

Curriculum Vitae

Ineke van der Ham

Tel: 06-21574498 • Email: c.j.m.van.der.ham@fsw.leidenuniv.nl • Website: www.vanderhamlab.com

Date of birth: 26-04-1983 • Mother of Janna (2012), Melle (2015), Tygo (2019)

Academic profile

In my academic activities I pursue a multidisciplinary approach, where I actively combine cognitive theoretical advancement, healthcare expertise, and technological innovation. This approach has led to the development of novel theoretical insights within the field of spatial cognition and several clinical products.

I have dedicated my research to spatial cognition, both from a cognitive neuroscientific and an experimental neuropsychological perspective. Through these two angles of research, I am able to conduct translational research by implementing fundamental research in an applied and clinical context and vice versa. Furthermore, over the years I have continuously examined how virtual environments are experienced across individuals and in comparison to the real world. This has generated many requests regarding our VR environments, invitations for national and international keynote speeches, and a wide range of academic and societal collaborations.

I have ample management experience at an (inter)national level as well as within Leiden University, as member of a variety of committees, concerning education as well as research topics. I am the education coordinator and daily board member of the Health, Medical, and Neuropsychology unit, and the chairperson of the Master Education Committee of the Psychology program at Leiden University.

As a teacher, I have designed and taught a variety of courses at BSc to postgraduate level in which I rely on my expertise in experimental neuropsychology and its applications. I have led the development of the new curriculum of the clinical neuropsychology master specialization at Leiden University, which now focuses on training scientist-practitioners with sufficient academic and clinical skills to work in a rapidly developing field in which technology will have an increasingly important role.

Academic positions

- Full professor Technological innovations in neuropsychology, Leiden University (2023 – present)
- Interim department head Bachelor Education Psychology, Leiden University (2022-2023)
- Associate professor Neuropsychology, Leiden University (2019 – 2022)
- Assistant professor Neuropsychology, Leiden University (2015 – 2019)
- Assistant professor Experimental Psychology, Utrecht University (2010 – 2015)
- Visiting Research Fellow, Department of Psychology, Harvard University (2009, 6 months)

Education

- PhD Experimental Psychology, Utrecht University (2006 - 2010), *judicium: cum laude*
Dissertation: Thinking left and right: Neurocognitive studies on spatial relation processing
Promotors: Prof. Dr. Albert Postma and Prof. Dr. Richard van Wezel
- MSc Neuroscience and Cognition, Utrecht University (2004 - 2006)
- BSc Clinical Psychology, Erasmus University Rotterdam (2001 - 2004)

Research

PhD supervision

- Suzanne Brinkman, MSc: Restorative cognitive effects in built environments using VR
Daily supervisor and project leader (UL, external candidate)
- Filomena Sbordone, MSc: Spatial perspectives in navigation
Visiting PhD student from the University of Campania, Italy (July 2022-December 2022)
- Laura Miola, MSc: Individual differences in spatial learning
Visiting PhD student from the University of Padova, Italy (September 2021-February 2022)

- Milan van der Kuil, MSc: Charting the path towards rehabilitation: a compensatory approach to navigation impairments

Expected defense date fall 2023, daily supervisor and project leader (UL)

- Miranda Smit, MSc: The Body and beyond the body: Body and space interactions in healthy individuals and patients with acquired brain damage

Defense date 3 November 2023, co-supervisor, project leader: Prof. Chris Dijkerman (UU)

- Anne Cuperus, PhD: Virtual experience, real impact: The influence of virtual reality on memory and behaviour

Defense date 10 December, 2019, daily supervisor and project leader (UL)

- Michiel Claessen, PhD: Lost after stroke: Theory, assessment and rehabilitation of navigation impairment

Defense date 8 May, 2017, daily supervisor and project leader (UU)

Keynote/invited lectures (selection)

- Technologische ontwikkelingen in de neuropsychologie, Congres Nederlandse vereniging voor Neuropsychologie, Amsterdam (2023)
- De neuropsychologie van verdwalen, Brein in Beweging, Rotterdam (2023)
- Lecture on VR and rehabilitation for Saxion University of applied sciences, Deventer (2022)
- Lecture on navigation ability for Universiteit van Nederland (November 2021)
- Spatial cognition and navigation across the lifespan, Symposium on Spatial Cognition in Aging and Neurodegeneration, Magdeburg, Germany (2021)
- Human spatial navigation in virtual environments, Department of Geography, University of Zürich (2020)
- Vrouwen kunnen niet kaartlezen. Congres Nederlandse vereniging voor Neuropsychologie (2020)
- Cognition and imagery: What applications? European Workshop on Imagery and Cognition, Padua, Italy (2018)
- Finding our way in a virtual world: The use of virtual reality techniques to study spatial navigation. Opening VR lab, Max Planck Institute for Linguistics, Nijmegen (2017)
- Assessment and treatment of navigation impairment, Symposium on Spatial Cognition in Aging and Neurodegeneration, Magdeburg, Germany (2016)
- Comparing memory for order, sequence, and continuation of routes. Donders Institute, Nijmegen (2014)
- Getting lost: Navigation impairment in mild stroke patients. Donders Theme Meeting, Nijmegen. (2013)
- Neurocognition of navigation ability. Max Planck Institute, Tübingen, Germany (2011)
- Navigation in space and time, a case study. Voorjaarsconferentie Nederlandse vereniging voor Neuropsychologie. (2011)
- Spatial relation processing. Rudolph Magnus Institute Summerschool, Apeldoorn. (2010)

Scientific output (see appendix for full list)

Key output

- **Van der Ham, I.J.M.** & Claessen, M.H.G. (2020). How age relates to spatial navigation performance: functional and methodological considerations. *Aging Research Reviews*, 58, 101020.
In this high-impact publication, we examined the current topic of aging and spatial navigation ability. This work also motivated the task design of our large-scale assessment of spatial navigation across the lifespan, to provide a novel and vital contribution to the current literature.
- **Van der Ham, I.J.M.**, Van der Kuil, M.N.A, Evers, A.W.M., & Claessen, M.H.G. (2020) Large-scale assessment of human navigation ability across the lifespan. *Scientific Reports*, 3299.
For this study we collaborated with the Dutch government and Nemo Science Museum Amsterdam for our public experiment, leading to 11,887 participants allowing us to examine individual differences. Moreover, this study provides the norm data for clinical use, in neuropsychological diagnostics, and detection of Alzheimer's Disease, which I am currently exploring with the Alzheimer Center Amsterdam.

- Cuperus, A.A., Keizer, A., Evers, A.W.M., Van den Houten, M.M.L., Teijink, J.A.W., & **Van der Ham, I.J.M.** (2018). Manipulating spatial distance in virtual reality: Effects on treadmill walking performance in patients with intermittent claudication. *Computers in Human Behavior*, 79, 211-216.
This work was part of the dissertation of Anne Cuperus, my former PhD student and now lecturer at my department at Leiden University. It illustrates a unique collaboration between my lab, commercial IT company Triple and physical therapists in which we explore the extent to which VR can be used to stimulate treadmill walking through distorting spatial perception.
- Claessen, M.H.G., & **Van der Ham, I.J.M.** (2017). Classification of navigation impairment: A systematic review of neuropsychological case studies. *Neuroscience and Biobehavioral Reviews*, 73, 81-97.
This high-impact publication presents a systematic literature review on navigation impairment, leading to the cognitive structure of navigation ability. This paper is a hallmark for the dissertation of Michiel Claessen, my former PhD student and now assistant professor in our unit, establishing our expertise with regard to the neuropsychology of navigation ability.
- Postma A. & **Van der Ham, I.J.M. (Eds.)** (2016). *The neuropsychology of space*. Elsevier Academic Press, Cambridge, MA.
In this book we discuss a diversity of topics within spatial cognition from an experimental as well as a clinical neuropsychological viewpoint. I authored three of the ten chapters, focusing on navigation, visuospatial processing, and spatial memory. We add to existing literature on spatial cognition by providing the neuropsychological perspective on spatial abilities.
- **Wayfinding questionnaire**
Diagnostic tool we have developed to assess navigation ability through self-assessment, used in various clinical settings, freely available in Dutch and English and translated into French and Turkish.
- **Leiden Navigation Test**
Diagnostic tool we have developed to assess navigation ability with a brief digital test, used in various clinical and research settings around the world, freely available for clinicians and researchers.
- **Leiden Navigation Training**
Cognitive rehabilitation tool we have developed to enhance navigation performance after acquired brain injury, showing positive results in both healthy participants and people with acquired brain injury.

Awards

- Poster award 13th conference of the World Federation for Neurorehabilitation (2016)
- Dissertation Award of the Dutch Society for Neuropsychology (2009-2010)

Review activities

- *Grant providers:* NWO, ZonMw, Luxembourg National Research Fund
- *Journals:* Acta Psychologica – Aging and Mental Health – Applied Sciences – Archives of Clinical Neuropsychology – Behaviour Research Methods – Behavioral Brain Research – BMC Psychology – Brain and Cognition – Brain Research – Cerebral Cortex – Cognition – Cognitive Processing – Computers and Education Open – Computers in Human Behavior – Consciousness and Cognition – Culture and Brain – Current Alzheimer Research – Frontiers in Psychology – Hippocampus – International Journal of Human-Computer Interaction – International Journal of Psychology – International Journal of Psychophysiology – Journal of Clinical Medicine – Journal of Cognitive Neuroscience – Journal of Cognitive Psychology – Journal of Environmental Psychology – Journal of Experimental Psychology: General – Journal of Experimental Psychology: Learning, Memory, and Cognition – Journal of the International Neuropsychological Society – Journal of Medical Internet Research – Journal of Neuropsychology – Journal of Spatial Science – Laterality: Asymmetries of Body, Brain and Cognition – Learning and Individual Differences – Multisensory Research – Neuroimage – Neuropsychologia – Neuropsychology – Ophthalmic and Physiological Optics – Pediatric Reports – PloS ONE – Psychological Medicine – Psychological Research – Quarterly Journal of Experimental Psychology – Reviews in the Neurosciences – Science Advances – Scientific Reports – Sensors – Spatial Cognition and Computation – Sports – Technology, Mind, and Behavior.

- *Editor:* Frontiers in Psychology: Cognition – Frontiers in Psychology: Environmental Psychology – Sensors
- *Other:* Sapienza Reviewer Board (Sapienza University of Rome), Dissertation reviews for e.g. Radboud University Nijmegen, Utrecht University, Sorbonne Université Paris, Kavli Institute Trondheim

Acquired grants

Grant	Title	Year	Role	Amount (€)
Grass shoots	Virtual reality dementia experience	2023	Main applicant	8.000
Science communication: Gewaardeerd!	Muziek en ruimte in de neurowetenschap	2021	Co-applicant	10.000
EUniWell seed funding	Enriched reality for education and digital well-being	2020	Co-applicant	25.000
Virtutis Opus	Navigatie game onderzoek	2019	Main applicant	18.354
Onderwijsinnovatie subsidie	Stressless met behulp van Virtual Reality	2019	Co-applicant	50.652
LUF	The Leiden Navigation Test for internationally standardized assessment of navigation ability	2019	Co-applicant	22.530
Virtutis Opus	Navigatie game onderzoek	2017	Main applicant	59.500
STW Take-off	Wayfinder: Serious game voor navigatievermogen	2015	Main applicant	40.000
UU-ELS	Selective attention and motor skills: A central mechanism in cognitive development?	2013	Co-applicant	15.000
NWO Veni	Keeping track of where you are: Order memory in spatial navigation	2012	Main applicant	250.000
Revalidatiefonds	Ontwikkeling van training van navigatievaardigheden in CVA patiënten	2012	Main applicant	20.998
UU-ELS	The early roots of developing visuospatial cognition: An embodied dynamics systems study in young children	2012	Co-applicant	55.000
UU-NCU collaboration	The drum languages of Senegal – a neurolinguistic perspective	2011	Co-applicant	68.000
NWO Meerwaarde	Training navigation skills in virtual environments	2011	Main applicant	40.000
			Total amount:	683.034

Festivals and events

- Speaker at Brein in Beweging, Rotterdam (2023)
- Speaker at Nacht van ontdekkingen. Leiden (2023)
- Speaker at Brave New World, Leiden (2023)
- Speaker Over de Kop festival, Leiden (2023)
- Speaker at Neuronet, Den Haag (2022)
- Keynote speaker at VR days Europe, Amsterdam (2021)
- Speaker at Psychologist Future Perspective Conference, Utrecht (2021)
- Keynote speaker at Kenniscafé Leiden: Maken navigatieapps ons brein lui? (2020)
- Speaker at Nationaal psychology congres (2019)
- Keynote speaker at het Hersenfestival in Laren: Navigeren kun je leren (2019)
- Keynote speaker at Maptime University Amsterdam: Using VR and serious gaming to test and train spatial cognition (2019)
- Keynote speaker Kenniscafé de Balie: De weg kwijt (2018)
- Speaker at De Nacht van de Ontdekkingen, Leiden: Vind je weg door tijd en ruimte (2018)
- UL Pop up lecture, The Hague: Verdwalen door een ouder brein (2018)

- PI of the public experiment ‘Navigeren kun je leren’, as part of the national event Weekend van de wetenschap, including online data collection (N >12,000) and public speaking events, organized by the Ministry of Education, Culture, and Science, and Nemo Amsterdam (2017-2018)
- Public experiment at Museumnacht in Nemo Science Museum, Amsterdam (2017)
- Public experiment at Kopfestival in Deventer (2017)
- Speaker at De Nacht van Kunst en Kennis, Leiden (2016)
- Public experiment at Festival de Beschaving, Utrecht (2014)
- Public experiments at Nemo Science Center, Amsterdam (2013 and 2014)

Media appearances (links available at www.vanderhamlab.com)

Television

- Children’s show Klokhuis - infoclip about how to distinguish left from right (2021)
- Children’s show Klokhuis – videoclips as science award nominee (2021)
- RTL Nieuws Editie NL - interview about left-right confusion (2020)
- RTL Nieuws EditieNL – interview about the consequences of using navigation software (2019)
- Tijd voor Max talkshow – live discussion about the results of our national public experiment (2018)
- Children’s show NPO Zapp Topdoks – interview about navigation and the brain and gender differences (2018)
- Tijd voor Max talkshow – live discussion about the start of our national public experiment (2017)
- NPO show De kennis van nu – reportage about navigation and our national public experiment (2017)
- BNN get smarter in a week – contribution about how to train spatial skills (2008)

Radio

- Sleutelstad radio – Radio weetlust episode on spatial cognition (2022)
- Radio VRT Belgium – interview about getting lost and the brain (2022)
- Radio 1 Nieuwweekend – interview about crosscultural differences in navigation (2022)
- Radio 1 België – interview about developmental topographical disorientation (2021)
- Radio 2 Rabbering Laat – factcheck interview about gender and navigation skills (2021)
- NPO1 Humberto – talkshow with discussion about navigation and acquired brain damage (2020)
- Radio 1 België – interview about navigation ability in rural and urban environments (2020)
- BNR Beter – discussion about the importance of brain research concerning dementia (2019)
- Podcast Focus Wetenschap Radio 1 – interview about using virtual reality in neuropsychological research (2019)
- BNR Wetenschap vandaag – interview about navigation ability and gender (2018)
- NPO Radio 1 Nieuws & Co – interview about the results of our national public experiment (2018)
- Podcast Focus Wetenschap Radio 1 – interview about the results of our national public experiment (2018)
- Sleutelstad radio – interview about the results of our national public experiment (2018)
- Sleutelstad radio – interview about how to train navigation skills (2018)
- Sleutelstad radio – interview about navigation ability after stroke (2017)
- BNR – interview about applications of virtual reality in healthcare (2014)
- Radio 4 – response to listener’s question about getting lost during shopping (2011)

Newspapers and magazines

- Quest Psychologie scheurkalender 2024 – contribution to content (2024)
- Physicians weekly – report on navigation impairment in MS (2022)
- Volkskrant – interview about crossculture differences in navigation (2022)
- Mare – article about Klokhuis science award nomination (2021)
- Quest magazine – article about left and right identification (2021)
- Volkskrant – interview about case study research in neuropsychology (2021)
- Fiets magazine – interview on assistive navigation devices and bike riding (2021)
- Harper’s Bazaar (VS) – contribution about the occurrence of left-right confusion (2021)
- Volkskrant – interview about the importance of navigation research (2020)

- Knack – interview about growing up in rural areas and navigation skills (2020)
- Libelle – overview of tips to improve navigation skills (2020)
- Nieuwsblad België – contribution to an article about the nostalgia of using roadmaps (2019)
- Quest – interview about navigation tips (2019)
- Volkskrant – interview about getting lost and aging (2018)
- Leidsch Dagblad/Gooi en Eemlander/Noordhollands Dagblad – interview about getting lost and the effect of age (2018)
- Metronieuws – article about navigation and gender (2018)
- Gazet van Antwerpen – interview about the results of our national public experiment (2018)
- Artikel Radar+ - interview about gender effects in spatial cognition (2015)
- Reformatorisch Dagblad – interview about individual differences in wayfinding (2011)
- NRC Next - interview over navigation ability (2009)

Online/social media

- Nemo kennislink - De eeuwige verwarring tussen links en rechts (2023)
- Linda.nl – interview on developmental topographical disorientation (2021)
- Unity – article about Klokhuis science award nomination (2021)
- Kijk magazine – commentary on wayfinding strategies in cities (2021)
- NewScientist – commentary on navigation in urban and rural areas (2020)
- Hersenonderzoek.nl – interview about navigation, getting lost and spatial stereotypes (2020)
- Viva/Flaironline – article about gender effects in navigation (2018)
- Blog Leiden Psychology – blog about the importance of virtual reality for research (2015)
- Twitteraccount NL_wetenschap – a week of tweets about my academic work (21-27 Oktober 2019)
- Nemo Kennislink – interview about the results of our national public experiment (2018)
- NS podcast Stationslab – discussion about how to navigate railway stations (2018)
- Nemo kennislink – interview about our studies on navigation and getting lost (2014)
- Science Live - interview about our navigation research (2013)
- Kennisbits - interview about our navigation research (2013)

Current research collaborations (selection)

- Daniel Pine, M.D., NIMH, developmental projects on navigation ability and anxiety
- Dr. Francesco Ruotolo and Dr. Gennaro Ruggiero, University of Naples, projects on mood, motivation and spatial cognition
- Laura Miola, MSc., Dr. Chiara Meneghetti, Prof. Francesca Pazzaglia, University of Padova, project on impact of gender on navigation ability
- Dr. Rafael Bidarra, Delft Technical University, projects on neuropsychological serious games
- Cinedans VR Lab, experiments on how VR is experienced by dancers
- Prof. Chris Dijkerman, Utrecht University, project on peripersonal space
- Prof. Anne Visser-Meily, Rehabilitation Center De Hoogstraat/Utrecht University Medical Center, project on navigation training after acquired brain injury

Organisation

Management positions

- Chairperson Master Education Committee, Institute of Psychology, Leiden University (2020-present)
- Board member Dutch Society for Neuropsychology (NVN); NVN delegate to the Brain Cognition and Behavior (BCB-NL) platform, NVN delegate to Hersenletsel netwerk (2020-present)
- Interim department head of Bachelor Education Psychology, Leiden University (2022-2023)
- Psychology Ethical Committee member, Institute of Psychology, Leiden University (2020-2021)
- Education coordinator, Health, Medical, Neuropsychology, Leiden University (2019-present)

- Daily board member, Health, Medical, Neuropsychology unit, Leiden University (2019-present)
- Scientific committee member, European Workshop on Imagery and Cognition (2018-present)
- Member Master Education Committee Psychology, Leiden University (2017-2020)
- Member Research Policy Committee, Health, Medical, Neuropsychology unit, Leiden University (2015- present)
- Vice-chairperson and founding member of Faculty Ethical Committee, Faculty of Social Sciences, Utrecht University (2014-2015)
- Member Medical Ethical Committee Utrecht University Medical Center (2014-2015)
- Member Management Team department of Experimental Psychology, Utrecht University (2011-2013)

Organisation scientific meetings and publications

- Involved in organisation of the NVN spring and fall conferences, Nederlandse Vereniging voor Neuropsychologie (2021-present)
- Science and art program of VR days Europe, Amsterdam, with Martine Dekker and Nienke Rooijackers, Cinedans (2021)
- Special issue in Sensors, with Dr. Marit Ruitenber and Dr. Judith Schomaker: Innovations in Cognitive-Assessment-Based Virtual Reality and Augmented Reality Technologies (2021)
- Special issue in Frontiers in Psychology, with Prof. Francesca Pazzaglia, Prof. Michel Denis, Dr Chiara Meneghetti: Wayfinding and Navigation: Strengths and Weaknesses in Atypical and Clinical Populations (2020)
- Symposium ‘Individual differences in wayfinding’, with Prof. Jan Wiener and Dr. Tobias Meilinger, at the International Conference on Spatial Cognition, Rome (2015)
- Helmholtz research school retreat, Schoorl (2014)
- Symposium ‘Neuropsychology of navigation’ at the meeting of the International Neuropsychology Society, Amsterdam (2013)
- Symposium ‘Memory for multisensory space’ with Dr. Franco Delogu, at the International Conference on Spatial Cognition, Rome (2012)
- Symposium ‘The neurocognition of categorical and coordinate spatial relation processing’, with Prof. Bruno Laeng, at the International Conference on Spatial Cognition, Rome (2009)

Teaching

Individual supervision

- Thesis supervision BSc and MSc level (2006-present)

Lecturer

- Neurocognition, MSc Clinical Neuropsychology UL (2020-present)
- Methods in Clinical Neuropsychology, MSc elective Psychology UL (2020-present)
- Innovations in Clinical Neuropsychology, MSc Clinical Neuropsychology UL (2019-present)
- Innovations in eHealth, MSc elective Psychology UL (2018-present)
- Clinical Neuropsychology, BSc specialisation Psychology UL(2015-present)
- Intervention Strategies in Clinical Neuropsychology, MSc Clinical Neuropsychology UL (2016-2019)
- Neuropsychological rehabilitation, MSc Neuropsychology UU (2014)
- Attention and Memory, Utrecht University, BSc Psychology UU (2013)
- Clinical Neuropsychology, Utrecht University, BSc Psychology UU (2011-2015)
- Cognitive Neuroscience II, BSc Cognitive Neuroscience track, University College Utrecht (2010-2012),
- Spatial Cognition, BSc Cognitive Neuroscience track, University College Utrecht (2009-2015)

Course coordinator

- Innovations in Clinical Neuropsychology, MSc Clinical Neuropsychology UL (2019-present)
- Internship Clinical Neuropsychology, MSc Clinical Neuropsychology UL (2016-present),
- Intervention Strategies in Clinical Neuropsychology, MSc Clinical Neuropsychology UL (2016-2019)
- Neuropsychology trajectory (‘studiepad’), BSc Psychology UU (2010-2013),

- Honours program experimental psychology, BSc Psychology UU (2010-2012),
- Spatial Cognition, BSc Cognitive Neuroscience track, University College Utrecht (2011-2015),
- Cognitive Neuroscience II, BSc Cognitive Neuroscience track, University College Utrecht (2010-2012),
- Experimental Psychology, BSc, first year Psychology UU (2010-2011)

Postgraduate teaching

- Specialization Clinical Neuropsychology: Fundamental Theory of Spatial Cognition, Diagnostics of Spatial Cognition (KNP opleiding RINO Utrecht) (2015-present)

Curriculum development

- Grass shoots project to integrate XR technology into the psychology curriculum (2023-present)
- Coordinating role in renewal of the Clinical Neuropsychology MSc specialization curriculum (2017-current)
- Innovations in Clinical Neuropsychology, MSc Clinical Neuropsychology UL (2019-2020)
- Cognitive Neuroscience II, BSc Cognitive Neuroscience track, University College Utrecht (2010-2012)

Training/certificates

- Course Academic Leadership at Leiden University (2022-2023)
- Course Academic Management and Leadership Skills at Leiden University (2019)
- Course Acquisition and Earning Power at Leiden University (2016)
- Regulations and Organization for Clinical Researchers at Utrecht University Medical Center (BROK certificate obtained, 2013)
- Selected participant of the mentoring and coaching program for female researchers at Utrecht University (2012)
- Basis Kwalificatie Onderwijs training at ICLON, Utrecht University (BKO certificate obtained, 2011)
- Selected participant of the LERU Summerschool for PhD students (2010)
- PhD course Sensory systems, Utrecht University (2008)
- PhD workshop Computational and neurophysiological models for visual perception, VISIONTRAIN/POP, les Houches Physics School, France (2008)
- PhD course Scientific writing in English, Utrecht University (2007)
- Workshop on Meta-analysis, Erasmus University Rotterdam (2006)
- Training for SPM software Utrecht University (2006) and University College London (2007)

Publications

Full list of publications: International

1. Miola, L., Meneghetti, C., Pazzaglia, F., & van der Ham, I.J.M. (2023). Gender-related differences in environment learning: Examining task characteristics and spatial beliefs. *Learning and Individual Differences* (in press).
2. Smit, M., Dijkerman, H.C., Kurstjens, V., de Haan, A.M., van der Ham, I.J.M., & van der Smagt, M. (2023). Changes in perceived peripersonal space following the rubber hand illusion. *Scientific Reports* (in press).
3. Van der Ham, I.J.M., & Koutzmpi, V. (2022). Stereotypes and self-reports about spatial cognition: Impact of gender and age. *Current Psychology* (in press).
4. van der Ham, I. J., & Claessen, M. H. (2022). A clinical guide to assessment of navigation impairment: Standardized subjective and objective instruments and normative data. *Journal of Clinical and Experimental Neuropsychology*, 44(7), 487-498.
5. Chen, W., Hoogerwaard, C. M., Lim, J., Polderdijk, T., Saveur, T., Wali, A., ... & Bidarra, R. (2022, July). Resto Quest—a serious game on the restorative effects of immersive virtual environments. In *International Simulation and Gaming Association Conference* (pp. 199-213). Cham: Springer International Publishing.
6. Band, R., Lips, M., Prawira, J., van Schagen, J., Tulling, S., Zhang, Y., ... & Bidarra, R. (2022, August). Training and assessing perspective taking through A Hole New Perspective. In *2022 IEEE Conference on Games (CoG)* (pp. 268-275). IEEE.
7. van der Ham, I. J., Koutzmpi, V., Milan, N. A., & van der Hiele, K. (2022). Spatial navigation performance in people with multiple sclerosis—a large-scale online study. *Multiple Sclerosis and Related Disorders*, 58, 103423.
8. Poos, J. M., van der Ham, I. J., Leeuwis, A. E., Pijnenburg, Y. A., van der Flier, W. M., & Postma, A. (2021). Short digital spatial memory test detects impairment in alzheimer’s disease and mild cognitive impairment. *Brain Sciences*, 11(10), 1350.
9. Ruotolo, F., Sbordone, F. L., & van der Ham, I. J. (2021). The influence of stimuli valence and arousal on spatio-temporal representation of a route. *Brain Sciences*, 11(6), 814.
10. Van der Kuil, M. N. A., Visser-Meily, J. M. A., Evers, A. W. M., & van der Ham, I. J. M. (2022). Navigation ability in patients with acquired brain injury: A population-wide online study. *Neuropsychological rehabilitation*, 32(7), 1405-1428.
11. Van der Ham, I. J.M., van der Vaart, R., Miedema, A., Visser-Meily, J.M.A., & van der Kuil, M.N.A. (2020). Healthcare Professionals’ Acceptance of Digital Cognitive Rehabilitation. *Frontiers in Psychology*, 11, 3323.
12. van der Ham, I. J., Dijkerman, H. C., & van Stralen, H. E. (2021). Distinguishing left from right: A large-scale investigation of left–right confusion in healthy individuals. *Quarterly Journal of Experimental Psychology*, 74(3), 497-509.
13. Meneghetti, C., van der Ham, I.J.M., Pazzaglia, F., & Denis, M. (2020). Editorial: Wayfinding and navigation: Strengths and weaknesses in atypical and clinical populations. *Frontiers in Human Neuroscience, section Motor Neuroscience*, 14, 588199.
14. Van der Kuil, M. N. A., Evers, A. W. M., Visser-Meily, J. M. A., & van der Ham, I. J. M. (2021). Spatial knowledge acquired from first-person and dynamic map perspectives. *Psychological research*, 85, 2137-2150.
15. Mulder, H., van Houdt, C., van der Ham, I.J.M., van der Stigchel, S. & Oudgenoeg-Paz, O. (2020). Attentional flexibility predicts A-not-B task performance in 14-month-old-infants: a head mounted eye tracking study. *Brain Sciences*, 10, 279.
16. Van der Ham, I.J.M, van der Kuil, M.N.A, & Claessen, M.H.G. (2020). Quality of self-reported cognition: Effects of age and gender on spatial navigation self-reports. *Ageing and Mental Health*. In press.
17. Van der Kuil, M.N.A., Evers, A.W.M., Visser-Meily, J.M.A., van der Ham, I.J.M. (2020). The effectiveness of home-based training software designed to influence strategic navigation preferences in healthy subjects. *Frontiers in Human Neuroscience*, 14, 76.
18. Van der Ham, I.J.M., van der Kuil, M.N.A, Evers, A.W.M., & Claessen, M.H.G. (2020) Large-scale assessment of human navigation ability across the lifespan. *Scientific Reports*, 3299.

19. Hamami, Y., van der Kuil, M.N.A., Mumma, J., & van der Ham, I.J.M. (2020). Cognitive Processing of Spatial Relations in Euclidean Diagrams. *Acta Psychologica*, 205, 103019.
20. Van der Ham, I.J.M. & Claessen, M.H.G. (2020). How age relates to spatial navigation performance: functional and methodological considerations. *Aging Research Reviews*, 58, 101020.
21. Bogomolova, K., van der Ham, I.J.M., et al. (2020). The effect of stereoscopic Augmented Reality visualization on learning anatomy and the modifying effect of visual-spatial abilities: a double-center randomized controlled trial. *Anatomical Sciences Education*, 13, 558-567.
22. Cuperus, A., Disco, R. T., Sligte, I.G., van der Kuil, M.N.A., Evers, A.W.M., & van der Ham, I.J.M. (2019) Memory-related perceptual illusions directly affect physical activity in humans. *Plos One*, 14, e0216988.
23. Ruotolo, F., Ruggiero, G., Raemaekers, M., Iachini, T., van der Ham, I.J.M., Fracasso, A., & Postma, A. (2019) Neural correlates of egocentric and allocentric frames of reference combined with metric and non-metric spatial relations. *Neuroscience*, 409, 235-252.
24. Claessen, M.H.G., Leijten, F.S.S., van Zandvoort, M., & van der Ham, I.J.M. (2019). Memory for novel and familiar environments relies on the hippocampus: A case study on a patient with a right anteromesial temporal lobectomy. *Hippocampus*, 29, 869-875.
25. Van der Ham, I.J.M., Klaassen, F., van Schie, K., Cuperus, A. (2019). Elapsed time estimates in virtual reality and the physical world: The role of arousal and emotional valence. *Computers in Human Behavior*, 94, 77-81.
26. De Rooij, N.K., Claessen, M.H.G, van der Ham, I.J.M., Post, M.W.M., & Visser-Meily, J.M.A. (2019). The Wayfinding Questionnaire: A clinically useful self-report instrument to identify navigation complaints in stroke patients. *Neuropsychological Rehabilitation*, 29, 1042-1061.
27. Ruotolo, F., Claessen, M.H.G, & van der Ham, I.J.M. (2019). Putting emotions in routes: the influence of emotionally laden landmarks on spatial memory. *Psychological Research*, 83, 1083-1095.
28. Van der Ham, I.J.M, Brummelman, J., Aerts, M.E., de Haan, A.M. & Dijkerman, H.C. (2018). Lateralized pointing does not cause a cognitive bias. *Cognitive processing*, 19, 17-25.
29. Smit, M., Dijkerman, H.C., van der Smagt, M., & van der Ham, I.J.M. (2018). Body ownership and the absence of touch: Approaching the rubber hand in- and outside peri-hand space. *Experimental Brain Research*, 12, 3251-3265.
30. Van der Kuil, M.N.A., Visser-Meily, J.M.A., Evers, A.W.M., & van der Ham, I.J.M. (2018). A usability study of a serious game in cognitive rehabilitation: a compensatory navigation training in acquired brain injury patients. *Frontiers in Psychology*, 5, 846.
31. Cuperus, A.A., Keizer, A., Evers, A.W.M., van den Houten, M.M.L., Teijink, J.A.W., & van der Ham, I.J.M. (2018). Manipulating spatial distance in virtual reality: Effects on treadmill walking performance in patients with intermittent claudication. *Computers in Human Behavior*, 79, 211-216.
32. van der Ham, I.J.M., de Zeeuw, S. & Braspenning, M. (2017). Is order memory of routes temporal or spatial? An individual differences study. *Spatial Cognition X, Lecture Notes in Computer Science, vol 10523*. Springer, Cham.
33. Smit, M., Kooistra, D.I., van der Ham, I.J.M., & Dijkerman, H.C. (2017). Laterality and body ownership: Effects of handedness on experience of the rubber hand illusion. *Laterality: Asymmetries of Body, Brain and Cognition*, 22, 703-724.
34. Claessen, M.H.G., & van der Ham, I.J.M. (2017). Classification of navigation impairment: A systematic review of neuropsychological case studies. *Neuroscience and Biobehavioral Reviews*, 73, 81-97.
35. Oudgenoeg-Paz, O., Mulder, H., Jongmans, M.J., van der Ham, I.J.M., & van der Stigchel, S. (2017). The link between motor and cognitive development in children born preterm and/or with low birth weight: A review of current evidence. *Neuroscience and Biobehavioral Reviews*, 80, 382-393.
36. Claessen, M.H.G., Visser-Meily, J.M.A., Meilinger, T., Postma, A., de Rooij, N.K., & van der Ham, I.J.M. (2017). A systematic investigation of navigation impairment in chronic stroke patients: Evidence for three distinct types. *Neuropsychologia*, 103, 154-161.
37. van der Ham, I.J.M., Martens, M.A.G., Claessen, M.H.G., & van den Berg, E. (2017). Landmark agnosia: Evaluating the definition of landmark-based navigation impairment. *Archives of Clinical Neuropsychology*, 32, 472-482.
38. van der Ham, I.J.M., Hamami, Y., & Mumma, J. (2017). Universal intuitions of spatial relations in elementary geometry. *Journal of Cognitive Psychology*, 29, 269-278.

39. Cuperus, A.A. & van der Ham, I.J.M. (2016). Virtual reality replays of sports performance: Effects on memory, feeling of competence, and performance. *Learning and Motivation*, 56, 48-52.
40. Claessen, M.H.G., Visser-Meily, J.M.A., de Rooij, N.K., Postma, A., & van der Ham, I.J.M. (2016). The Wayfinding Questionnaire as a self-report screening instrument for navigation-related complaints after stroke: Internal validity in healthy respondents and chronic mild stroke patients. *Archives of Clinical Neuropsychology*, 31, 839-854.
41. Ruotolo, F., Iachini, T., Ruggiero, G., van der Ham, I.J.M., & Postma, A. (2016). Frames of reference and categorical/coordinate spatial relations in a “what was where” task. *Experimental Brain Research*, 234, 2687-2696.
42. Claessen, M.H.G., Visser-Meily, J.M.A., Jagersma, E., Braspenning, M.E., & van der Ham, I.J.M. (2016). Dissociating spatial and spatiotemporal aspects of navigation ability in chronic stroke patients. *Neuropsychology*, 30, 697-708.
43. Claessen, M.H.G., van der Ham, I.J.M., Jagersma, E., & Visser-Meily, J.M.A. (2016). Navigation strategy training using virtual reality in six chronic stroke patients: A novel and explorative approach to the rehabilitation of navigation impairment. *Neuropsychological Rehabilitation*, 26, 822-846.
44. Claessen, M.H.G., Visser-Meily, J.M.A., de Rooij, N.K., Postma, A., & van der Ham, I.J.M. (2015). A direct comparison of real-world and virtual navigation performance in chronic stroke patients. *Journal of the International Neuropsychological Society*, 22, 467-477.
45. van der Ham, I.J.M., Baalbergen, H., van der Heijden, P., Postma, A., Braspenning, M., & van der Kuil, M.N.A. (2015). Distance comparisons in virtual reality: effects of path, context, and age. *Frontiers in Psychology*, 6, 1103.
46. van der Ham, I.J.M., Faber, A.M.E., Venselaar, M., van Kreveld, M.J., & Löffler, M. (2015). Ecological validity of virtual environments to assess human navigation ability. *Frontiers in Psychology*, 6, 637.
47. Ruotolo, F., van der Ham, I.J.M., Postma, A., Ruggiero, G., & Iachini, T. (2015). How coordinate and categorical spatial relations combine with egocentric and allocentric reference frames in a motor task: Effects of delay and stimuli characteristics. *Behavioural Brain Research*, 284, 167-178.
48. Ruis, C., Postma, A., Bouvy, W., & van der Ham, I.J.M. (2015). Cognitive deficits after sporadic ecstasy use? A case report. *Neurocase*, 21, 351-357.
49. Claessen, M.H.G., van der Ham, I.J.M., & van Zandvoort, M.J.E. (2015). Computerization of the standard Corsi block-tapping task affects its underlying cognitive concepts: A pilot study. *Applied Neuropsychology: Adult*, 22, 180-188.
50. van der Ham, I.J.M., Postma, A., & Laeng, B. (2014). Lateralized perception: The role of attention in spatial relation processing. *Neuroscience and Biobehavioral Reviews*, 45, 142-148.
51. van der Ham, I.J.M. & van den Hoven, J. (2014). Lateralization of route continuation and route order. *Spatial Cognition IX, Lecture Notes in Computer Science*, 8684, 137-146.
52. van der Ham, I.J.M., Kant, N., Postma, A., & Visser-Meily, J.M.A. (2013) Is navigation ability a problem in mild stroke patients? Insights from self-reported navigation measures. *Journal of Rehabilitation Medicine*, 45(5), 429-433.
53. van der Ham, I.J.M., Dijkerman, H.C., van den Berg, E. (2013) The effect of attentional scope on spatial relation processing: A case study. *Neurocase*, 19(5), 505-512.
54. van der Ham, I.J.M., van Zandvoort, M.J.E., & Postma, A. (2012). Lateralization of spatial relation processing in natural scenes. *Behavioural Neurology*, 25, 175-177.
55. van der Ham, I.J.M., Duijndam, M.J.A., Raemaekers, M., van Wezel, R.J.A., Oleksiak, A. & Postma, A. (2012) Retinotopic mapping of categorical and coordinate spatial relation processing. *PLoS ONE*, 7(6), e38644.
56. van der Ham, I.J.M., Oleksiak, A., van Wezel, R.J.A., van Zandvoort, M.J.E., Frijns, C.J.M., Kappelle, L.J. & Postma, A. (2012). The effect of stimulus features on working memory of categorical and coordinate spatial relations in patients with unilateral brain damage. *Cortex*, 48, 737-745.
57. Ruotolo, F., Postma, A., Iachini, T., & van der Ham, I.J.M. (2011). Frames of reference and categorical and coordinate spatial relations: a hierarchical organization. *Experimental Brain Research*, 214, 587-595.
58. van der Ham, I.J.M. & Borst, G. (2011). The nature of categorical and coordinate spatial relation processing: An interference study. *Journal of Cognitive Psychology*, 23, 922-930.
59. van der Knaap, L.J. & van der Ham, I.J.M. (2011). How does the corpus callosum mediate interhemispheric transfer? A review. *Behavioural Brain Research*, 223, 211-221.

60. van der Ham, I.J.M., van Zandvoort, M.J.E., Frijns, C.J.M., Kappelle, L.J., & Postma, A. (2011). Hemispheric differences in spatial relation processing in a scene perception task: a neuropsychological study. *Neuropsychologia*, 49, 999-1005.
61. van der Ham, I.J.M., & Borst, G. (2011). Individual differences in spatial relation processing: effects of strategy, ability, and gender. *Brain and Cognition*, 76, 184-190.
62. Oleksiak, A., Klink, P.C., Postma, A., van der Ham, I.J.M., Lankheet, M.J.M., & van Wezel, R.J.A. (2011) Spatial summation in macaque parietal area 7a follows a winner-take-all rule. *Journal of Neurophysiology*, 105, 1150-1158.
63. Oleksiak, A., Postma, A., van der Ham, I.J.M., Klink, P.C., & van Wezel, R.J.A. (2011). A review of lateralization of spatial functioning in nonhuman primates. *Brain Research Reviews*, 67, 57-72.
64. Ruotolo F., van der Ham, I.J.M., Iachini T. & Postma, A. (2011). The relationship between egocentric and allocentric frames of reference and categorical and coordinate spatial information processing. *Quarterly Journal of Experimental Psychology*, 64, 1138-1156.
65. van der Ham, I.J.M., van Strien, J.W., Oleksiak, A., van Wezel, R.J.A., & Postma, A. (2010). Temporal characteristics of working memory for spatial relations: an ERP study. *International Journal of Psychophysiology*, 77, 83-94.
66. van der Ham, I.J.M., van Zandvoort, M.J.E., Meilinger, T., Bosch, S.E., Kant, N., & Postma, A. (2010). Spatial and temporal aspects of navigation in two neurological patients. *NeuroReport*, 21, 685-689.
67. van der Ham, I.J.M., & Postma, A. (2010). Lateralization of spatial categories: A comparison of verbal and visuospatial categorical relations. *Memory and Cognition*, 38(5), 582-590.
68. Oleksiak, A., Manko, M., Postma A., van der Ham, I.J.M., van den Berg, A.V. & van Wezel, R.J.A. (2010). Distance estimation is influenced by encoding conditions. *PLoS One*, 5, e9918.
69. van der Ham, I.J.M., Raemaekers, M., van Wezel, R.J.A., Oleksiak, A., & Postma, A. (2009) Categorical and coordinate spatial relations in working memory: An fMRI study. *Brain Research*, 1297, 70-79.
70. Oleksiak, A., Postma, A., van der Ham, I.J.M., van Wezel, R.J.A. (2009) Temporal dynamics of decisions on spatial categories and distances do not differ. *Brain and Cognition*, 69, 209-217.
71. van der Ham, I.J.M., van Wezel, R.J.A., Oleksiak, A., Postma, A. (2007). The time course of hemispheric differences in categorical and coordinate spatial processing. *Neuropsychologia*, 45, 2492-2498.
72. Kammers, M.P.M., van der Ham, I.J.M., Dijkerman, H.C. (2006). Dissociating body representations in healthy individuals: Differential effects of a kinaesthetic illusion on perception and action. *Neuropsychologia*, 44, 2430-2436.

National

1. Claessen, M.H.G., van der Kuil, M.N.A., Visser-Meily, J.M.A., & van der Ham, I.J.M. (2021) Diagnostiek van navigatiestoornissen met de Wayfinding Questionnaire (WQ) en Leiden Navigatie Test. *Tijdschrift voor Neuropsychologie*, 16(3).
2. Claessen, M.H.G., van der Ham, I.J.M., de Rooij, N.K., Visser-Meily, J.M.A. (2018) De weg kwijt na een beroerte: screening, diagnostiek en behandeling. *Nederlands Tijdschrift voor Revalidatiegeneeskunde*, 40, 48-51.
3. Claessen, M.H.G., Visser-Meily, J.M.A., Postma, A., & van der Ham, I.J.M. (2017). Neurocognitieve en klinische perspectieven op het navigatievermogen. *Neuropraxis*, 21, 143-149.
4. Claessen, M.H.G., Visser-Meily, J.M.A., & van der Ham, I.J.M. (2017). Verdwalen na een beroerte. *Hersenletsel magazine*.
5. van der Ham, I. J. M., Dijkerman, H. C., van den Berg, E. (2012) De invloed van aandachtsbias op ruimtelijke waarneming. *Tijdschrift voor Neuropsychologie*, 7(3), 151-161.
6. van der Ham, I. J. M., van Zandvoort, M. J. E., & Postma, A. (2010). Ruimtelijke en tijdsgebonden aspecten van navigatie in twee neurologische patiënten. *Tijdschrift voor Neuropsychologie*, 5, 33-41.

Books/Book chapters

1. van der Ham, I.J.M. (2021). Cognitive performance in immersive environments after acquired brain injury. Stasolla, F. (Ed.). *Assistive technologies for assessment and recovery of neurological impairments*. IGI Global.
2. Postma A. & van der Ham, I. J. M. (Eds.) (2016). *The neuropsychology of space*. Elsevier Academic Press, Cambridge, MA.

3. Postma, A. & van der Ham, I. J. M. (2016). Keeping track of where things are in space – the neuropsychology of object location memory. Postma A. & van der Ham, I. J. M. (Eds.), *The neuropsychology of space*. Elsevier Academic Press, Cambridge, MA.
4. Van der Ham, I. J. M. & Ruotolo, F. (2016). On inter and intra hemispheric differences in visuospatial perception. Postma A. & van der Ham, I. J. M. (Eds.), *The neuropsychology of space*. Elsevier Academic Press, Cambridge, MA.
5. Van der Ham, I. J. M. & Claessen, M. H. G. (2016). Navigation ability. In: *The neuropsychology of space*, Postma A. & van der Ham, I. J. M. (Eds.), *The neuropsychology of space*. Elsevier Academic Press, Cambridge, MA.
6. van der Ham, I. J. M. (2016). Getting back on track: Navigation aids in neuropsychological rehabilitation, Groes, S. (Ed.), *Memory in the twenty-first century: New critical perspectives from the arts, humanities, and sciences*. Palgrave MacMillan, London, UK.