

Marion I. van den Heuvel, Ph.D.

CURRICULUM VITAE

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EDUCATION & TRAINING

- 2016 **Ph.D., Developmental Neuropsychology**, Tilburg University
Dissertation: *“The influence of prenatal exposure to maternal anxiety and mindfulness on neurocognitive functioning in infants and young children.”*
- 2012 **Research Master Social and Behavioral Science (cum laude)**, Tilburg University
Major: Psychology – Minor: Psychology and Health
Master thesis: *“Maternal anxiety and depressive symptoms and its effect on maternal diurnal cortisol profiles and cortisol awakening response (CAR) during pregnancy: A multilevel analysis.”*
- 2009 **Bachelor Health Science (with honors)**, Maastricht University
Major: Mental Health Science – Minor: Mental Health Science – Therapy
Senior Thesis: *“Parental depression and its effect on self-reported and observed parenting behaviour”*

PROFESSIONAL POSITIONS & EXPERIENCE

- 2018 – Current **Assistant Professor (Tenure Track)**
Department of Cognitive Neuropsychology
Tilburg University, The Netherlands
- 2016 – 2018 **Research Scientist (joint appointment)**
Perinatal Neural Connectivity Unit, Perinatology Research Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)/National Institutes of Health (NIH)/Department of Health and Human Services (DHHS), Detroit, MI
- 2016 – 2018 **Postdoctoral Fellow (joint appointment)**
Research in Biobehavioral Health in Urban Settings Today (RoBUST)
Merrill Palmer Skillman Institute for Child and Family Development, Wayne State University, Detroit, MI. Mentor: Dr. Moriah Thomason
- 2015 **ERASMUS fellow**, Leibniz Institute for Age Research, Jena, Germany
- 2012 **Visiting Researcher**, VU medical Center, Amsterdam.
- 2010 – 2012 **Teaching Assistant**, Department of Methods & Statistics, Tilburg University
- 2012 **Visiting Researcher**, Developmental Psychology Research Group, University of East London
- 2010 – 2011 **Research Assistant**, Baby Lab, Tilburg University.
- 2008 – 2009 **Tutor/Teaching Assistant**, Health Sciences, Maastricht University

HONORS, AWARDS & FELLOWSHIPS

2018	Flux Travel Award, Flux Society - Developmental Cognitive Neuroscience
2017	Trainee Award, Developmental Origins of Health and Disease (DOHaD) US Society
2017	Postdoctoral Symposium Presentation Award, 1 st place, Wayne State University
2017	Early Career Travel Award, Society for Research in Child Development (SRCD)
2015	Postdoctoral Fellowship Award, Wayne State University
2014	Service Award, Department of Developmental Psychology, Tilburg University
2014	Research Exchange Award, Erasmus+ Programme
2012	Cum Laude, distinction for Master, Tilburg University
2012	Nomination Best Research Master thesis, Tilburg University

PUBLICATIONS

Published

- van de Ven, M.C.J., **van den Heuvel, M.I.**, Bhogal, A., Lewis, T., & Thomason, M.E. (in press) Impact of maternal childhood maltreatment on child behavioral problems: The role of child frontal alpha asymmetry. *Developmental Psychobiology*.
- Barraza, P., Dumas, G., Liu, H., Blanco-Gomez, G., **van den Heuvel, M.I.**, Baart, M., & Pérez, A. (2019). Implementing EEG hyperscanning setups. *MethodsX*, 6, 428-436.
- Wong, K., Hicks, L.M., Seuntjens, T.G., Trentacosta, C.J., Hendriksen, T.H., Zeelenberg, M., & **van den Heuvel, M.I.** (2019). The role of mindful parenting in individual and social decision-making in children. *Frontiers in Psychology*, 10, 550-550.
- Henrichs, J., **van den Heuvel, M.I.**, Witteveen, A.B., Wilschut, J., & Van den Bergh, B.R.H. (2019). Does Mindful Parenting Mediate the Association between Maternal Anxiety during Pregnancy and Child Behavioral/Emotional Problems? *Mindfulness*. Epub ahead of print.
- Van den Bergh, B. R. H., **van den Heuvel, M.I.**, Lahti, M., Braeken, M.A., de Rooij, S.R., Entringer, S., Hoyer, D., Roseboom, T. J., Räikkönen, K., King, S., & Schwab, M. (2018). Prenatal developmental origins of behavior and mental health problems: the influence of maternal stress in pregnancy. *Neuroscience and Biobehavioral Reviews*, Epub ahead of print.
- van den Heuvel, M.I.**, Turk, E., Manning, J.H., Hect, J., Hernandez-Andrade, E., Hassan, S.S., Romero, R., van den Heuvel, M.P., Thomason, M.E. (2018). Hubs in the Human Fetal Brain Network. *Developmental Cognitive Neuroscience*, 30, 108-115.
- Bockneck, E., Richardson, P.A., **van den Heuvel, M.I.**, Qipo, T., Brophy-Herb, H.E. (2018). Sleep moderates the association between routines and emotion regulation in toddlers in poverty. *Journal of Family Psychology*, 32, 966-974.
- van den Heuvel, M.I.**, Assen, M. & Glover, V., Cleas, S., Van den Bergh, B.R.H. (2018). Association between maternal psychological distress and cortisol during pregnancy: A mixed-models approach. *Psychoneuroendocrinology*, 96, 52-60.
- van den Heuvel, M.I.**, Donkers, F.C.L., Henrichs, J., & Van den Bergh, B.R.H. (2018). Children prenatally exposed to maternal anxiety devote more attentional resources to neutral pictures. *Developmental Science*, 21, e1261.
- Thomason, M.E., Hect, J., Waller, R., Manning, J.H., Stacks, A.M., Beeghly, M., Boeve, J.L, Wong, K., **van den Heuvel, M.I.**, Hernandez-Andrade, E., Hassan, S.S., Romero, R. (2018). Prenatal neural origins of

infant motor development: Associations between fetal brain and infant behavioral development. *Development & Psychopathology*, 30, 763–772.

van den Heuvel, M.I. & Thomason, M.E. (2016). Functional connectivity of the human fetus before birth. *Trends in Cognitive Sciences*, 20, 931–939.

van den Heuvel, M.I., Otte, R.A., Braeken, M.A.K.A., Winkler, I., Kushnerenko, E., & Van den Bergh, B.R.H. (2015). Differences between human auditory event-related potentials (AERPs) measured at 2 and 4 months after birth. *International Journal of Psychophysiology*, 97, 75-83.

van den Heuvel, M.I., Johannes, M.A., Henrichs, J., & Van den Bergh, B.R.H. (2015). Maternal mindfulness during pregnancy as related to infant socio-emotional development and temperament: The mediating role of maternal anxiety. *Early Human Development*, 91, 103-108.

van den Heuvel, M.I., Donkers, F.C., Winkler, I., Otte, R.A., & Van den Bergh, B.R.H. (2015). Maternal mindfulness and anxiety during pregnancy affect infants' neural responses to sounds. *Social Cognitive and Affective Neuroscience*, 10, 453-460.

Submitted/Under review

Turk, E., **van den Heuvel, M.I.**, Benders, M.J.N.L., de Heus, R., Franx, A., Manning, J.H., Hect, J.L., Hernandez-Andrade, E., Hassan, S.S., Romero, R., Kahn, R.S., Thomason, M.E., & van den Heuvel, M.P. (in revision) Functional brain connectomic blueprint is apparent in the second and third trimester of pregnancy. Under revision in *Journal of Neuroscience*.

van den Heuvel, M.I., Seuntjens, T., Lewis, T., & Zeelenberg, M. (under review). Greed in Children is Associated with Less Sharing Behavior. Under review at *Journal of Experimental Child Psychology*.

Rutherford, S., Sturmfels, P., Angstadt, M., Hect, J., Wiens, J., **van den Heuvel, M.I.**, Scheinost, D., Thomason, M.E., Sripada, C. (under review). Observing the origins of human brain development: Automated processing of fetal fMRI. Submitted to *NeuroImage*.

PROFESSIONAL PRESENTATIONS

Invited Presentations (5 most recent)

van den Heuvel, M.I. *Accelerated maturation of fetal amygdala function connectivity in response to maternal childhood trauma exposure*. Paper presented at the Dutch Baby Brain and Behavior Network meeting at Utrecht, The Netherlands, July 2019. Role: Invited speaker.

van den Heuvel, M.I. *The Out-of-Sync hypothesis: Mother-infant interactions in the context of maternal prenatal anxiety*. Paper presented at the International Perinatal Brain and Behavior Network pre-conference at the International Society of Developmental Psychobiology (ISDP) meeting, San Diego, CA, USA, November 2018. Role: Invited speaker & Organizer.

van den Heuvel, M.I. *From the Womb into the World: Brain Development from Fetus to Preschooler*. Invited presentation at Icahn School of Medicine at Mount Sinai, New York City, USA, May 2018. Role: Invited speaker.

van den Heuvel, M.I. *Maternal Intrauterine Stress Programming of Human Fetal Neural Network Efficiency*. Paper presentation as part of symposium 'Nevertheless, she persisted: Successful Female Postdocs Explore the Consequences of Early-Life Adversity in Males and Females' at International Society for Developmental Psychobiology Annual Meeting, Washington DC, USA, November, 2017. Role: Invited speaker.

van den Heuvel, M.I. *Pregnancy: A Critical Period For Brain Development*. Invited talk for the Developmental Neuroscience Series of the Perinatology Research Branch, NIH/NICHD, Detroit, MI, USA, April 2016. Role: Invited speaker.

Peer-Reviewed Oral Presentations (5 most recent)

- van den Heuvel, M.I.** *From the womb into the world: Early brain development from fetus to preschooler.* Research overview presented at the International Society for Psychological Sciences (ICPS) meeting, Paris, France, March 2019, as part of a symposium on early brain development. Role: Presenter.
- van den Heuvel, M.I.** *The influence of Maternal Stress during Pregnancy on Toddlers' Sleep Problems: The Role of Cortico-Cerebellar Connectivity in utero.* Paper presented at the International Society of Developmental Psychobiology (ISDP) meeting, San Diego, CA, USA, November 2018. Role: Presenter.
- van den Heuvel, M.I.**, Henrichs, J., Donkers, F.C.L., Van den Bergh, B.R.H. *Prenatal exposure to maternal anxiety and emotion processing at age 4 years: an event-related potential study.* Paper presented at International conference of Developmental Origins of Health and Disease (DOHaD) Society, Rotterdam, The Netherlands, October 2017. Role: Presenter.
- van den Heuvel, M.I.** *Fetal Origins of Child Sleep Problems: The Role of Maternal Psychological Stress.* Paper presentation as part of symposium 'Neuroscience' at Developmental Origins of Health and Disease (DOHaD) US Society, Detroit, MI, USA, October, 2017. Role: Co-Chair & Presenter.
- van den Heuvel, M.I.** *Sleep and Preschooler's Socio-Emotional Problems and Neural Responses to Emotional Pictures.* Paper presentation as part of symposium 'Sleep in Low-SES Children: Risk Factors, Emotional Development, and Health Concerns' at Society for Research in Child Development (SRCD) Biennial Meeting, Austin, Texas, USA, April, 2017. Role: Chair & Presenter.

Peer-Reviewed Poster Presentations (5 most recent)

- van de Ven, M., Thomason, M.E., Bhogal, A., Jayatilake, P., Lewis, T., Ajrouche, H., Hammond, J., **van den Heuvel, M.I.** *Impact of maternal childhood trauma on child behavioral problems: The role of child frontal alpha asymmetry.* Poster presented Flux Society of Developmental Cognitive Neuroscience, Berlin, Germany, August 2018. Role: Senior author and primary mentor.
- Jayatilake, P., Al, M.G.E., Kramer, E.A.J., Cullen, J., Bragt, M.A., Stacks, Ann, Zeelenberg, M., Seuntjens, T.G., **van den Heuvel, M.I.** (2017). *The Role of Mindful Parenting in Choice-Related Emotion Regulation in Children.* Poster presentation at at Society for Research in Child Development (SRCD) Biennial Meeting, Austin, Texas, USA, April, 2017. Role: Senior author and primary mentor.
- Lewis, T., Al, M.G.E., Kramer, E.A.J., Cullen, J., Bragt, M.A., Stacks, Ann, Zeelenberg, M., Seuntjens, T.G., **van den Heuvel, M.I.** (2017). *Higher Dispositional Greed is Associated with Less Sharing in Children.* Poster presentation at at Society for Research in Child Development (SRCD) Biennial Meeting, Austin, Texas, USA, April, 2017. Role: Senior author and primary mentor.
- van den Heuvel, M.I.**, Manning, J.H., Hect, J.E., Marshall, N., & Thomason, M.E. (2016). *Hubs in the Fetal Brain Network.* Poster presented at the FLUX society for Developmental Cognitive Neuroscience Conference, St. Louis, MO, USA, September 2016. Role: presenter.

RESEARCH GRANTS

- 2019 – 2022 Veni grant – NWO (Dutch Research Foundation)
VI.Veni.191G.025, *Brains in sync: Identifying the effects of mother's anxiety during pregnancy on mother-infant neural synchrony* (PI: van den Heuvel);
Role: Principle Investigator; €250.000
- 2016 – 2018 Wayne State University
Postdoctoral Fellowship Award, Research in Biobehavioral Health and Urban Settings Today (RoBUST) Program; Award funds 2-year postdoctoral salary and research-related expenses up to \$5,000; Role: Postdoctoral Researcher
- 2018 National Institute of Mental Health (NIMH)
R01 MH110793, *In Utero Assessment of the Human Neural Connectome and Later Child Behavior* (PI: Thomason); Role: Postdoctoral Researcher

2014 Erasmus+ Programme
Grant supported travel, accommodation and per diem for a research internship to the Leibniz Institute for Age Research, Jena, Germany to receive training in epigenetics and DNA methylation analysis
Role: Trainee

TEACHING EXPERIENCE

2019 – Current **Lecturer**, Biological Correlates of Individual Differences, Research Master Individual Differences and Assessment (IDA), Tilburg University
2018 – Current **Coordinator & Lecturer**, Social Neuroscience, Undergraduate Psychology, Tilburg University
2018 – Current **Instructor**, Research Skills in Psychology, Undergraduate Psychology, Tilburg University
2018 – Current **Instructor**, Academic Skills I & II, Undergraduate Psychology, Tilburg University
2018 **Instructor**, Professional Development, Undergraduate Psychology, Tilburg University
2017 **Instructor**, Responsible Conduct of Research (GS 0900), Graduate, Wayne State University
2014 **Instructor**, Practicum Psychological Research, Tilburg University
2012, 2013 **Lecturer**, Statistics for your Master Thesis, Master Psychology and Mental Health, Tilburg University
2010 – 2012 **Instructor**, Methods & Statistics A-E, Undergraduate Psychology, Tilburg University
2009 **Tutor**, 1.1. Healthy Living, Undergraduate, Health Sciences, Maastricht University
2009 **Trainer**, Problem-Based Learning, Undergraduate, Health Sciences, Maastricht University
2008 **Tutor**, 2.5.5. Depression, Undergraduate, Health Sciences, Maastricht University
2008 **Tutor**, Academic Skills I, Undergraduate, Health Sciences, Maastricht University

TEACHING TRAINING & CERTIFICATES

2019 Basic Qualification Teaching – ASSESSMENT module, Tilburg University
2018 Basic Qualification Teaching – TEACH module, Tilburg University
2018 M-Plus workshop, Tilburg University
2017 Micro-aggression training, Wayne State University
2017 Leadership training, Wayne State University
2014 Basic Qualification Teaching – SUPERVISE module, Tilburg University
2009 Problem-based Learning training, Maastricht University
2009 Tutor Training, Maastricht University

MENTORING

2018 – Current **Internship coordinator**, Department of Cognitive Neuropsychology, Tilburg University
2019 – Current **Primary mentor**, Research Master Internship, Tilburg University (1 student)
2019 – Current **Supervisor**, Master Thesis, Medical Psychology, Tilburg University (2 students)
2018 – 2019 **Supervisor**, Senior Bachelor Thesis, Tilburg University (5 students)
2017 – 2018 **Primary mentor**, Research Master Internship & Thesis, University of Amsterdam (1 student)
2017 – 2018 **Supervisor**, Senior Bachelor Thesis, Wayne State University (1 student)
2016 – 2018 **Research mentor**, Thomason's SCAN Lab, Wayne State University (15 students)
2017 – 2018 **ReBUILD Detroit Co-mentor** – *National Institutes of Health (NIH)* (3 students)
2012 – 2015 **Research mentor**, Developmental Psychology, Tilburg University (5 students)
2013 – 2016 **Supervisor**, Senior Bachelor Thesis, Tilburg University (30 students)

COMMUNITY SERVICE & OUTREACH ACTIVITIES

2019 **Invited speaker**, Human library Junior Utrecht, "Stereotypes in the developing brain".
2019 **Invited speaker**, Human library Tilburg, "Stereotypes in the developing brain".
2019 **"Human book"**, Human library Tilburg, Title of book: Intellectual giftedness.

- 2018 – Current **Founder & Content Manager**, YouTube Channel “Developmental Neuroscience Videos”. Demonstrations, tutorials, and tips on Developmental Neuroscience.
- 2008 – Current **TOP-teacher & Assignment developer**, Digital TOP-school, part of Dutch Foundation for Cognitive Talent. Goal: providing extracurricular assignments for gifted elementary school children and supervision over the internet.
- 2016-2018 **Volunteer**, Brain Day, Wayne State University & Michigan Science Centre
- 2016 **Facilitator** at “Giant Steps Teen Conference”, Merrill Palmer Skillman Institute
Task: facilitate discussion in groups of 8 teens
- 2016 **Volunteer Researcher**, Lead Day, talking to legislators about the dangers of lead for children and pregnant women at Lansing, MI
- 2014 – 2015 **Invited speaker**, Night University, Tilburg University.
- 2012 – 2015 **Supervisor**, Baby Lab-tours for elementary and high school students, Tilburg University, via Science Junction Brabant
- 2015 **Invited speaker**, *Ask a Developmental Neuroscientist*, presentation based on science-related questions from parents, Kinderstad Day Care Centre, Tilburg, The Netherlands
- 2015 **Invited speaker**, *My life as a Developmental Neuroscientist*, presentation at Willem II Middle School, Scientific Orientation Netherlands (WON)
- 2014 **Lecturer**, *Developmental Neuropsychology*, weekend school for minority and underrepresented students, Tilburg University
- 2014 **Panel expert**, Scientific Orientation Netherlands (WON), high-school students presenting their science projects
- 2013 **Invited speaker**, Junior Science Café for gifted elementary school children
- 2009 – 2011 **Volunteer/Mentor** at Foundation Child Phone (Dutch: Kindertelefoon), Task: talking to children over phone and chat, helping with problems, answering question.

PROFESSIONAL SERVICE

Grant reviewing

- 2019 **Reviewer**, Israel Science Foundation – Personal Research Grants

Other service

- 2018 – Current **Director**, International Perinatal Brain and Behavior Network pre-conference at the International Society of Developmental Psychobiology (ISDP) meeting.
- 2019 **Symposium reviewer**, International Society for Developmental Psychobiology (ISDP)
- 2018 **Poster Judge**, International Society for Developmental Psychobiology (ISDP), San Diego
- 2018 **Organizer**, Pre-conference for International Society of Developmental Psychobiology (ISDP)
- 2018 **Abstract reviewer**, Society for Research in Child Development (SRCD), Baltimore, USA
- 2018 **Poster Judge**, Society for Neuroscience (SfN) Michigan Chapter, Detroit, USA
- 2018 **Poster Judge**, BrainStorm 2018, Wayne State University
- 2016 – 2018 **Organizer**, Biweekly SCAN Lab Meetings, Wayne State University
- 2016 – 2017 **Abstract reviewer**, RoBUST symposium, Wayne State University
- 2009 **President**, Congress Committee, Tilburg University

PROFESSIONAL MEMBERSHIP

International Perinatal Brain and Behavior Network (IPBBN) – **Director**
 International Society for Developmental Psychobiology (ISDP)
 FLUX society for Developmental Cognitive Neuroscience
 Society for Research in Child Development (SRCD)
 Developmental Origins of Health and Behavior (DOHaD)
 Baby Brain & Cognition (BB&C) Network – Netherlands

PEER REVIEW

Journal of Child Psychology and Psychiatry: 2019

Journal of Anxiety Disorders: 2019

American Journal of Obstetrics and Gynecology: 2019

Behavioral Brain Research: 2019

NeuroImage: Clinical: 2019 (2x)

Anxiety and Depression: 2019

Frontiers in Psychology: 2019

Child Development: 2018

Developmental Psychobiology: 2018

Psychosomatic Medicine: 2018

Psychiatry Research: 2018

Infancy: 2018

Journal of Family Psychology: 2017

Mindfulness: 2016, 2017

Biological Psychiatry: 2016

Cognitive, Affective and Behavioral Neuroscience: 2016

Frontiers Neuroscience: 2016

RESEARCH SKILLS

EEG/ERP-related skills: Matlab (EEGLab, ERPLab; 8+ years); Brain Vision Analyser (8+ years), EMSE EEG software (2+ year); E-prime (9+ years), Brain-connectivity analysis & Graph theoretical analyses (BrainWave, Matlab; 6+ years); event-related potential analyses (8+ years); power analyses (alpha/beta power, frontal asymmetry; 3+ years).

fMRI-related skills: Matlab (SPM, xjview, CONN; 2+ years); FSL (2 years); Mango (2 years); E-prime (2 years); Brain-connectivity analysis (Matlab, Brain Connectivity Toolbox; 2 years); fetal fMRI protocols and scanning (3 years); Graph theoretical analyses (5+ years).

Experience with infant/child testing: Neuropsychological testing (EEG, eye-tracking, EF tasks; tested 200+ infants and young children; 8+ years); Behavioral testing in infants & children (e.g., intelligence tests, interaction observation; 8+ years); structured clinical interviewing (e.g., MINI interview mothers; 8+ years); home visits (3+ years).

Statistical skills: SPSS (e.g., basic analyses, multilevel analyses, bootstrap mediation analyses; 10+ years); AMOS (Structural Equation Modelling; 6+ years), M-Plus (1+ years)