

December 2021 Newsletter



Important Dates

SNL 2022
October 6-8, 2022



Job Postings & Announcements

If you have a job posting, general announcement, or conference that you would like to include in the SNL Newsletter, please send it to newsletter@neurolang.org

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Job Postings

Post-doctoral Fellowship at Georgetown University Medical Center in Washington D.C.

Applicants are sought for an NIH-funded post-doctoral fellowship in the Center for Aphasia Research and Rehabilitation (CARR) at Georgetown University Medical Center in Washington, D.C. (Rhonda Friedman, Director). The fellow will join a group of investigators investigating cognitive treatments for word-finding impairments in persons with Primary Progressive Aphasia or early Alzheimer's Disease. Interaction with and testing of persons with dementia may be a part of this position. Structural imaging data are available for analysis for those who are interested.

The successful candidate will have a doctoral degree in neuroscience, neuropsychology, cognitive science, psychology, communication disorders, or a related scientific area. A clear interest in behavioral neuroscience research should be demonstrated. Experience working with neurologically-impaired participants is desired.

Applicants must be US Citizens or permanent residents.

To apply, please email a cover letter and CV, and arrange for three letters of reference to be sent to:

aphasiaresearch@georgetown.edu

The International Max Planck Research School (IMPRS) for Language Sciences is Offering Three Fully-Funded PhD Fellowships for Four Years (2022-2026) with a Preferred Start Date in September or October 2022

The IMPRS for Language Sciences invites applications for THREE fellowships, two of which that are funded by the **Max Planck Society for the Advancement of Science** and one by the **Language Development Department** at the Max Planck Institute for Psycholinguistics. The goal of the scheme is to enable young researchers to pursue interdisciplinary research projects in the language sciences, supervised by leading scientists at the Max Planck Institute for Psycholinguistics and its partner institutes at the **Radboud University** -- the **Centre for Language Studies** and the **Donders Institute for Brain, Cognition and Behaviour**. With a diverse selection of potential supervisors and projects to choose from, the applicant is invited to explore the range of research possibilities on offer.

The fellowships are suitable for applicants from a variety of backgrounds including:

- artificial intelligence
- (medical) biology
- (cognitive) neuroscience
- cognitive & behavioural science
- computer science & engineering
- genetics
- linguistics
- neurobiology
- philosophy
- physics & mathematics
- psychology

Conditions of employment

- Full-time position (39 hours per week) for 4 years; part-time option negotiable.
- For full-time employment: annual salary of approx. €34,651 in the first year, €37,453 in the subsequent years; an annual 8% holiday allowance and 30 vacation days per year as well as Dutch and German public holidays.
- Option to participate in a personal pension scheme to which both employer and employee pay a monthly contribution.

You will have access to state-of-the-art research and training facilities and a generous conference and travel budget. Your educational training programme will be provided by the **International Max Planck Research School for Language Sciences**, and will involve both core and individually chosen coursework to complement the PhD research, and training in soft skills such as writing and presentation. **Radboud University**, our partner university, will issue the doctoral degree through the faculty at which the promoting professor in the supervisory committee is appointed.

Employer

The MPI for Psycholinguistics conducts interdisciplinary research into the psychological, social and biological foundations of language. Scientists at the Institute study a variety of topics including how children and adults acquire language, the role of genetic factors, how speaking and listening happen in real time, how the brain processes language for communication, and how language connects to cognition and culture. The Institute's approach to the science of language and communication is unique, addressing these fundamental issues at multiple levels, from molecules and cells to circuits and brains, all the way through to the behaviour of individuals and populations. We are situated on the campus of the Radboud University in Nijmegen, and have close collaborative links with the Donders Institute for Brain, Cognition and Behaviour and the Centre for Language Studies at Radboud University. Staff and students at the MPI have access to state-of-the art **research and training facilities** (including audio-visual equipment, EEG, fMRI, eye tracking, virtual reality labs, molecular biology labs and a child-friendly child development lab).

The Institute is part of the **Max Planck Society**, an independent non-governmental association of German-funded research institutes dedicated to fundamental research in the natural sciences, life sciences, social sciences, and the humanities.

The MPI for Psycholinguistics recognises the positive value of diversity, promotes **equality** and challenges discrimination. We are committed to redressing systemic problems with diversity in science, and therefore welcome applications from all suitably qualified candidates, irrespective of gender, disability, marital or parental status, racial, ethnic or social origin, colour, religion, belief, or sexual orientation.

Requirements

Essential

- A high-quality (Research) Master's degree or equivalent* in a relevant field of the intended project, such as artificial intelligence, biology, (cognitive) neuroscience, cognitive science, computer science, genetics, linguistics, mathematics, neurobiology, neuroimaging, physics, and psychology.
- *see FAQ section, #11 for more information.
- A demonstrable interest in conducting interdisciplinary research on language.
- Experience in carrying out empirical research (e.g., experimental design, recruitment, participant testing, quantitative data analysis, report writing).
- Expertise using statistical packages and/or programming languages to analyse data and/or model behaviour.
- A demonstrable ability to present research ideas clearly to people from a range of disciplinary backgrounds.
- Excellent written and spoken English. The language of the Institute is English, so knowledge of Dutch is not required.
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Desirable

- Some experience giving research talks or poster presentations and preparing manuscripts for publication would be an advantage.
- Some experience and/or a serious interest in interdisciplinary research on language is an advantage.
- Depending on the intended project, native (or near-native) knowledge of the language(s) of study is desirable.

Application procedure

Your application must contain:

- a 1-page cover letter (statement of motivation)
- a max 2-page curriculum vitae with names and e-mail addresses of up to 3 referees
- a 1-page summary of your thesis project
- a 1-page PhD proposal
- copies of diplomas and transcripts, and other relevant supporting documents

Please consult the FAQ section for details about what each document should contain.

Please submit your application no later than **Friday noon (CET) on 7 January, 2022** through **our application portal**.

Applications sent via e-mail and other third-party portals will not be processed.

Kindly consult our extensive FAQ section for common questions. Any remaining questions can be directed to **Kevin Lam**. Note: The IMPRS Office is closed from **20 Dec 2021**. Please expect a response to your e-mail from 3 Jan 2022 onwards.

Postdoctoral Fellow: Cognitive Neuroscience of Semantics at the University of South Carolina

A post-doctoral research position is available in the laboratory of Dr. Rutvik Desai at the University of South Carolina, Department of Psychology. The lab focuses on cognitive neuroscience of language, neural representation of concepts, and grounded cognition using neuroimaging, brain stimulation, patient studies, lesion-symptom mapping, and computational modeling. Excellent facilities for fMRI, TMS, tDCS, and eye tracking are available. The Fellow will have an exciting opportunity to pursue collaborative and self-directed projects at the Institute for Mind and Brain (<http://mindandbrain.sc.edu/>).

Candidates with a PhD in any of the cognitive sciences (e.g., Psychology, Neuroscience, Computer Science) are welcome to apply. A research background in cognitive neuroscience/cognitive science, relevant to semantic or language processing, is required. Expertise with fMRI (including MVPA), or brain stimulation (TMS or tDCS) is required. Experience in one or more of lesion-symptom mapping, behavioral testing or imaging of patient populations, EEG, connectionist modeling, or machine learning is also a positive, along with skills in programming and statistics (e.g., Python, Matlab, R). A promising publication record is a plus. Salary will be commensurate with experience. Applications should include a CV, brief statement of research experience and interests, and names of three referees (who will be asked for a reference letter if necessary; actual letters are not required initially). Expected starting date is early 2022, but is flexible. Applications should be sent to rutvik@sc.edu and will be assessed as they arrive.

The University of South Carolina is an affirmative action, equal opportunity employer. Women and minorities are encouraged to apply. The University of South Carolina does not discriminate in educational or employment opportunities or decisions for qualified persons on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation or veteran status.

Postdoctoral Fellow at the Medical College of Wisconsin

We are seeking a post-doctoral fellow to join our vibrant community of researchers in the Language Imaging and Cognition and Brain Stimulation labs at the Medical College of Wisconsin (Milwaukee, United States). Our group investigates the neural correlates of human language processing in healthy and neurologically impaired populations

(post-stroke aphasia, dyslexia, epilepsy) using behavioral, neuroimaging (fMRI, MEG), electrophysiological, and transcranial electrical (tES) and magnetic (TMS) stimulation methods.

The fellow will work on projects involving neuromodulation, neuroimaging, and electrophysiology to probe semantic and phonological processes in healthy individuals and in stroke survivors with aphasia. Projects involving concurrent applications of tES with EEG, and pre/post applications of tES with MEG are currently underway. Existing MEG and fMRI data, collected as part of the Epilepsy Connectome Project, are available, if there is interest in pursuing a new research question, or a new type of analysis.

The successful candidate will have a doctoral degree in cognitive neuroscience, biomedical engineering, computer science, psychology, cognitive science, or a related scientific area. A clear interest in language neuroscience research should be demonstrated. Experience working with neurologically impaired participants, EEG, MEG, and/or fMRI is desired.

To apply, please email a cover letter and CV to lilresearch@mcw.edu

Faculty:

Jeffrey Binder, MD: *neurobiology of language, concept representation, aphasiology*

Priyanka Shah-Basak, PhD: *electrophysiology, brain stimulation, aphasiology, neuroplasticity*

Lisa Conant, PhD: *neurobiology of language, concept representation, dyslexia*

Leonardo Fernandino, PhD: *neurobiology of language, concept representation,*

Bill Gross, MD, PhD: *presurgical mapping, electrocorticography, machine learning*

Sara Pillay, PhD: *aphasiology, neuropsychology*

2 PhD Positions at Ghent University Focusing on Individual Differences in Learning and Language Skills

At the start of the new year I will start my **research group** at the Department of Experimental Psychology at Ghent University, focusing on individual differences in learning and language skills. I am now recruiting for 2 full-time PhD positions.

Both positions are part of the project '*Readers as statistical learners: an individual differences approach*', funded by an Odysseus starting grant. More details can be found [here](#).

Postdoctoral Researcher at the Basque Center on Cognition, Brain, and Language in San Sebastian, Spain

Funded PhD in computational modeling of bilingualism at BCBL

- 3-year Ph.D. position (master's degree required)
- Funded by la Caixa Foundation
- Focus: The computational and neural bases of bilingualism: A complementary learning systems model (projects must be related to this theme, but specific focus is flexible)
- Location: Basque Center on Cognition, Brain, and Language; San Sebastian, Spain
- Group: Computational Neuroscience
- Leader: Jim Magnuson
- Deadline: January 27
- Applicants are encouraged to contact Jim Magnuson <j.magnuson@bcbl.eu> before applying
- Application portal: <https://finder.lacaixafellowships.org/finder?position=4739>

Post-doc Position University of Pittsburgh (LRDC)

We seek a post-doc to join an NSF-funded project that studies word-by-word incremental processes, including comparisons of L1 and L2 reading. The project combines probabilistic language models, ERPs and behavioral measures with linear mixed-effects models to study these processes with authentic texts. We assess the relative contributions of word-based (lexical) and syntactic resources to comprehension, including individual differences and language background effects.

The post-doc should have a background in one of the following areas: 1) EEG/ERPs data analysis, including time frequency, source or connectivity analyses, 2) advanced statistical analyses or machine learning; 3) computational language tools or NLP. A PhD in a relevant discipline is required.

This 2-year position can begin anytime between March 1, 2022 and September 1, 2022. Contact Charles Perfetti (Perfetti@pitt.edu) or Lin Chen (linc@pitt.edu) by December 20. Attach CV.

Post-Doctoral Position at the University of Geneva

The Swiss National Center of Competence in Research "Evolving Language" invites applications for a Postdoctoral position (100% FTE) to work in the project "Structure Planning". The goal of the project is to understand the neural representations of syntactic structures. The candidate will contribute to acquisition and analysis of intracranial EEG data and speech recordings. Applicants should have prior experience with electrophysiological data analysis. Experience in scientific programming, machine learning and natural language processing is a significant advantage, as well as knowledge of syntax and linguistics. The position is based in Prof. Anne-Lise Giraud's Auditory Language Group at the University of Geneva.

Application deadline: **December 31, 2021**

Details and contact info can be found in the official job ad: https://jobs.unige.ch/www/wd_portal.show_job?p_web_site_id=1&p_web_page_id=53793

Doctoral INPhINIT Fellowships by "La Caixa" Foundation

Do you want to start your research career?

"La Caixa" Foundation's doctoral fellowships programme INPhINIT is now open. This programme supports the best scientific talent to promote innovative, excellence research in Spain and Portugal. Apply for a PhD fellowship and give your story a boost.

Incoming: 35 fellowships for researchers of all nationalities to carry out their PhD at Spanish centres with Severo Ochoa or María de Maeztu accreditation, Carlos III Health Research Institutes, and Portuguese centres classed as "excellent" by the Fundação para a Ciência e a Tecnologia. Incoming fellowships are addressed exclusively to STEM disciplines. The BCBL-INPhINIT Programme is offering 10 different PhD thesis projects within this modality.

Retaining: 30 fellowships for researchers of all nationalities to carry out their PhD in any discipline and at any university or research centre in Spain or Portugal.

More information:

<https://fundacionlacaixa.org/en/doctoral-fellowships-inphinit-call>

Assistant Professor in Neuroscience of Audition & Speech at The University of Texas Health Science Center at Houston

As part of our new and expanding Texas Institute of Restorative Neurotechnologies (TIRN), at the University of Texas Health Science Center at Houston (UTHealth – <https://www.uth.edu>), we invite applications for an Assistant Professor (tenure-track) position in the Neuroscience of Audition & Speech.

We are looking for candidates who are interested in questions regarding auditory processing, audio-motor transformations, and/or speech processing in cortical language regions using systems-level approaches and computational methods (e.g., machine learning). We are interested in individuals who currently use or are interested in multimodal integration approaches using fMRI, DTI, brain mapping by direct cortical stimulation, electro-corticography, and MEG. Access to a 3T research only MRI scanner, a MEG scanner, and to a very busy epilepsy surgery program performing intracranial implants and resections on a regular basis, will be provided.

This position is part of an initiative at UTHealth focused on expanding expertise in language processing and computation. Collaborations with other auditory/language experts within UTHealth as well as with other institutions locally and around the country, will be encouraged.

The successful candidate will be situated in either the Department of Neurosurgery (<https://med.uth.edu/neurosurgery>) or the Department of Neurobiology and Anatomy (<https://med.uth.edu/nba/>), and may also be cross-appointed at Rice

University.

RESPONSIBILITIES: The successful candidate will be expected to create and sustain an independent research program, including planning, supervising and directing language-based research. This includes the development of study design, data collection, data analysis, results interpretation, manuscript writing and grant proposal preparation. The candidate will have the opportunity to train and supervise undergraduate, graduate and MD/PhD students at UTHealth and Rice University.

QUALIFICATIONS: Candidates must possess a Ph.D. in Neuroscience or a related field (post-doctoral experience preferred). A record of verifiable and published research, the potential to obtain extramural, peer-reviewed funding, and excellent teamwork and communication skills are also required.

HOW TO APPLY: Please write to nitin.tandon@uth.tmc.edu with your curriculum vita, a cover letter describing qualifications and career goals, a research statement, and contact information for three referees.

SALARY: Highly competitive, dependent upon qualifications and experience. Start-up packages will be provided commensurate with seniority level.

UT HEALTH BENEFITS: UTHealth offers a comprehensive and competitive benefits package. For more information on our benefits programs please refer to the UTHealth Office of Benefits Website:

<https://www.uth.edu/benefits/benefits-summary.htm>

EQUAL EMPLOYMENT OPPORTUNITY STATEMENT: UTHealth is committed to providing equal opportunity in all employment-related activities without regard to race, color, religion, sex, sexual orientation, national origin, age, disability, genetic information, gender identity or expression, veteran status or any other basis prohibited by law or university policy. Reasonable accommodation, based on disability or religious observances, will be considered in accordance with applicable law and UTHealth policy. The University maintains affirmative action programs with respect to women, minorities, individuals with disabilities, and eligible veterans in accordance with applicable law.

Two Language Scientist Openings at the National Science Foundation in Alexandria, Virginia

The NSF's Division of Behavioral and Cognitive Sciences (BCS) is hiring several rotator program officers, for the Linguistics Program, the Perception, Action, and Cognition (PAC) Program, Developmental Sciences, and Social Psychology. In fact, there are two language scientist openings, one for the Linguistics Program and one, a Language Development focus, for the Developmental Sciences program.

The official job ad and application information is here: <https://www.usajobs.gov/GetJob/ViewDetails/626180700>.

Rotator positions are great opportunities for faculty and other (typically more senior) scientists to play an important role at NSF and for their disciplines. There are different mechanisms with somewhat different details, but in sum rotators typically take a leave from their regular faculty positions for 1-3 years to take on a scientific leadership role for a program or programs at NSF. See <https://beta.nsf.gov/careers/rotator-programs> for more information about NSF rotator positions. (Please note that generally candidates need to be U.S. citizens, but see the official job ad for full details about eligibility.)

Applications for all of these BCS openings are currently being accepted until **January 10th**. Interested applicants can reach out to Tyler Kendall (tkendall@nsf.gov) in Linguistics, Peter Vishton (pvishton@nsf.gov) in DS, Betty Tuller (btuller@nsf.gov) in PAC, and/or Steve Breckler (sbreckle@nsf.gov) in Social Psychology with questions.

Other

Nominations and Self-Nominations Sought for the Position of Director at the Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands

The Max Planck Institute for Psycholinguistics invites nominations, including self-nominations, for a director who will lead a research department with a unique, innovative and long-term research program focused on the neurobiology of human language, i.e., the biological infrastructure that supports the uniquely human language faculty. The area of expertise is entirely open; for instance, it could be neuroimaging research of language learning, speech and language comprehension or production, or language disorders.

Max Planck directors need to have a record of successful leadership, the ability to devise a long-term visionary

strategy for their research and the potential to make a substantial contribution to their institute's mission and to develop collaborations with other departments at the institute and with other institutes within the Max Planck Society.

Research at the MPI for Psycholinguistics is focused on the interdisciplinary study of language (see www.mpi.nl). The institute's mission is to understand how our minds and brains process language, how language interacts with other aspects of mind, how we can learn language, and what the underlying genetic and neurobiological infrastructures are. The institute has five departments, each led by a director. In the field of language sciences, an important area with major challenges is how the organization of the human brain enables cognitive functions as complex as language. For the research portfolio of the institute it is therefore crucial to have a department dedicated to the neurobiological underpinnings of language.

The institute offers outstanding facilities for studying language, including extensive onsite labs and access to **state-of-the-art facilities at Radboud University**. These include three MRI scanners at three Tesla, one MRI scanner at seven Tesla, an MEG system, five EEG labs, fNIRS and FUS facilities, two VR labs and multiple behavioral labs.

The institute is situated on the campus of the Radboud University in Nijmegen and has close collaborative links with the Donders Institute for Brain, Cognition and Behaviour and the Centre for Language Studies at Radboud University. Nijmegen is a thriving Dutch city close to the German border, and a popular place for students, postdoctoral researchers and young families (see <https://en.visitnijmegen.com/>). The working language of the institute is English.

The institute is part of the **German Max Planck Society**, an independent non-governmental association dedicated to fundamental research in the natural sciences, life sciences, social sciences, and the humanities. The Max Planck Society is an equal opportunities employer. We recognise the positive value of diversity, promote equality and challenge discrimination. We therefore welcome applications from all suitably qualified candidates, irrespective of gender, disability, marital or parental status, racial, ethnic or social origin, colour, religion, belief, or sexual orientation (<https://www.mpi.nl/page/equal-opportunities>).

Nominations, including self-nominations, should be sent to Managing Director Antje Meyer at antje.meyer@mpi.nl. A nomination should only include:

- The candidate's name and current affiliation
- A brief motivational statement (200 words max.) specifying why you nominate the candidate

Note that this call is part of the institute's scouting procedure; its purpose is to inform the institute about possible candidates. The formal appointment procedure has not yet begun. A selection of (self-)nominated candidates will be invited for a visit to the institute in due time.

All nominations will be treated in the strictest confidence. We expect this call to remain open until midnight (CET) on **Sunday 16 January 2022**.

Max Planck Institute for Psycholinguistics www.mpi.nl

The 2nd Edition of David Kemmerer's *Cognitive Neuroscience of Language* textbook is expected to appear in April or May, 2022. If you use the code DKE20, you can get a 20% discount when you order the book from Psychology Press.

Welcome to the second edition! During the six years since the first one appeared, the branch of cognitive neuroscience that focuses on language has continued to flourish. Countless new experiments have been conducted, several major theories have been refined, three large volumes of survey chapters have been published (Hickok & Small, 2015; Hagoort, 2019; de Zubicaray & Schiller, 2019), a brand new journal called *Neurobiology of Language* was recently introduced, and the Society for the Neurobiology of Language has significantly grown (www.neurolang.org).

My primary aim in preparing this second edition of the textbook was to keep pace with these advances in the field. But I also wanted to preserve the general approach of the first edition, so the following features have been retained:

- Broadly speaking, the book's purpose is to give students, teachers, researchers, and clinicians a solid, accessible overview of what is currently known about how our brains enable us to perceive and produce language. More narrowly, it has been designed for use in courses offered to graduate students and upper-level undergraduate students. Although much of the content is inherently challenging, no previous knowledge of either neuroscience or linguistics is required, since technical terms and important principles from both disciplines are explained along the way.
- After covering background material about the human brain and aphasia syndromes in Parts I-II, almost all of the chapters in Parts III-VI draw upon prominent theoretical models that characterize particular linguistic domains at both cognitive and neurobiological levels of analysis. In addition, these core chapters illustrate how the different components of the models are supported, and in some cases challenged, by experiments

employing diverse brain mapping techniques. A special effort has been made to describe many of these experiments in considerable detail, providing information about their goals, methods, results, and implications. The rationale for such an in-depth approach is that it may help students understand not only how empirical studies are carried out, but also how they contribute to the dynamic interplay between theory and data.

At the same time, however, several aspects of this second edition are new and deserve to be highlighted here:

- Following the lead of a 2016 paper by Pascale Tremblay and Anthony Steven Dick called "Broca and Wernicke are dead, or moving past the classic model of language neurobiology," minimal use is made of the traditional terms "Broca's area" and "Wernicke's area" because it is now abundantly clear that they are not only obsolete but confusing. Instead, more precise anatomical terms are used when necessary. This point is elaborated near the end of Chapter 1.
- To capture some of the most salient developments in the field during the past six years, all of the chapters from the first edition have been revised and updated. Some of them, however, have been modified much more than others. The ones that have undergone the greatest changes are as follows: Chapter 5 ("Speech perception"); Chapter 6 ("Speech production"); Chapter 8 ("Object nouns"); Chapter 9 ("Action verbs"); Chapter 10 ("Abstract words"); Chapter 13 ("Sentence comprehension"); Chapter 14 ("Discourse"); and Chapter 15 ("Reading and writing").
- Because research on the neural substrates of bilingualism has been rapidly accelerating, and because students are often quite interested in this topic, a separate chapter is now devoted to it—namely, Chapter 17 ("The bilingual brain").
- The table of contents has been reorganized in such a way that the chapters on reading/writing and sign language are now in Part VI ("Other topics") toward the end of the book, together with the chapter on bilingualism. Each of these chapters, however, can be read on its own, independently from the other chapters in the book.

