

Ili Ma

Department of Developmental and Educational psychology

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ACADEMIC POSITIONS

Nov 2020 – present	Assistant Professor Leiden University Department of Developmental and Educational Psychology
Sept 2018 – Nov 2020	Postdoctoral NWO Rubicon fellow New York University Advisors: prof. Todd Gureckis and prof. Wei Ji Ma
July 2016 – Sept 2018	Postdoctoral researcher Donders Centre for Cognitive Neuroimaging, Radboud University Advisor: prof. Alan Sanfey
Sept 2015 - July 2016	Research scientist Behavioral Science Institute, Radboud University and Free University Amsterdam Advisor: prof. Antonius H.N. Cillessen, prof. Pol A.C. van Lier
Jan 2008 - Aug 2009	Research assistant Department of Psychopharmacology, Maastricht University Advisor: dr. Anke Sambeth

EDUCATION

Jan 2017	Ph.D. Clinical Developmental Psychology Thesis: The interplay between motivation and inhibition in ADHD Radboud University, the Netherlands Advisors: dr. Anouk Scheres, dr. Gabry W. Mies, prof. Antonius H.N. Cillessen
July 2010	Masters of Science in Neuropsychology Maastricht University, the Netherlands
July 2010	Research Intern in Psychopharmacology & Neuroimaging Maastricht University, the Netherlands Advisor: dr. Lisbeth Evers

July 2009

Bachelor of Science in Biological psychology

Maastricht University, the Netherlands

RESEARCH INTERESTS

I am broadly interested in the computational and neurocognitive mechanisms underlying learning and decision making, especially applied to cognitive development, and psychiatric disorders. My research aims to understand how adolescents gather information from their environment to shape their beliefs about the world and about others. I am especially interested in how this process relates to adolescents' susceptibility to misinformation. I use multiple methods, including behavioral experiments and cognitive computational modeling to acquire a mechanistic understanding of these topics.

Open Science is important for the quality and efficiency of research. The anonymized data, code, and tasks from my papers are freely available through my personal website <https://ili-ma.github.io/>

PUBLICATIONS

Under review

- Topel, S., **Ma, I.**, van Duijvenvoorde, A., van Steenbergen, H., de Bruijn, E., & Topel, S. (2024). Adapting to uncertainty: The role of anxiety and fear of negative evaluation in learning in social and non-social contexts. Doi: <https://doi.org/10.31234/osf.io/cjzmg>
- **Ma, I.**, Phaneuf, C.V., van Opheusden, B., Ma, W.J., Hartley, C. Distinct Developmental Trajectories In The Cognitive Components Of Complex Planning. (PsyArXiv). Doi: [10.31234/osf.io/d62rw](https://doi.org/10.31234/osf.io/d62rw)

Published

- Liu, W., Shah, N., **Ma, I.**, & Rosenblau, G. (2024). Strategic social decision making undergoes significant changes in typically developing and autistic early adolescents. *Developmental Science*, 27(3), e13463.
- Topel, S., **Ma, I.**, Sleutels, J., van Steenbergen, H., de Bruijn, E. R., & van Duijvenvoorde, A. C. K. (2023). Expecting the unexpected: a review of learning under uncertainty across development. *Cognitive, Affective, & Behavioral Neuroscience*, 1-21.
- **Ma, I.**, Phaneuf, C.V., van Opheusden, B., Ma, W.J., Hartley, C. (2022). Distinct Developmental Trajectories In The Cognitive Components Of Complex Planning. In *Proceedings of the 44th Annual Conference of the Cognitive Science Society*.

- **Ma, I.**, Westhoff, B., van Duijvenvoorde A.C.K. (2022). Uncertainty about others' trustworthiness increases during adolescence and guides social information sampling. *Scientific Reports*.
- **Ma, I.**, Zanolie, K., Bos, M. G., Schreuders, E., Vandenbroucke, A. R., Van Hoorn, J., ... & Güroğlu, B. (2022). Understanding the Dynamics of the Developing Adolescent Brain Through Team Science. *Frontiers in Integrative Neuroscience*, 16.
- **Ma, I.**, Ma, W. J., & Gureckis, T. M. (2021). Information sampling for contingency planning. In *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*.
- **Ma, I.**, Sanfey, A. G., & Ma, W. J. (2021). The Social Cost of Information Gathering for Trust Decisions. *Scientific Reports*.
- Asscheman, J. S., Koot, S., **Ma, I.**, Buil, J. M., Krabbendam, L., Cillessen, A. H., & van Lier, P. A. (2019). Heightened neural sensitivity to social exclusion in boys with a history of low peer preference during primary school. *Developmental Cognitive Neuroscience*, 100673.
- Huijsmans, I., **Ma, I.**, Micheli, L., Civai, C., Stallen, M., & Sanfey, A. G. (2019). A scarcity mindset alters neural processing underlying consumer decision making. *Proceedings of the National Academy of Sciences*, 116(24), 11699-11704.
- Mies, G. W., **Ma, I.**, de Water, E., Buitelaar, J. K., Scheres, A. (2018) Waiting and working for rewards: Attention-Deficit/Hyperactivity Disorder is associated with steeper delay discounting linked to amygdala activation, but not with steeper effort discounting. *Cortex*.
- de Water, E., Mies, G. W., **Ma, I.**, Mennes, M., Cillessen, A.H.N., & Scheres, A. (2017). Neural responses to social exclusion in adolescents: effects of peer status. *Cortex*, 92, 32-43.
- **Ma, I.**, Mies, G. W., Rommelse, N., Buitelaar, J., & Scheres, A. (2017). Does an attention bias to appetitive and aversive words modulate interference control in youth with ADHD? *Child Neuropsychology*, 1-17.
- Civai, C., **Ma, I.** The enhancement of social norm compliance: prospects and caveats (2017). *Journal of Cognitive Enhancement*, 1, 26-30.
- **Ma, I.**, Rommelse, N., Buitelaar, J., Cillessen, A.H.N., & Scheres, A. (2017). Decision-making in social contexts in youth with ADHD, *European Child and Adolescent Psychiatry*, 1-10.
- **Ma, I.**, van Holstein, M., Mies, G. W., Mennes, M., Buitelaar, J., Cillessen, A.H.N., Cools, R., & Scheres, A. (2016). Ventral striatal hyperconnectivity during rewarded interference control in adolescents with ADHD, *Cortex*, 82, 225-236.
- **Ma, I.**, van Duijvenvoorde, A.C.K., & Scheres, A. (2016). The interaction between reinforcement and inhibitory control in children and adolescents with ADHD: a review and research guidelines, *Clinical Psychology Review*, 44, 94-111.

- **Ma, I.** (2016). The interplay between motivation and inhibition in ADHD. PhD thesis. Radboud University Nijmegen, the Netherlands.
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AWARDS

- 2024 Starter grant (Co-PI) (\$250.000 EUR)
 - 2020 National Science Foundation sub award (\$90.000 USD)
 - 2019 New York University Arts & Science travel award
 - 2018 NWO Rubicon Fellowship. Full funding for a 2-year postdoctoral fellowship at New York University (134.764 EUR)
 - 2013 EUNETHYDIS International Conference on ADHD Best poster award
 - 2010 3rd International congress on ADHD Best poster award
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TEACHING

Current teaching

- Course coordinator and lecturer Developmental and Educational Psychology (BSc)
- The Adolescent Brain; lectures on emotion regulation and reinforcement learning (BSc, elective)
- Evaluating an Empirical Study; fMRI module (RMSc)
- School Psychology; lecture Attention and ADHD (MSc)
- School Psychology; Workgroup cognitive assessment (MSc)
- Seminar tutor on Perspective on Career Planning (BSc)
- Master thesis and research internship supervision
- Bachelor thesis and research internship supervision

- Guest Lecturer Artificial Intelligence at the University of Amsterdam: Cognitive modeling

Past

- New York University: Tutorial on online experiment platforms
- New York University: Tutorial on Monte Carlo Tree Search
- Tilburg University: Guest lecture on the neurobiology of memory, reinforcement, and addiction (BSc)
- Radboud University: Master thesis and internship supervision for Research Master 'Cognitive & Clinical Neuroscience (MSc, 1 student)
- Radboud University: Master thesis and research internship supervision for Master track 'mental health psychology' (MSc, 4 students)

- Radboud University: Bachelor thesis and research internship supervision (BSc, 20 students)
 - Radboud University: Thesis and research internship supervision biomedical sciences minor (BSc, 1 student)
 - Radboud University: Teaching assistant for General Introduction to Psychology I Social psychology (BSc)
 - Radboud University: Teaching assistant for General Introduction to Psychology II Brain and psychology (BSc)
 - Radboud University: Teaching assistant Introduction to the Brain: Anatomy Practicum (BSc)
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SKILLS

- Data analysis: R and Python
 - fMRI analyses: SPM
 - Programming: MATLAB, Python, Presentation, C#, Unity, JavaScript
 - Computational modeling of behavior (e.g., Dynamic programming, Monte Carlo Tree Search, Heuristic search, Q-learning, etc)
 - Network analyses
 - Neuropsychological testing
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SELECTED CONFERENCE TALKS AND POSTERS

- Computational Cognitive Neuroscience (2023, talk)
- Cognitive science society (2022, talk)
- Reinforcement Learning and Decision Making (2022, talk)
- Flux (2022, poster)
- Society for Neuroscience (2022, poster)
- Nederlandse Vereniging voor Psychonomie (2019, poster)
- Cognitive science society (2021, talk)
- Reinforcement Learning and Decision Making (2021, poster)
- Symposium on the Biology of Decision-Making (SBDM, 2019, poster)
- Nederlandse Vereniging voor Psychonomie (NvP, 2019, talk)
- Reinforcement Learning and Decision-Making (RLDM, 2019, poster)
- Society for Neuroeconomics (2018, poster)
- Computational Cognitive Neuroscience (CCN, 2017, poster)
- Society for Neuroeconomics (2017, poster)

- Society for Neuroeconomics (2016, poster)
- Symposium on the Behavioural Science of ADHD (2016, talk)
- Belgian Association for Psychological Science (2015, talk)
- Dutch Neuroscience Meeting (2015, talk)
- FLUX (2015, poster)
- Annual Meeting of the International Society for Research on Impulsivity (2015, poster)
- EUNETHYDIS ADHD conference (2013, poster)
- EUNETHYDIS ADHD conference (2012, poster)

REVIEWER

I have reviewed papers for multiple journals, including: Nature Communications, Social Development, Developmental Science, Biological Psychiatry, PLOS Computational Biology, Cognitive Affective Behavioral Neuroscience, Journal of Experimental Cognitive Psychology, Brain Imaging and Behavior, Developmental Cognitive Neuroscience, and Neuroimage.