Curriculum Vitae of FRIEDEMANN PULVERMÜLLER

Birth date: 18.4.1960

Place of birth: Tübingen, Germany

Married, one child

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EDUCATION

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

SCIENTIFIC APPOINTMENTS AND TEACHING

Honorary Professor	School of Psychology, University of Wales, Bangor		2004—
Senior Scientist (tenured professorial appointment)	MRC Cognition & Brain Sciences Unit, Cambridge		2000—
Heisenberg Fellow	Department of Psychology	Universität Konstanz	1996-2000
Helmholtz Fellow	Medical School	Universität Tübingen	1993-1996

Visiting Professor	Dept. of Applied Linguistics	UCLA	1992-1993
Research Associate	Max-Planck-Institute of Biological Cybernetics		1990-1991
Doctoral Fellow	Linguistics	Universität Tübingen	1986-1990
Lecturer	Linguistics	Universität Tübingen	1986

OTHER PROFESSIONAL ACTIVITIES

Visiting Scientist	BioMag Lab, Helsinki University Central Hospital		1999—
Visiting Scientist	Cognitive Brain Res. Unit	Univ. of Helsinki	1998—
Visiting Scientist	Cognitive Science Lab	Univ. of Trento	1998-1999
Visiting Scientist	Dept. of Applied Linguistics	UCLA	1995, 1998
Visiting Scientist	Res. group Biomagnetism	Universität Münster	1993
Visiting Scientist	Max Planck-Institut for Psycholinguistics		1993

HONORS, AWARDS, AND FELLOWSHIPS

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

MAJOR RESEARCH GRANTS

1.	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 €	
2.	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*	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:	*Psychopysiology 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:	B. Rockstroh & F. Pulvermüller	
	Topic:	CI Aphasia Therapy	2001--2002
	Granting agency:	Stiftung ZNS (German CNS foundation)	
	Amount of funding:	ca. 50,000 €	
8.	Principal Investigator:	F. Pulvermüller, Group coordinator: Stefan Wermter	
	Topic:	Mirrorbot project group,	
		Cambridge Part On Neurophysiology	2002--2005
	Granting agency:	European Science Foundation	
	Amount of funding:	ca. 435,000 € (1.7 Mio. € overall)	

TEACHING

Cognitive Neuroscience, Psychophysiology, Neuroimaging Methodology
Neuropsychology, Medical Psychology
General Psychology (attention, consciousness, emotion, language, memory)
Linguistics, Psycholinguistics, Neurolinguistics

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
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
Stroke Association, UK
Deutsche Forschungsgemeinschaft (DFG), Germany
Dutch Science Foundation, The Netherlands
Finnish Academy of Science, Finland
Medical Research Council (MRC), UK
National Science Foundation (NSF), USA
Stiftung ZNS, Germany

EDITORIAL ACTIVITIES

Member of the Editorial board of *Aphasiology* 1999--

REFEREE FOR SCIENTIFIC JOURNALS

Aphasiology
Behavioral and Brain Sciences
Biological Psychology
Brain Research
Clinical Neurophysiology
Cognitive Brain Research
Cognitive Neuropsychology
Cognitive Psychology
Cognitive Science
Connection Science
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
Neurocase
Neuroimage

Neuron
Neuropsychologia
Neuroreport
Neuroscience Letters
Psycoloquy
Psychophysiology
Trends in Cognitive Sciences

List of Publications

[A] BOOKS

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 JOURNALS, HANDBOOKS AND OTHER VOLUMES

1987-1989

1. Pulvermüller, F. 1987: Kommunikative Therapie der Broca Aphasie. *Sprache-Stimme-Gehör* **11**, 115-118.

2. Pulvermüller, F. 1987: Kommunikative Aphasietherapie. Ein Beispiel. In: Kühlwein, W. (ed.): *Perspektiven der Angewandten Linguistik*. Forschungsfelder. Kongressbeiträge zur 16. Jahrestagung der Gesellschaft für Angewandte Linguistik, GAL e.V. Gunter Narr Verlag, Tübingen, 125-131.

3. Pulvermüller, F. 1988: Kommunikative Aphasietherapie mit Sprachübungsspielen. *Aphasie und verwandte Gebiete* **1** *(Nr. 1)*, 17-43.

4. Pulvermüller, F. 1988: Aphasiker verstehen - Zur Analyse aphasischer Kommunikation. In: Spillner, B. (ed.): *Angewandte Linguistik und Computer*.

Kongressbeiträge zur 18. Jahrestagung der Gesellschaft für Angewandte Linguistik, GAL e.V. Gunter Narr Verlag: Tübingen, 220-221.

5. Pulvermüller, F. 1989: Kommunikative Therapie der amnestischen Aphasie. *Sprache-Stimme-Gehör* **13**, 32-36.

6. Pulvermüller, F. 1989: Sprachliches Handeln im Alltag und in der Aphasietherapie. In: Roth, V.M. (ed.): *Kommunikation trotz gestörter Sprache. Aphasie - Schizophrenie - Demenz*. Gunter Narr Verlag: Tübingen, 87-100.

1990

7. Pulvermüller, F. 1990: Analyse aphasischer Kommunikation. In: Ehlich, K., Koerfer, A., Redder, A. & Weingarten, R. (eds.): *Medizinische und therapeutische Kommunikation. Diskursanalytische Untersuchungen*. Westdeutscher Verlag: Opladen, 292-308.

8. Pulvermüller, F. 1990: Untersuchung kommunikativer Fähigkeiten bei Patienten mit neuropsychologischen Defiziten. In: Mellies, R., Ostermann, F. & Winnecken, A. (eds.): *Beiträge zur interdisziplinären Aphasieforschung*. Gunter Narr Verlag: Tübingen, 55-86.

9. Romero, B., Kurz, A., Haupt, M., Zimmer, R., Lauter, H., Pulvermüller, F. & Roth, V.M. 1990: Diagnostic significance of language evaluation in early stages of Alzheimer's disease. In: Maurer K., Riederer, P. & Beckmann, H. (eds.): *Alzheimer's Disease. Epidemiology, Neuropathology, Neurochemistry, and Clinics*. Vienna, 393-399.

10. Roth, V.M. & Pulvermüller, F. 1990: Sprach-Training für Aphasiker mit Computer-Hilfe. Eine Wegbeschreibung verstehen. In: Spillner, B. (ed.): *Sprache und Politik*. Gunter Narr Verlag: Tübingen, 273-278.

1991

11. Pulvermüller, F. & Preißl, H. 1991: A cell assembly model of language. *Network: Computation in Neural Systems* **2**, 455-468.

12. Pulvermüller, F. & Roth, V.M. 1991: Communicative aphasia treatment as a further development of PACE-therapy. *Aphasiology* **5**, 39-50.

13. Pulvermüller, F. 1991: Beschreibung kommunikativer Fähigkeiten bei schwerer Aphasie. In: Stati, S., Weigand, E. & Hundsnurscher, F. (eds.): *Dialoganalyse 3*. Niemeyer Verlag: Tübingen, 431-445.

14. Pulvermüller, F. 1991: Kommunikative Aphasietherapie in der Gruppe. In: Koerner, A. & Simons, B. (eds.): *Gruppentherapie in der Klinischen Linguistik*. Peter Lang Verlag: Frankfurt, 61-72.

1992

15. Pulvermüller, F. 1992: Constituents of a neurological theory of language. *Concepts in Neuroscience* **3**, 157-200.

16. Pulvermüller, F., Roth, V.M. & Schönle, P.-W. 1992: Neue Wege der Sprachtherapie. *Nervenarzt* **63**, 137-142.

17. Braitenberg, V. & Pulvermüller, F. 1992: Entwurf einer neurologischen Theorie der Sprache. *Naturwissenschaften* **79**, 103-117.

18. Pulvermüller, F. 1992: Bausteine einer neurologisch-linguistischen Theorie. In: Rickheit, G., Mellies, R. & Winnecken, A. (eds.): *Linguistische Aspekte der Sprachtherapie: Forschung und Intervention bei Sprachstörungen*. Westdeutscher Verlag: Opladen, 21-48.

19. Pulvermüller, F. & Roth, V.M. 1992: Sprachtherapeutischer Einsatz des Mikrocomputers. In: Roth, V.M. (ed.): *Computer in der Sprachtherapie*. Gunter Narr: Tübingen, 139-149.

1993

20. Pulvermüller, F. 1993: On connecting syntax and the brain. In: Aertsen, A. (ed.): *Brain theory: spatio-temporal aspects of brain function.* Elsevier: New York, 131-145.

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

22. Pulvermüller, F. & Braitenberg, V. 1993: Sprachmechanismen im Gehirn. In: Hosp, I. (ed.): *Sprachen des Menschen, Sprache der Dinge.* Bozner Treffen 1992. Südtiroler Kulturinstitut: Bozen, 47-52.

23. Pulvermüller, F. & Roth, V.M. 1993: Integrative und computerunterstützte Aphasietherapie. In: Grohnfeldt, M. (ed.): *Handbuch der Sprachtherapie. Band* **VI***: Zentrale Sprach- und Sprechstörungen*. Spiess Verlag: Berlin, 230-250.

1994

24. Pulvermüller, F. 1994: Syntax und Hirnmechanismen: Perspektiven einer multidisziplinären Sprachwissenschaft. *Kognitionswissenschaft* **4**, 17-31.

25. Pulvermüller, F. 1994: Why cell assembly ignition should lead to gamma band responses. *Psycoloquy* **5 (65)**, 1-6.

26. Pulvermüller, F. & Lutzenberger, W. 1994: Specific gamma-band depression and linguistic units. *Psycoloquy* **5 (68)**, 1-8.

27. Pulvermüller, F. & Preißl, H. 1994: Explaining aphasias in neuronal terms. *Journal of Neurolinguistics* **8**, 75-81

28. 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. *Psycoloquy* **5 (48)**, 1-30.

29. Pulvermüller, F., Preißl, H., Lutzenberger, W. & Birbaumer, N. 1994: Simple models first. *Psycoloquy* **5 (66)**, 1-4.

30. Pulvermüller, F. & Schumann, J.H. 1994: Neurobiological mechanisms of language acquisition. *Language Learning* **44**, 681-734.

31. 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.

32. Lutzenberger, W., Pulvermüller, F., Elbert, T. & Birbaumer, N. 1994: Increased gamma-band power: new data against old prejudices. *Psycoloquy* **5 (67)**, 1-9.

33. 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.

34. 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.

35. Pulvermüller, F. 1994: Sprachstörungen im Dialog. Analyse und Therapie. In: Fritz, G. & Hundsnurscher, F. (eds.): *Handbuch der Dialoganalyse*. Niemeyer Verlag: Tübingen, 393-409.

36. Pulvermüller, F., Preißl, H., Eulitz, C., Pantev, C., Lutzenberger, W., Elbert, T. & Birbaumer, N. 1994: Gamma-band responses reflect word/pseudoword processing. In: Pantev, C., Elbert, T. & Lütkenhöner, B. (eds.): *Oscillatory event-related brain dynamics*. Plenum Press: New York, 243-258.

1995

37. Pulvermüller, F. 1995: Agrammatism: behavioral description and neurobiological explanation. *Journal of Cognitive Neuroscience* **7**, 165-181.

38. Pulvermüller, F. 1995: What neurobiology can buy language theory. *Studies in Second Language Acquisition* **17**, 73-77.

39. Pulvermüller, F. 1995: Neurobiologie der Wortverarbeitung. *Naturwissenschaften* **82**, 279-287.

40. Pulvermüller, F., Lutzenberger, W. & Birbaumer, N. 1995: Electrocortical distinction of vocabulary types. *Electroencephalography and Clinical Neurophysiology* **94**, 357-370.

41. 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.

42. 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.

43. Pulvermüller, F. & Preißl, H. 1995: Local or transcortical assemblies? Evidence from cognitive neuroscience (Response to D. Amit). *Behavioral and Brain Sciences* **18**, 640-641.

44. 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

45. Lutzenberger, W., Preißl, H. & Pulvermüller, F. 1995: Fractal dimension of EEG time series and underlying brain processes. *Biological Cybernetics* **73**, 477-482.

46. 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.

47. Preißl, H., Pulvermüller, F., Lutzenberger, W. & Birbaumer, N. 1995: Evoked potentials distinguish between nouns and verbs. *Neuroscience Letters* **197**, 81-83.

48. Romero, B., Pulvermüller, F., Haupt, M. & Kurz, A. 1995: Pragmatische Sprachstörungen in frühen Stadien der Alzheimer-Krankheit. *Zeitschrift für Neuropsychologie* **6**, 29-42.

49. Pulvermüller, F., Lutzenberger, W., Mohr, B., Preißl, H., Eulitz, C., Pantev, C., Elbert, T. & Birbaumer, N. 1995: Evoked gamma-band responses in the EEG and MEG. In: Heinze, H.J., Münte, T.F., Scheich, H. & Mangun, G.R. (eds.): *Mapping cognition in time and space: combining EEG, MEG with functional imaging*. Birkhäuser: Boston.

1996

50. Pulvermüller, F. 1996: Hebb's concept of cell assemblies and the psychophysiology of word processing. *Psychophysiology* **33**, 317-333.

51. 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.

52. Pulvermüller, F., Lutzenberger, W., Müller, V., Mohr, B., Dichgans, J. & Birbaumer, N. 1996: P3 and contigent negative variation in Parkinson's disease. *Electroencephalography and Clinical Neurophysiology* **98**, 456-467.

53. 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.

54. Pulvermüller, F., Mohr, B. & Preißl, H. 1996: Biology of language: principles, predictions, and evidence. *Behavioral and Brain Sciences* **19**, 643-644.

55. Pulvermüller, F., Mohr, B., Sedat, N., Hadler, B. & Rayman, J. 1996: Word class specific deficits in Wernicke's aphasia. *Neurocase* **2**, 203-212.

56. Pulvermüller, F., Preißl, H., Lutzenberger, W. & Birbaumer, N. 1996: Brain rhythms of language: nouns versus verbs. *European Journal of Neuroscience* **8**, 937-941.

57. Mohr, B., Pulvermüller, F., Mittelstädt, K. & Rayman, J. 1996: Multiple simultaneous stimulus presentation facilitates lexical processing. *Neuropsychologia* **34**, 1003-1013.

58. 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.

59. Montoya, P., Larbig, W., Pulvermüller, F., Flor, H. & Birbaumer, N. 1996: Cortical correlates of semantic classical conditioning. *Psychophysiology* **33**, 644-649.

60. Preißl, H., Lutzenberger, W. & Pulvermüller, F. 1996: Is there chaos in the brain? *Behavioral and Brain Sciences* **19**, 307-308.

61. Pulvermüller, F. 1996: Word processing and representation in the human brain. Institut d'Estudis Catalans (ed.): *International workshop on language, brain and verbal behavior: Neurobiological aspects of linguistic capacities and language processing.* Scientific office, Institut d'Estudis Catalans: Barcelona, 63-76.

1997

62. Pulvermüller, F. 1997: Aspects of language mechanisms: a Hebbian perspective. *European Review* **5**, 23-37.

63. Pulvermüller, F. 1997: Brain-theoretical perspectives on language. *Theoretical Linguistics* **23**, 281-302.

64. 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.

65. 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.

66. 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.

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

68. Pulvermüller, F., Preißl, H., Lutzenberger, W. & Birbaumer, N. 1997: Gestalt und Sprache als rhythmische Gehirnprozesse. In: Kasten, E., Kreutz, M.R. & Sabel, B.A. (eds.): *Jahrbuch der Medizinischen Psychologie* **12**: *Neuropsychologie in Forschung und Praxis*. Hogrefe: Göttingen, 55-65.

69. Pulvermüller, F. 1997: Psychophysiologie der Wortverarbeitung: Modelle - Daten - Klinische Perspektive. Mandl, H. (ed.): *Bericht über den 40. Kongreß der Deutschen Gesellschaft für Psychologie in München 1996, Schwerpunktthema Wissen und Handeln*, Hogrefe, Verlag für Psychologie: Göttingen, 812-818.

1998

70. Pulvermüller, F. 1998: On the matter of rules. Past tense-formation and its relevance for cognitive neuroscience (Invited Topical Review). *Network: Computation in Neural Systems* **9 R**, 1-52.

71. Mohr, B., Pulvermüller, F. & Schleichert, H. 1998: Learned changes of brain states alter cognitive processing in humans. *Neuroscience Letters* **253**, 159-162.

72. 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.

73. Pulvermüller, F. 1998: Sprache im Gehirn: Neurobiologisch Überlegungen, psychophysiologische Befunde und psycholinguistische Implikationen. *Colloquia*

Academica. Akademievorträge junger Wissenschaftler **N1997**. Akademie der Wissenschaften und der Literatur: Mainz, 7-44.

1999

74. Pulvermüller, F. 1999: Words in the brain's language (Target Article). *Behavioral and Brain Sciences* **22**, 253-279.

75. Pulvermüller, F. 1999: Toward a Cognitive Neuroscience of Language (Response to Commentaries). *Behavioral and Brain Sciences* **22**, 301-336.

76. Pulvermüller, F. 1999: Lexical access as a brain mechanism (Commentary on Levelt). *Behavioral and Brain Sciences* **22,** 50-52.

77. Pulvermüller, F. 1999: Mind the brain, and brain the mind! (Commentary on Clahsen). *Behavioral and Brain Sciences* 22, 1035-1036.

78. Pulvermüller, F., Keil, A. & Elbert, T. 1999: High-frequency brain activity: perception or active memory? *Trends in Cognitive Sciences*, **3**, 250-252.

79. 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**.**

80. 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

81. Pulvermüller, F. 2000: Syntactic circuits: How does the brain create serial order in sentences? *Brain and Language*, **71**, 194-199.

82. Pulvermüller, F., Härle & Hummel, F. 2000: Neurophysiological distinction of semantic verb categories. *NeuroReport*, **11**, 2789-2793**.**

83. 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.

84. 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.

85. Pulvermüller, F. 2000: On distributed cell assemblies, high frequencies, and the significance of EEG/MEG recordings. In: Miller, R. (ed.): *Time and the brain*. Harwood Academic Publishers: Amsterdam, 241-249.

2001

86. Pulvermüller, F. 2001: Brain reflections of words and their meaning. *Trends in Cognitive Sciences,* 5, 517-524.

87. Pulvermüller, F. 2001: Mutual access and mutual dependence of conceptual components. (Commentary on Humphreys and Forde.) *Behavioral and Brain Sciences,* **24**, 490-492.

88. Pulvermüller, F. 2001: Connectionist models of language processing. In Baltes, P.B. & Smelser, N.J. (eds.): *International Encyclopedia of Social and Behavioral Sciences.* Elsevier: New York.

89. Pulvermüller, F. 2001: Imaging language in the brain. In: Amit, D. (ed.): *Frontiers in Neurobiology. An international handbook. Volume* **5***: Intelligence systems.* Rome: Encyclopaedia Italiana Press.

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