Freie Universität Berlin, Summer term 2019
16786 Colloquium/Seminar: Progress in Brain Language Research
Prof. Dr. Dr. Friedemann Pulvermüller
Zeit/Time: Mi/Wed 16-18 h
Ort/Location: Habelschwerdter Allee 45, JK 31/122 Geschäftszimmer

Colloquium/Seminar *Progress in Brain Language Research*

This research seminar focuses on reviewing and discussing recent progress in the cognitive neuroscience of language. It has three main strands. 1) Invited guest speakers from different disciplines will introduce to cutting edge international research and will set the stage for focused discussions of linguistic mechanisms. 2) In depth reviews of recently published research articles will provide insights into current progress in specific research areas in brain language research. 3) Researchers at the FU Berlin's Brain Language Laboratory and seminar participants interested in semantics, pragmatics and/or their cognitive and brain basis will present their own research plans and aspects of their ongoing work to open discussion of future perspectives. In this context, MA and BA students may present work relevant for their theses.
Hot seminar topics in the new semester include recent experimental findings from the new excellence cluster 'Matters of Activity' and from five ongoing research projects funded by the DFG, which address experimental pragmatics, neurosemantics, neurophonology and speech language therapy.

Recent publications relevant for the seminar:

Dreyer, F. R., & Pulvermüller, F. (2018). Abstract semantics in the motor system? - An event-related fMRI study on passive reading of semantic word categories carrying abstract emotional and mental meaning. Cortex, 100, 52-70. doi:10.1016/j.cortex.2017.10.021
Heikkinen, P. H., Pulvermüller, F., Mäkelä, J. P., Ilmoniemi, R. J., Lioumis, P., Kujala, T., Manninen, R.L., Ahvenainen, A., & Klippi, A. (2019). Combining rTMS with intensive Language-Action Therapy in chronic aphasia: A randomized controlled trial. Front. Neurosci, 12, 1036.
Miller, T. M., Schmidt, T. T., Blankenburg, F., & Pulvermüller, F. (2018). Verbal labels facilitate tactile perception. Cognition, 171, 172-179. doi:10.1016/j.cognition.2017.10.010
Pulvermüller, F. (2018). Neural reuse of action perception circuits for language, concepts and communication. *Prog Neurobiol, 160*, 1-44. doi:10.1016/j.pneurobio.2017.07.001
Pulvermüller, F. (2018). The case of CAUSE: neurobiological mechanisms for grounding an abstract concept. Philos Trans R Soc Lond B Biol Sci, 373(1752). doi:10.1098/rstb.2017.0129
Pulvermüller, F. (2018). Neurobiological mechanisms for semantic feature extraction and conceptual flexibility. Top Cogn Sci, 10(3), 590-620. doi:10.1111/tops.12367
Schmidt, T. T., Miller, T. M., Blankenburg, F., & Pulvermüller, F. (2019). Neuronal correlates of label facilitated tactile perception. Sci Rep, 9(1), 1606. doi:10.1038/s41598-018-37877-w
Tomasello, R., Garagnani, M., Wennekers, T., & Pulvermüller, F. (2018). A neurobiologically constrained cortex model of semantic grounding with spiking neurons and brain-like connectivity. Front Comput Neurosci, 12, 88. doi:10.3389/fncom.2018.00088
Tomasello, R., Wennekers, T., Garagnani, M., & Pulvermüller, F. (2019). Visual cortex recruitment during language processing in blind individuals is explained by Hebbian learning. Sci Rep, in press.

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Technicalities

The course is part of the teaching offered by the Freie Universität's FB Philosophy and Humanities and by the Berlin School of Mind and Brain at the Humboldt Universität. It is open to interested students from all departments. It will be chaired by Friedemann Pulvermüller under the admin support of Verena Arndt.

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, own research or a research plan addressing language related topics.

Contact and more information:
Verena Arndt (Sekretariat), rm JK 31/234; phone: +49 (0)30 838 58140 E-mail: verena.arndt@fu-berlin.de
Friedemann Pulvermüller, rm JK 31/232; Office hour: Wed 12-13 h For more information and updates, please visit:
http://www.brainlang.fu-berlin.de/teaching, http://www.geisteswissenschaften.fu-berlin.de/v/brainlang/teaching/index.html

Seminar Program

Unless otherwise noted, the Seminar will be held on Wednesdays, from 16:15 – 17:45 h in room JK 31/122 of the main building of the Freie Universität Berlin, Habelschwerdter Allee 45, 14195 Berlin.

10.04. Introduction, Seminar Planning

Friedemann Pulvermüller: This semester's colloquium program and current BLL research

17.04. Guest Lecture

Dr. Patrick Krauss, Universität Erlangen-Nürnberg
Analysis of language processing in artificial neural networks and the human brain

24.04. Guest lecture

Dr. Martin Maier, Humboldt-Universität zu Berlin
Title TBC

01.05. No seminar

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08.05. Guest lecture

Dr. Olaf Hauk, University of Cambridge
Dynamic brain networks of semantics studied using EEG/MEG

Tue, 14.05., 14.15h, JK 31/102, Guest lecture

Prof. Anu Klippi, University of Helsinki
Toward optimizing speech language therapy: magnetic stimulation and intensive communication training

15.05., Guest lecture

Prof. Wolfram Hinzen, University of Barcelona
Title TBC

22.05. Research talk

29.05. Research talk

05.06. Research talk

12.06. Research talk

19.06. Research talk

26.06. Research talk

03.07. Research talk

10.07. Research talk, seminar evaluation and outlook

Planning of program for the semester break and winter term