

Curriculum Vitae of **FRIEDEMANN PULVERMÜLLER**



address

Medical Research Council – Cognition and Brain Sciences Unit

15 Chaucer Road, Cambridge CB2 7EF, England

Tel.: +44 – (0) 1223 – 355 294 ext 670; *Fax:* +44 – (0) 1223 – 359 062

E-mail: friedemann.pulvermuller@mrc-cbu.cam.ac.uk

EDUCATION

<i>Dr. rer.soz. (Ph.D.)</i>	Psychology	Universität Konstanz	1999
<i>Habilitation</i>	Psychology	Universität Konstanz	1998
<i>Habilitation</i>	Behavioral Neuroscience	Universität Tübingen	1995
<i>Dr. phil. (Ph.D.)</i>	Linguistics	Universität Tübingen	1989
<i>Staatsexamen (M.A.)</i>	Biology, Linguistics	Universität Tübingen	1985
<i>Abitur (B.A.)</i>	(math.-nat.)	Eugen-Bolz-Gymnasium Rottenburg	1979

SCIENTIFIC APPOINTMENTS AND TEACHING

<i>Professor of Psychology</i>	Anglia Ruskin University Cambridge	2007—
<i>Visiting Professor</i>	Faculty of Biology, St. Petersburg State University	2007—
<i>Head of MEG</i>	MRC Cognition & Brain Sciences Unit, Cambridge	2007—
<i>Honorary Professor</i>	School of Psychology, University of Wales, Bangor	2004—
<i>Programme Leader (tenured professorial appointment)</i>	MRC Cognition & Brain Sciences Unit, Cambridge	2000—
<i>Heisenberg Fellow</i>	Department of Psychology	Universität Konstanz 1996-2000
<i>Helmholtz Fellow</i>	Medical School	Universität Tübingen 1993-1996
<i>Visiting Professor</i>	Dept. of Applied Linguistics	UCLA 1992-1993
<i>Research Associate</i>	Max-Planck-Institute of Biological Cybernetics	1990-1991

<i>Doctoral Fellow</i>	Linguistics	Universität Tübingen	1986-1990
<i>Lecturer</i>	Linguistics	Universität Tübingen	1986

OTHER PROFESSIONAL ACTIVITIES

<i>Visiting Scientist</i>	Neurosci Institute, University of California, Berkeley		2006
<i>Visiting Scientist</i>	Centre for Medicine and Health, Univ. of Malaga		2005—
<i>Visiting Scientist</i>	BioMag Lab, Helsinki University Central Hospital		1999-2005
<i>Visiting Scientist</i>	Cognitive Brain Res. Unit	Univ. of Helsinki	1998—
<i>Visiting Scientist</i>	Cognitive Science Lab	Univ. of Trento	1998-1999
<i>Visiting Scientist</i>	Dept. of Applied Linguistics	UCLA	1995, 1998
<i>Visiting Scientist</i>	Res. group Biomagnetism	Universität Münster	1993
<i>Visiting Scientist</i>	Max Planck-Institut for Psycholinguistics		1993

HONORS, AWARDS, AND FELLOWSHIPS

<i>Fellow</i>	Wolfson College, Cambridge		2003—
<i>Acting Member</i>	Rodin Remediation Academy, Stockholm		2002—
<i>Corresponding Member</i>	Rodin Remediation Academy, Stockholm		1999-2002
<i>Heisenberg fellowship</i>	Deutsche Forschungsgemeinschaft (DFG)		1996
<i>Distinguished Scientific Award for Early Career Contributions to Psychophysiology</i>	Society for Psychophysiological Research		1995
<i>Attempto-Award for Brain Research</i>	Universität Tübingen		1994
<i>Helmholtz Fellowship</i>	Bundesministerium für Forschung		1993
<i>Postdoctoral fellowship</i>	Deutsche Forschungsgemeinschaft		1991
<i>Research fellowship</i>	Stiftung zur Förderung der Philosophie		1988
<i>Doctoral fellowship</i>	State of Baden-Württemberg		1986

MAJOR RESEARCH GRANTS

- Principal Investigator: F. Pulvermüller

Topic: *Neurobiology of Word Processing* 1993-1995

Granting agency: Deutsche Forschungsgemeinschaft (AZ Pu 97/2-1)

Amount of funding: ca. 100,000 €
- Principal Investigator: F. Pulvermüller

Topic: *Lexical Deficits after Stroke* 1995-1998

Granting agency: Deutsche Forschungsgemeinschaft (AZ Pu 97/2-2)

Amount of funding: ca. 180,000 €

3. Principal Investigator:F. Pulvermüller
Topic: *Neurobiology of Word Processing II* 1996-1999
Granting agency: Deutsche Forschungsgemeinschaft (AZ Pu 97/2-3)
Amount of funding: ca. 100,000 €
4. Principal Investigator:F. Pulvermüller
Topic: *Activity Dynamics of Cortical Representations* 1997-2001
Granting agency: Deutsche Forschungsgemeinschaft (AZ Pu 97/10-1)
Amount of funding: ca. 70,000 €
5. Principal Investigator:F. Pulvermüller
Topic: *Psychophysiology of Word Meaning* 1998-2001
Granting agency: Deutsche Forschungsgemeinschaft (AZ Pu 97/11-1)
Amount of funding: ca. 70,000 €
6. Principal Investigator:F. Pulvermüller
Topic: *The right hemisphere's role in word processing* 2000--2001
Granting agency: Universität Konstanz
Amount of funding: ca. 40,000 €
7. Principal Investigator:F. Pulvermüller
Topic: *Neural basis of words, meaning and syntax* 2000--2004
Granting agency: MRC (intramural project grant at CBU Cambridge)
Amount of funding: ca. £ 800,000 (€1.2 Mio)
8. Principal Investigator:B. Rockstroh & F. Pulvermüller
Topic: *Constraint-Induced Aphasia Therapy* 2001--2002
Granting agency: Stiftung ZNS (German CNS foundation)
Amount of funding: ca. 50,000 €
9. Principal Investigator:F. Pulvermüller, Group coordinator: Stefan Wermter
Topic: *Mirrorbot: Language, action and perception in monkeys, humans and artifacts* 2002--2005
Granting agency: European Union
Amount of funding: ca. €1.7 Mio. overall, €435,000 to Cambridge part
10. Principal Investigator:F. Pulvermüller
Topic: *Neural basis of words, meaning and syntax* 2004--2009
Granting agency: MRC (intramural project grant at CBU Cambridge)
Amount of funding: ca. £ 1.0 Mio. (€1.5 Mio)
11. Application team: W. Marslen-Wilson, F. Pulvermüller, R. Henson, Y. Shtyrov
Equipment: *MEG device Elekta-Neuromag Vectorview + MSR*
Granting agency: Medical Research Council 2006
Amount of funding: £ 1.44 Mio (€2.16 Mio)
12. Principal Investigator:F. Pulvermüller, Group coordinator: S. Wermter
Topic: *NESTcom: What it means to communicate*
Cambridge Part On Cognitive Neuroscience 2006--2008
Granting agency: European Union, NEST Programme
Amount of funding: ca. €249,000 overall, €82,000 to Cambridge part

13. Principal Investigator: W. Marslen-Wilson, F. Pulvermüller, R. Henson, Y. Shtyrov
Topic: *MRC-Elekta MEG Clinical Research Collaboration*
Granting agency: Elekta-Neuromag, Stockholm/Helsinki 2007--2010
Amount of funding: ca. £ 100,000 (€150,000)
14. Principal Investigator: F. Pulvermüller, Y. Shtyrov (for MRC Cambridge)
Topic: *MEG Biomarkers of Schizophrenia*
Granting agency: Gaxo-Smith-Kline 2008--2010
Amount of funding: ca. £ 150,000 (€200,000)
15. Principal Investigator: F. Pulvermüller
Topic: *Brain dynamics of language in time and space*
Granting agency: Medical Research Council (intramural grant) 2009--2014
Amount of funding: ca. £ 1.96 Mio. (€ 2.14 Mio.)

TEACHING EXPERIENCE AT GRADUATE AND UNDERGRADUATE LEVELS IN THE AREAS OF

Cognitive Neuroscience, Psychophysiology, Neuropsychology
Psycholinguistics, Neurolinguistics, Neuroscience of Language
General Psychology (attention, emotion, language, memory, perception)
Research Methods in Cognitive Science, Neuroimaging, especially MEG, EEG

ADMINISTRATIVE ACTIVITIES

Member of a range of administrative committee at MRC CBSU, including
Unit Management Committee
Imaging Management Committee
Graduate Student Admission and Evaluation Committee
MEG Management Committee (Chair)

PROFESSIONAL ORGANIZATION MEMBERSHIPS

British Psychophysiological Society (BPPS), UK
Cognitive Neuroscience Society (CNS), USA
Experimental Psychology Society (EPS), UK
Organization for Human Brain Mapping (OHBM), USA
Society for Psychophysiological Research (SPR), USA
Society for Neuroscience (SfN), USA
World Federation of Neurology (WFN) – Research Group on Aphasia and Cognitive Disorders (RGACD)

REFeree FOR SCIENTIFIC ORGANIZATIONS

Biotechnology and Biological Sciences Research Council (BBSRC), UK
Deutsche Forschungsgemeinschaft (DFG), Germany
Dutch Science Foundation, The Netherlands

Engineering and Physical Sciences Research Council (EPSRC), UK
Finnish Academy of Science, Finland
Medical Research Council (MRC), UK
National Science Foundation (NSF), USA
Stiftung ZNS, Germany
Stroke Association, UK
Wellcome Trust, UK

EDITORIAL ACTIVITIES

Guest Editor, <i>Cortex</i>	2008-2010
Guest Editor, <i>Brain and Language</i>	2008-2010
Guest Editor, <i>Neural Networks</i>	2007-2009
Review Editor, <i>Frontiers in Human Neuroscience</i>	2007—
Editorial Board, <i>Brain and Language</i>	2007—
Editorial Board, <i>Brain Topography</i>	2007—
Editorial Board, <i>Aphasiology</i>	1999—

REFeree FOR SCIENTIFIC JOURNALS (EXAMPLES)

Aphasiology
Behavioral and Brain Sciences
Biological Psychology
Brain and Language
Brain Research
Clinical Neurophysiology
Cognitive Brain Research
Cognitive Neuropsychology
Cognitive Psychology
Cognitive Science
Connection Science
Current Biology
Electroencephalography and Clinical Neurophysiology
European Journal of Neuroscience
Experimental Brain Research
International Journal of Psychophysiology
Issues in Applied Linguistics
Journal of Cognitive Neuroscience
Journal of Neuroscience
Journal of Psychophysiology
Kognitionswissenschaft
Language and Cognitive Processes
Nature, Nature Neuroscience, Nature Reviews Neuroscience
Neural Networks
Neurocase
Neuroimage
Neuron

Neuropsychologia

Neuroreport

Neuroscience Letters

Proceedings of the National Academy of Sciences, USA

Psychology

Psychophysiology

Trends in Cognitive Sciences

Science

List of Publications

[A] BOOKS, DISSERTATIONS, EDITED VOLUMES

1. Pulvermüller, F. 1990: *Aphasische Kommunikation* [Aphasic Communication]. *Grundfragen ihrer Analyse und Therapie. Sprachtherapie 2*. Gunter Narr Verlag: Tübingen.
2. Pulvermüller, F. 1996: *Neurobiologie der Sprache* [Neurobiology Of Language]. *Gehirntheoretische Überlegungen und empirische Befunde zur Sprachverarbeitung. Psychologia Universalis 1*. Pabst Science Publishers: Lengerich, Berlin.
3. Pulvermüller, F. 2001. *Neuronal grammar. An essay on brain mechanisms of serial order*. Doctoral dissertation, University of Konstanz.
4. Pulvermüller, F. 2003: *The Neuroscience Of Language: On Brain Circuits Of Words and Serial Order*. Cambridge University Press, Cambridge, UK.
5. Shtyrov, Y. & Pulvermüller, F. (eds.) 2006: *Fourth Conference On Mismatch Negativity (MMN) And Its Clinical And Scientific Applications*, April 22-26, 2006. MRC Cognition and Brain Sciences Unit, Cambridge, UK.

[B] ARTICLES IN REFEREED INTERNATIONAL JOURNALS

1991

1. Pulvermüller, F. & Preißl, H. 1991: A cell assembly model of language. *Network: Computation in Neural Systems 2*, 455-468.
2. Pulvermüller, F. & Roth, V.M. 1991: Communicative aphasia treatment as a further development of PACE-therapy. *Aphasiology 5*, 39-50.

1992

3. Pulvermüller, F. 1992: Constituents of a neurological theory of language. *Concepts in Neuroscience 3*, 157-200.
4. Braitenberg, V. & Pulvermüller, F. 1992: Entwurf einer neurologischen Theorie der Sprache. *Naturwissenschaften 79*, 103-117.

1993

5. Pulvermüller, F. & Schönle, P.-W. 1993: Behavioral and neuronal changes during treatment of mixed transcortical aphasia. *Cognition* **48**, 139-161.

1994

6. Pulvermüller, F. 1994: Why cell assembly ignition should lead to gamma band responses. *Psychology* **5** (65), 1-6.
7. Pulvermüller, F. & Lutzenberger, W. 1994: Specific gamma-band depression and linguistic units. *Psychology* **5** (68), 1-8.
8. Pulvermüller, F. & Preißl, H. 1994: Explaining aphasias in neuronal terms. *Journal of Neurolinguistics* **8**, 75-81
9. Pulvermüller, F. Preißl, H., Eulitz, C., Pantev, C., Lutzenberger, W., Elbert, T. & Birbaumer, N. 1994: Brain rhythms, cell assemblies and cognition: evidence from the processing of words and pseudowords. *Psychology* **5** (48), 1-30.
10. Pulvermüller, F., Preißl, H., Lutzenberger, W. & Birbaumer, N. 1994: Simple models first. *Psychology* **5** (66), 1-4.
11. Pulvermüller, F. & Schumann, J.H. 1994: Neurobiological mechanisms of language acquisition. *Language Learning* **44**, 681-734.
12. Lutzenberger, W., Pulvermüller, F. & Birbaumer, N. 1994: Words and pseudowords elicit distinct patterns of 30-Hz EEG responses in humans. *Neuroscience Letters* **176**, 115-118.
13. Lutzenberger, W., Pulvermüller, F., Elbert, T. & Birbaumer, N. 1994: Increased gamma-band power: new data against old prejudices. *Psychology* **5** (67), 1-9.
14. Mohr, B., Pulvermüller, F., Rayman, J. & Zaidel, E. 1994: Interhemispheric cooperation during lexical processing is mediated by the corpus callosum: evidence from the split-brain. *Neuroscience Letters* **181**, 17-21.
15. Mohr, B., Pulvermüller, F. & Zaidel, E. 1994: Lexical decision after left, right, and bilateral presentation of content words, function words, and non-words: evidence for interhemispheric interaction. *Neuropsychologia* **32**, 105-124.

1995

16. Pulvermüller, F. 1995: Agrammatism: behavioral description and neurobiological explanation. *Journal of Cognitive Neuroscience* **7**, 165-181.
17. Pulvermüller, F. 1995: What neurobiology can buy language theory. *Studies in Second Language Acquisition* **17**, 73-77.

18. Pulvermüller, F. 1995: Neurobiologie der Wortverarbeitung. *Naturwissenschaften* **82**, 279-287.
19. Pulvermüller, F., Lutzenberger, W. & Birbaumer, N. 1995: Electrocortical distinction of vocabulary types. *Electroencephalography and Clinical Neurophysiology* **94**, 357-370.
20. Pulvermüller, F., Lutzenberger, W. Preißl, H. & Birbaumer, N. 1995: Motor programming in both hemispheres: an EEG study of the human brain. *Neuroscience Letters* **189**, 5-8.
21. Pulvermüller, F., Lutzenberger, W. Preißl, H. & Birbaumer, N. 1995: Spectral responses in the gamma-band: physiological signs of higher cognitive processes? *NeuroReport* **6**, 2059-2064.
22. Pulvermüller, F. & Preißl, H. 1995: Local or transcortical assemblies? Evidence from cognitive neuroscience (Response to D. Amit). *Behavioral and Brain Sciences* **18**, 640-641.
23. Pulvermüller, F. & Schumann, J.H. 1995: On the interpretation of earlier recovery of the second language after injection of sodium Amytal in the left middle cerebral artery. *Language Learning* **45**, 729-73
24. Lutzenberger, W., Preißl, H. & Pulvermüller, F. 1995: Fractal dimension of EEG time series and underlying brain processes. *Biological Cybernetics* **73**, 477-482.
25. Lutzenberger, W., Pulvermüller, F., Elbert, T. & Birbaumer, N. 1995: Visual stimulation alters local 40-Hz responses in humans: an EEG study. *Neuroscience Letters* **183**, 39-42.
26. Preißl, H., Pulvermüller, F., Lutzenberger, W. & Birbaumer, N. 1995: Evoked potentials distinguish between nouns and verbs. *Neuroscience Letters* **197**, 81-83.

1996

27. Pulvermüller, F. 1996: Hebb's concept of cell assemblies and the psychophysiology of word processing. *Psychophysiology* **33**, 317-333.
28. Pulvermüller, F., Eulitz, C., Pantev, C., Mohr, B., Feige, B., Lutzenberger, W., Elbert, T. & Birbaumer, N. 1996: High-frequency cortical responses reflect lexical processing: an MEG study. *Electroencephalography and Clinical Neurophysiology* **98**, 76-85.
29. Pulvermüller, F., Lutzenberger, W., Müller, V., Mohr, B., Dichgans, J. & Birbaumer, N. 1996: P3 and contingent negative variation in Parkinson's disease. *Electroencephalography and Clinical Neurophysiology* **98**, 456-467.

30. Pulvermüller, F. & Mohr, B. 1996: Transcortical cell assemblies: A key to the understanding of cortical lateralization and interhemispheric interaction. *Neuroscience and Biobehavioral Reviews* **30**, 557-566.
31. Pulvermüller, F., Mohr, B. & Preißl, H. 1996: Biology of language: principles, predictions, and evidence. *Behavioral and Brain Sciences* **19**, 643-644.
32. Pulvermüller, F., Mohr, B., Sedat, N., Hadler, B. & Rayman, J. 1996: Word class specific deficits in Wernicke's aphasia. *Neurocase* **2**, 203-212.
33. Pulvermüller, F., Preißl, H., Lutzenberger, W. & Birbaumer, N. 1996: Brain rhythms of language: nouns versus verbs. *European Journal of Neuroscience* **8**, 937-941.
34. Mohr, B., Pulvermüller, F., Mittelstädt, K. & Rayman, J. 1996: Multiple simultaneous stimulus presentation facilitates lexical processing. *Neuropsychologia* **34**, 1003-1013.
35. Mohr, B., Müller, V., Mattes, R., Rosin, R., Federmann, B., Strehl, U., Pulvermüller, F., Müller, F. & Birbaumer, N. 1996: Behavioral treatment of Parkinson's disease leads to improvement of motor skills and to tremor reduction. *Behavior Therapy* **27**, 235-255.
36. Montoya, P., Larbig, W., Pulvermüller, F., Flor, H. & Birbaumer, N. 1996: Cortical correlates of semantic classical conditioning. *Psychophysiology* **33**, 644-649.
37. Preißl, H., Lutzenberger, W. & Pulvermüller, F. 1996: Is there chaos in the brain? *Behavioral and Brain Sciences* **19**, 307-308.

1997

38. Pulvermüller, F. 1997: Aspects of language mechanisms: a Hebbian perspective. *European Review* **5**, 23-37.
39. Pulvermüller, F. 1997: Brain-theoretical perspectives on language. *Theoretical Linguistics* **23**, 281-302.
40. Pulvermüller, F., Birbaumer, N., Lutzenberger, W. & Mohr, B. 1997: High-frequency cortical activity: its possible role in attention, gestalt processing and language. *Progress in Neurobiology* **52**, 427-445.
41. Lutzenberger, W., Preißl, H., Birbaumer, N. & Pulvermüller, F. 1997: High-frequency cortical responses: do they not exist if they are small? *Electroencephalography and Clinical Neurophysiology* **102**, 64-66.
42. Müller, V., Mohr, B., Rosin, R., Pulvermüller, F., Müller, F. & Birbaumer, N. 1997: Short-term effects of behavioural treatment on movement initiation and

postural control in Parkinson's disease: a controlled clinical study. *Movement Disorders* **12**, 306-314.

43. Preißl, H., Lutzenberger, W., Pulvermüller, F. & Birbaumer, N. 1997: Fractal dimensions of short EEG time series in humans. *Neuroscience Letters* **225**, 77-80.

1998

44. Pulvermüller, F. 1998: On the matter of rules. Past tense-formation and its relevance for cognitive neuroscience. *Network: Computation in Neural Systems* **9 R**, 1-52.
45. Mohr, B., Pulvermüller, F. & Schleichert, H. 1998: Learned changes of brain states alter cognitive processing in humans. *Neuroscience Letters* **253**, 159-162.
46. Dobel, C., Hauk, O., Zobel, E., Eulitz, C., Pulvermüller, F., Cohen, R., Schönle, P.W., Elbert, T. & Rockstroh, B. 1998: Monitoring brain activity of human subjects during delayed matching to sample tasks comparing verbal and pictorial stimuli with modal and cross-modal presentation: an event related potential study employing a source reconstruction method. *Neuroscience Letters* **253**, 179-182.

1999

47. Pulvermüller, F. 1999: Words in the brain's language (Target Article). *Behavioral and Brain Sciences* **22**, 253-279.
48. Pulvermüller, F. 1999: Toward a Cognitive Neuroscience of Language (Response to Commentaries). *Behavioral and Brain Sciences* **22**, 301-336.
49. Pulvermüller, F. 1999: Lexical access as a brain mechanism (Commentary on Levelt). *Behavioral and Brain Sciences* **22**, 50-52.
50. Pulvermüller, F. 1999: Mind the brain, and brain the mind! (Commentary on Clahsen). *Behavioral and Brain Sciences* **22**, 1035-1036.
51. Pulvermüller, F., Keil, A. & Elbert, T. 1999: High-frequency brain activity: perception or active memory? *Trends in Cognitive Sciences*, **3**, 250-252.
52. Pulvermüller, F., Preißl, H. & Lutzenberger, W. 1999: Nouns and verbs in the intact brain: evidence from event-related potentials and high-frequency cortical responses. *Cerebral Cortex*, **9**, 497-506.
53. Pulvermüller, F., Mohr, B. & Schleichert, H. 1999: Semantic or lexico-syntactic factors: What determines word-class-specific activity in the human brain? *Neuroscience Letters*, **275**, 81-84.

2000

54. Pulvermüller, F. 2000: Syntactic circuits: How does the brain create serial order in sentences? *Brain and Language*, **71**, 194-199.
55. Pulvermüller, F., Härle & Hummel, F. 2000: Neurophysiological distinction of semantic verb categories. *NeuroReport*, **11**, 2789-2793.
56. Pulvermüller, F., Mohr, B., Schleichert, H. & Veit, R. 2000: Operant conditioning of left-hemispheric slow cortical potentials and its effect on word processing. *Biological Psychology*, **53**, 177-215.
57. Mohr, B., Pulvermüller, F., Cohen, R. & Rockstroh, B. 2000: Interhemispheric cooperation during word processing: evidence for callosal dysfunction in schizophrenic patients. *Schizophrenia Research*, **46**, 231-239.

2001

58. Pulvermüller, F. 2001: Brain reflections of words and their meaning. *Trends in Cognitive Sciences*, **5**, 517-524.
59. Pulvermüller, F. 2001: Mutual access and mutual dependence of conceptual components. (Commentary on Humphreys and Forde.) *Behavioral and Brain Sciences*, **24**, 490-492.
60. Pulvermüller, F., Assadollahi, R. & Elbert, T. 2001: Neuromagnetic evidence for early semantic access in word recognition. *European Journal of Neuroscience*, **13**, 201-205.
61. Pulvermüller, F., Neininger, B., Elbert, T., Mohr, B., Rockstroh, B., Koebbel, P. & Taub, E. 2001: Constraint-induced therapy of chronic aphasia following stroke. *Stroke*, **32**, 1621-1626.
62. Pulvermüller, F., Härle, M. & Hummel, F. 2001: Walking or talking?: Behavioral and electrophysiological correlates of action verb processing. *Brain and Language*, **78**, 143-168.
63. Pulvermüller, F., Kujala, T., Shtyrov, Y., Simola, J., Tiitinen, H., Alku, P., Alho, K., Martinkauppi, S., Ilmoniemi, R. J. & Näätänen, R. 2001: Memory traces for words as revealed by the Mismatch Negativity (MMN). *NeuroImage*, **14**, 107-116.
64. Assadollahi, R. & Pulvermüller, F. 2001: Neuromagnetic evidence for early access to cognitive representations. *Neuroreport*, **12**, 207-213.
65. Dobel, C., Pulvermüller, F., Härle, M., Cohen, R., Koebbel, P., Schonle, P.W. & Rockstroh, B. 2001: Syntactic and semantic processing in the healthy and aphasic human brain. *Experimental Brain Research*, **140**, 77-85.

66. Mohr, B., Heim, S., Pulvermüller, F. & Rockstroh, B. 2001: Functional asymmetry in schizophrenic patients during auditory speech processing. *Schizophrenia Research*, **52**, 69-78.
67. Müller, V., Lutzenberger, W., Pulvermüller, F. & Mohr, B. 2001: Investigation of brain dynamics in Parkinson's disease by methods derived from nonlinear dynamics. *Experimental Brain Research*, **137**, 103-110.
68. Neininger, B. & Pulvermüller, F. 2001: The right hemisphere's role in action verb processing: A double case study. *Neurocase*, **7**, 103-317.

2002

69. Pulvermüller, F. 2002: A brain perspective on language mechanisms: from discrete neuronal ensembles to serial order. *Progress in Neurobiology*, **67**, 85-111.
70. Mohr, B. & Pulvermüller, F. 2002: Redundancy gains and costs in cognitive processing: the effect of short SOAs. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, **28**(6), 1200-1223.
71. Shtyrov, Y. & Pulvermüller, F. 2002: Processing of an inflectional affix by the human brain as revealed by the Mismatch Negativity (MMN). *European Journal of Neuroscience*, **15**, 1085-1091.
72. Shtyrov, Y. & Pulvermüller, F. 2002: Neurophysiological evidence for memory traces for words in the human brain. *Neuroreport*, **13**, 521-525.

2003

73. Pulvermüller, F. 2003: Sequence detectors as a basis of grammar in the brain. *Theory in Biosciences*, **122**, 87-103.
74. Pulvermüller, F. & Shtyrov, Y. 2003: Automatic processing of grammar in the human brain as revealed by the Mismatch Negativity. *Neuroimage*, **20**, 1020-1025.
75. Pulvermüller, F., Shtyrov, Y. & Ilmoniemi, R. 2003: Spatio-temporal patterns of neural language processing: an MEG study using Minimum-Norm Current Estimates. *Neuroimage*, **20**, 159-172.
76. Assadollahi, R. & Pulvermüller, F. 2003: Early influences of word length and frequency: a group study in the MEG. *Neuroreport*, **14**, 1183-1187.
77. Micheyl, C., Carlyon, R.P., Shtyrov, Y., Hauk, O., Dodson, T. & Pulvermüller, F. 2003: Neurophysiological correlates of a perceptual illusion: A Mismatch Negativity study. *Journal of Cognitive Neuroscience*, **15**, 747-758.

78. Müller, V., Lutzenberger, W., Preißl, H., Pulvermüller, F. & Birbaumer, N. 2003: Complexity of visual stimuli and non-linear EEG dynamics in humans. *Cognitive Brain Research*, **16**, 104-110.
79. Neininger, B. & Pulvermüller, F. 2003: Word category specific deficits after right-hemispheric lesions. *Neuropsychologia*, **41**, 53-70.
80. Shtyrov, Y., Pulvermüller, F., Näätänen, R. & Ilmoniemi, R. 2003: Grammar processing outside the focus of attention: an MEG study. *Journal of Cognitive Neuroscience*, **15**, 1195-1206.

2004

81. Pulvermüller, F. 2004: Lexical access as a brain mechanism. *Behavioral and Brain Sciences*, **27**, 297-298.
82. Pulvermüller, F. & Mohr, B. 2004: Determinants of ignition times: Topographies of cell assemblies and activation delays they imply. *Behavioral and Brain Sciences*, **27**, 308-311.
83. Pulvermüller, F., Mohr, B. & Lutzenberger, W. 2004: Neurophysiological signs of word and pseudoword processing in well-recovered aphasics and patients with right hemispheric stroke. *Psychophysiology*, **41**, 584-591..
84. Pulvermüller, F., Shtyrov, Y., Kujala, T. & Näätänen, R. 2004: Word-specific cortical activity as revealed by the mismatch negativity. *Psychophysiology*, **41**, 106-112.
85. Endrass, T., Mohr, B. & Pulvermüller, F. 2004: Enhanced mismatch negativity brain response after binaural word presentation. *European Journal of Neuroscience*, **19**, 1653-1660.
86. Hauk, O., Johnsrude, I. & Pulvermüller, F. 2004: Somatotopic representation of action words in human motor and premotor cortex. *Neuron*, **41**, 301-307.
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