

Profile

I am a cognitive neuroscientist specialized in synaesthesia and its high co-occurrence with autism. In synaesthesia specific sensory stimuli (e.g., letters) elicit additional, unusual experiences (e.g., colour). I use these individual differences in perception to understand alterations in development, perception and cognitive functioning. As a researcher, I am passionate about disseminating my research findings to a wide range of audiences. To this end, I give talks, organize seminars, conduct popular science projects, write popular articles, and inform the media of my research findings.

Research keywords: synaesthesia, autism, perception, development, multisensory processing, crossmodal correspondences, language and cognition, brain connectivity

Methods keywords: EEG, questionnaires, fMRI, MEG, psychophysics, online surveys/crowdsourcing, dynamic causal modelling

Professional appointments

- 2020** **Postdoctoral researcher**, Karolinska Institut, Stockholm, Sweden and Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen. Synaesthesia and autism project (Riksbankens Jubileumsfond, Sweden) with PI Janina Neufeld (Karolinska).
- 2019**
Oct-Dec **Postdoctoral researcher**, Centre for Cognition, Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen. PI: Prof. Rob van Lier.
- 2014-2019** **Research Fellow (postdoctoral researcher)**, Centre for Cognition, Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen. PI: Prof. Rob van Lier.
VENI-project (NWO) “Common neural mechanisms in autism and synaesthesia” (EEG).
- 2011-2014** **Postdoctoral Researcher, Frankfurt am Main, Germany.** Department of Neurophysiology Max Planck Institute for Brain Research. Supervisors: Prof. Wolf Singer & Dr. Lucia Melloni. MEG research on synaesthesia and schizophrenia
- 2010-2011** **Research Assistant**, Language and Cognition group, Max Planck Institute for Psycholinguistics, Nijmegen. Supervised by Prof. Dr. Asifa Majid.
Crossmodal associations in Arabic
- 2005** **Research Assistant**, Neurocognition of Language Group, F.C. Donders Centre for Cognitive Neuroimaging, Radboud University. Supervised by Prof. Peter Hagoort.
fMRI studies on language
- 2004** **Research Assistant, Vancouver, Canada**, Brain and Attention Research Lab of the University of British Columbia. Supervisors: Prof. Alan Kingstone, Dr. Daniel Smilek.

Education

- 2006-2010** **PhD student**, Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, Netherlands. Supervised by Prof. Peter Hagoort. Defense date: Sept. 14, 2011.
fMRI and MEG studies on the neural correlates of synaesthesia
- 1998-2004** **Bachelor/Master Biology**, University of Utrecht, Utrecht, the Netherlands.
Neurobiology (electrophysiology/vision) and language (fMRI) projects

Awards and grants

- 2020** **Radboud Science Award**, together with Mark Dingemans (CLS)

Curriculum Vitae - Tessa M. van Leeuwen

- 2019 **Symposium grant, Cognitive Neuropsychology**, for ECVF symposium on autism and synaesthesia. USD 4000,- (€ 3600,-)
- 2018 **Riksbankens Jubileumsfond Projekt Grant, Sweden**, co-applicant with Dr. Janina Neufeld, € 365.000/SEK 3.776.000. 'Where is the link between synesthesia and autism? A twin study on shared neural mechanisms and their causes.'
- 2017 **Nominated for the 'Netwerk Vrouwelijke Hoogleraren Prize 2017'**. Prize for excellent female scientists at the Radboud University.
- 2016 **DCC Internal PhD round**, co-applicant, € 210.000,- (competitive round of internally funded PhD projects). 'Visual processing beyond retinal stimulation'
- 2016 **DCC Faculty Assistantship**, co-applicant, € 3000,-. 'Perception and Art'. 300 hours of student assistantship (Fleur Duyser).
- 2015 **Nominated for 'Viva-400 Award 2015'**. Award for women who stood out (www.viva400.nl/)
- 2015 **NWO Groot Nationaal Onderzoek** grant, € 12.000,- Awarded to Tessa van Leeuwen and Mark Dingemans for crowdsourcing project in collaboration with NTR.
- 2014 **VENI grant (NWO)**, applicant, € 250.000,- Highly competitive personal grant for promising early career researchers. Proposal: "Common neural mechanisms in autism and synaesthesia".
- 2013 **Travel grant from DAAD**, €2.011,- Society for Neuroscience Meeting, San Diego, USA.
- 2012 **Travel Award** from the Association for the Scientific Study of Consciousness (ASSC).
- 2011 **Top 5 of Best Scoring PhD Students in popular media 2011** (Radboud University)
- 2010 **Trainee Abstract Award** Travel grant from the Organization for Human Brain Mapping.
- 1999 **'Excellent Tracé', Utrecht University**, extra-curricular program for talented students.

Teaching experience and student supervision

Teaching experience

- 2019 **Workgroup assistant**, 2nd year Psychology Core Theme Perception, Action, Development
- 2015-2019 **Lecturer**, Trends in Cognitive Neuroscience course, Cognitive Neuroscience Master's Programme. Lecturing and developing & grading essay assignment on synaesthesia.
- 2015-2019 **Lecturer on fMRI**, 3rd yr Psychology Bachelor course Neuroimaging techniques. Creating course slides and exam questions, grading exam.
- 2016-2018 **Radboud Honours Academy**, first year course 'Hart van de Wetenschap', lecture + demo's
- 2014-2020 **Lecturer** on synaesthesia, Radboud University, Nijmegen, during 'Brain and Behaviour' (2nd year Biology) and 'Consciousness and Perception' course (3rd year Psychology)
- 2016 **ArTeZ**, Hogeschool voor de Kunsten, workshop + lecture on synaesthesia.
- 2006-2010 **fMRI tutor**, 'Toolkit of Cognitive Neuroscience', Donders Institute, Nijmegen.
- 2003-2010 **university lectures** on synaesthesia; 2nd year Neuroscience course, Faculty of Biology, University of Utrecht & 2nd year Neurophysiology course, University of Twente.

PhD student supervision

- 2016-present **Co-promotor**, Jordy Thielen, Donders Institute, Radboud University
- 2011-2014 **Co-supervision**, Andreas Sauer, Max Planck Institute for Brain Research, Frankfurt

Master student supervision

- 2019 Nina Parrella, internship, Brain and Cognitive Sciences, UvA
- 2017-2018 Myrte Druyvesteyn, Cognitive Neuroscience Master internship, Radboud University
- 2017-2018 Eline van Petersen, Cognitive Neuroscience Master internship, Radboud University
- 2017-2019 Eefke Lemmen, internship, Medical Biology, Radboud University
- 2015-2016 Kalliopi Ioumpa, Cognitive Neuroscience Master internship, Radboud University
- 2013 Susanne Eisenhauer, Master internship, Goethe Universität Frankfurt (MEG project)
- 2011 Annika Notbohm, short internship, Goethe Universität Frankfurt (MEG project)
- 2010 Büşra Todil, Jacobs University Bremen, Germany, supervised at MPI for Psycholinguistics.
- 2006 Loes Claessen, Biological psychology, VU, Amsterdam, co-supervision Master thesis.

Bachelor student supervision

- 2017-2018 **Honours Bachelor thesis**, Floor Burghoorn, Radboud University

Curriculum Vitae - Tessa M. van Leeuwen

2015-2016 **3 Honours Student Internships**, synaesthesia/autism, Pegagogiek (2nd year), RU.
2013 **Research project**, Matija Korman, Max Planck Institute for Brain Research (MEG)
2012 **Bachelor thesis**, Lisa Kersting, Biophysics, Goethe Universität Frankfurt (MEG)

Supervision (other)

2013-2019 **2 Research assistants, 7 student assistants, 5 lab rotations**

Skills

- **BROC certified** since Oct 21, 2016 (Basic Regulations and Organisation of Clinical investigations)
- **EEG and MEG data acquisition and data analysis** (FieldTrip, BrainVision Analyzer, source analysis)
- **(f)MRI data acquisition and data analysis** (SPM, Dynamic Causal Modelling, Voxel Based Morphometry)
- **programming, Matlab, SPSS, Presentation, Matlab PsychToolbox**
- **Languages:** Dutch (native), English (C2), German (good)

Academic services

Conference/symposium organizing

2020 **main organizer, Synaesthesia conference**, Amsterdam. Scheduled for May 28-29, but postponed due to coronavirus
2020 **Workshop ‘Synesthesie’**, concluding workshop of my Veni grant for the general public. De Lindenberg, Nijmegen, January 28, 2020
2019 **Symposium ‘Unraveling the link between autism and synaesthesia’**, European Conference on Visual Perception, Leuven, Belgium, August 2019
2017 **‘How to find a job outside academia’**, Donders Institute, December 7
2013-2014 **main organizer, “Synaesthesia in Perspective” conference**, 2-day conference, Hamburg, Germany, February 2014 (26 speakers, 40 scientific posters, 140 attendants)
2007-2008 **conference organizing committee ‘Donders Discussions’**, international PhD conference.

Committees

2020 **PhD Defense Committee member (Doctoral Examination Board)** of Nadine Dijkstra, Radboud University, Nijmegen, *postponed due to coronavirus*
2019 **PhD Defense Committee member (Doctoral Examination Board)** of Antonella Pomante, Radboud University, Nijmegen, Nov 13, 2019
2018 **PhD Defense Committee member (Doctoral Examination Board)** of Chayada Chotsrisuparat, Radboud University, Nijmegen, Dec 18, 2018
2018 **PhD Defense Committee member (Doctoral Examination Board)** of Lieke Heil, Radboud University, Nijmegen, Sept 13, 2018
2017-2018 **NWO committee Onderzoekstalent 2018**
2017 **PhD Defense Committee member (Doctoral Examination Board)** of Gwilym Lockwood, Radboud University, Nijmegen, April 12, 2017
2017 **TopTalent selection committee**, selecting Master students for PhD positions, Donders Inst.
2017 **Sustainable science advisory committee** ‘Training and support of post-docs to faculty’
2016 **Member of selection committee for PhD student**
2016 **Donders Institute Open Day Organizing committee**, February-September
2016 **PhD Defense Committee member (Doctoral Examination Board)** of Simon Jan Hazenberg, Radboud University, Nijmegen, April 7, 2016
2015-2017 **Postdoc Representative** of the Donders Centre for Cognition, Radboud University
2013 **PhD Advisory Committee (PAC) for Andreas Sauer**, MPI for Brain Research, Frankfurt
2012-2013 **organizer NeFF Young Investigator’s Colloquium Series**, Frankfurt am Main, Germany
2007-2009 **member of Employee Council** of the Donders Centre for Cognitive Neuroimaging
2003-2004 **Animal Experiments Committee** (ethics committee), University of Utrecht, Utrecht (NL)

Curriculum Vitae - Tessa M. van Leeuwen

Editing and reviewing

- **Guest Editorship, Neuropsychologia, 2014-2016.** Special Issue “Bridging the Gap: Synesthesia and Multisensory Processing”. Co-editors: M.M. Murray, M.T. Wallace, S.A. Trautmann-Lengsfeld, A.K. Engel.
- **Ad-hoc peer-reviewer for scientific journals:** Journal of Neuroscience (4); Cortex; Scientific Reports (2); Cerebral Cortex; NeuroImage (2); Philosophical Transactions of the Royal Society B (2); Neuropsychologia (3); Cambridge University Press; Experimental Brain Research; Journal of Neuropsychology; Frontiers in Cognitive Science; Journal of Vision; Consciousness and Cognition (2); Cognitive, Affective and Behavioral Neuroscience; Neurology, Psychiatry and Brain Research; Cognition (2); Translational Neuroscience; Acta Psychologica; British Journal of Psychology; Applied Neuropsychology: Adult; Big Data and Cognitive Computing; Journal of Visualized Experiments; Journal of the History of the Neurosciences; Brain Connectivity; Multisensory Research.
- **Reviewer for science foundations:** Swiss National Science Foundation, NWO (Netherlands Organization for Scientific Research), Wellcome Trust (UK)

Ongoing scientific collaborations

- **Dr. Janina Neufeld**, Karolinska Institute, Stockholm, Sweden. Collaboration on synaesthesia/autism link.
- **Dr. Lucia Melloni, Prof. Dr. Wolf Singer**, MPI for Brain Research/MPI for Empirical Aesthetics, Frankfurt am Main, Germany.
- **Dr. Mark Dingemans**, Centre for Language Studies, Radboud and MPI for Psycholinguistics, Nijmegen
- **Prof. Dr. Marcel van Gerven**, Donders Centre for Cognition, Nijmegen (shared PhD student)
- **Dr. Sabine Hunnius**, Donders Centre for Cognition, Nijmegen (project on perception in children)
- **Kalliopi Ioumpa, MSc**, Netherlands Institute for Neuroscience, Amsterdam (mirror-touch synesthesia)
- **Prof. Dr. Simon Fisher, Dr. Amanda Tilot**, MPI for Psycholinguistics, Nijmegen (synesthesia genetics)
- **Prof. Dr. Michael Wibral**, Göttingen, Germany.
- **Dr. Helmut Laufs, Dr. Verena Brodbeck, Dr. Enzo Tagliazucchi**, Goethe University Frankfurt/Kiel

Invited lectures

- **Karakter University Centre**, Synaesthesia and autism, 2020, *postponed due to coronavirus*
- **'MCB Brain Plasticity'** conference, Magdeburg, Germany, invited talk, September 2019
- **European Conference on Visual Perception (ECVP)**. EEG signatures of local/global perception in children with an increased likelihood of synaesthesia and children with autism spectrum disorder. Symposium talk, Leuven, August 2019
- **BrainWave** symposium Utrecht, 'Synesthesie', Feb 2019
- **What About Perception**, course on perception for psychiatrists, Vlieland, 2018. 'Synaesthesia and autism'
- **'Bridging senses' Neurobiology of synesthesia meeting, London, UK**, October 2018. Invited speaker. 'Synaesthesia and autism spectrum disorder: shared characteristics of visual perception.'
- **Studium Generale**, Erasmus University Rotterdam, 2018. 'Synaesthesia'
- **Conference GLV Idun**, Groningen, 2018. 'Synesthesie'.
- **Keynote speaker, SAGE 2.0 (Science and Gender Equality Symposium), Hamburg, Germany**, March 2018.
- **Universiteit van Nederland**, 2016. "Waarom ervaren sommige mensen kleuren bij woorden en getallen"
- **ArtEZ Hogeschool voor de kunsten**, Arnhem, Netherlands, 2016. Lecture and workshop synaesthesia and multisensory processing.
- **SPS-Nederlands Instituut van Psychologen – Platform Nijmegen**, Amsterdam, Tilburg, 2015.
- **KNAW Academy Colloquium "Decoding the neurobiology of synaesthesia"**, Amsterdam, 2015. Invited by Prof. Simon Fisher.
- **Symposium 'Hearing Colors', Regensburg, Germany**, 2014. Invited by Prof. Greenlee, Dr. Volberg.

Curriculum Vitae - Tessa M. van Leeuwen

- **International Multisensory Research Forum annual meeting**, Amsterdam, the Netherlands, 2014. Symposium talk, invited by Prof. Daphne Maurer.
- **University of Leuven, Belgium**, 2014. Laboratory of Experimental Psychology. Invited by Prof. Johan Wagemans.
- **Perception and Awareness group, Donders Centre for Cognition**, Nijmegen, the Netherlands, 2014.
- **Symposium 'Synaesthesia in Perspective'**, Hamburg, Germany, 2014.
- **Deutsche Gesellschaft für Klinische Neurophysiologie Annual Meeting, Leipzig, Germany**, 2013. In symposium "Wenn alles verknüpft scheint". Invited by Prof. Dr. Peter Weiss.
- **Brain Imaging Center Meeting, Goethe University Frankfurt, Germany**, 2013.
- **Iaspis/Swedish Arts Grants Committee, Stockholm, Sweden**, 2013. "Synaesthetic perception"
- **NeFF Young Investigators Colloquium, Frankfurt am Main, Germany**, 2013.
- **Workshop "Towards identification of genes implicated in synaesthesia"**, Max Planck Institute for Psycholinguistics, Nijmegen, 2012. Invited by Prof. Simon Fisher.
- **University Medical Center Hamburg-Eppendorf, Germany**, 2012. Invited by Dr. S. Trautmann-Lengsfeld.
- **10th Dutch Endo-Neuro-Psycho Meeting**, Lunteren, NL, 2012. Invited for symposium talk.
- **Hauptversammlung der Deutsche Synästhesie Gesellschaft, Frankfurt am Main, Germany**, 2012.
- **Natuurkundig Gezelschap Middelburg**, the Netherlands, 2012. "Synesthesie in het brein".
- **Heinrich-Heine-Universität, Düsseldorf, Germany**, Institute for Experimental Psychology, 2011.
- **Max Planck Institute for Brain Research, Frankfurt, Germany**, 2010. Department of Neurophysiology.
- **University of Amsterdam, Amsterdam**, 2008. "Synesthesie: De extra dimensie van Messiaen".
- **Max Planck Institute for Psycholinguistics, Nijmegen**, 2008. Invited by Prof. Asifa Majid.
- **Friesland Foods Dairy Products, Ede, the Netherlands, 2007**. "Synaesthesia: introduction and possible applications". About the application of synaesthesia in taste-perception research.
- **Dutch Society for Biology (NIBI)**, Lunteren, the Netherlands, 2006. Education Conference.
- **Annual Meeting of the Dutch Synaesthesia Forum**, Rotterdam, the Netherlands, 2005.

Conference talks

- **Perception Day**, Nijmegen, the Netherlands, December 2018. 'Synaesthesia and autism spectrum disorder: shared characteristics of visual perception.'
- **European Conference on Visual Perception (ECVP), Trieste, Italy**, 2018. 'Synaesthesia and autism spectrum disorder: shared characteristics of visual perception'.
- **Perception Day**, Nijmegen, the Netherlands, 2016.
- **Crossmodal Perception and Synaesthesia conference, Dublin, Ireland**, 2016. 'Colour associations in synaesthetes and nonsynaesthetes: A large-scale study in Dutch'.
- **UK Synaesthesia Association annual meeting, London, UK**, 2014.
- **Association for the Scientific Study of Consciousness (ASSC) 16th AM, Brighton, UK**, 2012.
- **16th Annual Meeting of the Organization for Human Brain Mapping, Barcelona, Spain**, 2010.
- **European Conference on Visual Perception (ECVP)**, Utrecht, the Netherlands, 2008.
- **12th Annual Conference on Architectures and Mechanisms for Language Processing**, Nijmegen, the Netherlands, 2006.

Publications

Preprints

Van Leeuwen TM, Sauer A, Jurjut A-M, Wibrals M, Uhlhaas PJ, Singer W, Melloni L (2018). Perceptual phenotypes: perceptual gains and losses in synaesthetes and schizophrenia patients. *bioRxiv*, <https://doi.org/10.1101/443846>

Journal articles

- Van Petersen E, Altgassen M, Van Lier R, **Van Leeuwen TM** (2020). Enhanced spatial navigation skills in sequence-space synaesthesia. *Cortex*. <https://doi.org/10.1016/j.cortex.2020.04.034>
- Thielen J, Bosch SE, **Van Leeuwen TM**, Van Gerven MAJ, Van Lier R (2019). Evidence for confounding eye movements under attempted fixation and active viewing in cognitive neuroscience. *Scientific Reports* **9**
- Tilot A, Vain A,, **Van Leeuwen TM**, Ward J, Rouw R, Simner J, Fisher SE (2019). Investigating genetic links between grapheme–colour synaesthesia and neuropsychiatric traits. *Philosophical Transactions of the Royal Society B*, **374**. Doi: 10.1098/rstb.2019.0026
- Ioumpa K, Graham SA, Clausner T, Fisher SE, Van Lier R, **Van Leeuwen TM** (2019). Enhanced self-reported affect and prosocial behaviour without differential physiological responses in mirror-sensory synesthesia. *Philosophical Transactions of the Royal Society B*, **374**. Doi: 10.1098/rstb.2019.0395 (postprint available at *PsyArXiv*, doi: 10.31234/osf.io/qbm4y)
- Van Leeuwen TM**, Burghoorn F, Van Petersen E, Dingemans M, Van Lier R (2019). Autistic traits in synaesthesia: atypical sensory sensitivity and enhanced perception of details. *Philosophical Transactions of the Royal Society B*, **374**. Doi: 10.1098/rstb.2019.0024 (postprint available at *PsyArXiv*, doi:10.31234/osf.io/vbc68)
- Burghoorn F, Dingemans M, Van Lier R, **Van Leeuwen TM** (2019). The Relation Between Autistic Traits, Degree of Synaesthesia, and Local/Global Visual Perception. *Journal of Autism and Developmental Disorders*. Doi: 10.1007/s10803-019-04222-7
⇒ *This paper reached #1 on AsserT.pub in PsyArXiv Psychiatry papers on January 3, 2019.*
- Thielen J, Bosch SE, **van Leeuwen TM**, Van Gerven M, Van Lier R (2019). Neuroimaging findings on amodal completion: a review. *i-Perception*, **10**(2), 1–25.
- Cuskley C, Dingemans M, Kirby S, **van Leeuwen TM** (2019). Cross-modal associations and synaesthesia: categorical perception and structure in vowel-colour mappings in a large online sample. *Behavior Research Methods*, **51**(4), 1651–1675. Doi: 10.3758/s13428-019-01203-7
- Van Leeuwen TM**, Trautmann-Lengsfeld SA, Wallace MT, Engel AK, Murray MM (2016). Bridging the Gap: Synaesthesia and Multisensory Processes. *Neuropsychologia* **88**, 1-4.
- Van Leeuwen TM**, Dingemans M, Todil B, Agameya A, Majid A (2016). Nonrandom Associations of Graphemes with Colors in Arabic. *Multisensory Research* **29**(1-3), 223-252.
- Van Leeuwen TM**, Singer W, Nikolić D (2015). The merit of synesthesia for consciousness research. *Frontiers in Psychology: Consciousness Research* **6** – Article 1850.
- Van Leeuwen TM***, Xiang H*, Dediu D, Roberts L, Norris D, Hagoort P (2015). L2-proficiency-dependent laterality shift in structural connectivity of brain language pathways. *Brain Conn.* **5**(6), 349-61. **eq. contr.*
- Van Leeuwen TM** (2014). Constructing priors in synesthesia. *Cognitive Neuroscience* **5**(2), 124-126.
- Van Leeuwen TM**, Lamers M, Petersson KM, Rietveld T, Gussenhoven C, Poser B, Hagoort P (2014). Phonological Markers of Information Structure: An fMRI study. *Neuropsychologia* **58**, 64–74.
- Van Leeuwen TM***, Hagoort P, Händel BF* (2013). Real color captures attention and overrides spatial cues in grapheme-color synesthetes but not in controls. *Neuropsychologia* **51**(10), 1802-13. **eq. contr.*
- Niccolai V, **Van Leeuwen TM**, Blakemore C, Stoerig P (2012). Synaesthetic perception of colour and visual space in a blind subject: an fMRI case study. *Consciousness and Cognition* **21**(2), 889-99.
- Niccolai V, **Van Leeuwen TM**, Jennes J, Stoerig P (2012). Modality and Variability of the Synaesthetic Experience. *American Journal of Psychology* **125**(1), 81–94.
- Van Leeuwen TM**, Den Ouden HEM, Hagoort P (2011). Effective connectivity determines the nature of subjective experience in grapheme-color synesthesia. *Journal of Neuroscience* **31**(27), 9879–9884.
- Van Leeuwen TM**, Petersson KM, Hagoort P (2010). Synaesthetic Colour in the Brain: Beyond Colour Areas. A Functional Magnetic Resonance Imaging Study of Synaesthetes and Matched Controls. *PLoS ONE* **5**(8). *This paper was recommended and reviewed on F1000 Prime (August 24, 2010)*
- Van Leeuwen TM***, Liang M*, Proulx MJ (2008). Propagation of brain activity during audiovisual integration. *Journal of Neuroscience* **28**(36), 8861–8862. **equal contributors*

Curriculum Vitae - Tessa M. van Leeuwen

Vajda I, Lankheet MJM, **Van Leeuwen TM**, Van de Grind WA (2002). On the velocity tuning of area 18 complex cell responses to moving textures. *Visual Neuroscience* **19**(5), 651-59.

Book chapters

Van Leeuwen TM (2013). Individual differences in synaesthesia. Invited review in: Simner, J & Hubbard, EM, Eds. Oxford Handbook of Synaesthesia. Oxford University Press, 2013.

Van Leeuwen TM, Petersson KM, Langner O, Rijpkema M, Hagoort P (2013). Color specificity in the human V4 complex: An fMRI repetition suppression study. In: Advanced Brain Neuroimaging Topics in Health and Disease - Methods and Applications, pp. 283-305. Eds. T. D. Papageorgiou, G. I. Christopoulos, S. M. Smirnakis, InTech, ISBN 978-953-51-1203-7.

Conference contributions (posters and co-authorships 2018-present)

Taylor M, Kuja-Halkola R, Van Leeuwen TM, Bölte S, Neufeld J (2019). The genetic and environmental architecture of synesthesia and its association with autism, ADHD and OCD - A twin study. *Behavior Genetics Association meeting*, Stockholm, Sweden.

Thielen J, Bosch SE, **Van Leeuwen TM**, Van Gerven MAJ, Van Lier R (2019). Mind the eye: confounding eye movements in cognitive neuroscience. *European Conference on Visual Perception*, Leuven, Belgium, Aug 2019 (talk).

Taylor M, **Van Leeuwen TM**, Kuja-Halkola R, Bölte S, Neufeld J (2019). The genetic and environmental architecture of synesthesia and its association with autism and other psychiatric disorders - A twin study. *European Conference on Visual Perception*, Leuven, Belgium, Aug 2019 (symposium talk).

Van Leeuwen TM, Burghoorn F, Van Petersen E, Dingemans M, Van Lier R (2019). Autisme versus synesthésie: overeenkomsten in de visuele waarneming. *Nationaal Autisme Congres* (poster)

Van Petersen E, Altgassen AM, Van Lier R, **Van Leeuwen TM** (2018). Sequence-space synaesthetes have enhanced spatial navigation skills. *Perception Day*, Nijmegen, Dec 2018 (poster)

Burghoorn F, Van Lier R, **Van Leeuwen TM** (2018). The relation between the degree of synaesthesia, autistic traits and local/global visual perception. *Perception Day*, Nijmegen, Dec 2018 (poster)

Thielen J, Bosch SE, **Van Leeuwen TM**, Van Gerven MAJ, Van Lier R (2018). Task-induced stimulus-dependent eye movements predict stimulus orientation. *Perception Day*, Nijmegen, Dec 2018 (talk)

Neufeld J, **Van Leeuwen T**, Kuja-Halkola R, Bölte S (2018). Autism and synesthesia - A twin project on the common genetic and environmental basis and overlapping brain mechanisms. Bridging Senses: new developments in synesthesia, *Royal Society meeting*, London, 2018. (poster)

Van Petersen E, Altgassen AM, Van Lier R, **Van Leeuwen TM** (2018). Do sequence-space synaesthetes have enhanced spatial navigation skills? Bridging Senses: new developments in synaesthesia. *Royal Society meeting*, London, Oct 2018 (poster)

Thielen J, Bosch SE, **Van Leeuwen TM**, Van Gerven M, Van Lier R (2018). Evidence for amodal completion of low-level detail in visual cortex. *European Conference on Visual Perception*, Trieste, Italy, Aug 2018

Burghoorn F, Van Lier R, **Van Leeuwen TM** (2018). The relation between the degree of synaesthesia, autistic traits and local/global visual perception. *European Conference on Visual Perception*, Trieste, Italy, Aug 2018 (poster)

Public outreach

Products:

Sensetest: Open Source online tool for testing synaesthesia and crossmodal associations

Gno.mpi.nl Website of the Groot Nationaal Onderzoek (Large National Survey)

Teaching materials on synaesthesia. Teaching materials are being adapted to be published on NIBI.nl as part of the knowledge utilization component of my Veni grant.

Brochure on synaesthesia and autism, <http://www.tessavanleeuwen.nl/synaesthesia-synesthesie/>

Projects:

2015 Groot Nationaal Onderzoek (Large National Survey, gno.mpi.nl): With Mark Dingemans (MPI for Psycholinguistics) I organised a GNO for the general public as co-PI, with 15.000 participants, on the topic of synaesthesia and other crossmodal associations (tests still available at gno.mpi.nl).

Talks/events for general public:

- 2019 What about Perception (WAP) course for psychiatrists**, Vlieland, Nov 2019
- 2019 Demo synaesthesia test at ECVP**, Leuven, Belgium, August 27th
- 2019 Science Café Enschede**, 'Synesthesie', 7 Feb 2019
- 2018 What about Perception (WAP) course for psychiatrists**, Vlieland, Nov 2018
- 2018 Studium Generale**, Erasmus University Rotterdam, 2018. 'Synaesthesia'
- 2018 Festival op 't Eiland**, July 2018
- 2017 Alumni Vereniging Labyrint**, Leiden, 'Synesthesie'
- 2017 InScience Nijmeegse Kunstnacht**, scientific commentary on performance in MuZIEum, Sept
- 2016 Universiteit van Nederland**, "Waarom ervaren sommige mensen kleuren bij woorden en getallen", online lecture www.universiteitvannederland.nl (YouTube, Ziggo TV, AT5, nu.nl, vk.nl)
- 2016 Onderzoeker in de Klas**
- 2016 Discussant on 'synaesthetic' dance performance**, Arno Schuitemaker, LUX Nijmegen
- 2006-'18 Assisting on ± 20 'Profielwerkstukken' (highschool projects)** about synaesthesia and on ± 5 art students' (hogeschool) projects.
- 2015 Nederlands Instituut van Psychologen**: Platform Amsterdam, Tilburg, Nijmegen (3 talks).
- 2013 Utrecht University**, the Netherlands, Studium Generale "Schoonheid".
- 2013 Hessentag, Kassel, Germany**. "Verknupfte Sinnen", public outreach (NeFF)
- 2012 Naturkundig Gezelschap Middelburg**. "Synesthesie in het brein"
- 2012 Hauptversammlung der Deutsche Synästhesie Gesellschaft**, Frankfurt am Main.
- 2008 University of Amsterdam (SPUI25)**. "Synesthesie: De extra dimensie van Messiaen".
- 2007 Friesland Foods Dairy Products**, Ede 'Synaesthesia: introduction and possible applications'.
- 2006 Dutch Society for Biology (NIBI)**, Lunteren. Education Conference.

Media appearances:

Media attention for Groot Nationaal Onderzoek (2015 & 2019)

TV & Radio: De Kennis van Nu (TV), N1 News (TV), De Kennis van Nu Radio (2x)

Articles: Voxweb, Gelderlander, Telegraaf, Quest, Onze Taal, NWO.nl, 7Days, Donders Newsletter

Presenting/interactive set-ups: Radboud Researchers' Night, Nijmeegse Taalmiddag, InScience scientific film festival 2015, Drongo Taal festival, Donders Institute Open Day 2016, Kletskoppen Child Language festival 2018 and 2019

Related to publication in BRM (2019): EditieNL, RN7, Nieuwe Feiten (België), Daily Mail, www.vice.com, Neurologica Blog, Voxweb, De Gelderlander, Onze Taal, ru.nl, IFLScience!, The Open University of Japan TV Lecture Program (NHK, TV)

TV & Radio appearances about synaesthesia/my research: Over de Kop (TV, NTR), ScienceFlash (TV), Universiteit van Nederland (online/TV), 'Dit is de Dag (EO, radio), 'Pavlov: Nacht van de Kunst en de Wetenschap' (radio), ScienceFlash (TV), Hoe?Zo! (radio), Met het oog op morgen (radio), EditieNL (TV), FunX (radio)

Articles about my research: NRC Handelsblad, De Volkskrant, Intermediair, BioNieuws, wetenschap24.nl, Woortblind, Kleurenvisie Magazine, Explore, Aware Psychologie, kennislink.nl, De Gelderlander

Media attention for mirror-sensory synaesthesia study (2016)

TV & Radio: Hallo Nederland (TV, January 29 & April 29), EditieNL (TV), BNR Radio, Radio Eén Vandaag, Radio 538, Omroep Gelderland, Radio 5. **Articles:** De Gelderlander, Algemeen Dagblad, De Standaard (BE), Woord van de Dag (29 jan 2016)