# CURRICULUM VITAE

## Urs Maurer, Ph.D.

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University of Zurich
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## Education

2003 — Ph.D.
Department of Child and Adolescent Psychiatry
University of Zurich

2000 — lic. phil. (Master equivalence)
Institute of Psychology
University of Zurich

## Academic Positions

at present — Postdoctoral fellow
Department of Child and Adolescent Psychiatry
University of Zurich

2008 — Postdoctoral fellow (6 months)
Sackler Institute for Developmental Psychobiology
Weill-Cornell Medical College

2006-2008 — Joint Postdoctoral fellow (2 years: 75% in Zurich, 25% in New York)
Department of Child and Adolescent Psychiatry
University of Zurich
and
Sackler Institute for Developmental Psychobiology
Weill-Cornell Medical College

2004-2006 — Postdoctoral fellow (2 years, 3 months)
Sackler Institute for Developmental Psychobiology
Weill-Cornell Medical College

## Research Interests

My research focuses on cognitive and neural aspects of language processing, especially in those processes involved in reading acquisition, dyslexia, and 2$^{nd}$ language learning. A central goal of my work is to understand the neural basis of individual differences in language processing and to facilitate the use of this knowledge in therapeutic and educational settings. My research involves behavioral and functional neuroimaging techniques, such as EEG-based event-related potentials (ERP) and functional magnetic resonance imaging (fMRI). I am also interested in other areas of cognitive development and skill learning, and in approaches combining different neuroimaging measures with high temporal (EEG) and high spatial (fMRI) resolution.

## Acquired funding

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| 2008-present | University of Zurich:<br>Fellowship for young researchers abroad (6 months) |
| 2004-2006 | Swiss National Science Foundation:<br>Fellowship for prospective researchers (2 years) |

## Awards

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| 2008 | Science Award of the German dyslexia association (Bundesverband Legasthenie und Dyskalkulie) |

## Teaching

**Team-taught courses**

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| 2002-2003, 2006-2008 | "EEG-Felder und Hirnfunktionen" [Introduction to Brainmapping], University of Zurich |
| 2007-2008 | "Experimentelle Humanstudien in Pharmakologie und Physiologie" [Introduction to practical aspects of Brainmapping studies], University of Zurich |
| 2008 | „Developmental Dyslexia – Neurowissenschaftliche Grundlagen von Diagnostik und Therapie" [neural basis of dyslexia and consequences for diagnostics and therapy]<br>part of the Master of Advanced Studies in Neuropsychology, University of Zurich |
| 2009 | "Reading Disorder", part of the Development/Psychopathology Course, Weill Cornell Medical College, New York |
| **Advising students** | Co-advising 6 master students and 1 PhD student |

## Academic Service

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| Journal reviews | Journal of Cognitive Neuroscience, Neuroimage, Human Brain Mapping, Biological Psychology, Psychophysiology, International Journal of Psychophysiology, Developmental Neuropsychology, Child Psychology and Psychiatry, Brain & Language |

## Publications

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| Journal articles | Maurer, U., Bucher, K., Brem, S., Benz R., Kranz, F., Schulz, E., van der Mark, S., Steinhausen, H.-C., Brandeis, D. (in press). Neurophysiology in preschool improves behavioral prediction of reading ability throughout primary school. *Biological Psychiatry.* |

Maurer, U., Blau, V. C., Yoncheva, Y. N., & McCandliss, B. D. (in press). N170 in learning to read a novel script: early visual familiarity enhances right lateralization. *Developmental Neuropsychology*.

Yoncheva, Y. N., Blau, V. C., Maurer, U., & McCandliss, B. D. (in press). N170 in learning to read a novel script: the impact of attending to phonology on lateralization. *Developmental Neuropsychology*.

Maurer, U., Rossion, B., & McCandliss, B. D. (2008). Category specificity in early perception: face and word N170 responses differ in both lateralization and habituation properties. *Frontiers in Human Neuroscience, 2* (18).

Maurer, U., Zevin, J. D., & McCandliss, B. D. (2008). Left-lateralized N170 effects of visual expertise in reading: evidence from Japanese syllabic and logographic scripts. *Journal of Cognitive Neuroscience, 20(10), 1878-1891*.

[1]Schulz, E., [1]Maurer, U., van der Mark, S., Bucher, K., Brem, S., Martin, E., & Brandeis, D. (2008). Impaired semantic processing during sentence reading in children with dyslexia: combined fMRI and ERP evidence. *Neuroimage*, *41(1)*:153-168. [[1] equal contributions]

Maurer, U., Brem, S., Bucher, K., Kranz, F., Benz, R., Halder, P., Steinhausen, H.-C., & Brandeis, D. (2007). Impaired tuning of a fast occipito-temporal response to print in dyslexic children learning to read. *Brain*, *130*, 3200-3210.

Blau, V., Maurer, U., Tottenham, N., & McCandliss, B. D. (2007). The face-specific N170 component is modulated by emotional facial expression. *Behavioral and Brain Functions, 3*(7).

Maurer, U., Brem, S., Kranz, F., Bucher, K., Benz, R., Halder, P., Steinhausen, H.-C., & Brandeis, D. (2006). Coarse neural tuning for print peaks when children learn to read. *Neuroimage, 33*(2), 749-758.

Maurer, U., Brandeis, D., & McCandliss, B. (2005). Fast, visual specialization for reading in English revealed by the topography of the N170 ERP response. *Behavioral and Brain Functions, 1*(1), 13.

Maurer, U., Brem, S., Bucher, K., & Brandeis, D. (2005). Emerging neurophysiological specialization for letter strings. *Journal of Cognitive Neuroscience, 17*(10), 1532-1552.

Brem, S., Lang-Dullenkopf, A., Maurer, U., Halder, P., Bucher, K., & Brandeis, D. (2005). Neurophysiological signs of rapidly emerging visual expertise for symbol strings. *Neuroreport, 16*(1), 45-48.

Maurer, U., Bucher, K., Brem, S., & Brandeis, D. (2003). Altered responses to tone and phoneme mismatch in kindergartners at familial dyslexia-risk. *Neuroreport*, 14(17), 2245-50.

Maurer, U., Bucher, K., Brem, S., & Brandeis, D. (2003). Development of the automatic mismatch response: from frontal positivity in kindergarten children to the mismatch negativity. *Clinical Neurophysiology, 114*(5), 808-817.

Book chapters

Maurer, U., & McCandliss, B. D. The development of visual expertise for words: the contribution of electrophysiology. In: Grigorenko EL & Naples AJ, editors. *Single-word reading: biological and behavioural perspectives (pages 43-64)*, Mahwah, NJ: Lawrence Erlbaum Associates, 2007.

Submitted articles

[1]Schulz, E., [1]Maurer, U., van der Mark, S., Bucher, K., Brem, S., Martin, E., & Brandeis, D. (in revision). Reading for meaning in dyslexic and young children: EEG and fMRI evidence for distinct neural pathways but common endpoints. [[1] equal contributions]

Van der Mark, S., Bucher, K., Maurer, U., Schulz, E., Brem, S., Buckelmüller, J., Kronbichler, M., Loenneker, T., Klaver, P., Martin, E., & Brandeis, D. (in revision). Dyslexia in Children: Dysfunction of Specialization within the Visual Word-Form (VWF) System.

Yoncheva, Y. N., Zevin, J. D., Maurer, U., & McCandliss, B. D. (submitted). Auditory selective attention to speech modulates activity in the visual word form area.

Zevin, J. D., Maurer, U. & McCandliss, B. D. (in preparation for resubmission). Native language experience influences the topography of the mismatch negativity to speech.

## Presentations

Recent talks

Maurer, U. & Brandeis, D. (2008). Impaired visual tuning for print in dyslexic children learning to read. Invited talk at the International Congress of Psychology, Berlin.

Maurer, U., Brem, S., & Brandeis, D. (2008). Bildgebung von Lesenlernen bei Dyslexie [Imaging of learning to read and dyslexia]. Meeting of the Swiss Dyslexia Association, Zurich.

Recent posters

Maurer, U., Bucher, K., Brem, S., Benz R., Kranz, F., Schulz, E., van der Mark, S., Steinhausen, H.-C., Brandeis, D. (2008). Neurophysiology in preschool improves prediction of children's reading ability throughout primary school. Poster presented at the meeting of the Federation of European Neuroscience Societies, Geneva.

Maurer, U., Zevin, J. D., Yoncheva, Y. N., Voss, H. U., & McCandliss, B. D. (2008). Involvement of left-lateralized frontal and middle temporal regions in abstract matching of audiovisual word forms. Poster presented at the meeting of the Cognitive Neuroscience Society, San Francisco.