

# Ili Ma

Department of Developmental and Educational psychology

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PI of the Cognition in Development Lab: [ili.ma.github.io](http://ili.ma.github.io)

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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
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## 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

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## 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 and disinformation. 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/>

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## PUBLICATIONS

### Under review

- **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

- Topel, S., Ma, I., van Duijvenvoorde, A., van Steenbergen, H., & de Bruijn, E. R. (2024). Adapting to uncertainty: The role of anxiety and fear of negative evaluation in learning in social and non-social contexts. *Journal of Affective Disorders*.
- 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.
- Huijismans, 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 AND GRANTS**

- 2024 ERC Staring Grant (PI) (1.500.000 EUR)
  - 2024 Starter grant (Co-PI) (250.000 EUR)
  - 2024 Dutch Research Council (NWO XS, PI) (50.000 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)
- Master thesis and research internship supervision
- Bachelor thesis and research internship supervision
  
- Guest Lecturer Artificial Intelligence at the University of Amsterdam: Cognitive modeling

### *Past*

- School Psychology; lecture Attention and ADHD (MSc)
- School Psychology; Workgroup cognitive assessment (MSc)
- Seminar tutor on Perspective on Career Planning (BSc)
- 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 AND SYMPOSIA TALKS AND POSTERS**

- Cognitive Science Society (2024, poster)
- 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)
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## **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.