

16786 Colloquium/Seminar

**Progress in Brain Language Research**

Friedemann Pulvermüller

2 SWS, Seminar/Colloquium

Zeit/Time: Mi/Wed 16-18 h

Ort/Location: 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 insights into recent progress in specific research areas. 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 for their theses.

Hot seminar topics in the new semester include new experimental findings in the context of three ongoing research projects, which respectively focus on experimental pragmatics, neurosemantics and therapy of language and communication.

Recommended reading:

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*, in press.

Grisoni, L., Miller, T. M., & Pulvermüller, F. (2017). Neural Correlates of Semantic Prediction and Resolution in Sentence Processing. *J Neurosci*, 37(18), 4848-4858. doi:10.1523/JNEUROSCI.2800-16.2017

Miller, T. M., Schmidt, T. T., Blankenburg, F., & Pulvermüller, F. (2017). 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. *Progress in Neurobiology*, in press. doi:10.1016/j.pneurobio.2017.07.001.

Pulvermüller, F. (2018). The case of CAUSE: Neurobiological mechanisms for grounding an abstract concept. *Philosophical Transactions of the Royal Society, London, B: Biological Sciences*, in press

Schomers, M. R., Garagnani, M., & Pulvermüller, F. (2017). Neurocomputational consequences of evolutionary connectivity changes in perisylvian language cortex. *J Neurosci*, 37(11), 3045-3055.

Stahl, B., Mohr, B., Büscher, V., Dreyer, F. R., Lucchese, G., & Pulvermüller, F. (2018). Efficacy of intensive aphasia therapy in chronic stroke patients: A randomised controlled trial. *Journal of Neurology, Neurosurgery, and Psychiatry*, in press.

Tomasello, R., Garagnani, M., Wennekers, T., & Pulvermüller, F. (2017). Brain connections of words, perceptions and actions: A neurobiological model of spatio-temporal semantic activation in the human cortex. *Neuropsychologia*, 98(4), 111–129. doi:10.1016/j.neuropsychologia.2016.07.004.

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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 the language mechanisms of the human brain. Presentations can be brief or last up to 30'.

Contact and more information:

Verena Arndt (Sekretariat), rm JK 31/234; phone: +49 (0)30 838 58140

E-mail: [verena.arndt@fu-berlin.de](mailto: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.brainlang.fu-berlin.de/talks>

### **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.

#### **17.10. Introduction, Seminar Planning**

Our research: Overview and next steps

#### **24.10. Practice talk:**

Lea Doppelbauer: Aphasia therapy

#### **31.10. No seminar**

#### **07.11. Project presentation**

Tally McCormick Miller: Whorfian effects on tactile and visual perception?

#### **14.11. Research talk**

Luigi Grisoni: Phonological priming and prediction: Does the motor system play a role?

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**21.11. Vorträge W2-Professur Didaktik des Deutschen**

**28.11. Project presentation**

Isabella Boux, Rosario Tomasello, Luigi Grisoni: Speech act production

Natasha Janzen Ulbricht: The impact of teacher gestures on preposition learning: ideas for data analysis

**05.12. Project presentation**

Valerie Keller et al: Motor cortex influence on image perception and language understanding

**12.12. No seminar**

**19.12. Research talk**

Felix Dreyer: Brain lesions and word categories

**09.01. Project presentation**

Konstantina Margiotoudi: Mapping sound symbolism in action

Tally McCormick Miller: Paper presentation

**16.01. Research talk**

Lucius Samo Fekonja, Charité: Traktografie und Adaptive Digital Twin

**23.01. Research talk**

Malte Henningsen: tba

**30.01. Project presentation**

Sara Hermosa: Grammatisches Geschlecht und die mentale Repräsentation der Wortbedeutung

**06.02. Research talk**

Luigi Grisoni: Prediction in language – overview of models

**13.02. Research talk, seminar evaluation and outlook**

Martín Azar: Some aspects of the literary mind

Planning of program for the semester break and winter term