signatures of learning new meanings for known words and novel words Xiaoping Fang1,2, Charles Perfetti2; 1Learning Research and Development Center, University of Pittsburgh, 2Center for the Neural Basis of Cognition

D47 A study, the study: Using indefinite and definite articles to examine the nature of structure building Regina Calloway1,2, Charles Perfetti2; 1Learning Research and Development Center, University of Pittsburgh, 2University of Pittsburgh Psychology

D48 Verb Deficits in Alzheimer’s Disease and Aphasia: Argument-Structure and Thematic-Hierarchy Effects Caitlyn Antal1, Julie Turbide1, Roberto G. de Almeida1; 1Concordia University

D49 The fate of the unexpected: Downstream repetition effects for prediction violations Melinh K. Lai1, Kara D. Federmeier1; 1University of Illinois, Champaign, United States
D50  Grammatical gender in the aging brain: an ERP study of prediction and integration in a sentence context  Matthew Wood¹, Virdiana Estrada¹, Alondra Chaire³, Nicole Y.Y. Wicha¹,²; ¹University of Texas at San Antonio, ²The University of Texas Medical Branch, ³Otto-von-Guericke-Universität Magdeburg Magdeburg, Germany, ⁴UTSA Neurosciences Institute

D51  Regions that preferentially respond to verbs or nouns are more sensitive to semantic differences among words in their preferred grammatical class: An MVPA fMRI study.  Giulia V. Elli¹, Connor Lane¹, Marina Bedny¹; ¹Johns Hopkins University

Meaning: Prosody, Social and Emotional Processes

D52  Neural processing of emotional words in post-institutionalized adults: an ERP study using Emotional Stroop task  Marina Zhukova¹, Irina Ovchinnikova¹, Sergey Kornilov²,³,⁴, Elena Grigorenko¹,²,³,⁴, ¹Saint-Petersburg State University, Saint-Petersburg, Russia, ²University of Houston, Houston, TX, USA, ³Baylor College of Medicine, Houston, TX, USA, ⁴Haskins Laboratories, New Haven, CT, USA, ⁵Yale University, New Haven, CT, USA

Computational Approaches

D53  Bayesian surprise during incremental anticipatory processing: a re-analysis of Nieuwland et al. (2017), based on DeLong et al. (2005)  Shaorong Yan¹, Gina R. Kuperberg²,³, T. Florian Jaeger⁴,⁵; ²Department of Brain and Cognitive Sciences, University of Rochester, ³Department of Psychology, Tufts University, ⁴Department of Psychiatry and the Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, ⁵Department of Computer Science, University of Rochester, ⁶Department of Linguistics, University of Rochester

Speech Motor Control and Sensorimotor Integration

D54  White Matter Integrity and Language Production in Aging  Sara Winter¹, Avery Rizio¹, Jack Dempsey¹, Kerem Oktar², Michele Diaz¹; ¹Pennsylvania State University, ²Pomona College

Perception: Speech Perception and Audiospatial Integration

D55  Declarative and procedural memory substrates of the categorical perception of speech  F. Sayako Earle¹, Emily B. Myers¹, Jarrad A.G. Lunn¹, Michael T. Ullman²; ¹University of Delaware, ²University of Connecticut, ³Deakin University, ⁴Georgetown University

D56  Reducing playback rate of audiovisual speech leads to a surprising decrease in the McGurk effect  John Magnotti¹, Debshila Basu Mallick², Michael Beauchamp³; ¹Baylor College of Medicine, ²Rice University

D57  The influence of speaker gaze on situated comprehension: Evidence from an ERP study  Torsten Jachmann¹,², Heiner Drenhaus¹,², Maria Staude¹,², Matthew Crocker¹,²; ¹Department of Language Science and Technology, Saarland University, Germany, ²Cluster of Excellence MMCI, Saarland University, Germany

D58  Effect of Native Language on L2 Processing of Acoustic and Phonological Information in Mandarin Lexical Tones  Keke Yu¹, Li Li¹, Yuan Chen¹, Yacong Zhou¹, Ruiming Wang¹, Yang Zhang¹, Ping Li¹; ¹South China Normal University, ²University of Minnesota, ³Pennsylvania State University

D59  Mice can learn phonetic categories.  Michael Wehr¹, Jonny Saunders¹; ¹University of Oregon

D60  Somatosensory information affects word segmentation and perception of lexical information  Rintaro Ogane¹,², Jean-Luc Schwartz¹,², Takayuki Ito¹,²,³; ¹GIPSA-lab, CNRS, ¹11 rue des Mathématiques, Grenoble Campus, BP46, F-38402 Saint Martin D’Hères Cedex, France, ²Univ. Grenoble-Alpes, 621 avenue Centrale, 38400 Saint Martin D’Hères, France, ³Haskins Laboratories, 300 George Street, New Haven, CT 06511 USA

D61  Cross-linguistic differences in MMN asymmetry: Voicing underspecification in Japanese  Yasuaki Shinohara¹, Arild Hestvik¹, Rinus Verdonck²,²,³, Karthik Durvasula¹, Hiromu Sakai¹; ¹Waseda University, ²University of Delaware, ³Michigan State University

D62  Tracking phoneme processing during continuous speech perception with MEG  Christian Brodbeck¹, Jonathan Z. Simon¹; ¹University of Maryland, College Park

D63  Individual Differences in Subphonemic Sensitivity and Reading Ability  Monica Li¹,², David Braze¹,², Anuene Kukona¹,², Donald P. Shankweiler¹,², Whitney A. Tabor¹,², Julie Van Dyke², W. Einar Menc³, Clinton L. Johns², Kenneth R. Pugh¹,², James S. Magnuson¹,²; ¹University of Connecticut, Storrs, Connecticut, USA, ²Haskins Laboratories, New Haven, Connecticut, USA, ³De Montfort University, The Gateway, Leicester, UK

Animal Communication

D64  Auditory and visual sequence learning in humans and monkeys  Alice Milne¹, Chris Petko¹, Ben Wilson¹; ¹Institute of Neuroscience, Newcastle University, United Kingdom
Perception: Auditory

**D65** Processing of English focal stress by L1-English and L1-Mandarin/L2-English speakers: An auditory ERP study  
Ellen Gutigelaar\(^1,2\), John Drury\(^1\); \(^1\)Stony Brook University, \(^2\)East Tennessee State University

**D66** Prosodic lengthening and boundary prediction in nominal compounds: An ERP study  
Alicia Parrish\(^1\), Patrick Kelley\(^1\), Kaylin Smith\(^1\), Yan Cong\(^1\), Alan Beretta\(^1\); \(^1\)Michigan State University

**D67** Accented speech attenuates code-switching costs in bilingual listeners: An auditory electrophysiological study  
Carla Fernandez\(^1\), Janet van Hell\(^1\); \(^1\)Pennsylvania State University

**D68** Cortical responses to linguistic features in natural story comprehension  
Katerina Danae Kandylaki\(^1\), Hugo Weissbart\(^1\), Tobias Reichenbach\(^1\); \(^1\)Imperial College London

Phonology and Phonological Working Memory

**D69** Using phonemic, rapid naming and orthographic measures to predict volume of the posterior cingulate  
Hannah Travis\(^1\), Jennifer Schlak\(^1\), Ruchi Brahmacari\(^1\), Andrew Molnar\(^1\), George Hynd\(^1\), Michelle Kibby\(^1\); \(^1\)Southern Illinois University-Carbondale, \(^2\)Oakland University

**D70** Perceptual sensitivity to non-native sounds: ERP evidence of neurolasticity in the phonological system related to second language learning  
Karin Heidlmayr\(^1,2\), Emmanuel Ferragne\(^2\), Frédéric Isel\(^3\); \(^1\)Max-Planck Institute for Psycholinguistics, Nijmegen, The Netherlands, \(^2\)Laboratory CLILLAC-ARP – EA3967, Paris Diderot – Sorbonne Paris Cité University, Paris, France, \(^3\)Laboratoire MoDyCo-CNRS University Paris Nanterre – Paris Lumières, France

**D71** The Neural Basis of Phonological and Orthographic Working Memory: Implications for Working Memory Models  
Brenda Rapp\(^1\), Jeremy Purcell\(^1\), Randi Martin\(^2\); \(^1\)Johns Hopkins University, \(^2\)Rice University

Language Therapy

**D72** Electrophysiological predictors of efficacy for treatment of reading and language impairments  
Paul Fillmore\(^1\), Michaela Ritter\(^1\); \(^1\)Baylor University

Control, Selection, and Executive Processes

**D73** Modulating the left inferior frontal cortex by task, task challenge and tDCS  
Davide Nardo\(^1\), Katerina Pappa\(^1\), John Duncan\(^1\), Peter Zeidman\(^3\), Martina Callaghan\(^3\), Alexander Leff\(^3,4\), Jennifer Crinion\(^1\); \(^1\)Institute of Cognitive Neuroscience, University College London, London, UK, \(^2\)MRC Cognition and Brain Sciences Unit, University of Cambridge, Cambridge, UK, \(^3\)Wellcome Trust Centre for Neuroimaging, University College London, London, UK, \(^4\)Department of Brain Repair and Rehabilitation, Institute of Neurology, University College London, London, UK

Speech Motor Control and Sensorimotor Integration

**D74** Manual directional gestures facilitate learning of Mandarin tones  
Anna Zhen\(^1,2\), Stephen Van Hedger\(^1\), Shannon Heald\(^1\), Susan Goldin-Meadow\(^1\), Xing Tian\(^2\); \(^1\)The University of Chicago, \(^2\)New York University Shanghai

**D75** Brain lesion associated with impaired sensorimotor processing of speech auditory feedback in aphasia  
Roobeh Behroozmand\(^1\), Lorelei Phillips\(^1\), Karim Johari\(^1\), Leonardo Bonilha\(^1\), Chris Rorden\(^1\), Gregory Hickok\(^1\), Julius Fridriksson\(^1\); \(^1\)Speech Neuroscience Lab, Department of Communication Sciences and Disorders, University of South Carolina, 1224 Sumter Street, Columbia, SC 29201, USA, \(^2\)The Aphasia Lab, Department of Communication Sciences and Disorders, University of South Carolina, 915 Greene St., Columbia, SC 29208, USA, \(^3\)Department of Neurology, Medical University of South Carolina, Charleston, SC 29425, USA, \(^4\)Department of Psychology, University of South Carolina, Columbia, SC 29208, USA, \(^5\)Department of Cognitive Sciences, University of California, Irvine, Irvine CA 92697, USA

**D76** Investigating voice imitation using fMRI and real-time anatomical MRI of the vocal tract  
Carolyn McGettigan\(^1\), Sheena Waters\(^1\), Clare Lally\(^1\), Daniel Carey\(^1,2\), Elise Kamber\(^1\), Valentina Carteri\(^1\), Marc Miquel\(^1,2\); \(^1\)Royal Holloway, University of London, UK, \(^2\)Trinity College Dublin, IRE, \(^3\)University of Sussex, UK, \(^4\)Queen Mary University of London, UK, \(^5\)Barts NHS Trust, London, UK

**D77** Speech encoding in the human subthalamic nucleus  
Witold Lipski\(^1\), Ahmad Alhourani\(^1\), Tara Pirnia\(^1\), Peter Jones\(^1\), Christina Dastolfo-Hromack\(^1\), Leah Helou\(^1\), Susan Shaiman\(^1\), Michael Dickey\(^1\), Lori Holt\(^1\), Robert Turner\(^1\), Julie Fiez\(^1\), Mark Richardson\(^1\); \(^1\)University of Pittsburgh

**D78** Articulatory gesture encoding in human sensorimotor cortex during continuous speech production  
Josh Chartier\(^1\), Gopala K. Anumanchipalli\(^1\), Edward F. Chang\(^1\); \(^1\)University of California, San Francisco
**Poster Session E**  
Friday, November 10, 10:00 – 11:15 am, Harborview and Loch Raven Ballrooms

**Language Development**

**E1** Evoked and oscillatory EEG activity differentiates language discrimination in young monolingual and bilingual infants  
Loreto Nacar, Carlos Guerrero-Mosquera, Marc Colomer, Nuria Sebastian-Galles; 1Center for Brain and Cognition, Universitat Pompeu Fabra, Spain, 2Infant Studies Centre, University of British Columbia, Canada

**E2** The relationship between lexical development and neural measures of speech discrimination in monolingual and bilingual toddlers  
Valerie Shafer, Carol Tessel, Michelle MacRay-Higgins, Nancy Vidal, Yan Yu, Alahna Cogburn; 1The Graduate Center, CUNY, 2Florida Atlantic University, 3Hunter College, 4Iona College, 5St. John’s University

**E3** N170 sensitivity to orthographic and visual-spatial processing in Chinese L1 and L2 kindergartners  
Fan Su, Hyun Kyung Lee, Lirong Luo; 1The University of Hong Kong, 2The Education University of Hong Kong

**E4** The Function of Cerebellum VI in Reading—Evidence from Cerebro-Cerebellar Functional Connectivity  
Chen Ang, Xiaoxia Feng, Hehui Li, Manli Zhang, Mengyu Tian, Yue Gao, Xiangzhi Meng, Guosheng Ding; 1Beijing Normal Univ., Beijing, China, 2Peking Univ., Beijing, China, 3Inst. of psychology, Chinese Acad. of Sci., Beijing, China

**E5** Early specialization of phonological and semantic processing in 5- to 6-year-old children  
Yael Weiss, James R Booth; 1University of Texas at Austin

**E6** A sensitive period for the modification of the language network in blindness  
Rashi Pant, Shipra Kanjila, Connor Lane, Marina Bedny; 1Johns Hopkins University

**E7** Brain white matter of children shows structural changes specific to language training performance  
Clara E. M. Ekerdt, Clara Kühn, Alfred Anwander, Jens Brauer, Angela D. Friederici; 1Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

**E8** Language Training Induces Changes in Cortical Thickness of the Developing Brain  
Clara Kühn, Clara E. M. Ekerdt, Elisabeth Wenger, Riccardo Caferio, Jens Brauer, Angela D. Friederici; 1Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 2Max Planck Institute for Human Development, Berlin, Germany

**E9** Language exposure is associated with the cortical thickness of young, low-SES children  
Rachel Romeo, Julia Leonard, Sydney Robinson, Meredith Rowe, Allyson Mackey, John Gabrieli; 1Harvard Medical School, 2Massachusetts Institute of Technology, 3Harvard Graduate School of Education, 4University of Pennsylvania

**Language Genetics**

**E10** Becoming a balanced, proficient bilingual: Predictions from age of acquisition & genetic background  
Kelly A. Vaughn, Arturo E. Hernandez; 1University of Houston

**Perception: Orthographic and Other Visual Processes**

**E11** Orthographic processing and print tuning are atypical in adults with a history of institutionalization: an ERP study  
Irina Ovchinnikova, Tatiana Logvinenko, Marina Zhukova, Sergey Kornilov, Elena Grigorenko; 1Saint-Petersburg State University, Saint-Petersburg, Russia, 2University of Houston, Houston, TX, USA, 3Baylor College of Medicine, Houston, TX, USA, 4Haskins Laboratories, New Haven, CT, USA, 5Yale University, New Haven, CT, USA

**Methods**

**E12** Measuring an Individual’s Semantic Storage Loss due to Temporal Lobe Damage  
Carlos Roncero, Jim Nikelski, Stephan Probst, Alex Theil, Howard Chertkow; 1Lady Davis Institute, Jewish General Hospital

**Language Disorders**

**E13** Characterizing connected speech in French-speaking Alzheimer’s disease and semantic variant of primary progressive aphasia patients  
Maxime Montembeault, Mariem Boukadi, Audrey Sheehan, Robert Jr Laforce, Maximiliano A. Wilson, Isabelle Rouleau, Simon M. Brambati; 1Centre de recherche de l’Institut universitaire de gériatrie de Montréal, 2Université de Montréal, 3Université Laval, 4Centre de recherche du Centre hospitalier universitaire de Québec, 5Centre de recherche de l’Institut universitaire en santé mentale de Québec, 6Université du Québec à Montréal

**E14** Brain bases of acquired reading impairments in stroke  
William Graves, Olga Boukrina, A. M. Barrett; 1Rutgers University - Newark, 2Kessler Foundation
E15  Effect of rTMS on Brain Activation and Naming Performance in Chronic Aphasia: Results from a Pilot Participant  Michelle Gravier1, Steven Forman1,2, Michael Dickey1,2, William Hula1,2, Patrick Doyle1,2; 1VA Pittsburgh Healthcare System, 2University of Pittsburgh

E16  The dyslexic brain before and after literacy - unifying structural signs  Ulrike Kuhl1, Angela D. Friederici1, Michael A. Skeide1; 1Max Planck Institute for Human Cognitive and Brain Sciences

E18  Agrammatic performance in aphasia: A ventral-stream problem?  Dirk-Bart Den Ouden1, Alexandra Basilakos1, Ezequiel Gleichgerrcht2, Svetlana Malyutina3, Chris Rorden1, Julius Frideriksson1; 1University of South Carolina, 2Medical University of South Carolina, 3National Research University Higher School of Economics, Moscow

E19  Patterns of grey matter changes in the acute phase of post-stroke aphasia  Mariem Boukadi1,2, Karine Marcotte3,4, Maxime Montembeault1,2, Alex Desautels4, Simona Brambati1,2; 1Department of Psychology, Université de Montréal, 2Centre de recherche de l'Institut universitaire de gériatrie de Montréal (CRIUGM), 3École d’orthophonie et d’audiologie, Université de Montréal, 4Centre de recherche de l’Hôpital du Sacré-Cœur de Montréal

E20  Functional subspecialization of Broca’s area in the controlled selection of verbal and nonverbal representations and fluent sentence production.  Denise Y. Harvey1,2, Myrna F. Schwartz1; 1Moss Rehabilitation Research Institute, 2University of Pennsylvania

E21  Lower axon density in residual temporal white matter is related to semantic paraphasia prevalence  Emilie McKinnon1, Jens Jensen1, Julius Frideriksson1, Chris Rorden1, Joseph Helpern1, Leonardo Bonilha1; 1Medical University of South Carolina, 2University of South Carolina

E22  An adaptive semantic matching paradigm for reliable and valid language mapping in individuals with aphasia  Melodie Yen1, Dana K. Eriksson2, Andrew T. DeMarco3, Stephen M. Wilson1; 1Vanderbilt University Medical Center, 2University of Arizona, 3Georgetown University

Language Therapy

E23  Interventions for Primary Progressive Aphasia: A scoping review  Yara Inuy1, Vania de Aguiar1; 1Department of clinical Speech and Language Studies, Trinity College Dublin, Dublin, Ireland

Speech Motor Control and Sensorimotor Integration

E24  Decoding the cortical sensitivity of spoken acoustic variability in persons with aphasia  Caroline Niziolek1, Sara Beach1, Swathi Kiran1; 1Boston University, 2Harvard Medical School

E25  Reconfiguration of the semantic and default mode networks induced by variations of semantic context during comprehension of written narratives  Francesca Martina Branzi1, Gina F. Humphreys1, Paul Hoffman2, Matthew A. Lambon Ralph1; 1University of Manchester, 2University of Edinburgh

E26  The Processing of Conceptual Shifts: an ERP Study  Natalia Bekemeier1, Dorothea Brenner1, Katja Biermann-Ruben1, Peter Indefrey1; 1Heinrich-Heine-University Düsseldorf, Germany, 2Donders Institute for Brain, Cognition and Behaviour, Centre for Cognitive Neuroimaging, The Netherlands

E27  Making sense of real-time access to knowledge during sentence processing: What you know, what you don’t know, and what you don’t know you know  Melissa Troyer1, Marta Kutas1; 1University of California, San Diego

E28  Robust Electrophysiological Indices of Semantic Surprisal during Natural, Ongoing Speech Processing.  Michael Broderick1, Andrew James Anderson2, Giovanni M. Di Liberto1, Edmund C. Lalor1; 1School of Engineering, Trinity Centre for Bioengineering, and Trinity College Institute of Neuroscience, Trinity College Dublin, Dublin, Ireland, 2Department of Biomedical Engineering and Department of Neuroscience, University of Rochester, Rochester, New York, 14627

E29  Locus of semantic and syntactic processing in normal language processing: Anterior Temporal Lobe  Jona Sassenhagen1, Denis A. Engemann1, Christian J. Fiebach1; 1Goethe University Frankfurt, 2Parietal project-team, INRIA Saclay - ile de France, France, 3University Paris-Sud, Université Paris-Saclay, NeuroSpin center, France, 4IDEA Center for Indiivudual Development and Adaptive Education, Frankfurt

Meaning: Discourse and Pragmatics

E31  Establishing a Bio-Marker of Object-State Competition  Yanina Prystauka1,2, Zachary Ekves1,2; 1University of Connecticut, 2The Connecticut Institute for the Brain and Cognitive Sciences
E32  Examining individual differences in the processing of referential dependencies in Spanish: an ERP investigation  Nick Ferocë1, Lauren Covey, Robert Fiorentino, Alison Gabriele; 1University of Kansas

E33  The shared and dissociable neural substrates of generalized and particularized conversational implicature  Wangshu Feng1,2, Hongbo Yu1,3, Xiaolin Zhou1,2,3,5; 1Center for Brain and Cognitive Sciences, Peking University, Beijing 100871, China, 2School of Psychological and Cognitive Sciences, Peking University, Beijing 100871, China, 3Department of Experimental Psychology, University of Oxford, OX1 3UD, Oxford, UK, 4Key Laboratory of Computational Linguistics, Ministry of Education, Peking University, Beijing 100871, China, 5Beijing Key Laboratory of Behavior and Mental Health, Peking University, Beijing 100871, China, 6PKU-IDG/McGovern Institute for Brain Research, Peking University, Beijing 100871, China

E34  Electrophysiological Evidence for Memory Retrieval during Referential Processing  Hossein Karimi1, Tamara Swaab1, Fernanda Ferreira1; 1University of California, Davis

E35  Men who compliment a woman’s appearance using metaphorical language are more creative and masculine and attractive to women  Zhao Gao1, Qi Yang1, Xiaole Ma1, Yang Li1, Becker Benjamin1, Keshuang Li1, Keith Kendrick1; 1University of Electronic Science and Technology of China

Meaning: Prosody, Social and Emotional Processes

E36  High Definition-transcranial Direct Current Stimulation Modulates Category Verbal Fluency in Healthy Adults  Julie Fratantoni1, ReAna Limones1, Jeffrey Spence1, Julia Evans1, John Hart1; 1The University of Texas at Dallas

E37  High Definition-transcranial Direct Current Stimulation Modulates Phonemic Verbal Fluency in Healthy Adults  ReAna Limones1, Fratantoni Julie1, Evans Julia1, Hart John1; 1The University of Texas at Dallas

E38  Changing Task Demands in a Semantic Decision Task: Evidence for the Dynamic Multilevel Reactivation Framework  Joshua Troche1; 1University of Central Florida

E39  Evidence for a causal link between left temporo-parietal alpha-beta desynchronisation and context-driven word production  Vitoria Piai1,2, Joost Rommers1, Robert Knight3; 1Radboud University, Donders Institute for Brain Cognition and Behaviour, 2Radboudumc, Department of Medical Psychology, 3University of California, Berkeley, Helen Wills Neuroscience Institute and Department of Psychology

Meaning: Lexical Semantics

E40  Neural correlates of naming practice of nouns and verbs: An fMRI study in healthy controls  Ekaterina Delikishkina1,3, Angelika Lingnau1,2, Gabriele Miceli1,3; 1University of Trento, 2Royal Holloway University of London, 3International Doctorate for Experimental Approaches to Language and Brain (IDEALAB), Universities of Trento, Groningen, Newcastle, Potsdam & Macquarie University

E41  Entrenchment in Chinese quadra-syllabic idiomatic expressions: a fMRI study  Shu-Kai Hsieh1, Tai-Li Chou2, Yu-Hsiang Tseng2, Chiumg-Yu Chiang1, Chia-Lin Lee1,2, Te-Hsin Liu2, Chia-Kung Lu2, I- Ni Tsai3, I-Wen Su1; 1Graduate Institute of Linguistics, National Taiwan University, 2Department of Psychology, National Taiwan University, 3Graduate Program of Teaching Chinese as a Second Language, National Taiwan University

E42  Different mechanisms for lexical ambiguity resolution in individuals with ASD?  Emily Coderre1, Mariya Chernenok2, Trevor Brothers2, Barry Gordon1, Kerry Ledoux1; 1Johns Hopkins University, 2University of California, Davis

E43  Spatio-temporal granularity of dorsal stream processing during word production  F.-X. Alario1, C. LIEGOIS-CHAUVEL1,2, A.-S. Dubarry1, I. Wang3, S. Alonam3, I. Najm3, J. Gonzalez-Martinez3; 1Aix Marseille Univ, CNRS, LPC, Marseille, France, 2Aix Marseille Univ, INSERM, INS, Inst Neurosci Syst, Marseille, France, 3Cleveland Clinic Foundation, Cleveland (OH), USA, 4Aix Marseille Univ, CNRS, LPL, Aix-en-Provence, France

Computational Approaches

E44  Comprehenders Rationally Adapt Semantic Predictions to the Statistics of the Local Environment: A Bayesian model of trial-by-trial modulation on the N400  Gina Kuperberg1,2, Nathaniel Delaney-Busch1, Emily Morgan1, Ellen Lau1; 1Department of Psychology, Tufts University, 2Department of Psychiatry and the Athinoulia A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, 3Department of Linguistics, University of Maryland

Meaning: Prosody, Social and Emotional Processes

E45  When the expressive prosody meets word predictions in spoken-language comprehension  Angèle Brunellière1, Laurence Delrue1,2; 1Univ. Lille, CNRS, UMR 9193 - SCALab - Sciences Cognitives et Sciences Affectives, F-59000 Lille, France, 2Univ. Lille, CNRS, UMR 8163 - STL - Savoirs Textes Langage, F-59000 Lille, France
Speech Motor Control and Sensorimotor Integration

E46 Interhemispheric functional connectivity predicts action semantic performance in stroke Nicholas Riccardi1, Chris Rorden1, Julius Fridriksson2, Rutvik H. Desai1; 1Department of Psychology, University of South Carolina, 2Department of Communication Science & Disorders, University of South Carolina, 3McCausland Center for Brain Imaging, University of South Carolina

Methods

E47 Oscillatory dynamics identify unique neural processes beyond event-related responses during auditory sentence comprehension Julie Schneider1, Mandy Maguire1; 1Callier Center for Communication Disorders at the University of Texas at Dallas

E48 Performance differences on reading skill measures are related to differences in cortical grey matter structure in young adults Clinton Johns1, Andrew A. Jahn1, Hannah R. Jones2, Dave Kush1, Peter J. Molfese1, Julie A. Van Dyke1, James S. Magnuson1, Whitney Tabor1, W. Einar Mencl1; 1Haskins Laboratories, 2University of Rochester, 3Norwegian University of Science and Technology, 4National Institutes of Health, 5University of Connecticut

E49 Behavior stability and reliability of fMRI activation in stroke aphasia Brielle Stark1, Grigori Yourganov1, Alexandra Basilakos2, Chris Rorden1, Leonardo Bonilha2, Julius Fridriksson1; 1University of South Carolina, 2Medical University of South Carolina

E50 A multi-modal approach to quantify the reading network using the neurochemical-neurovascular relationship to predict decoding and fluency Lisa Krishnamurthy1, Venkatagiri Krishnamurthy2, Dina Schwann1, Daphne Greenberg1, Robin Morris1, 1Dept. of Physics & Astronomy, Georgia State University, Atlanta, GA, United States, 2Center for Advanced Brain Imaging, GSU/GT, Atlanta, GA, United States, 3Center for Visual and Neurocognitive Rehabilitation, Atlanta VAMC, Decatur, GA, United States, 4Department of Neurology, Emory University, Atlanta, GA, United States, 5Center for Neurobiology of Language, Georgia State University, Atlanta, GA, United States

E51 Time-generalized multivariate analysis of EEG activity reveals a cascading organization of semantic mismatch processing Edvard Heikell1, Jona Sassenhagen1, Christian J. Fiebach1; 1Goethe University Frankfurt

Computational Approaches

E52 Investigating brain mechanisms of natural reading by combining EEG, MEG and eye-tracking Olaf Hauk1, Felix Dreyer1, Maarten van Casteren1, Caroline Coutou1, Elisabeth Fonteneau1, Béla Weiss1, 1MRC Cognition and Brain Sciences Unit, Cambridge, 2Brain Imaging Centre, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, 3Brain Language Laboratory, Free University of Berlin, Berlin, 4Department of Psychology, University of Cambridge

Language Therapy

E53 Lesion mapping of syntactic and lexical features derived from Natural Language Processing of narrative speech elicited by patients with chronic post-stroke aphasia Ezequiel Gleichgerrcht1, John Delgaizo1, Julius Fridriksson2, Dirk den Ouden2, Alexandra Basilakos2, Chris Rorden1, Leonardo Bonilha1, 1Medical University of South Carolina, 2University of South Carolina

Perception: Orthographic and Other Visual Processes

E54 Changed resting-state network connectivity following prosody treatment for apraxia of speech Carl Coelho1, Jennifer Mozeiko1, Xiao Yang1, Lisa Mueller1; 1University of Connecticut

E55 Using a novel Local Heterogeneity Regression method to index orthographic representations in reading Jeremy Purcell1, Brenda Rapp1, 1Department of Cognitive Science, Johns Hopkins University, USA

E56 Multimodal MRI converging evidence on the role of ventro-occipito-temporal cortex in reading: Integrating opposing views Garikoitz Lerma-Usabiaga1, Carreiras Manuel1, Paz-Alonso Pedro M.1, 1BCBL. Basque Center on Cognition, Brain and Language, Donostia-San Sebastian, Spain, 2IKERBASQUE, Basque Foundation for Science, Bilbao, Spain.

Speech Motor Control and Sensorimotor Integration

E57 Combining TMS and EEG to measure electrophysiological responses to speech after suppression of primary motor cortex Helen E Nuttall1, Barrie Usherwood1, Patti Adank1, Outi Tuomainen1; 1Lancaster University, 2University College London
Multilingualism

E58 Processing sentences with “only” in a second language: Evidence from ERPs  Rachida Ganga1, Marijn Struiksma1, Emily Haoyan Ge2, Virginia Yip1, Aoji Chen1; 1Utrecht University, the Netherlands, 2The Chinese University of Hong Kong, China

E59 The perisylvian language network and language analytical abilities  Olga Kepinska1, Egbert A. J. F. Lakke1, Eleanor M. Dutton1, Johanneke Caspers1, Niels O. Schiller1; 1Leiden University

E60 Bilingualism, Age, and the “Brain Reserve”  Stefan Heim1,2, Johanna Stumme1,2, Nora Bittner1,2, Christiane Jockwitz1,2, Katrin Amunts1,2, Svenja Caspers1,2; 1RWTH Aachen University, 2Institute of Medicine (INM-1), Forschungszentrum Jülich, 3Heinrich Heine University Düsseldorf

E61 The role of native writing system in picture processing: an ERP study  Yen Na Yum1, Anna Petrova2, Sam Po Law1; 1The Education University of Hong Kong, 2The University of Hong Kong

E62 A longitudinal behavioral and fMRI study of second language learning  Kaitlyn M. Tagarelli1, Xiong Jiang2, Aaron J. Newman1, Kyle F. Shattuck2, Aron K. Barbey3, John W. VanMeter3, Kara Morgan-Short4, Alison Mackey2, Peter E. Turkeltaub2, Elissa L. Newport2; 1Dalhousie University, 2University of Illinois at Urbana-Champaign, 3University of Illinois at Chicago

E63 A dynamic causal modeling analysis of the role of the caudate nucleus and prefrontal cortex in bilingual language control  Roy Seo1,2, Jose M. Cabellos1,2, Brianna L. Yamasaki1,2, Chantal S. Prat1,2; 1Department of Psychology, University of Washington, 2Institute for Learning and Brain Sciences, University of Washington

E64 Changing our Brains and Minds: The effect of the bilingual experience on neural structure  Vincent DeLuca1, Christos Pliatsikas1, Jason Rothman1, Ellen Bialystok1; 1University of Reading, 2UiT The Arctic University of Norway, 3York University

E65 Individual Difference-Related Neuroplasticity during Second Language Training  Jennifer Legault1, Angela Grant1, Shin-Yi Fang1, Ping Li1; 1The Pennsylvania State University

E66 Cortical thickness differs between bilinguals and monolinguals according to age of acquisition  Hannah Claussenius-Kalman1, Pilar Archila-Suerte1, Kelly A. Vaughn1, Arturo E. Hernandez2; 1University of Houston, 2University of Houston

E67 How experience with different prosodies shapes the bilingual brain: preliminary connectivity analyses from English-French bilinguals.  Annie Gilbert1,2, Shanna Kousaie1,2, Max Wolpert1,2, Denise Klein1,2, Shari R. Baun1; 1Centre for Research on Brain, Language, and Music, Canada, 2McGill University, Canada, 3Montreal Neurological Institute and Hospital, Canada

Signed Language and Gesture

E68 Neural signatures of sign language processing in bimodal bilinguals  Brendan Costello1, Pedro Paz-Alonso1, Manuel Carreiras1,2,3, BCBL, Donostia-San Sebastian, Spain, 2Ikerbasque, Basque Foundation for Science, Bilbao, Spain, 3University of the Basque Country, Spain

Computational Approaches

E69 A computational account of word representation and processing in bilingual individuals  Claudia Penaloza1, Uli Grasemann1, Risto Miikkulainen2, Swathi Kiran1; 1Boston University, 2The University of Texas at Austin

Perception: Orthographic and Other Visual Processes

E70 Learning a new alphabet: Identifying changes in neural representations  Robert W. Wiley1, Brenda Rapp1; 1Johns Hopkins University

Perception: Speech Perception and Audiovisual Integration

E71 White matter matters: aging of the arcuate fasciculus and middle longitudinal fasciculus and their impact on hearing and speech perception  Pascale Tremblay1, Maxime Perron1, Isabelle Deschamps2, Daniel Kennedy-Higgins3, Anthony S. Dick3, Maxime Descoteaux4; 1Université Laval, 2University College London, 3Florida International University, 4Université de Sherbrooke

E72 Sensitivity to phonetic competition in People with Aphasia  Kathrin Rothermich1, David Saltzman1, Xin Xie2, Emily Myers3,4; 1University of Connecticut, 2University of Rochester, 3Haskins Laboratories

E73 Reading at the speed of speech: Convergence between visual and auditory language perception at 5 Hz  Benjamin Gagl1,2, Julius Golch1, Stefan Havelka1, Jona Sassenhagen1, David Poppel1,2, Christian J. Fiebach1; 1Department of Psychology, Goethe University Frankfurt, Frankfurt am Main, Germany, 2Center for Individual Development and Adaptive Education of Children at Risk (IDeA), Frankfurt am Main, Germany, 3Centre for Cognitive Neuroscience, University of Salzburg, Salzburg, Austria,
E74  Differences in hearing acuity among “normal-hearing” young adults modulate the neural basis for speech comprehension  Yune Lee¹, Arthur Wingfield², Nam-Eun Min³, Charles Jester³, Ethan Kotloff⁴, Murray Grossman³, Jonathan Peele⁵; ¹Department of Speech and Hearing Science, The Ohio State University, Columbus OH USA, ²Volen National Center for Complex Systems, Brandeis University, Waltham MA USA, ³Department of Neurology and Penn Frontotemporal Degeneration Center, University of Pennsylvania, Philadelphia PA USA, ⁴Department of Otolaryngology, Washington University in St. Louis, St. Louis MO USA

E75  The importance of cognitive plasticity and speaker’s voice in adaptation to distorted speech stimuli  Dan Kennedy-Higgins¹, Joseph T. Devlin², Patti Adank³; ¹Department of Speech, Hearing & Phonetic Sciences, University College London, UK, ²Department of Experimental Psychology, University College London, UK

E76  Neural responses to environmental sounds in sentence context  Sophia Uddin¹, Shannon Heald¹, Howard Nusbaum¹; ¹University of Chicago

E77  Neural correlates of sine wave speech intelligibility in human frontal and temporal cortex  Matthew Leonard¹, Sattar Khoshkhoo¹, Nima Mesgarani², Edward Chang³; ¹University of California, San Francisco, ²Columbia University

E78  Phase entrainment of neural oscillations with tACS causally modulates fMRI responses to intelligible speech  Benedikt Zoefel¹, Alan Archer-Boyd¹, Matthew H Davis¹; ¹MRC Cognition and Brain Sciences Unit, Cambridge, UK

Speech Motor Control and Sensorimotor Integration

E79  The Effect of Input Modality and Overt vs. Covert Production on Speech Perception in Articulatory Musculature  Naama Zur¹,², Avi Karni¹,³, Zohar Eviatar¹,²; ¹University of Haifa, ²Institute of Information Processing and Decision Making, ³Edmond J. Safra Brain Research Center for the Study of Learning Disabilities

Methods

E80  Enhanced accuracy of lesion to symptom mapping with multivariate sparse canonical correlations  Dorian Pustina¹, Brian Avants², Olufunsho Faseyitan¹, John Medaglia³, H. Branch Coslett¹; ¹Department of Neurology, University of Pennsylvania, ²Department of Radiology, University of Pennsylvania, ³Department of Psychology, University of Pennsylvania
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