

Prof Dr Dr Friedemann Pulvermüller
 Freie Universität Berlin
 SS 2015
 16889 Progress in Brain Language Research
 Tue, 12-14, JK 31/122

Graduate Course/Seminar *Progress in Brain Language Research*

2 SWS, Seminar

Time: Tue 12:00-14:00 (first session: 14.04.2015)

Place: JK 31/122 ‚Geschäftszimmer‘ (Habelschwerdter Allee 45)

This research seminar focuses on reviewing and discussing recent progress in the cognitive neuroscience of language. It has three main strands. 1) External speakers will set the stage for focused discussions. 2) In depth reviews of research publications will provide a insight into recent progress in specific research areas. 3) Participants and researchers at the FU Berlin’s Brain Language Laboratory will present their own research plans and aspects of their ongoing research to open discussion of future research perspectives.

Hot topics that may form the seminar’s foci in the new semester include the neural manifestations of linguistic-pragmatic knowledge and processing, the neuroanatomy of the ‘language brain’, and putative neurophysiological indexes of language understanding.

Recommended reading:

Pulvermüller, F. (2013). How neurons make meaning: Brain mechanisms for embodied and abstract-symbolic semantics. *Trends in Cognitive Sciences*, 17(9), 458-470. doi: 10.1016/j.tics.2013.06.004

Rilling, J. K. (2014). Comparative primate neuroimaging: insights into human brain evolution. *Trends in Cognitive Sciences*, 18(1), 46-55.

Technicalities

The course is part of the teaching offered by the Freie Universität’s FB Philosophy and Humanities and by the *Graduate School of Mind and Brain*. It is open to interested students from all departments. It will be offered by Friedemann Pulvermüller together with Guglielmo Lucchese, MD, under the admin support of Marvis Sydow.

To obtain a certificate of attendance, it is necessary to

- attend most of the sessions (maximum misses: three),
- pre- and reprocess the session content by reading the recommended key papers, and
- present a key paper in current brain language research or, alternatively, a detailed research plan or report of own research.

Presentations should last about 30’ and be supported by a powerpoint presentation and handouts to participants. If you are interested in presenting, please discuss your plan with FP directly (preferably during office hours, Wednesdays, 12-1pm, room JK 31/232).

To register for the course, please put your name down on the signup sheet provided at the first session. We will be happy to discuss any questions you may have regarding this course, be it about formalities, your presentation or wider research interests. Please contact one of us:

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Guglielmo Lucchese, MD

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 Sprechstunde: Mi 12-13 Uhr

Marvis Sydow (online materials)

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For more information and updates, please visit:

<http://www.brainlang.fu-berlin.de/teaching>

<http://www.brainlang.fu-berlin.de/talks>

Seminar Program

Unless otherwise noted, the Seminar will be held from 12:15 – 13:45 h in room JK 31/122 of the main building of the Freie Universität Berlin, Habelschwerdterallee 45, 14195 Berlin.

14.04 Practice talks

Tally Miller, Brain Language Lab, FU Berlin

Simone Catania

21.04 Introduction and seminar planning

“Friedemann Pulvermüller: What is special about the human brain?”

12.05., 16hct, Dahlem Lectures on Linguistics, room JK 28/112

Prof Dr Thomas Herbst, Universität Erlangen

„Do we, indeed, have the right to describe “the” as the definite article?”

Construction grammar – the end of traditional classification?

19.05. Research report and Research plan presentation

Rosario Tomasello, Brain Language Lab, FU Berlin

“Modeling spiking sensorimotor circuits for language”

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26.05. Research report

**Dr Luigi Grisoni, Brain Language Lab, FU Berlin
(Negation study)**

09.06. Research reports

**Felix Dreyer, Brain Language Lab, FU Berlin
(Word meaning processing)**

**Artur Chmielewski, FU Berlin
Silent reading and brain activity**

16.06.

GUEST LECTURE

Dr Klaudia Grechuta, Pompeu Fabra University, Barcelona

"Intensive Language-Action Therapy in virtual reality for the Rehabilitation Gaming System"

Research report

**Rosario Tomasello, Dr Max Garagnani
(Action and Object related Words learning)**

19.06., Fr. 16hct, room TBA: GUEST LECTURE

Prof Hans-Joerg Schmid, Chair of Modern English Linguistics, Ludwig-Maximilians-University Munich

"Web crawling, eye tracking and brain imaging: three ways of testing the Entrenchment-and-Conventionalization Model"

23.06., 18hct, room TBA: GUEST LECTURE

Dr Thomas Bak, University Edinburgh

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30.06. Research report

Dr Guglielmo Lucchese, Brain Language Lab, FU Berlin

“Interpreting EEG indexes of syntactic and semantic processing in light of synaptic mechanisms”

06.07, Mo., 18hst, room JK 28-130: GUEST LECTURE

Prof Yury Shtyrov, Aarhus University

“Automatic neural discrimination of lexical information in visually presented unattended words”

07.07. Research reports

Dr Jeff Hanna, Brain Language Lab, FU Berlin

“Entropy of German separable verb prefix variation and its influence on the MMN”

Carlotta Welding, FU Berlin

Title TBA

14.07. Research report

Tally Miller, Brain Language Lab, FU Berlin

“What's in a Name: Whorfian perception effects on somatosensory-semantic learning”

04.09., Fr., 14hct, room TBA: GUEST LECTURE

Prof. Teija Kujala, Helsinki University

Title TBA

18.09., Fr., 14hct, room TBA: GUEST LECTURE

Prof. Kleanthes K. Grohmann [1,3] & Prof. Maria Kambanaros [2,3]

[1] University of Cyprus, [2] Cyprus University of Technology, [3] Cyprus Acquisition Team

“Grammatical Class Effects across Impaired Child and Adult Populations”

Papers for discussion:

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Rolls, E. T., & Deco, G. (2014). Networks for memory, perception, and decision-making, and beyond to how the syntax for language might be implemented in the brain. *Brain Res.* doi: 10.1016/j.brainres.2014.09.021

Papeo, L., Lingnau, A., Agosta, S., Pascual-Leone, A., Battelli, L., & Caramazza, A. (2014). The Origin of Word-related Motor Activity. *Cereb Cortex.* doi: 10.1093/cercor/bht423

Hagoort, P., & Levinson, S. C. (2014). Neuropragmatics. In M. S. Gazzaniga & G. R. Mangun (Eds.), *The cognitive neurosciences* (pp. 667-674). Boston, MA: MIT Press.

Rizzolatti, G., & Sinigaglia, C. A curious book on mirror neurons and their myth Review of Gregory Hickok's "The Myth of Mirror Neurons: The Real Neuroscience of Communication and Cognition".

Glenberg, A. M. (2015). Big Myth or Major Miss? Gregory Hickok's "The Myth of Mirror Neurons: The Real Neuroscience of Communication and Cognition".