Ingmar Visser

Curriculum Vitae

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Personal

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Born December 18, 1969 in Zoetermeer, The Netherlands
Living together with Jaro van der Ende (gz psycholoog), 2 daughters

Contents

Education & Professional development

2024 Workshop Emotionally focused mediation.

2023 Workshop Wet Poortwachter.

2021 Strategic leadership course, organised by UvA for directors and chairpersons with strategic roles within UvA governance.

2019 Workshop on good practices in annual personel interviews ('jaargesprekken').

2018 Course "The good supervisor" aimed at developing professional skills in supervising PhD-students.

2016 Acquired SKO certificate (Senior Teaching Qualification/'Senior kwalificatie onderwijs').

2009 Acquired the BKO certificate (Basic Teaching Qualification/'Basis kwalificatie onderwijs').

2007 Course in didactics, taught by the University of Amsterdam for lecturers/assistant professors.

1997–2001 PhD at the Department of Psychology at the University of Amsterdam.

1996 Drs (MA) in Philosophy of language and cognitive science, supervised by Renate Bartsch. Thesis title: *Mind Rules: a philosophical essay on psychological rules and the the rules of psychology*, published as Technical Report X-96-01, Institute for Logic, Language and Computation. As part of my undergraduate program I did 2 years worth of math before switching to philosophy and psychology.

1992 Propedeutic exam psychology.

1991 Propedeutic exam mathematics.

Theses

2002 Ingmar Visser. *Rules and Associations: Hidden Markov models and neural networks in the psychology of learning.* PhD-thesis under supervision from Peter Molenaar and Maartje Raijmakers, defended at the University of Amsterdam, at may 16th, 2002.

1996 Ingmar Visser. *Mind Rules: a philosophical essay on psychological rules and the the rules of psychology*, published as Technical Report X-96-01, Institute for Logic, Language and Computation, 1996. MA thesis supervised by Renate Bartsch from the Department of Philosophy, University of Amsterdam.

Employment

2015–current Director of the college of psychology (directeur college psychologie), Department of Psychology, University of Amsterdam.

2015–current Associate professor in the Developmental Psychology group, Department of Psychology, University of Amsterdam.

2008–2015 Assistant professor in the Developmental Psychology group, Department of Psychology, University of Amsterdam.

2006–2007 Post-doctoral researcher in the FAR (From Associations to Rules) project, European Commission grant 51652 (NEST).

March–May 2005 Visiting research fellow at the Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle, North Carolina.

2003–2005 Post-doctoral research fellowshipw on behalf of the Dutch National Science Foundation (Veni grant from NWO).

2002 Postdoctoral fellow/Lecturer with the Developmental Processes Research group at the Department of Psychology, University of Amsterdam.

1997–2001 Research Assistant/PhD student (AIO), Developmental Processes Research Group at the Department of Psychology, University of Amsterdam.

Grants

2022 Postdoc grant from the Amsterdam Brain & Cognition institute (235KE), title: From rigid theory to cognitive models: a framework to study individual differences in meaning representations. Supervision with Jakub Szymanik & Julia Haaf.

2022 Postdoc from developmental psychology (2 yr appointment, ≈200KE), EyeReading, reading strategies revealed by eye movements predict comprehension. Supervision with Patrick Snellings.

2019 NWO Replication studies grant (1.5 year post-doc, 150KE), PI Claartje Levelt (Leiden) with collaboration of the Dutch Baby Brain and cognition network, title: The building blocks of cognition: core debates in infancy research. This is a multi-lab replication study of two important findings in infancy research.

2018 NWO Onderzoekstalent (250KE) project by Šimon Kucharský. Inferring cognitive strategies from eye-movement sequences: A Bayesian model-based approach. Promotors: Ingmar Visser & Maartje Raijmakers, co-promotor Eric-jan Wagenmakers.

2018 PI for Yield PhD-grant (220KE): Infant Early Self-regulation, Attention and Joint-Attention Difficulties as Predictors of Later Self-Regulation Problems. Part of the larger Yield project on studying the development of self-regulation during infancy, childhood and adolescence. Supervision with Cristina Colonnesi, Roos Rodenburg, Eline Möller and Kim Oostrom.

2015 PI for a combined PhD grant from the Yield priority area and the Psychology Research Institute (220KE). Title: Gaze-Patterns Tell the Tale: A Model-Based Approach to Free-Scene Viewing in Infancy. PhD student: Daan van Renswoude, supervision together with Maartje Raijmakers.

2014 I was adviser and collaborator on a 1-year post-doc grant (UvA priority program ABC) for Pralle Kriengwatana, title: Is there a role for explicit learning in infant sound categorization?

2012 I was adviser on the Onderzoekstalent grant (NWO) by Abe Hofman, whom I co-supervised (with Brenda Jansen and Han van der Maas), title: Analyzing developmental change with time-series data of a large scale educational monitoring system.

2011 'Meerwaarde' grant from NWO, title: 'A user-friendly website to improve evidence-based clinical practice' (475-11-018), PI: Hilde Huizenga.

2005 Visiting researcher fellowship at SAMSI (Statistical and Applied Mathematical Sciences Institute, Research Triangle, North Carolina) in the Latent Variables in the Social Sciences program led by Ken Bollen.

2004 EPOS and NWO grants for organizing the workshop 'Model Selection: Theoretical Developments and Applications' in Amsterdam (with Denny Borsboom, Maarten Speekenbrink, Eric-Jan Wagenmakers, and Lourens Waldorp).

2002 3-year VENI-grant from the Dutch National Science Foundation (NWO, 250KE). Project title: 'Implicit learning and explicit knowledge: The associative acquisition of rule-following behavior.'

Teaching

Academic teaching should be closely related to research and should aim at developing independence in students. My teaching reflects these aims by providing students with the necessary skills to become independent researchers. This includes writing research proposals, making sure that research is reproducible in all its aspects, and critical reflection on the role of research in (societal) context.

I have initiated and actively contributed to course and curriculum development in the Artificial intelligence and the Research master Cognitive science programs and in the Psychology programs and have subsequently taught many of these courses.

Curriculum and course development

This is course and curriculum development that is independent of responsibilities as director of the college of psychology.

2022 Newly developed course in the research master psychology program 'Growing a mind', part of the Cognitive Artificial Intelligence track in the research master; the course treats computational models of learning and development.

2020-2023 Helped establish the Manybabies teaching and learning committee that organises knowlegde sharing and community building for early career researchers.

2010 Development of a modeling course ('Leren simuleren') for honours degree students in psychology featuring hands-on training in R.

2010 Member of the committee to revise the Artificial Intelligence undergraduate program at the University of Amsterdam.

2006 Development of the Introduction to Cognitive Science course (now called Foundations of Cognitive Science), part of the Research Master of Cognitive Science curriculum in the Cognitive Science Center Amsterdam.

2002–2003 Member of the committee to revise the Artificial Intelligence undergraduate program at the University of Amsterdam.

2003 Cognitive Psychology, Artificial Intelligence undergraduate program (second year course), University of Amsterdam.

2002 Introduction to cognitive psychology, Artificial Intelligence undergraduate program (first year course), University of Amsterdam.

The latter two courses were introduced to the Artificial Intelligence (AI) program in 2003 and a program was developed for these courses to match the interests of AI bachelor students and to ensure these courses suited the AI curriculum. Part of these courses are computer practicals to apply computational modeling to understand and explain data from psychology experiments.

Courses taught

2022– Coordinator and lecturer of newly developed course Growing a mind, about computational models for learning and development, with various lecturers from developmental psychology. The course was taught in 2022-2023, 2023-2024, and will be taught again in 2025-2026.

2009– Contributions to various bachelor and research master psychology courses: Current Issues in Child and Adolescent Development (research master); Advanced Topics in Cognitive Development (research master); Advanced studies in individual differences (research master); Current Topics in Development (infant attention cognition, bachelor elective); Current Topics in Developmental Psychology (research master); Good research practices (on infant & team science, research master); bachelor thesis projects. Varying numbers of students, incidental lectures, discussion meetings, and tutorial groups.

2012–2014 Contributions to Artificial intelligence course: Research methods in artificial intelligence. Incidental lectures.

2010–2014 Honoursprogram 'Leren Simuleren'; introduction to computational modeling and evaluation of such models using experimental data. Lectures and computer practicals in using computational models to simulate data and evaluate models, 30 students.

2006–2015 Introduction to Cognitive Science (now called Foundations of Cognitive Science), part of the Master of Cognitive Science curriculum in the Cognitive Science Center Amsterdam. Lectures and discussion meetings, 20 students, including student presentations of literature and research proposals.

2003–2011 Cognitive Psychology, Artificial Intelligence undergraduate program (second year course), University of Amsterdam. Student numbers have gone up from 30 to 70 during those years.

2002–2014 Introduction to Cognitive Psychology, Artificial Intelligence undergraduate program (first year course), University of Amsterdam. Student numbers have gone up from 30 to 70 during those years. The course consists in lecturing and computer practicals.

2002 Graduate course in Simulation and modelling of developmental processes, Developmental Psychology Graduate program, University of Amsterdam.

1998–2001 Undergraduate course work in the Department of Psychology from the University of Amsterdam.

Institutional work

Psychology department

Throughout the years I have coached/mentored several colleagues with issues around research, work-life balance, gaining influence/negotiations, et cetera.

2023 Member of the hiring committees for full professor and associate professor in clinical psychology.

2022 Chair of the hiring committee for a new assistant professor in cognitive developmental psychology.

2021 Member of the hiring committee for a new associate professor in developmental psychology.

2002–2008 Organization of biweekly seminars for the Developmental Psychology group.

Selection of projects in the role of director of the college of psychology

2022–2024 Chaired the working group to set up a new minor program in psychology for students outside of psychology. The program is 24–30 ECTS, is now led by Derek de Beurs and started in 2024-2025 with approximately 80 students (max capacity). The capacity for 2025-2026 has been set at 160.

2023 Chair of hiring committee for new programme manager bachelor of psychology.

2023 Speech for the 20th anniversary of the Psychobiology program.

2022 Established the curriculum committee that permanently addresses necessary innovation of our curriculum.

2022 The college of psychology contributed (financially) to the ShareStats program, resulting in a website that lecturers use to exchange (knowledge about) statistics exam items.

2021 Established the bachelor coordinator committee meeting to address to organisational optimization the bachelor project.

2021 Revised the organisation of the second year tutorial teachers.

2021–2022 Initiated and directed the 'Visible learning trajectories' project ('Zichtbare leerlijnen' project) for the bachelor of psychology program.

2018 Installed the committee to reviese the bachelor thesis project.

2018 Devised a system for continual professionalisation of teachers.

2018 Led the committee to revise the bachelor curriculum aiming for i) accomodating budget cuts, ii) allowing the possibility of a minor program, iii) balancing the common/specialisation parts of the program for students.

2017 Established policies for permanent contracts for (1st and 2nd year) tutorial teachers.

2016 Initiated discussion on starting an international track in the bachelor program which was eventually started in 2018.

Faculty of Social and Behavioral Sciences

2024–2025 Member of the FMG Recognition & rewards committee.

2023–2024 Initiated discussion for a new master program with provisional title Social and behavioral datascience. The working group report was presented to the dean of FMG; the next step will be to devise a study program and present this to the Ministery of Education.

2016–2017 Chair of the 'Werkgroep herinrichting medezeggenschap FMG', a committee to revise the governance structure of the FMG.

2015– Member of the faculty's financial committee.

2009–2015 Member of the Ondernemingsraad (Departmental Worker's council). Chair and vice-chair in the period 2012–2015.

University of Amsterdam

2020– Chair of the 'Universitaire commissie onderwijs' (UCO), the university committee that advises the rector and the university board on educational policy and affairs. Below are some of the activities and initiatives I was involved in as chair:

2023 & 2025 Advised the CvB UvA about housing policy in light of the international classroom. The CvB in response recognized the strategic importance of housing and installed a taskforce to address current issues arising around housing.

2025 Member of the hiring committee for the position of 'teamleader education' of 'Academische zaken'.

2022-2024 Member of the 'ITK program management' team that was overseeing the preparations for the ITK process at the UvA late 2024.

2024 Advised the CvB about the evaluation policy of institutional collaborations with third parties, among them Israeli universities.

2024 Co-organised LERU meeting about Internationalisation in higher education (meeting held in Freiburg, Germany).

2024 Advised the CvB UvA about policies for students with functional disabilities.

2024 Organised advisory committee for submission of the Nederlandse Onderwijspremie voor het 'Zichtbare leerlijnen project'.

2023 Organised advisory committee for submission of the Comenius leadership about Inner Development Goals by Linda de Greef and others.

2023 Participated as UCO chair in the LERU teaching & policy group meeting March 2023 to discuss Life Long Learning policies.

2023 Organised UCO 'heidag' to determine longer term strategy & themes of interest.

2023 Member of advisory committee to hire new director of 'Academic affairs' at UvA.

2023 Organised as UCO chair the first UvA broad networking event for college and graduate school directors. The themes were: 1. higher education in transition (HOT), and, 2. growth and internationalization at the UvA.

2022 Advised about the organisation and financing of interdisciplinary education at UvA.

2022 Participated as UCO chair in the LERU teaching & policy group meeting March 2022 to prepare LERU papers on 1) education for sustainable development, and 2) holistic doctoral supervision, and to discuss quality culture in HE.

2022 UCO advise about contact hours and the inclusion of online activities in its definition.

2021– As UCO chair I established the practice of installing reading committees for important educational grants such as the Comenius leadership program grants and the 'Nederlandse Hoger Onderwijspremie (NHO)'. Since then, the UvA won third prize (500KE) in 2022 and the first prize (1.2ME) in 2023 in the NHO premie. Since 2024 this price continued as 'Nederlandse Onderwijs Premie'; in 2024 the UvA submitted the 'Zichtbare leerlijnen project'.

2025– Member of the High performance computing committee (to distribute funds for HPC) as a representative of the education management at UvA and to promote more use of HPC in educational programmes.

2023-2025 Co-initiated a discussion group about transitions in higher education (under the name of HOT=Hoger Onderwijs in Transitie, Dutch for higher education in transition). Some of the discussion documents and results are here: https://iis.uva.nl/onderwijsontwikkeling/projecten-in-ontwikkeling/hot.html

2024 Co-organised leadership intervision/course about emotionally-focused mediation for organisational conflict management.

2022 Organised leadership lunch between directors/chairpersons with CvB chairperson Geert ten Dam about the recognition & rewards programme, about well-being of students and employees, and about the strategic course of the UvA (eg regarding internationalisation).

2020 Member of the hiring committee for the new director of the Psychobiology program.

2018– Member of the 'Universitaire commissie onderwijs' (UCO), the university committee that advises the rector and the university board on educational policy and affairs.

2018–2019 Project member Workload management, a university-wide project to develop proposals that can diminish the workload of university staff.

2016–2017 Chair of committee to organise the 'Career preparation for students' workshop, held February 15, 2017.

2016 Chair of the advisory committee to revise the University of Amsterdam financial model.

2011?–2014? Member (and partly chair) of the UvA employability fund committee.

2009–2015 Member of the Ondernemingsraad (Departmental Worker's council). Chair and vice-chair in the period 2012–2015.

1997–1999 Member (and chair: 1999) of the University of Amsterdam PhD students working group.

Other

2022 Participated in the LERU teaching & policy group meeting March 2022 to prepare LERU paper on interdisciplinarity.

2021-2022 Member of the VIDI committee, NWO.

2020 Member of the hiring committee for the new director of the Psychobiology program.

2020 Reviewing of post-doc grants for the Swiss National Science Foundation.

2002–2014 Member of the Artificial Intelligence undergraduate curriculum committee.

Thesis and student supervision

At the University of Amsterdam the 'ius promovendi' has been opened up to other staff than full professors, it was awarded to me after the defense of Abe Hofman in the spring of 2018.

PhD students

2018-2024 (planned), Martina Zaharieva Promotor of Yield phd student, project title: Infant Early Self-regulation, Attention and Joint-Attention Difficulties as Predictors of Later Self-Regulation Problems. Part of the larger Yield project on studying the development of self-regulation during infancy, childhood and adolescence. Supervision with co-promotor Cristina Colonnesi.

2018–2024 (defense date May 29, 2024), Šimon Kucharský NWO Onderzoekstalent, project title: Inferring cognitive strategies from eye-movement sequences: A Bayesian model-based approach. Promotores: Ingmar Visser & Maartje Raijmakers, co-promotor: Eric-Jan Wagenmakers.

2018–2023, Jessica Vera Schaaf, defended November 17th, 2023 Co-promotor of the project, thesis title: Learning how we learn. Supervision with Hilde Huizenga as promotor and Marieke Jepma as co-promotor.

2015–2020, Daan van Renswoude, defended May 8th, 2020 Promotores: Maartje Raijmakers and Ingmar Visser. Project title: Gaze-Patterns Tell the Tale: A Model-Based Approach to Free-Scene Viewing in Infancy. Project financed by Research priority area Yield and the Psychology Research Institute.

2012–2018, Abe Hofmann, defended April 20th, 2018 Co-promotor next to Brenda Jansen and promotor Han van der Maas. Project title: Analyzing developmental change with time-series data of a large scale educational monitoring system. NWO Onderzoekstalent.

2008–2014, Bianca van Bers, defended March 20th, 2014 Co-promotor with promotor Maartje Raijmakers. Thesis title: Dynamics, models and mechanisms of the cognitive flexibility of preschoolers.

PhD thesis committees

September 2024: Gal Raz Defense at September 5, Massachusetts Institute of Technology, Department of Brain and Cognitive Sciences, title: Models and Tools for Studying Infants' Attention. Promotor: Rebacca Saxe, committee: Laura Schulz, Josh Tenenbaum, Ingmar Visser.

June 2024: Tommaso Ghilardi Defense at June 4, Radboud Universiteit Nijmegen. Title: Statistics in motion: harnessing regularities to predict the world. Supervision by Marlene Meyer and Sabine Hunnius.

February 2022: Sybren Spit Defense at February 4, University of Amsterdam. Title: Awareness and instruction when kindergarteners acquire grammar. Supervised by Judith Rispens.

September 2019: Iris E. Yocarini Defense at September 27, Erasmus University Rotterdam. Title: Testing in Higher Education: Decisions on students' performance. (Supervised by Lidia Arends, Guus Smeets & Samantha Bouwmeester)

June 2018: Laura Dekkers Defense at June 28, University of Amsterdam. Title: On Axioms of Choice: A Mathematical Modelling Approach to Study Variability in Decision Making. (Supervised by Hilde Huizenga & Brenda Jansen)

March 2018: Ezgi Kayhan Defense at March 28, Radboud Universiteit Nijmegen. Title: How young learners adapt to change. (Supervised by Sabine Hunnius and Harold Bekkering)

April 2017: Helen Steingröver Defense at April 21, University of Amsterdam. Title: Safe Models for Risky Decisions. (Supervised by Eric-Jan Wagenmakers)

January 2014: Gabriela Koppenol-Gonzalez-Marin, Tilburg University Thesis title: Verbal and visual short term memory processes in children: capturing their complexities using latent class models. (Supervised by Jeroen Vermunt and Samantha Bouwmeester)

December 2014: Dora Matzke, University of Amsterdam Thesis title: Bayesian Explorations in Mathematical Psychology. (Supervised by Eric-Jan Wagenmakers)

December 2014: Matthieu Brinkhuis, University of Amsterdam Thesis title: Tracking educational progress. (Supervised by Gunter Maris)

Research master/master/bachelor theses

May 2025: Zeno Glastra van Loon Second assessor of research master thesis (supervised by Jonas Haslbeck), title: Emotions in Motion: Hidden Markov Models Outperform Vector Autoregressive Models when Predicting Emotions from Intensive Longitudinal Data.

August 2024: Veerle Vijverberg Research master thesis psychology, title: Testing Eye-Tracking Methods for Infant Habituation: A Pilot Study on Stimulus Complexity and Individual Differences.

August 2024: Magda Matetovici Research master thesis psychology, title: The Relation between Attention to Infant-directed Speech and the Unpredictability of Pitch Contours. An EEG study. External supervision by Marlene Meyer, Tineke Snijders & Sabine Hunnius from Radboud Universiteit.

July 2024: Kornelia Lipowska Research master internship; data collection for MB3T, title: Investigating the test-retest reliability of Head-turn Preference Procedure as a measure of abstract rule-learning in infancy.

July 2024: Marie Reinsperger Honours research project internship (part of honours bachelor program psychology). Internship in the babylab working on MB3, MB3T, and the habituation project.

July 2024: Aranka van Werven Second assessor of master thesis project, title: 'De invloed van levensstijl via fysieke gezondheid op mentaal welbevinden', supervised by Richard Ridderinkhof.

July 2024: Kyra Gantrel Second assessor of master thesis project, title: 'Exploring the Mediating Role of Peer Contact and Self-Esteem: How Language Proficiency Influences the School Adjustment of Acculturating Youth', supervised by Ceren Abacioglu.

March 2024: Femke Verlinde Honours research project internship (part of honours bachelor program psychology). Internship in the babylab working on MB3.

December 2023: Cherlaine Hatumena Second assessor of master thesis for Clinical Developmental Psychology master track.

September 2023: Luke Korthals Research master internship, supervision with Šimon Kucharský. Pursuing Smooth Pursuits: Challenges and Remedies for Eye-Movement Event Classification.

September 2023: Eugenia Emile Natasha Second assessor of research master thesis for the Master Brain and Cognitive Sciences.

August 2023: Janina Baumer Research master internship. Data collection for ManyBabies 4. Social Evaluation in Infants: The Role of Infant Prosocial Behavior and Parental Prosocial Values.

August 2023: Luiza Yuan Research master internship. Data collection for ManyBabies 3, head turn preference. Rule learning in infants: Comparing methodology.

August 2023: Rebekka Cebulla Research master internship. Data collection for ManyBabies 3, eye-tracking. Infant algebraic rule learning measured through pupillometry.

August 2023: Mona Klau Research master internship. Data collection for ManyBabies 2, toddlers & adults. Looking Beyond the Eyes: Pupillometry and Anticipation as a Measure of Goal-Based Action Anticipation in Infants.

August 2023: Magda Matetovici Research master internship. Data collection for ManyBabies 2, toddlers & adults. Eyes and emotional expressions - What do they tell us about implicit theory of mind in toddlers between 17 and 27 months old?

March 2023, Roos Abels Second assessor of master thesis project Clinical Developmental Psychology (supervised by Maartje Raijmakers). Nieuwsgierig of Geïnteresseerd?

August 2022: Ajda Flisar Research master internship, title: Infant's moral sense and its connection to parental reflective functioning - part of the ManyBabies 4 multi-lab replication project.

August 2022: Annie Johansson Research master internship. Reinforcement Learning From Abstract Versus Concrete Stimuli. Supervision with Jessica Schaaf.

August 2022: Marlou Roelen Co-assessor master thesis project, title: The effect of a peer resistance training and motivation for change on peer resistance by adolescents with mild-to-borderline intellectual disability (MBID): a pilot study. Supervision by Eline Wagemaker.

July 2022: Adrian Karami Motaghi Research master internship, title: Evolutionary Mismatches and Depressive Symptoms. How are they related? A Network Perspective. Supervised with Annemie Ploeger.

October 2021: Zeno Glastra van Loon Research master internship. Looking for saccade duration bimodality in infants and adults. Supervision with Šimon Kucharský.

September 2021: Magda Matetovici Honours program internship project, title: Habituation project, part I.

March 2021: Tongyu Gu, Soobin Jo, Ines Luttenbacher

Lilli Mannsdörfer, Urte Mickute, Zoltan Adam Torma Honours research interns working on the Habituation project, part I: Design Choices in Infant Habituation: A Crowd-Sourced Systematic Review and Meta-Analysis.

December 2020: Arthur Schwebke Research master project, title: Eye-movement in Economic Games: Using transitions to identify decision rules. Supervised with Šimon Kucharský.

August 2020: Isa de Wolf Clinical developmental psychology master project, title: Individual and Developmental Differences in Visual Attention in Infants Between 6 and 13 Months of Age Using Eye-Tracking. Supervised together with Daan van Renswoude.

August 2020: Bart Kramer Research master internship project, title: Code Sharing in Psychological Methods and Statistics: Part 2. Supervised together with Šimon Kucharský.

August 2020: Jonas Petter & Martin Ilic Honours research interns working on the Code sharing project.

August 2020: Clara S. Vetter Research master internship project, title: Watch and learn - Parents' anxiety and infants' fearful temperament predict infants' attention in social referencing learning situations. Supervised together with Daan van Renswoude.

August 2020: Simona Valcheva Research master internship project, title: The Effects of Bilingualism Level and Language Combinations on Infants' Gaze Following. Supervised together with Daan van Renswoude.

July 2020: Malte Lüken Research master internship project, title: Keeping an Eye on Hidden Markov Models in Gaze Data Classification, supervision with Šimon Kucharský.

July 2020: Karel Veldkamp Research master internship project, title: Fitting Mixtures of Linear Ballistic Accumulation Models, supervision with Simon Kucharský.

August 2019: Bo Sichterman Internal assessor for the research master internship project for Cognitive Science program from the University of Amsterdam. Project hosted by Claartje Levelt. Rule learning in language acquisition in seven-month-old infants.

August 2019: Jiří Münich Research master thesis supervised together with Simon Kucharský. Eye-movement in strategic choice.

May 2019: Bram Timmers Second assessor research master thesis. Mixture Components in Response Times: A Hidden Markov Modeling Approach for Evidence Accumulation Models; supervised by Leendert van Maanen and Dylan Molenaar.

January 2019: Ágnes Hoffmann Researh master internship. Models of the habituation paradigm: Comparing categorization results of simulated data.

November 2018: Bobby Lee Houtkoop Code Sharing in Psychological Methods and Statistics: An Overview and Associations with Conventional and Alternative Research Metrics. [In revision.]

July 2018: Jessica Schaaf Research master project. Title: A Hierarchical Bayesian Model to assess Learning and Guessing Strategies in Reinforcement Learning. Supervision together with Hilde Huizenga and Marieke Jepma. [In preparation to be submitted.]

August 2018: Bing Xu Research master psychology, external research internship at Leiden University, supervised by Judi Mesman and Wei Li. Title: Influence of Parental EF and Sensitivity on Infant Executive Functions in early infancy.

May 2018: Magali Sinceretti Master's thesis developmental psychology. Title (Dutch): Een nieuwe benadering bij het meten van categorisatie bij baby's.

April 2018: bachelor project group Jikke Rotteveel, Lianne Arts, Michal ter Kuile, Ilse Vader, working title (Dutch): Tellen met je ogen.

January 2018: Sophie van Leeuwen Second assessor bachelor thesis. Title (Dutch): Het Verband tussen Angstsymptomen, Visuospatieel Werkgeheugen en Opleidingsniveau bij Jongeren.

August 2017: Simon Kucharsky Research master internship, title: How to analyze Eye-movement patterns? Validation and development of Successor Representation approach. (co-supervision with Maartje Raijmakers). [Published in the Journal of Eye-Movement Research.]

June 2017: Roos Voorvaart Brain and cognitive sciences research master thesis, title: The effect of semantic knowledge on infant gaze control in real-world scene free viewing. Co-supervised with Maartje Raijmakers and Daan van Renswoude. [In revision.]

August 2017: Linda van den Berg Research master theis: Predicting Individual Differences in Infancy: do Infant Scan Patterns Relate to Infant Cognition? Co-supervised with Maartje Raijmakers and Daan van Renswoude. [In preparation to be submitted.]

December 2016: Marjolein Boots Co-assessor, research Master Brain and Cognitive Sciences, supervised by Maartje Raijmakers. Title: An overview of methods to analyse visual scan patterns using a top-down or bottom-up approach.

July 2016: Linda van den Berg Research master internship, title: How Infants Look at Real-world Scenes: the Central Bias in Infants. Data published here: Daan R. van Renswoude, Linda van den Berg, Maartje E.J. Raijmakers & Ingmar Visser (2019). Infants' center bias in free viewing of real-world scenes. *Vision Research, 154,* 44–53.
Available online: https://doi.org/10.1016/j.visres.2018.10.003

July 2016: Ruben van Beek Research master internship, title: Family Resemblance or Rule-based learning? Children and Adults Use Rule-based Category Learning Strategies. Replication study of Kloos & Sloutsky (2008). [In preparation to be submitted.]

May 2016: Bianca Westhoff 2nd assessor of research master thesis supervised by Maartje Raijmakers & Anna van Duijvenvoorde: Age-related changes in subcortico-subcortical and cortico-subcortical resting-state functional connectivity across adolescence: a longitudinal study.

March 2016: Anna Robertson Visiting placement student from Plymouth University; ran a project on eye-tracking in category learning. [In preparation to be submitted.]

September 2015: Rens Poesse Bachelor internship project; simulation study of parameter recovery in the LBA model. Results are part of a published paper: Ingmar Visser, Rens Poesse (2017). Parameter recovery, bias and standard errors in the linear ballistic accumulator model. *British Journal of Mathematical and Statistical Psychology, 70(2)*, 280-296.
Available online: http://dx.doi.org/10.1111/bmsp.12100

August 2015: Adam Sasiadek Research master psychology thesis supervisor (with Maartje Raijmakers, title: Where do we look next? Image complexity and salience as possible explanations of visual attention allocation in infants.

September 2014: Abe Huijbers Research master psychology thesis supervisor (with Maartje Raijmakers & Caroline Junge), title: Step by Step Development: Infant Categorization is a Discrete Learning Process.

August 2014: Daan van Renswoude Research master psychology thesis supervisor, title: Horizontal Bias in Infant Eye Movements during Scene Viewing. [The poster of this research won the 2014 Psychology research master poster prize. The paper is now pubished as: Daan van Renswoude, Scott P. Johnson, Maartje Raijmakers, and Ingmar Visser. Do infants have the horizontal bias? *Infant Behavior & Development*, 44, 38–48.
Available online:http://dx.doi.org/10.1016/j.infbeh.2016.05.005]

June 2014: Laura Guittart Master thesis co-assessor, clinical pscyhology, supervised by Annemie Ploeger, title: The Association between Creativity, Schizotypy and Autistic Traits in the General Population.

April 2014: Gerome Bochmann Brain & Cognitive Sciences research master thesis co-assessor, supervised by Eric-Jan Wagenmakers, title: Bayesian models of memory decay.

December 2013: Fleur Soeverein Research master thesis psychology, supervised with Willemijn Lamet (Netherlands Institute for the Study of Crime and Law Enforcement), title: Probation supervision failure. Published as: Fleur Souverein, Catherine L. Ward, Patrick Burton, and Ingmar Visser (2016). Serious, violent young offenders in South Africa: Are they life-course persistent offenders? *Journal of Interpersonal Violence*, 31(10), 1859–1882.
Available online:http://dx.doi.org/10.1177/0886260515570748

November 2013: Anja Somnavilla Research master thesis psychology, supervised with Maartje Raijmakers, title: Dual task interference in learning an ill-defined category structure: A comparison of rule-based and exemplar-based strategies.

August 2013: Ingeborg Smit Master thesis, supervised with Maartje Raijmakers. Title: The dynamics of switching between explicit and implicit learning strategies in categorization.

July 2013: Guus Rietbergen Bachelor thesis, Artificial intelligence. Title: Models of Categorization: Explaining developmental differences in categorization tasks using COVIS simulation.

June 2013: Gerome Bochmann Research master thesis, Cognitive Science Center Amsterdam. Title: COVIS as a computational model of development in categorization.

April 2013: Sara Roelofs Master thesis developmental psychology, title (in Dutch): Het Effect van een Behandeling van Planningsvaardigheden bij Adolescenten met ADHD De Rol van Executieve Functies.

May 2013: Medina Kaoaniku Bachelor thesis co-assessor, supervised by Annemie Ploeger, title: The relationship between creativity and intelligence in the young and the adult viewed from the perspective of Mutualism and Neuroconstructivism.

February 2013: Jelle Bruinberg Co-assessor of research master thesis Cognitive Science, supervisor Thomas Gladwin. Title: Extending the Quad Model: a proposal to include a negative bias in the quad model.

November 2012: Hernan Labbe Literature thesis for research master of Cognitive Science. Title: Assessment of sequence learning and its implications for the dual-process theory.

October 2012: Renske Kroeze Bachelor research internship. Title: A Model-Based Perspective on the Development of Categorization Learning.

June 2012: Fleur Souverein Research master thesis psychology, co-supervised with Catherine Ward from University of Cape Town. Title: Investigating Moffitt's typology of antisocial behavior: are there likely to be more life-course-persistent offenders in South Africa?

June 2012: Maaike Vertregt Bachelor literature thesis. Title: Intelligence in children and adolescents: The contribution of working memory, processing speed and learning.

May 2012: Dirk Visser 2nd assessor of master thesis developmental psychology. Title (Dutch): Modulariteit, Theory of Mind en algemene intelligentie.

May 2012: Jeske Andreoli 2nd assessor of master thesis developmental psychology. Title (Dutch): De Invloed van Beloning op de Interferentie Controle van Adolescenten met ADHD.

March 2011: Nynke de Waard 2nd assessor of master thesis developmental psychology. Title: See me, Comment me, Befriend me, Online!

October 2010: Lau Andersen Research Master Cognitive Science Center Amsterdam, title: Cognitive strategy differences as an index of developmental differences. Supervision together with Maartje E. J. Raijmakers.

September 2010: Andrea Watson Research master thesis Cognitive Science Center Amsterdam. Co-assessor of external thesis project at the Netherlands Institute for Neuroscience. Title: Effect of input contrast on attention-driven perceptual grouping processes in vision.

June 2010: Susan Blokhuis Bachelor thesis developmental psychology. Title (Dutch): De Ontwikkeling van Cognitieve Processen: het Cascademodel Versus het Mutualisme Model van Intelligentie.

2009: Tom Marshall Research Master Cognitive Science Center Amsterdam. Title: Digging Deeper in Implicit Learning: An LBA Decomposition of the Serial Reaction Time Task. Tom Marshall is now PhD student in the lab of Ole Jensen at the Donders institute.

2009: Rianne Hoek Research Master Cognitive Science Center Amsterdam. Title: On Reversal Frequency and Training-Control Sequence Combinations in SRT Tasks.

2009: Sanne Haring Research Master Psychology. Title: Category learning in school-aged children and adults.

2008: Thomas Pronk Research Master Psychology, title: The effects of reversal frequency in probabilistic second order conditional sequences. Thomas Pronk is now PhD student in the lab of Reinout Wiers, University of Amsterdam.

2008: Sander Holweg Master thesis developmental psychology, title: Impliciet en expliciet leren bij kinderen van 6 en 11 jaar (in Dutch; Implicit and explicit learning in children aged 6-11)

2008: Marlon van de Wetering Master thesis developmental psychology, title: Reber onder de loep (in Dutch; Scrutinizing Reber)

2008: Malou Stoffels Master thesis developmental psychology, title: Dyslexie en de Prestatie op Serial Reaction Time Taken (in Dutch; Dyslexia and performance on the serial reaction time task)

Research

Research program

Cognitive science aims at arriving at a model for the cognitive architecture of humans and sub-human species. The building blocks of such an architecture are shaped through environmental influences during development. Hence, my main substantive research interest is in studying development of cognitive functions as a means of building models of cognitive architectures, providing the basis of human rationality. In practice, this means I have studied dynamical models of learning and development, mostly hidden Markov models and I have applied such models in implicit learning, categorization and concept acquisition, the basic functions of human cognition. Recently I also became interested in response time models as providing another window into cognitive processing at smaller time scales than just analyzing responses. Similarly, I have started looking into eye-movement analysis, in particular in infants, as this provides even more fine-grained data related to cognitive processing.

In all of these areas, my main approach is to make theories testable. Both by more explicitly articulating existing theories in a formal manner, as well as by developing appropriate statistical tools to formally test hypotheses derived from these theories. A recent example is a paper on the development of criteria for testing the tenability of dual-systems models, which proliferate abundantly in cognitive science (Visser & Speekenbrink, 2014b).

As a means of disseminating statistical tools to applied researchers I have developed (and maintain) a number of R packages that are accompanied by user manuals with illustrative examples. Taking this to the next level, Maarten Speekenbrink and I have written a book in the Springer Use R! series providing theoretical discussions and ways in which these can be formally tested using latent class and latent/hidden Markov models. Offering such text-book style presentation of research combined with methodology and statistics constitutes I believe an important way to move research forward, next to journal articles.

Many recent project involve large team collaborations, mostly in infant research. Multi-lab collaborations provide the opportunity to get appropriate sample sizes and provide ample opportunity for knowledge sharing and division of labour.

Reviewing, affiliations and professional activities

- 2013–2019: Associate editor of the British Journal of Mathematical and Statistical Psychology.
- Reviewing for:
  - Machine Learning

- Biometrics
- Psychological Review
- Learning and Individual Differences
- Intelligence
- Educational Psychology
- Cognitive Development
- Journal of Personality and Social Psychology
- Infant and Child Development
- Infancy
- International Congress of Infant Studies
- The Quantitative Methods for Psychology
- Epidemiology and Psychiatric Sciences
- Evaluation & the Health Professions
- Developmental Science
- Cognition
- Journal of Mathematical Psychology
- Psychological Methods
- Psychometrika
- Computational Economics
- Quarterly Journal of Experimental Psychology
- Journal of Behavior Therapy and Experimental Psychiatry
- British Journal of Mathematical and Statistical Psychology
- Journal of Experimental Child Psychology
- Experimental Psychology
- Language Learning
- Pattern Recognition Letters
- Advances in Statistical Analysis
- Cognitive Science
- Risk Analysis
- Journal of Statistical Software
- Frontiers in Psychology (Cognitive Science, Developmental Psychology)
- Psychonomic Bulletin & Review
- Memory & Cognition
- Psychophysiology
- Multivariate Behavioral Research
- PLOS One
- Behavior Research Methods

  - PSICOLOGICA
  - Cognitive Science Society
  - International Conference on Development and Learning

- Member of the UvA research priority area Amsterdam Brain and Cognition
- Member of the UvA research priority area Yield (a collaboration between Developmental Psychology, Economics and Education groups).
- Member of the Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS; Dutch/Belgian branch of the Psychometric Society)

Workshops & symposia organisation, lectures (selected)

2024 (jul) Talk 'ManyBabies 3: Rule Learning in infancy', presentation (with Catia Oliveira) of results of Many Babies 3: Rule learning project, as part of the symposium 'Replicating Belief Tracking, Rule Learning, and Social Evaluation in Infancy: Updates from ManyBabies 2, 3, & 4' at the International Conference of Infant Studies, Glasgow.

2024 (jul) Talk 'Rethinking habituation, estimating the learning curve' in the symposium 'Beyond qualitative preferences: Modeling how and why infants direct their attention', organised together with Gal Raz (MIT), at the International Conference of Infant Studies, Glasgow.

2024 (jul) Contributor/co-organiser of pre-conference symposium: Insights from global collaboration: ManyBabies updates and new initiatives, at the International Conference of Infant Studies, Glasgow.

2024 (apr) *Invited* lecture at the Max Planck Institute for Evolutionary Anthropology in Leipzig; lecture on methods for studying infant visual attention development and extending those to primates.

2024 (jan) Pre-conference workshop 'The ManyBabies Project: How it works, what it contributes to developmental cognitive science, and how to get involved' at the Budapest CEU Conference on Cognitive Development, BCCCD, January 3-6, 2024; workshop organised with Tobias Schuwerk.

2023 (nov) *Invited* lecture at the Zurich psychology department seminar series. 'Studying infant cognition, robustly'

2023 (oct) Hackathon on Designing a workflow for big-team, large-scale, collaborative systematic reviews & meta-analyses. The aim was to gather knowledge and best practices for large-scale research syntheses.

2023 (aug) Conference contribution at the Lancaster Conference on Infant and Child Development. Title: Infant visual attention development.

2023 (aug) *Invited* pre-conference workshop on methods for individual differences in cognitive development at the Lancaster Conference on Infant and Child Development.

2023 (jul) Presentation at the Mathematical Psychology conference. Title: A model-based approach to parsing eye-movement data.

2023 (jun) Lecture in the AD de Groot lecture series at the University of Amsterdam. Topic: Eye movement event detection.

2023 (may) Organisation (together with Caroline Junge) of the Babycircle, meeting of infant researchers from the Netherlands. Theme: open science.

2022 (oct) Hackaton on multi-lab collaborations aimed at stimulating comparative research (non-human and human) at the (first) Big Team Science conference. [Update fall 2023: This hackathon resulted in the foundation of the ManyManys consortium for comparative cognition research: https://manymanys.github.io/.]

2022 (oct) *Invited* lecture at the Dagstuhl workshop on 'Developmental Machine Learning: From Human Learning to Machines and Back', presentation title: 'Visual attention development in infancy'.

2022 (aug) Session organisation on eye-movement event-detection methods at the European conference on eye-movements.

2021 Workshop on multi-lab studies for psycholinguists in Padua (online; with Claartje Levelt).

2015 International Convention of Psychological Science symposium: Criteria and validity of dual systems models in cognition.

2015 Organization and hosting of the 2015 Psychometric Computing workshop, February 12–13, http://psychoco.org/ at the University of Amsterdam.

2014 Invited lecture at the Amsterdam R-users group meeting. Title: depmixS4: A flexible package to estimate mixture and hidden Markov models.

2014 British Psychological society meeting (Developmental section, September 4–6, Amsterdam) symposium: The dynamics of multiple systems in cognitive development.

2014 British Psychological society meeting (Developmental section, September 4–6, Amsterdam) workshop: Identifying rules and strategies in development with mixture and Markov models.

2014 Types and states: Mixture and hidden Markov models for cognitive science. Tutorial workshop at the 36th Annual Conference of the Cognitive Science Society. Together with Maarten Speekenbrink.

2013 Workshop on latent class and latent Markov models for PhD students in developmental psychology at the VNOP lab visit.

2011 Symposium at the Society for Research in Child Development (SRCD 2011, Montreal, Canada), title: Developing Categories.

2010 Symposium at the Annual meeting of the Dutch Society for Developmental Psychology (VNOP; May 2010, Wageningen), title: Latent Variable Models in Cognitive Development.

2009 Symposium at SRCD 2009 (Denver), title: Getting to Grips With Individual Learning and Development.

2007 Double symposium at the 2007 meeting of the Jean Piaget Society on Qualitative Change in Cognitive Development: Theory, Models and Applications (with Brenda Jansen).

2007 FAR workshop for the FAR6 (From Associations to Rules) project.

2006 Depmix, one day workshop taught at PennState University.

2005 Symposium at International Meeting of the Psychometric Society on Discontinuities in development.

2004 Model selection workshop, Amsterdam.

Computer programs

2021 Ingmar Visser & Maarten Speekenbrink. hmmr: package with convenience functions and dataset from our book 'Mixture and Hidden Markov Models with R'.
Current version available on CRAN: https://cran.r-project.org/web/packages/hmmr/

2015 Ingmar Visser. glba: Fits the linear ballistic accumulator model with explanatory variables on the parameters.
Current version 0.2 available: http://cran.r-project.org/web/packages/glba/
Development version available: https://r-forge.r-project.org/projects/lba/

2011 Ingmar Visser & Hilde Huizenga. metatest: Fit and test meta-regression models.
Current version available on CRAN: http://cran.r-project.org/web/packages/metatest/

2010 Ingmar Visser & Maarten Speekenbrink. depmixS4: Fits Markov mixtures of GLMs and some other distributions.
Current version available on CRAN: http://cran.r-project.org/web/packages/depmixS4/

2005 Ingmar Visser. Depmix, an R package for fitting mixtures of (latent) Markov models on multivariate mixed timeseries data. Package and manual with illustrative examples.
Current version 0.9.12 of depmix available on CRAN: http://cran.r-project.org/web/packages/depmix/

Books

[2] Ingmar Visser and Maarten Speekenbrink. *Mixture and Hidden Markov Models with R*. Springer Nature, 2022.

[1] Ingmar Visser. *Rules and associations: hidden Markov models and neural networks in the psychology of learning*. 2002.

In progress/in revision (selected)

[15] Anna Exner, Roberta Bettoni, Chiara Cantiani, Ada Koleini, Catia Margarida Oliveira, Abbie Thompson, Ingmar Visser, and Martin Zettersten. "The relationship between rule learning in infancy (5-12 months) and language skills at 24-30 months". 2024.

[14] Cristina Collonesi et al Martina Zaharieva Ingmar Visser. "Endogenous Attention, Emotion Regulation, Feeding, and Sleep in 3- to 13-Month-Old Infants". in preparation. 2024.

[13] Cristina Collonesi et al Martina Zaharieva Ingmar Visser. "Growing emotion and attention regulation: a toolbox for studying self-regulation in infancy". in preparation. 2024.

[12] Maarten Speekenbrink and Ingmar Visser. "Ignorable and non-ignorable missing data in hidden Markov models". in revision for Psychometrika. 2024.

[11] Rooske Franse, Tessa JP van Schijndel, Ingmar Visser, and Maartje Raijmakers. "Children's understanding of floating and sinking: Predictions and explanations tell different stories". in preparation. 2023.

[10] Jessica Kosie, Martin Zettersten, Rana Abu-Zhaya, Dima Amso, Mireille Babineau, Heidi Baumgartne, Margherita Belia, Silvia Benavides, Christina Bergmann, Ilaria Berteletti, et al. "ManyBabies 5: A large-scale investigation of the proposed shift from familiarity preference to novelty preference in infant looking time". Stage 1 registered report under review. 2023.

[9] Alexandra Sarafoglou, Jakub Szymanik, Henrik R Godmann, Ingmar Visser, and Julia M Haaf. "Bayesian Hierarchical Models for Meaning Representation". article in preparation. 2023.

[8] Jessica Schaaf, Hilde Huizenga, Ingmar Visser, and Marieke Jepma. "Context valence affects learning mechanisms and confidence, but not learning, in adolescents". 2023.

[7] Ingmar Visser Simon Kucharsky Maartje Raijmakers. "Strategy classification in economic games using eye-movement data". in preparation. 2023.

[6] Martina Zaharieva, Simon Kucharsky et al, and Ingmar Visser. "Habituation, Part I. Design Choices in the Infant Habituation Paradigm: A Pre-registered Crowd-Sourced Systematic Review and Meta-Analysis". Accepted as stage 1 registered report at Infant and Child Development. 2023.

[5] Sanne C. Maat; Kelly M.A. Dreuning; Siem J.I.P. Janssen; Ingmar Visser; Sabine Hunnius; Markus F. Stevens; Jurgen C. de Graaff; L.W. Ernest van Heurn; Marsch Königs; Jaap Oosterlaan; Joep P.M. Derikx. "Protocol of a prospective case-control pilot-study to assess the relation between General Anesthesia exposure and neurodevelopmental outcome in Pediatrics: the GAP-trial". in preparation. 2022.

[4] Ingmar Visser, Andreea Geambasu, Heidi Baumgartner, Christina Bergmann, Krista Byers-Heinlein, Alex Carstensen, Frances L Doyle, Judit Gervain, Erin Hannon, Naomi Havron, et al. "Many babies 3 rule learning-Stage 1 Registered Report-In principle acceptance". Received In Principle Acceptance, data collection in progress. 2022.

[3] Kelsey Lucca, Arthur Capelier-Mourguy, Laura Cirelli, Krista Byers-Heinlein, Rodrigo Dal Ben, Michael C Frank, Annette ME Henderson, Jonathan F Kominsky, Zoe Liberman, Francesco Margoni, et al. "Infants' Social Evaluation of Helpers and Hinderers: A Large-Scale, Multi-Lab, Coordinated Replication Study". contributed data collection to this ManyBabies 4 study, in preparation. 2021.

[2] Tobias Schuwerk, Dora Kampis, Renée Baillargeon, Szilvia Biro, Manuel Bohn, Krista Byers-Heinlein, Sebastian Dörrenberg, Cynthia Fisher, Laura Franchin, Tess Fulcher, et al. "Action anticipation based on an agent's epistemic state in toddlers and adults". contributed data collection to this ManyBabies 2 study, in preparation. 2021.

[1] Šimon Kucharskỳ, Bobby Lee Houtkoop, and Ingmar Visser. "Code Sharing in Psychological Methods and Statistics: An Overview and Associations with Conventional and Alternative Research Metrics". 2020.

Papers

[89] Nicolás Alessandroni, Drew Altschul, Marina Bazhydai, Krista Byers-Heinlein, Mahmoud Elsherif, Biljana Gjoneska, Ludwig Huber, Valeria Mazza, Rachael Miller, Christian Nawroth, Ingmar Visser, et al. "Comparative Cognition Needs Big Team Science: How Large-Scale Collaborations Will Unlock the Future of the Field". In: *Comparative Cognition & Behavior Reviews* 19 (2024), pp. 67–72. DOI: https://doi.org/10.31234/osf.io/rynvu.

[88] Suzanne Hoogeveen, Denny Borsboom, Šimon Kucharský, Maarten Marsman, Dylan Molenaar, Jill de Ron, Nikola Sekulovski, Ingmar Visser, Michiel van Elk, and Eric-Jan Wagenmakers. "Prevalence, Patterns, and Predictors of Paranormal Beliefs in the Netherlands: A Several-Analysts Approach". In: *Accepted at RSOS* (2024).

[87] Tamar Johnson, Alexandra Sarafoglou, Julia M Haaf, Ingmar Visser, and Jakub Szymanik. "Comparing the Threshold and Prototype Model for Gradable Adjectives". In: *Proceedings of the Annual Meeting of the Cognitive Science Society*. Vol. 46. 2024.

[86] Šimon Kucharskỳ, Martina Zaharieva, Maartje Raijmakers, and Ingmar Visser. "Habituation, part II. Rethinking the habituation paradigm". In: *Infant and Child Development* 33.1 (2024), e2383.

[85] Jessica V Schaaf, Annie Johansson, Ingmar Visser, and Hilde M Huizenga. "What's in a name: The role of verbalization in reinforcement learning". In: *Psychonomic Bulletin & Review* (2024), pp. 1–12.

[84] Martina S Zaharieva, Eliala A Salvadori, Daniel S Messinger, Ingmar Visser, and Cristina Colonnesi. "Automated facial expression measurement in a longitudinal sample of 4-and 8-month-olds: Baby FaceReader 9 and manual coding of affective expressions". In: *Behavior research methods* (2024), pp. 1–23.

[83] Michael Frank, Naithilee Kunda, Marvin Lavechin, Pierre-Yves Oudeyer, Rebecca Saxe, Maureen de Seyssel, and Ingmar Visser. "4.3 Group 2.1: Embodied Intention Prediction Challenge". In: *Developmental Machine Learning: From Human Learning to Machines and Back (Dagstuhl Seminar 22422)*. Ed. by James M Rehg, Pierre-Yves Oudeyer, Linda B Smith, Sho Tsuji, Stefan Stojanov, and Ngoc Anh Thai. 2023, p. 162. DOI: 10.4230/DagRep.12.10.143. URL: https://drops.dagstuhl.de/opus/volltexte/2023/17824/pdf/dagrep_v012_i010_p143_22422.pdf#page=20.

[82] Andreea Geambașu, Sybren Spit, Daan van Renswoude, Elma Blom, Paula JPM Fikkert, Sabine Hunnius, Caroline CMM Junge, Josje Verhagen, Ingmar Visser, Frank Wijnen, et al. "Robustness of the rule-learning effect in 7-month-old infants: A close, multicenter replication of Marcus et al.(1999)". In: *Developmental Science* 26.1 (2023), e13244.

[81] L Lichtenberg, I Visser, and MEJ Raijmakers. "Latent Markov Models to Test the Strategy Use of 3-Year-Olds in a Rule-Based Feedback-Learning Task". In: *Multivariate Behavioral Research* (2023), pp. 1–14.

[80] Sybren Spit, Andreea Geambașu, Daan van Renswoude, Elma Blom, Paula Fikkert, Sabine Hunnius, Caroline Junge, Josje Verhagen, Ingmar Visser, Frank Wijnen, et al. "Robustness of the cognitive gains in 7-month-old bilingual infants: A close multi-center replication of Kovács and Mehler (2009)". In: *Developmental Science* (2023), e13377.

[79] Ingmar Visser, Šimon Kucharskỳ, Claartje Levelt, Angelika M Stefan, Eric-Jan Wagenmakers, and Lisa Oakes. "Bayesian sample size planning for developmental studies". In: *Infant and Child Development* (2023), e2412.

[78] Christiane Wesarg-Menzel, Rutmer Ebbes, Maud Hensums, Eline Wagemaker, Martina S Zaharieva, Janneke PC Staaks, Alithe L van den Akker, Ingmar Visser, Machteld Hoeve, Eddie Brummelman, et al. "Development and socialization of self-regulation from infancy to adolescence: A meta-review differentiating between self-regulatory abilities, goals, and motivation". In: *Developmental Review* 69 (2023), p. 101090.

[77] Marieke Jepma, Jessica V Schaaf, Ingmar Visser, and Hilde M Huizenga. "Impaired learning to dissociate advantageous and disadvantageous risky choices in adolescents". In: *Scientific Reports* 12.1 (2022), pp. 1–14.

[76] Malte Lüken, Šimon Kucharskỳ, and Ingmar Visser. "Characterising eye movement events with an unsupervised hidden markov model". In: *Journal of Eye Movement Research* 15.1 (2022).

[75] Jessica V Schaaf, Bing Xu, Marieke Jepma, Ingmar Visser, and Hilde M Huizenga. "(Mal) Adaptive Learning After Switches Between Object-Based and Rule-Based Environments". In: *Computational Brain & Behavior* 5.2 (2022), pp. 157–167.

[74] Ingmar Visser. "No data left behind". In: *Infant and Child Development* 31.5 (2022), e2339.

[73] Ingmar Visser, Christina Bergmann, Krista Byers-Heinlein, Rodrigo Dal Ben, Wlodzislaw Duch, Samuel Forbes, Laura Franchin, Michael Frank, Alessandra Geraci, J Kiley Hamlin, et al. "Improving the generalizability of infant psychological research: The ManyBabies model". In: *Behavioral and Brain Sciences* 45 (2022).

[72] Ingmar Visser and Maarten Speekenbrink. *Mixture and Hidden Markov Models with R*. Springer Nature, 2022.

[71] Krista Byers-Heinlein, Rachel Ka-Ying Tsui, Daan Van Renswoude, Alexis K Black, Rachel Barr, Anna Brown, Marc Colomer, Samantha Durrant, Anja Gampe, Nayeli Gonzalez-Gomez, et al. "The development of gaze following in monolingual and bilingual infants: A multi-laboratory study". In: *Infancy* 26.1 (2021), pp. 4–38.

[70] Marieke Jepma, Jessica V Schaaf, Ingmar Visser, and Hilde M Huizenga. "Effects of advice on experienced-based learning in adolescents and adults". In: *Journal of Experimental Child Psychology* 211 (2021), p. 105230.

[69] Šimon Kucharskỳ, Daan van Renswoude, Maartje Raijmakers, and Ingmar Visser. "WALD-EM: Wald accumulation for locations and durations of eye movements." In: *Psychological Review* 128.4 (2021), p. 667.

[68] Šimon Kucharskỳ, N-Han Tran, Karel Veldkamp, Maartje Raijmakers, and Ingmar Visser. "Hidden Markov models of evidence accumulation in speeded decision tasks". In: *Computational Brain & Behavior* 4 (2021), pp. 416–441.

[67] Renske E Kuijpers, Ingmar Visser, and Dylan Molenaar. "Testing the within-state distribution in mixture models for responses and response times". In: *Journal of Educational and Behavioral Statistics* 46.3 (2021), pp. 348–373.

[66] Maarten Speekenbrink and Ingmar Visser. "Ignorable and non-ignorable missing data in hidden Markov models". In: *arXiv preprint arXiv:2109.02770* (2021).

[65] Ingmar Visser, Maarten Speekenbrink, and Maintainer Ingmar Visser. "Package 'hmmr"'. In: (2021).

[64] Bianca MCW van Bers, Tessa JP van Schijndel, Ingmar Visser, and Maartje EJ Raijmakers. "Cognitive flexibility training has direct and near transfer effects, but no far transfer effects, in preschoolers". In: *Journal of Experimental Child Psychology* 193 (2020), p. 104809.

[63] Marieke Jepma, Jessica V Schaaf, Ingmar Visser, and Hilde M Huizenga. "Uncertainty-driven regulation of learning and exploration in adolescents: A computational account". In: *PLoS computational biology* 16.9 (2020), e1008276.

[62] Šimon Kucharskỳ, Ingmar Visser, Gabriela-Olivia Truțescu, Paulo G Laurence, Martina Zaharieva, and Maartje EJ Raijmakers. "Cognitive strategies revealed by clustering eye movement transitions". In: *Journal of Eye Movement Research* 13.1 (2020).

[61] Malte Lüken, Simon Kucharsky, and Ingmar Visser. "Preregistration: Estimating the Parameter Recovery of the Hidden Markov Model in gazeHMM". In: (2020).

[60] Kees Mulder, Irene Klugkist, Daan van Renswoude, and Ingmar Visser. "Mixtures of peaked power Batschelet distributions for circular data with application to saccade directions". In: *Journal of Mathematical Psychology* 95 (2020), p. 102309.

[59] Daan R van Renswoude, Maartje EJ Raijmakers, and Ingmar Visser. "Looking (for) patterns: Similarities and differences between infant and adult free scene-viewing patterns". In: *Journal of Eye Movement Research* 13.1 (2020).

[58] MJ Bayarri, James O Berger, Woncheol Jang, Surajit Ray, Luis R Pericchi, and Ingmar Visser. "Prior-based Bayesian information criterion". In: *Statistical Theory and Related Fields* 3.1 (2019), pp. 2–13.

[57] James Berger, Woncheol Jang, Surajit Ray, Luis R Rericchi, and Ingmar Visser. "Rejoinder by James Berger, Woncheol Jang, Surajit Ray, Luis R. Pericchi and Ingmar Visser". In: *Statistical Theory and Related Fields* 3.1 (2019), pp. 37–39.

[56] Daan R van Renswoude, Linda van den Berg, Maartje EJ Raijmakers, and Ingmar Visser. "Infants' center bias in free viewing of real-world scenes". In: *Vision research* 154 (2019), pp. 44–53.

[55] Daan R van Renswoude, Ingmar Visser, Maartje EJ Raijmakers, Tawny Tsang, and Scott P Johnson. "Real-world scene perception in infants: What factors guide attention allocation?" In: *Infancy* 24.5 (2019), pp. 693–717.

[54] Jessica Vera Schaaf, Marieke Jepma, Ingmar Visser, and Hilde Maria Huizenga. "A hierarchical Bayesian approach to assess learning and guessing strategies in reinforcement learning". In: *Journal of Mathematical Psychology* 93 (2019), p. 102276.

[53] Gilles Dutilh, Jeffrey Annis, Scott D Brown, Peter Cassey, Nathan J Evans, Raoul PPP Grasman, Guy E Hawkins, Andrew Heathcote, William R Holmes, Angelos-Miltiadis Krypotos, et al. "The quality of response time data inference: A blinded, collaborative assessment of the validity of cognitive models". In: *Psychonomic bulletin & review* (2018), pp. 1–19.

[52] Abe Hofman, Rogier Kievit, Claire Stevenson, Dylan Molenaar, Ingmar Visser, and Han van der Maas. "The dynamics of the development of mathematics skills: A comparison of theories of developing intelligence." In: (2018).

[51] Abe D Hofman, Ingmar Visser, Brenda RJ Jansen, Maarten Marsman, and Han LJ van der Maas. "Fast and slow strategies in multiplication". In: *Learning and Individual Differences* 68 (2018), pp. 30–40.

[50] Daan R van Renswoude, Maartje EJ Raijmakers, Arnout Koornneef, Scott P Johnson, Sabine Hunnius, and Ingmar Visser. "Gazepath: An eye-tracking analysis tool that accounts for individual differences and data quality". In: *Behavior research methods* 50 (2018), pp. 834–852.

[49] Tessa JP van Schijndel, Kim Huijpen, Ingmar Visser, and Maartje EJ Raijmakers. "Investigating the development of causal inference by studying variability in 2-to 5-year-olds' behavior". In: *Plos one* 13.4 (2018), e0195019.

[48] Dylan Molenaar, Ingmar Visser, et al. "Cognitive and psychometric modelling of responses and response times". In: *British Journal of Mathematical & Statistical Psychology* 70 (2017).

[47] Ingmar Visser and Rens Poessé. "Parameter recovery, bias and standard errors in the linear ballistic accumulator model". In: *British Journal of Mathematical and Statistical Psychology* 70.2 (2017), pp. 280–296.

[46] Ingmar Visser, Verena D Schmittmann, and Maartje EJ Raijmakers. "Markov process models for discrimination learning". In: *Longitudinal models in the behavioral and related sciences*. Routledge, 2017, pp. 337–366.

[45] Emma Blakey, Ingmar Visser, and Daniel J Carroll. "Different executive functions support different kinds of cognitive flexibility: Evidence from 2-, 3-, and 4-year-olds". In: *Child development* 87.2 (2016), pp. 513–526.

[44] Brenda RJ Jansen, Abe D Hofman, Alexander Savi, Ingmar Visser, and Han LJ van der Maas. "Self-adapting the success rate when practicing math". In: *Learning and Individual Differences* 51 (2016), pp. 1–10.

[43] Fleur A Souverein, Catherine L Ward, Ingmar Visser, and Patrick Burton. "Serious, violent young offenders in South Africa: Are they life-course persistent offenders?" In: *Journal of interpersonal violence* 31.10 (2016), pp. 1859–1882.

[42] DR Van Renswoude, SP Johnson, MEJ Raijmakers, and I Visser. "Do infants have the horizontal bias?" In: *Infant Behavior and Development* 44 (2016), pp. 38–48.

[41] Abe D Hofman, Ingmar Visser, Brenda RJ Jansen, and Han LJ van der Maas. "The balance-scale task revisited: A comparison of statistical models for rule-based and information-integration theories of proportional reasoning". In: *PLoS One* 10.10 (2015), e0136449.

[40] Bettina Hosenfeld, Elisabeth H Bos, Klaas J Wardenaar, Henk Jan Conradi, Han LJ van der Maas, Ingmar Visser, and Peter de Jonge. "Major depressive disorder as a nonlinear dynamic system: bimodality in the frequency distribution of depressive symptoms over time". In: *Bmc psychiatry* 15.1 (2015), pp. 1–9.

[39] Tessa JP van Schijndel, Ingmar Visser, Bianca MCW van Bers, and Maartje EJ Raijmakers. "Preschoolers perform more informative experiments after observing theory-violating evidence". In: *Journal of experimental child psychology* 131 (2015), pp. 104–119.

[38] Lau M Andersen, Ingmar Visser, Eveline A Crone, PCMP Koolschijn, and Maartje EJ Raijmakers. "Cognitive strategy use as an index of developmental differences in neural responses to feedback." In: *Developmental psychology* 50.12 (2014), p. 2686.

[37] Bianca MCW van Bers, Ingmar Visser, and Maartje Raijmakers. "Preschoolers learn to switch with causally related feedback". In: *Journal of Experimental Child Psychology* 126 (2014), pp. 91–102.

[36] Maartje EJ Raijmakers, Verena D Schmittmann, and Ingmar Visser. "Costs and benefits of automatization in category learning of ill-defined rules". In: *Cognitive psychology* 69 (2014), pp. 1–24.

[35] BMCW Van Bers, I Visser, and MEJ Raijmakers. "The distinctive effects of exogenous factors on preschoolers' DCCS performance". In: *Manuscript submitted for publication* (2014).

[34] Ingmar Visser and Maarten Speekenbrink. "Comments on: Latent Markov models: a review of a general framework for the analysis of longitudinal data with covariates". In: *Test* 23 (2014), pp. 478–483.

[33] Ingmar Visser and Maarten Speekenbrink. “It’s a Catastrophe! Testing dynamics between competing cognitive states using mixture and hidden Markov models”. In: *Proceedings of the Annual Meeting of the Cognitive Science Society*. Vol. 36. 36. 2014.

[32] Matthias Ihrke, Jörg Behrendt, Hecke Schrobsdorff, Ingmar Visser, and Marcus Hasselhorn. “Negative priming persists in the absence of response-retrieval”. In: *Experimental psychology* (2013).

[31] Michel Nivard, Sophie van der Sluis, Sanja Franic, Angelique Cramer, Ingmar Visser, Christel Middeldorp, Gitta Lubke, Dorret Boomsma, and Denny Borsboom. “Phenotypic complexity as genetic dark matter: A network explanation of missing heritability”. In: (2012).

[30] Ingmar Visser and Maartje EJ Raijmakers. “Developing representations of compound stimuli”. In: *Frontiers in psychology* 3 (2012), p. 73.

[29] Ingmar Visser, Maartje EJ Raijmakers, and Peter CM Molenaar. “Hidden Markov Model Interpretations”. In: *Connectionist Models of Learning, Development and Evolution: Proceedings of the Sixth Neural Computation and Psychology Workshop, Liège, Belgium, 16–18 September 2000*. Springer Science & Business Media. 2012, p. 197.

[28] Bianca MCW van Bers, Ingmar Visser, Tessa JP van Schijndel, Dorothy J Mandell, and Maartje EJ Raijmakers. “The dynamics of development on the Dimensional Change Card Sorting task”. In: *Developmental Science* 14.5 (2011), pp. 960–971.

[27] Gilles Dutilh, Eric-Jan Wagenmakers, Ingmar Visser, and Han LJ van der Maas. “A phase transition model for the speed-accuracy trade-off in response time experiments”. In: *Cognitive Science* 35.2 (2011), pp. 211–250.

[26] Hilde M Huizenga, Ingmar Visser, and Conor V Dolan. “Testing overall and moderator effects in random effects meta-regression”. In: *British Journal of Mathematical and Statistical Psychology* 64.1 (2011), pp. 1–19.

[25] Ingmar Visser. “Seven things to remember about hidden Markov models: A tutorial on Markovian models for time series”. In: *Journal of Mathematical Psychology* 55.6 (2011), pp. 403–415.

[24] Anna CK van Duijvenvoorde, Brenda RJ Jansen, Ingmar Visser, and Hilde M Huizenga. “Affective and cognitive decision-making in adolescents”. In: *Developmental neuropsychology* 35.5 (2010), pp. 539–554.

[23] Thomas Pronk and Ingmar Visser. “The role of reversal frequency in learning noisy second order conditional sequences”. In: *Consciousness and cognition* 19.2 (2010), pp. 627–635.

[22] Ingmar Visser. “Review of: W. Zucchini, IL MacDonald (2009) Hidden Markov models for time series: an introduction using R.” In: *Journal of Mathematical Psychology* 54 (2010).

[21] Ingmar Visser, Brenda RJ Jansen, and Maarten Speekenbrink. “A framework for discrete change.” In: (2010).

[20] Ingmar Visser and Maarten Speekenbrink. “depmixS4: An R Package for Hidden Markov Models”. In: *Journal of Statistical Software* 36.7 (2010), pp. 1–21.

[19] Ingmar Visser, Maartje EJ Raijmakers, and Han LJ van der Maas. "Hidden Markov models for individual time series". In: *Dynamic process methodology in the social and developmental sciences* (2009), pp. 269–289.

[18] Ingmar Visser, Maartje EJ Raijmakers, and Emmanuel M Pothos. "Individual strategies in artificial grammar learning". In: *The American journal of psychology* 122.3 (2009), pp. 293–307.

[17] Denny Borsboom and Ingmar Visser. "Semantic cognition or data mining?" In: *Behavioral and Brain Sciences* 31.6 (2008), pp. 714–715.

[16] I Visser et al. "Review of: J. Rissanen (2007) Information and complexity in statistical modeling". In: *Kwantitatieve Methoden* 2007 (2008).

[15] Brenda RJ Jansen, Maartje EJ Raijmakers, and Ingmar Visser. "Rule transition on the balance scale task: a case study in belief change". In: *Synthese* 155 (2007), pp. 211–236.

[14] Ingmar Visser. "depmix: An R-package for fitting mixture models on mixed multivariate data with Markov dependencies". In: *R-package manual* 39 (2007), p. 65.

[13] Ingmar Visser, Maartje EJ Raijmakers, and Peter CM Molenaar. "Characterizing sequence knowledge using online measures and hidden Markov models". In: *Memory & Cognition* 35.6 (2007), pp. 1502–1517.

[12] Ton Blaazer and Ingmar Visser. "Estimating Correlations and Reliabilities of Implicit and Explicit Tests Using a Latent Variable Approach". In: *Proceedings of the Annual Meeting of the Cognitive Science Society*. Vol. 28. 28. 2006.

[11] Brenda RJ Jansen, Maartje EJ Raijmakers, and Ingmar Visser. "Learning on the Balance Scale Task". In: *Proceedings of the Annual Meeting of the Cognitive Science Society*. Vol. 28. 28. 2006.

[10] Verena D Schmittmann, Ingmar Visser, and Maartje EJ Raijmakers. "Multiple learning modes in the development of performance on a rule-based category-learning task". In: *Neuropsychologia* 44.11 (2006), pp. 2079–2091.

[9] I Visser, T Blaazer, et al. "Estimating correlations and reliabilities of implicit and explicit tests using a latent variable approach". In: (2006).

[8] Han LJ Van Der Maas, Maartje EJ Raijmakers, and Ingmar Visser. "Inferring the structure of latent class". In: *Behavior research methods* 37 (2005), pp. 340–352.

[7] Ingmar Visser et al. *Rules and associations: hidden Markov models and neural networks in the psychology of learning*. 2002.

[6] Ingmar Visser, Maartje EJ Raijmakers, and Peter Molenaar. "Fitting hidden Markov models to psychological data". In: *Scientific Programming* 10.3 (2002), pp. 185–199.

[5] Ingmar Visser, Maartje EJ Raijmakers, and Peter CM Molenaar. "Hidden Markov Model Model Interpretations of Neural Networks". In: *Connectionist Models of Learning, Development and Evolution: Proceedings of the Sixth Neural Computation and Psychology Workshop, Liège, Belgium, 16-18 September 2000*. Springer Science & Business Media. 2001, p. 197.

[4] Ingmar Visser. “Hidden Markov model interpretations of neural networks”. In: *Behavioral and Brain Sciences* 23.4 (2000), pp. 494–495.

[3] Ingmar Visser, Maartje EJ Raijmakers, and Peter Molenaar. “Confidence intervals for hidden Markov model parameters”. In: *British journal of mathematical and statistical psychology* 53.2 (2000), pp. 317–327.

[2] Ingmar Visser, MEJ Raijmakers, PCM Molenaar, et al. “Statistical properties of hidden Markov models”. In: (1998).

[1] Ingmar Visser. *Mind Rules: a Philosophical Essay on Psychological Rules and the Rules of Psychology*. Tech. rep. X–96–01. Amsterdam: Institute for Logic, Language and Computation, 1996.

Popular media output

2023 Bijdrage aan Scienceguide over capaciteitsfinanciering. https://www.scienceguide.nl/2023/09/outputfinanciering-is-de-olifant-in-het-kamerdebat-internationalisering/

2023 Opinion in ‘Thema’ on internationalization in higher education.

2021 Opinion on internationalization in higher education in the Volkskrant (in Dutch): ‘Internationalisering hoger onderwijs is een blijvertje – deal with it’.
Paywall version: https://www.volkskrant.nl/columns-opinie/opinie-internationalisering-hoger-onderwijs-is-een-blijvertje-deal-with-it~b08ab4df/

2021 Spiegeloog ‘Ask the expert’, question asked by Roeland Voskens about internationalization in higher education.

2018 Opinion about internationalization in higher education.
https://www.volkskrant.nl/columns-opinie/universiteit-van-amsterdam-reageert-op-eigen-student-eerst-betoog-wij-weren-nederlandse-student-niet~be63ecec/

2015 Opinion calling for developing alternative money allocation models at the University of Amsterdam (in the UvA periodical magazine Folia, in Dutch).
http://www.foliaweb.nl/organisatie/tijd-om-te-herzien-waar-het-geld-heen-moet/

2014 Blog post on reproducible reporting using LaTeX and R.
http://osc.centerforopenscience.org/2014/10/30/reproducible-reporting/

2014 Opinion calling for organizational change in universities following recent fraud affairs in psychology (on the UvA periodical website, in Dutch).
http://www.foliaweb.nl/wetenschap/gebruik-fraude-affaires-voor-veranderingen-in-de-wetenschap/

1996 Opinion on ‘AIO policy’
https://www.volkskrant.nl/nieuws-achtergrond/laat-hoogleraar-zelf-inleveren-voor-aio-s~b8caf885/