

Curriculum Vitae

Durk Talsma

Personal Information:

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Date of Birth : 19 November 1969

Research experience:

September 2008-Current: Assistant Professor, Cognitive Psychology and Ergonomics, University of Twente

Topics: Multisensory Attention, human ergonomics.
Methods: Electrophysiology (EEG/ERPs)
Human Behavior
Interactive, synthetic environments

October 2005–August 2008: Postdoctoral fellow Cognitive Psychology Department, Vrije Universiteit Amsterdam

Topics: Human Frontiers Science Foundation (HSFS) project: Interactions of top-down vs. bottom-up control of attention.
Methods: Electrophysiology (human and monkey EEG/ERPs, animal single cell recordings), functional neuroimaging (fMRI), human and animal behavior (reaction times and saccadic eye movements).

December 2003–October 2005: Postdoctoral fellow Clinical Neuropsychology, Vrije Universiteit Amsterdam

Topics: Paradigm development for studying brain/behavior relations in clinical populations, audiovisual integration, binding processes, attentional control mechanisms.
Methods: Electrophysiology (EEG, ERPs, and MEG).

October 2001 –October 2003: Postdoctoral position at Center for Cognitive Neurosciences, Duke University

Topics: Role of attentional processes in multisensory (visual/auditory) integration, role of control mechanisms in multimodal attention.
Methods: Electrophysiology (ERPs), functional brain imaging (fMRI), and gamma-band oscillations (GBR).

December 1996 - May 2001: Ph.D. program University of Amsterdam

Title of thesis: Selective Attention and its Role in Sensory Processing, Working Memory, and Cognitive Aging.
Topics: Role of attentional processes in intermodal (visual/auditory) perceptual processing
Age-effects on selective attention.
Methods: Electrophysiology (EEG and ERP), Magnetoencephalography (MEG).
Advisor: Prof. Dr. Albert Kok (Universiteit van Amsterdam).

September 1994 - April 1996: Masters thesis University of Groningen

Title: Working Memory processes show different degrees of lateralization: Evidence from event related potentials (see also list of publications).
Topics: Differences in timing and lateralization of storage and identification processes in visual working memory and the relative contribution of posterior brain areas in these processes.
Advisor: Dr. A. A. Wijers (University of Groningen).

Teaching experience:

- Biological & Neuropsychology, University of Twente (BA1, Instructor)
- Programming Cognition and Media, University of Twente (MA, Coordinator and Instructor)
- Consciousness, University of Twente, (Minor "Origins", Coordinator and Instructor)
- Cognitive Psychology I, University of Twente (BA1, Instructor)
- Cognitive Psychology II, University of Twente (MA, Instructor)
- Introduction Cognitive Neuroscience, University of Twente (BA3, Instructor and Coordinator)
- Advanced Cognitive Neuroscience, University of Twente (MA, Instructor)
- Seminar Attention, 2007-2008, Vrije Universiteit (RMA1, Instructor and Coordinator)
- Seminar Cognitive Neuroscience, 2007-, Vrije Universiteit (RMA1, Instructor and Coordinator)
- Research Design, 2005, Vrije Universiteit (BA3, Instructor)
- Executive Functions, 2004-2005, Vrije Universiteit (BA2, Coordinator)
- Motivation, 2001, Universiteit van Amsterdam (D3, Instructor)
- Psychophysiological Signal Analysis, 1998-2000, Universiteit van Amsterdam (D2, Teaching Assistant)
- Equipment use, 1993-1996, Rijksuniversiteit Groningen (D2, Teaching Assistant)

Note: D2-3= Doctoral program 2nd - 3rd year. BA1-3= Bachelor program, 1st - 3rd year.
RMA1 = Research Master "clinical neuropsychology", Vrije Universiteit. MA = Master program "Cognition and Media", University of Twente.

Graduate and undergraduate student supervision:

- Jasper Hage (undergraduate 1999-2000)
- Henric Brouwer (undergraduate 1999)
- Tracy Doty (undergraduate 2002-2003, currently at NIMH, Maryland, USA, and Karolinska Institut, Sweden)
- Laurens Hoogenboom (undergraduate 2005, winner of the 2005 VU Psychology and Education "Scriptieprijs")
- Jonne Sikkens (undergraduate 2005-2006, currently in master program medicine Vrije Universiteit)
- Manon Mulckhuysen (graduate student 2005-current)
- Sabine Staufenbiel (BA, 2009, currently in master program clinical neuropsychology, Leiden University)
- Lea Hildebrandt (BA, 2009, Currently in master program University of Twente)
- Alisha Siebold (BA, 2009, Currently in master program at Oxford University, UK)

Grant Proposals:

- 2004: NWO/MaGW-VENI. Working on Memory: An Analysis of Interacting Processes in Human Working Memory
- 2005: NWO/MaGW-VIDI. The Binding Problem Resolved? Searching for Evidence of the Fundamental Properties of Integrative Processes in the Human Brain
- 2007: NWO/MaGW-VIDI. Toward a unified theoretical framework of multisensory attention
- 2009: NWO/MaGW-VIDI. An attentional account of the multisensory mind: Investigating the interactions between multisensory perception and higher-order cognition
- 2009: NWO/MaGW-Open Competition. An attentional account of the multisensory mind.

Education:

- 1996 - 2001 PhD: Psychonomics Department, Universiteit van Amsterdam
Specialization in Event-Related Potentials applied to Intermodal Attention, and Cognitive Aging.
- 1990 - 1996 Masters: Faculty of Psychological, Pedagogical en Sociological Sciences,
University of Groningen
Psychology
Specialization: Psychonomics and Physiological Psychology.
- 1986 - 1990 Voorbereidend Wetenschappelijk Onderwijs,
Scholengemeenschap Oostergo, Dokkum, the Netherlands
- 1986 - 1988 Hoger Algemeen Voortgezet onderwijs, CSG Oostergo, Dokkum, the Netherlands
- 1982 - 1986 Middelbaar Algemeen Voortgezet onderwijs, Scholengemeenschap Noord-Friesland,
Ferwert, the Netherlands
- 1976 - 1982 School met de Bijbel, Wânswert, the Netherlands

Memberships of Scientific Organizations:

- Society for Cognitive Neurosciences (CNS).
- Vision Sciences Society (VSS).
- Experimenteel Psychologische Onderzoeksschool (EPOS).
- Nederlandse Vereniging voor Psychonomie (NVP).

International Collaborations:

- Center for Cognitive Neuroscience, Duke University, North Carolina, USA
- Universitäts Klinikum Hamburg-Eppendorf, Germany
- ICREA & Departament de Tecnologies de la Informació i les Comunicacions, Universitat Pompeu Fabra

Ad Hoc reviewer for:

- Biological Psychology
- Brain & Cognition
- Brain Research
- Brain Topography
- Cerebral Cortex
- Chemical Senses
- Cognitive Brain Research
- Current Biology
- Frontiers in Neuroscience
- International Journal of Psychophysiology
- Journal of Cognitive Neuroscience
- Journal of Neurophysiology
- Journal of Psychophysiology
- PLoS Biology
- Psychophysiology

Selected Oral Presentations:

- Dutch Winter Conference of the Netherlands Psychonomic Society, Egmond aan Zee, December 2009, *Rapid Reorienting of Attention As Reflected in an N2pc Event-Related Potential Component.*
- Brain & Cognition Symposium “Multisensory Integration and Attention”, Amsterdam November 2nd, 2009: *An Attentional Account of the Multisensory Mind*
- Studium Generale Lecture, CREA, University of Amsterdam, September 2009: *Aandacht en Hersenen.*
- Heymans Lecture, University of Groningen, March 2008: *An Attentional Account of the Multisensory Mind.*
- Okinawa institute of Science and Technology (OIST), Okinawa Japan, January 2008: *Human Brain Correlates of Attentional Control.*

- Endo Neuro Psycho (ENP) conference, Doorwerth, June 7, 2007: *Selective Attention and Multisensory Integration: Is Attending to Both Modalities a Prerequisite for Early Integration?*
- Center for Neuroscience studies, Queens University, March 2007: *Brain Potential Reflections of Attentional Orienting.*
- Symposium Multimodal Perception, Soeterberg, March 31, 2006: *Brain Electrophysiological Reflections of Multisensory Integration and Attention.*
- EPOS workshop "Control in Attention and Action: Neurocognitive Systems and mechanisms", Amsterdam: March 3rd 2005: *The Attentional System Under Time Pressure: Event-related Potential Results.*
- City College New York (CCNY), November 2nd 2004, New York City, NY: *Selective Attention and Multisensory Integration: Is Attending to Both Modalities a Prerequisite for Early Integration?* (This was a somewhat extended version of the November 1st lecture, for a graduate program in Cognitive Neurosciences).
- Nathan Kline Institute for Psychiatric Research, Orangeburg, NY: November 1st 2004: *Selective Attention and Multisensory Integration: Is Attending to Both Modalities a Prerequisite for Early Integration?*
- Department of Cognitive and Work Psychology, University of Groningen, December, 2002: *The influence of Attention on Multisensory integration*
- International conference for cognitive neurosciences (ICON) 8: Marseille, September 2002: *The influence of Attention on Multisensory integration.*
- Center for Cognitive Neurosciences Research Rounds presentation: Durham, NC, February 2002: *Intermodal attention and Event Related Potentials.*
- Dutch summer conference for psychophysiology, Groningen, June 2001: *Costs and Benefits of Shifting Attention Differ Between Young and Old Adults: Evidence From Event-Related Potentials and Performance Measures.*
- Dutch dipole localization meeting, Utrecht, November 2000: *Dipole Localization of Inter- and Intramodal Attention: A Comparison Between EEG and MEG Data.*
- International conference for cognitive neurosciences (ICON) 7, Budapest, July 1999: *Sensory Brain Areas are Involved in Non Spatial Intermodal Attention: Evidence from Event Related Potentials.* (Hot-Topics paper presentation).
- Dutch summer conference for psychophysiology, Tilburg, 1999: *Sensory Brain Areas are Involved in Non Spatial Intermodal Attention: Evidence from Event Related Potentials.*
- EPOS seminar "New trends in Attention Research", Amsterdam, October 1998: *Effects of Inter- and Intramodal Attention on ERPs Elicited by Spatial and Non-Spatial Visual Stimuli.* (Together with M.B. de Ruiter)
- Dutch summer conference for psychophysiology, Utrecht, July 1998: *Does Selective Attention Have Cross Modal Links?*
- Dutch winter conference for Psychonomics, Egmond aan Zee, December 1997: *Intermodale Aandacht: een ERP/MEG onderzoek.*
- Dutch Conference for developmental psychology, Leusden, April 1997: *De Invloed van Cognitieve Veroudering op Corticale Inhibitie en Selectieve Aandacht.*
- Institut für Arbeitsphysiologie (Ifado), Dortmund, 1996: *Brain Activity and Visual Working Memory.*
- Dutch summer conference for psychophysiology, Amsterdam 1996: *Brain Activity and Visual Working Memory.*

Awards and Honors:

- NWO Travel fund 1997
- NWO Travel fund 1999
- Top reviewer award Biological Psychology, 2008
- Top reviewer award International Journal of Psychophysiology, 2008
- Top reviewer award Biological Psychology, 2010
- University of Twente, Faculty of Behavioral Sciences Teachers Award, runner-up, 2009-2010

Miscellaneous academic activities:

- 2009: Member of the PhD defense committee of Dr. Thomas Koelewijn
- 2008-current: Member of the information technology infrastructure board, University of Twente
- 2008-current: Treasurer of the Department of Cognitive Psychology and Ergonomics, University of Twente
- 2008: Organizer of the symposium "Cognitive influences on multisensory perception" at the 7th Dutch Endo-Neuro-Psycho (ENP) meeting, Doorwerth, the Netherlands
- 2007: Organizer the of the symposium "Varieties of attentional control" at the 6th Dutch Endo-Neuro-Psycho (ENP) meeting, June 8th, Doorwerth, the Netherlands
- 2006: Co-organizer of the annual Human Frontier Science Foundation (HFSF) project meeting in Amsterdam
- 2000: Chairman of the local software development group of the psychophysiology department at the University of Amsterdam. I also initiated the soft21 project, which aims at the collective development of data analysis software inside the Netherlands.
- 1996-1997: Preparation and lectures in a course of Psychonomics for the department of the "Higher education for the elderly (HOVO)", given at the University of Groningen.
- 1992-1993: Member of the editorial board of "Diemensies", the Psychology section of the University of Groningen's student magazine.
- Ongoing: Contributions to FlightGear, an open source software project which has been started by a group of volunteers from the internet, aiming at collectively developing an open source flight simulator, primarily aimed at academic use. See <http://www.flightgear.org> for an overview and a list of my contributions.
- Ongoing: Author of "Electrophysiological Analysis SYstem" (EASY). This is a software toolkit, written in C++, aimed at simplifying the development of new analysis tools.