

Curriculum Vitae

Melle J.W. van der Molen

University address

Leiden University
Faculty of Social and Behavioral Sciences
Institute of Psychology
Wassenaarseweg 52 (office 3B44)
2333 AK Leiden, the Netherlands

Contact

E-mail: m.j.w.van.der.molen@fsw.leidenuniv.nl
Phone: +31 (0) 71 527 6042
Website: www.mellevandermolen.com

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Personal details

Name: Melle Johan Willem van der Molen
Gender: Male
Date of birth: October 6th 1979
Place of birth: Hilversum, the Netherlands (NL)
Nationality: Dutch

Current affiliations:

- Leiden University, Developmental and Educational Psychology
- Leiden Institute for Brain and Cognition

Academic Positions:

2013 – current

Assistant Professor (tenured, 1.0 fte)

Position in Clinical Neurodevelopmental Psychology
Developmental and Educational Psychology Unit, Institute of Psychology, Leiden University, The Netherlands.

2011- 2012

Postdoc researcher (fixed term, 1.0 fte)

Developmental and Educational Psychology Unit, Institute of Psychology, Leiden University, The Netherlands.

Academic Education:

2007-2011

Ph.D. fellow

University of Amsterdam, Dept. of Psychology, Section of Developmental Psychology
Title of dissertation: Profiling fragile X syndrome: A psychophysiological and neuropsychological approach (advisors: prof. dr. K. Richard Ridderinkhof & dr. Ger J.A. Ramakers)

1999-2007

MSc in Psychology

University of Amsterdam (Clinical Neuropsychology track; part-time)

Brief research summary

My research interests focus on the psychophysiological mechanisms that guide attention and regulate emotion. I am trained as a fundamental experimental psychologist and clinical neuropsychologist (basic psychodiagnostics registration). My work lies at the intersection between developmental cognitive neuroscience and clinical psychology. For example, I examine how anxiety impacts on the neural responses to emotional stimuli during both anticipatory and feedback-related information processing stages. Further, I examine whether specific patterns in psychophysiological responses to stress at an early age might be predictive of developing an anxiety disorder later in life. A key denominator of my work is employing a multimethod approach. By combining behavioral and neuroimaging assessments, as well as advanced statistical methods, I aim at discovering reliable transdiagnostic markers that will aid in understanding the etiology of various psychopathologies, as well as biobehavioral risk factors that can be used in preventive intervention. To this end, my work includes endophenotypical approaches to social anxiety disorder to unravel heritability of these biobehavioral risk factors. Another key denominator of my work is to use advanced statistical approaches to characterize brain networks and examine their functional roles in a variety of psychological processes – varying from emotion regulation in social anxiety to reading (dys)function in dyslexia, as well as brain network organization in neurodevelopmental disorders (e.g., Fragile X Syndrome).

Ph.D. candidates supervised

(name, supervisor's role, date)

- Anita Harrewijn, daily supervisor of research activities and dissertation, 2013-2017. Thesis defense on January 15th 2018.

International collaborations and activities

- USA, Connecticut, Yale Child Study Center
Ongoing collaboration with dr. Michael Crowley and Elise Kortink to examine the influence of human attachment on brain function and neural network organization (2016 – present). Research project was awarded with a LISF grant to E. Kortink
- Canada, Hamilton, McMaster University
Ongoing collaboration with prof. Schmidt to study neural correlates of cognitive biases in individuals with social anxiety disorder (2016 – present)
- Italy, Rome, Fondazione Santa Lucia IRCSS & Università di Sapienza
Clinical & Research internship – Erasmus fellowship (2006)

National collaborators

- Collaboration with University of Amsterdam and Free University to characterize functional brain network organization in dyslexia and human development. Research consortium: prof. Maurits W. van der Molen (UVA), prof. Cornelis J. Stam (VU), prof. Eco de Geus (VU), dr. Dirk Smit (VU), dr. Gorka Fraga Gonzalez (UVA). Research project awarded with an ABMP grant (www.abmp.eu).
- Collaboration with dr. Freddy van der Veen (Erasmus University Rotterdam) to examine neural correlates of social feedback processing in typical and atypical populations
- Collaboration with dr. Nanda de Knecht & prof. Erik Scherder (Free University Amsterdam) to examine the neuropsychological mechanisms of atypical pain processing in neurodevelopmental disorders.
- Collaboration with prof. Michiel Westenberg to profile neurocognitive endophenotypes of social anxiety disorder.

Peer refereed scientific articles

(Google scholar citations = 223, H-factor = 8, i10-index = 8, Researchgate score = 23.99)

- Revisions **van der Molen, M.J.W.**, Harrewijn, A., & Westenberg, P.M. (accepted pending revision). Will they like me? Neural and behavioral responses to social-evaluative feedback in socially and non-socially anxious females. *Biological Psychology*.
- Poppelaars, E.S., Harrewijn, A., Westenberg, P.M., & **van der Molen M.J.W.** (accepted pending revision). Delta-beta phase-amplitude coupling in high and low social anxiety: an index of stress regulation? *Cognitive, Affective, & Behavioral Neuroscience*.
- Kortink, E.D., Weeda, W., Crowley, M., Gunther Moor, B., & **van der Molen, M.J.W.** (accepted pending minor revision). Community structure analysis of rejection sensitive personality profiles: a common neural response to social evaluative threat? *Cognitive, Affective, & Behavioral Neuroscience*.
- In press Harrewijn, A., **van der Molen, M.J.W.**, van Vliet, I., Tissier, R.L.M., & Westenberg, P.M. (In Press). Behavioral and EEG responses to social evaluation: a two generation family study on social anxiety. *NeuroImage Clinical*. doi.org/10.1016/j.nicl.2017.11.010
- Harrewijn, A., **van der Molen, M.J.W.**, van Vliet, I.M., Houwing-Duistermaat, J.J., & Westenberg, P.M. (In Press). Delta-beta correlation as a candidate endophenotype of social anxiety: A two-generation family study. *Journal of Affective Disorders*. doi:10.1016/j.jad.2017.11.019.
- 2017 Harrewijn, A., Schmidt, L.A., Westenberg, P.M., Tang, A., & **van der Molen, M.J.W.** (2017). Electro-cortical measures of information processing biases in social anxiety disorder: a review. *Biological Psychology*, 129, 324-348. doi: 10.1016/j.biopsycho.2017.09.013
- van der Molen, M.J.W.**, Dekkers, L.M.S., Westenberg, P.M., Van der Veen, F.M., & Van der Molen, M.W. (2017). Why don't you like me? Midfrontal theta power in response to unexpected peer rejection feedback. *NeuroImage*, 146, 474-483. doi 10.1016/j.neuroimage.2016.08.045.
- 2016 Harrewijn, A., **Van der Molen, M.J.W.**, & Westenberg, P.M. (in Press). Putative EEG measures of social anxiety: comparing frontal alpha asymmetry and delta-beta cross-frequency correlation. *Cognitive and Affective Behavioral Neuroscience*.
- Fraga González, G., **Van der Molen, M.J.W.**, Žarić, G., Bonte, M., Tijms, J., Blomert, L., Stam, C.J., Van der Molen, M.W. (in Press). Graph Analysis of EEG Resting State Functional Networks in Dyslexic Readers. *Clinical Neurophysiology*, 127, 3165-3175.
- Van der Veen, F., **Van der Molen, M.J.W.**, Van der Molen, M.W., & Franken, I.H.A. (in press). Thumbs up or down? Effects of neuroticism and depression on psychophysiological responses to social evaluation. *Cognitive and Affective Behavioral Neuroscience*, 16(5), 836-847.
- 2015 Dekkers, L.M.S., **Van der Molen, M.J.W.**, Gunther Moor, B., Van der Veen, F., & Van der Molen, M.W. (2015). Cardiac and electro-cortical concomitants of social feedback processing in women. *Social Cognitive and Affective Neuroscience*, 10(11), 1506-1514.
- 2014 **Van der Molen, M.J.W.**, Stam, C.J., & Van der Molen, M.W. (2014). Resting-state EEG oscillatory dynamics in fragile X syndrome: Abnormal functional connectivity and brain network organization. *PLoS ONE*, 9(2): e88451.
- Van der Molen, M.J.W.**, Poppelaars, E., Van Hartingsveldt, C.T.A., Harrewijn, A., Gunther Moor, B., & Westenberg, P.M. (2014). Fear of negative evaluation modulates electrocortical and behavioral responses when anticipating social evaluative feedback. *Frontiers in Human Neuroscience*, 7(936), doi: 10.3389/fnhum.2013.00936.
- 2013 **Van der Molen, M.J.W.**, & Van der Molen, M.W. (2013). Reduced alpha and exaggerated theta power during the resting-state EEG in fragile X syndrome. *Biological Psychology*, 92, 216-219.
- 2012 **Van der Molen, M.J.W.**, van der Molen, M.W., Ridderinkhof, K.R., Hamel, B.J., Curfs, L., & Ramakers, G.J.A. (2012). Auditory change detection in fragile X syndrome males: A brain potential study. *Clinical Neurophysiology*, 123, 1309-1318.

Van der Molen, M.J.W., van der Molen, M.W., Ridderinkhof, K.R., Hamel, B.J., Curfs, L., & Ramakers, G.J.A. (2012). Auditory and visual cortical activity during selective attention in fragile X syndrome: A cascade of processing deficiencies. *Clinical Neurophysiology*, 123, 720-729.

Van der Molen, M.J.W., van der Molen, M.W., Ridderinkhof, K.R., Hamel, B.J., Curfs, L., & Ramakers, G.J.A. (2012). Attentional set-shifting in fragile X syndrome. *Brain and Cognition*, 78, 206-217.

2010 **Van der Molen, M.J.W.**, Huizinga, M., Huizenga, H.M., Ridderinkhof, K.R., van der Molen, M.W., Hamel, B.J., Curfs, L., & Ramakers, G.J.A. (2010). Profiling cognition in fragile X syndrome in males: Strengths and weaknesses in cognitive abilities. *Research in Developmental Disabilities*, 31, 426-439.

Scientific abstracts (non-refereed)

2015 **Van der Molen, M.J.W.** (2015). Abnormal EEG oscillatory dynamics in fragile X syndrome: Insights from resting-state and stimulus processing investigations. *International Journal of Developmental Neuroscience*, 47, 78.

Professional articles – dissemination of scientific knowledge (non-refereed)

2012 **Van der Molen, M.J.W.** (2012). Fragile X syndrome: cognitive abilities and underlying weaknesses in information processing. *Neuropraxis*, 16(2), 53-60 [Dutch article].

2011 **Van der Molen, M.J.W.** (2011). Attentional dysfunction in fragile X syndrome: early information processing deficiencies and the effect of regularity. *Newsletter of the Dutch Fragile X Syndrome Parents' Association*.

2008 **Van der Molen, M.J.W.** (2008). Cognitive abilities in fragile X syndrome males. *Newsletter of the Dutch Fragile X Syndrome Parents' Association*.

Presentations (invited)

- *Midfrontal theta power in response to social evaluative feedback: a candidate marker of rejection sensitivity?* Oral presentation in the symposium "Time-frequency, source, and connectivity approaches to study dynamic relations between monitoring, control and anxiety across development (chair: Nathan Fox). Society for Psychophysiological Research Annual Meeting, Vienna, Austria, October 2017.
- *Social evaluative feedback processing in the brain: electrocortical sensitivity to unexpected peer rejection*. Oral presentation at the European Society for Cognitive and Affective Neuroscience Conference, Porto, Portugal, June 2016
- *Electrocortical dynamics during social evaluative feedback processing: Candidate biomarkers of social anxiety?* Invited lecture at the Lorentz Workshop: Endophenotypes of Social Anxiety Disorder: Can We Detect Them and Are They Useful in Clinical Practice? (December 2015).
- *Resting-state EEG oscillatory dynamics in fragile X syndrome: Abnormal functional connectivity and brain network organization*. Brain Network Seminar, Dept. of Clinical Neurophysiology, Free University, the Netherlands. Invited by Prof. C.J. Stam. (April, 2014).
- *Typical and atypical development of executive functions*. Bohn Stafleu van Loghum Conference. Learning problems: Definition, signaling, and intervention. (October 2012).
- *Profiling fragile X syndrome: A psychophysiological and neuropsychological approach*. Annual conference of the Dutch Fragile X Syndrome parents' association (November, 2011).
- *Preattentive auditory discrimination in fragile X syndrome: a mismatch negativity study*. Developmental Neurocognition Lab, Birkbeck University of London. Invited by Prof. dr. Annette Karmiloff-Smith (March 2011).
- *Profiling attentional function in fragile X syndrome: a brain potential approach*. CBCD Seminar – Center for Brain and Cognitive Development. Birkbeck University of London. Invited by prof. dr. Annette Karmiloff-Smith and prof. dr. Mark Johnson (March 2011).
- *Profiling Fragile X Syndrome in Males: a neuropsychological and psychophysiological approach*. Presentation at the symposium to celebrate the honorary doctorate awarded to prof. dr. Annette Karmiloff-Smith. Cognitive Science Center Amsterdam – University of Amsterdam (The Netherlands, January 2010).
- *Cognitive abilities of fragile X syndrome males (workshop)*.
- Invited by the Dutch Fragile X Syndrome parents' association.

Presentations (other)

- *Social evaluative feedback processing in the brain: electrocortical sensitivity to unexpected peer rejection*. Oral presentation at the Dutch Neuroscience Meeting, Lunteren, The Netherlands, June 2016.
- *Neural oscillatory dynamics of social feedback processing in women*. Poster presentation at the 2015 FLUX conference. Leiden, The Netherlands, September 2015.
- *Abnormal EEG oscillatory dynamics in fragile X syndrome: insights from resting-state and stimulus processing investigations*. Poster presentation at the International Society for Developmental Neuroscience (ISDN) conference, Montreal, Canada, July 2014.
- *Abnormal EEG oscillatory dynamics in fragile X syndrome: insights from resting-state and stimulus processing investigations*. Poster presentation at the Federation of European Neuroscience Forum, Milan, Italy, July 2014
- *Profiling Endophenotypes of Social Anxiety Disorder*. Oral presentation at the Research Rounds of the Developmental Psychology Unit, Leiden University, March 2012.
- *Profiling attentional function in fragile X syndrome: a brain potential approach*. Oral presentation at the Amsterdam Center for the study of Adaptive Control in Brain and Behavior, University of Amsterdam, March 2011.
- *Profiling Fragile X Syndrome in males: Delineation of the attentional control deficit*.

- Oral presentation at the BPS Developmental Psychology Section Conference Goldsmiths, University of London, September 2010.
- *Profiling Cognition in Fragile X Syndrome Males*. Poster and oral presentation at the conference on "Gene Expression to Neurobiology and Behavior: Human Brain Development and Developmental Disorders. European Science Foundation (Saint Feliu de Guixols, Spain, September 2009).
 - *Cognitive Profile in Fragile X Syndrome Males*.
Poster presentation at the Endo-Neuro-Psycho Meeting (June 2008).
 - *Mental Retardation Genes and the Neurobiology of Cognition*.
Poster presentation at the Netherlands Organization for Scientific Research. Cognition Program. Den Haag, The Netherlands, November 2007.
 - *Cognitive Profile in Rubinstein-Taybi Syndrome*.
Poster presentation at the Endo-Neuro-Psycho Meeting, June 2007.

Reviewer for the following scientific journals

American Journal of Medical Genetics: Part A., Brain and Cognition, Brain Research, Cerebral Cortex, Cognition, Cognitive Affective and Behavioral Neuroscience, Cortex, Developmental Medicine & Child Neurology, Developmental Science, European Conference on Cognitive Science, The International Journal of Biochemistry & Cell Biology, NeuroImage, Neuropsychologia, PLoS ONE, Social, Cognitive, and Affective Neuroscience (SCAN). Translational Psychiatry.

Teaching activities

Course coordinator

- Gene-Environment Interactions in Developmental Psychopathology (Research Master Psychology; 2012 – current)
- Psychodiagnostics (Bachelor Psychology; 2013 – current)

Lecturer

- Psychodiagnostics (Bachelor Psychology; 2013 – current)
- Orientation to Developmental Psychology as a Profession (Guest Lecturer, University of Amsterdam, 2010-2011)

Supervisor

- Honors Research Bachelor Project (Bachelor Psychology; 2012-present; 6 students)
- Bachelor Project (International Bachelor Psychology; 2016-current)
- Master Thesis (Master Psychology; 2008 – current; >30 students)
- Research Master Thesis (Master Psychology; 2011 – current; 4 students)
- Research (Master) Internship (Master Psychology; 2011 – current; 8 students)
- Writing Research Reports (University of Amsterdam, Bachelor Psychology; 2008 to 2011)
- Onderzoekspracticum (University of Amsterdam, Bachelor Psychology; 2008 to 2011)

Teaching qualifications

- Basic Qualification for Scientific Education (Basiskwalificatie Onderwijs; obtained in 2015)

Professional memberships

- Society for Psychophysiological Research
- Vereniging Nederlandse Ontwikkelingspsychologie
- FLUX: Society for Developmental Cognitive Neuroscience
- European Society for Cognitive and Affective Neuroscience

Clinical registrations

- Basic Qualification for Psychodiagnostic Assessment (BAPD, obtained in 2007)

Academic Activities

- Member of the Psychology Bachelor Educational Committee (Leiden University, 2013 – current)
- Member of the Psychology PhD award committee (Leiden University, 2013)
- Member of the Research Master and Master Thesis award committee (Leiden University, 2013)
- Evaluator of student applications for the Developmental Professional Master (Child and Adolescent Psychology; 2013-current)
- Organizer of Clinical Developmental Psychophysiology (CDP) Lab meetings. Leiden University (2013-current)
- Initiator of developing a psychophysiological data-analysis server (started 2012; accomplished in 2016)

Non-academic activities

- Member of the board of the Dutch Pitt Hopkins Association (2013 – 2014)
- Member of the board of the Dutch Rubinstein-Taybi Association. Leading and coordinating several innovation projects (information film, brochure, website, conference. (2007 – 2012).
- Co-organizer and Chairman of the 3rd Rubinstein-Taybi World Conference (Noordwijkerhout, May 2011).

Awards & Grants

- Travel award to attend the European Science Foundation conference on "Gene Expression to Neurobiology and Behavior: Human Brain Development and Developmental Disorders (Saint Feliu de Guixols, Spain, September 2009).
- Poster award (1st price) during project presentations at the Cognition Program of the Netherlands Organization for Scientific Research NWO (2007). Co-awarded to G.J.A. Ramakers.
- Socrates-Erasmus scholarship for a six-month stay at Fondazione Santa Lucia (IRCCS) and the Sapienza University, Rome, Italy (2006).