Marieke Woensdregt

Max Planck Institute for Psycholinguistics
Room 233
Wundtlaan 1, 6525 XD Nijmegen, The Netherlands
✉ marieke.woensdregt@mpi.nl
🏠 marieke-woensdregt.github.io

Positions held

Feb. 2022 – present
Postdoctoral researcher, *Max Planck Institute for Psycholinguistics*.
On Big Question 5: *The inferential cognitive geometry of language and action planning: Common computations?* of Language in Interaction Consortium, funded by the Netherlands Organisation for Scientific Research (NWO).
PI team: Dr. Andrea Martin (Max Planck Institute for Psycholinguistics), Prof. Iris van Rooij (Radboud University) & Dr. Mark Blokpoel (Radboud University)

July 2022 – present
Lecturer; part-time, *Artificial Intelligence Department; Radboud University*.
I have been asked to develop a new course on *Agent-based Computational Modelling* (a 3-ECTS elective for the Artificial Intelligence masters), which will start in September 2022. In addition, I will supervise thesis projects of students in the AI Bachelor and Master.

Sept. 2021 – Jan. 2022
Postdoctoral researcher, *University of Oslo*.
On project titled *Vision shapes language: Referential communication in blind, sighted and newly-sighted individuals*, funded by a FRIPRO grant from the Research Council of Norway.
PI: Dr. Paula Rubio-Fernández; Co-PI: Dr. Julian Jara-Ettinger (Yale University)

May 2019 – June 2021
Postdoctoral researcher, *Radboud University Nijmegen*.
On project titled *Elementary particles of conversation*, funded by a Vidi grant from the Netherlands Organisation for Scientific Research (NWO)
PI: Dr. Mark Dingemanse

Education

2015–2019
PhD in Cognitive Science, *University of Edinburgh*.
Thesis: *Co-evolution of language and mindreading: A computational exploration*
Supervisors: Prof. Simon Kirby, Prof. Kenny Smith & Dr. Chris Cummins

2012–2014
MSc in Brain & Cognitive Sciences, *University of Amsterdam*, Cum Laude.
- Literature thesis: *On the Role of Intentionality in Explaining the Information Sharing Gap Between Nonhuman and Human Great Apes*
  Supervisor: Prof. Bridget Waller
- 8-month research project: *Modelling the Role of Theory of Mind in Language Acquisition*
  Supervisor: Prof. Simon Kirby
- 4-month research project: *Stats & Nets versus Rules & Symbols: Re-opening the Debate on Learning Mechanisms for Artificial Grammar Learning*
  Supervisor: Dr. Jelle Zuidema

2009–2012
BSc in Psychobiology, *University of Amsterdam*.
Thesis project: *The relationship between phonology and morphosyntax in sentence processing: An ERP study into Dutch past tense allomorphs*
Supervisor: Prof. Judith Rispens

2009–2012
BA in Dutch Language & Culture, *University of Amsterdam*.
Thesis project: *On the Semantic Motivation and Disappearance of Embedded V2 in Dutch Dialects*
Supervisor: Prof. Hedde Zeijlstra

Additional training

July 2018 Part-time research assistantship for experiment comparing cultural transmission of visual patterns between baboons and children in a non-copying task. Principal investigators: Dr. Carmen Saldana, Prof. Kenny Smith, Prof. Simon Kirby and Dr. Nicolas Claidière, University of Edinburgh and Aix-Marseille University. I assisted Dr. Carmen Saldana in collecting data from children at Edinburgh Zoo. Participants were children aged 5-8 who were visiting the zoo, and were asked to complete the experiment on an iPad. 56 hours total.

Feb.–July 2015 Part-time research assistantship for pilot experiment comparing perspective-taking abilities of mono- and bilingual adults. Principal investigators: Dr. Chris Cummins and Prof. Antonella Sorace, University of Edinburgh. I was responsible for the experimental design and implementation, scheduling and running participants, and preparing data for analysis. 60 hours total.

Publications

Peer-reviewed journal articles

○ Blokpoel, M., Dingemanse, M., **Woensdregt, M.**, Kachergis, G., Bögels, S., Toni, I., & van Rooij, I. (in revision). Pragmatic communicators can overcome asymmetry by exploiting ambiguity. https://doi.org/10.31219/osf.io/q56xs

○ Heesen, R., Fröhlich, M., Sievers, C., **Woensdregt, M.**, & Dingemanse, M. (2022). Coordinating social action: A primer for the cross-species investigation of communicative repair. *Phil. Trans. R. Soc. B.* https://doi.org/10.1098/rstb.2021.0110

○ **Woensdregt, M.**, Cummins, C. & Smith, K. (2020). A computational model of the cultural co-evolution of language and mindreading. *Synthese.* https://doi.org/10.1007/s11229-020-02798-7

Peer-reviewed book chapters

○ **Woensdregt, M.** & Micklos, A. (forthcoming). Cognitive and Interactive Mechanisms for Mutual Understanding in Conversation. In Nussbaum, J. (Ed), *Oxford Research Encyclopedia of Communication.* https://psyarxiv.com/aqtfb

○ **Woensdregt, M.**, & Smith, K. (2017). Pragmatics and Language Evolution. In Aronoff, M. (Ed), *Oxford Research Encyclopedia of Linguistics.* https://doi.org/10.1093/acrefore/9780199384655.013.321

Peer-reviewed published proceedings

○ Dingemanse, M., Liesenfeld, A., & **Woensdregt, M.**, (forthcoming). Convergent cultural evolution of continuers (*mmhm*). *Joint Conference on Language Evolution (JCoLE) 2022.* **[pdf available on request]**

○ **Woensdregt, M.**, Jara-Ettinger, J., & Rubio-Fernandez, P., (2022). Language universals rely on social cognition: Computational models of the use of *this* and *that* to redirect the receiver's attention. In *Proceedings of the 44th Annual Conference of the Cognitive Science Society.* https://escholarship.org/uc/item/91x62554

- **Woensdregt, M.**, Spike, M., de Haan, R., Wareham, T., van Rooij, I., & Blokpoel, M. (2021). Why is scaling up models of language evolution hard? In *Proceedings of the 43th Annual Conference of the Cognitive Science Society*. 10.31234/osf.io/d2h5c
- van Arkel, J., **Woensdregt, M.**, Dingemanse, M., & Blokpoel, M. (2020). A simple repair mechanism can alleviate computational demands of pragmatic reasoning: Simulations and complexity analysis. In *Proceedings of the 24th Conference on Computational Natural Language Learning*. pages 177–194. doi:10.18653/v1/2020.conll-1.14.
- **Woensdregt, M.** & Dingemanse, M. (2020). Modelling the Role of Other-Initiated Repair in Facilitating the Emergence of Compositionality. In Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): *The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13)*. doi:10.17617/2.3190925
- Kapron-King, A., Kirby, S., & **Woensdregt, M.** (2020). Modelling Cultural Evolution of Pragmatic Communication When Language Co-Develops With Perspective-Taking. In Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): *The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13)*.
- **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2018). A model of cultural co-evolution of language and perspective-taking. In Cuskley, C., Flaherty, M., Little, H., McCrohon, L., Ravignani, A. & Verhoef, T. (Eds.): *The Evolution of Language: Proceedings of the 12th International Conference (EVOLANGXII)*. doi:10.12775/3991-1.133
- **Woensdregt, M.**, Kirby, S., Cummins, C., & Smith, K. (2016). Modelling the co-development of word learning and perspective-taking. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.
- **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2016). The Cultural Co-evolution Of Language And Mindreading. In Roberts S.G., Cuskley C., McCrohon L., Barceló-Coblijn L. , Feher O. & Verhoef T. (Eds.) (2016) *The Evolution of Language: Proceedings of the 11th International Conference (EVOLANG11)*. doi:10.17617/2.2248195

Presentations

Invited talks

- **Woensdregt, M.** (2021). *Cultural co-evolution of language and mindreading: A computational model.* Submitted Symposium "The role of social-cognition in pragmatics and (early) language", at the 28th Conference of the European Society for Philosophy and Psychology, Leipzig. Aug., 2021.
- Blokpoel, M. & **Woensdregt, M.** (2021). *Why is scaling up models of language evolution hard?* Centre for Language Evolution, University of Edinburgh, Edinburgh, United Kingdom. June, 2021.
- **Woensdregt, M.** (2021). *Using computational modelling to investigate the cultural evolutionary interactions between social cognition, social interaction, and language.* Evolutionary Pragmatics Forum. Mar., 2021.

○ **Woensdregt, M.**, & Dingemanse, M. (2021). *Using computational modelling to investigate how language adapts to interaction.* Cognitive Science Seminar Series, Queen Mary University, London. Jan., 2021.

○ **Woensdregt, M.**, & Fusaroli, R. (2020). *Aligning minds: Cultural co-evolution of language, perspective-taking and conversational repair.* Interacting Minds Centre, Aarhus University, Denmark. Sept., 2020.

○ **Woensdregt, M.**, & Dingemanse, M. (2020). *Modelling the role of other-initiated repair in facilitating the emergence of compositionality.* Psycholinguistics Coffee, University of Edinburgh, UK. June, 2020.

○ **Woensdregt, M.**, & Dingemanse, M. (2020). *Using computational modelling to investigate how language adapts to interaction.* Virtual IMPRS Conference: Interdisciplinary Approaches to the Language Sciences. Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands. June, 2020.

○ **Woensdregt, M.**, Kirby, S., Cummins, C., & Smith, K. (2018). *A model of cultural co-evolution of language and perspective-taking.* "Workshop on Language Evolution, Semantics and Pragmatics", University of Amsterdam, Amsterdam, The Netherlands. Apr., 2018.

○ **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2017). *A model of cultural co-evolution of language and perspective-taking.* Workshop "Minds, Mechanisms and Interaction in the Evolution of Language", Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands. Sept., 2017.

Conference talks

○ **Woensdregt, M.**, Jara-Ettinger, J., & Rubio-Fernandez, P., (2022). *Language universals rely on social cognition: Computational models of the use of 'this' and 'that' to redirect the receiver's attention.* CogSci 2022, Toronto.

○ **Woensdregt, M.**, Jara-Ettinger, J., & Rubio-Fernandez, P. (2022). *Computational models of demonstrative systems: From typology to Theory of Mind.* The 35th Annual Conference on Human Sentence Processing, UC Santa Cruz.

○ **Woensdregt, M.**, Spike, M., de Haan, R., Wareham, T., van Rooij, I., & Blokpoel, M. (2021). *Why is scaling up models of language evolution hard?* CogSci 2021, Vienna.

○ van Arkel, J., **Woensdregt, M.**, Dingemanse, M., & Blokpoel, M. (2020). *A simple repair mechanism can alleviate computational demands of pragmatic reasoning: Simulations and complexity analysis.* 24th Conference on Computational Natural Language Learning (CoNLL), Virtual.

○ Dingemanse, M., & **Woensdregt, M.** (2020). *The cultural evolution of collateral signals.* Workshop: Re-drawing the boundaries of language, Evolang XIII, Brussels. (Conference cancelled due to COVID-19 outbreak.)

○ **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2019). *A computational model of co-evolution of language and mindreading.* Culture Conference, Stirling.

○ **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2018). *A model of cultural co-evolution of language and perspective-taking.* EvoLang XII, Toruń.

○ **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2016). *The Cultural Co-evolution Of Language And Mindreading.* EvoLang XI, New Orleans.

- **Woensdregt, M.**, Kirby, S., & Smith, K. (2015). *Modelling the interaction between language acquisition and the development of theory of mind.* Workshop "Perspectives on the ontogeny of mutual understanding", Max Planck Institute for Psycholinguistics, Nijmegen.
- **Woensdregt, M.**, Kirby, S., & Smith, K. (2015). *Modelling the Role of Theory of Mind in Language Evolution.* Protolang 4, Rome.
- **Woensdregt, M.** & Zuidema, W.H. (2014). *Neural Networks, Algebraic Rules & Human Uniqueness.* EvoLang X, Vienna.
- Rispens, J. & **Woensdregt, M.** (2013). *Processing past tense allomorphs: an ERP investigation.* 11th International Symposium of Psycholinguistics, Tenerife (presented by J. Rispens).

Conference posters
- **Woensdregt, M.**, & Dingemanse, M. (2020). *Modelling the Role of Other-Initiated Repair in Facilitating the Emergence of Compositionality.* Evolang XIII, Brussels. (Conference cancelled due to COVID-19 outbreak.)
- Kapron-King, A., Kirby, S., & **Woensdregt, M.** (2020). *Modelling Cultural Evolution of Pragmatic Communication When Language Co-Develops With Perspective-Taking.* Evolang XIII, Brussels. (Conference cancelled due to COVID-19 outbreak.)
- **Woensdregt, M.**, Smith, K., Cummins, C., & Kirby, S. (2017). *The cultural co-evolution of language and perspective-taking: Convergent transformation away from selection target can nevertheless strengthen selection effect.* Inaugural Conference of Cultural Evolution Society, Jena.
- **Woensdregt, M.**, Kirby, S., Cummins, C., & Smith, K. (2017). *A model of cultural co-evolution of language and mindreading.* 39th CogSci Conference, London.
- **Woensdregt, M.**, Kirby, S., Cummins, C., & Smith, K. (2016). *Modelling the co-development of word learning and perspective-taking.* 38th CogSci Conference, Philadelphia.
- **Woensdregt, M.** & Zuidema, W.H. (2014). *Neural Networks, Algebraic Rules & Human Uniqueness.* Nijmegen Lectures ("No miracles! A Darwinian view of the evolution of cognition, language and culture"), Max Planck Institute for Psycholinguistics, Nijmegen.
- **Woensdregt, M.** & Zuidema, W.H. (2013). *Is Statistical Learning Sufficient to Learn Grammar? A New Neural Network to Solve the Marcus et al. (1999) Task.* Lorentz Center Workshop ("Modelling Meets Infant Studies in Language Acquisition: A Dialogue on Current Challenges and Future Directions"), Lorentz Center, Leiden.

Teaching

Accreditation **Associate Fellow** of the UK Higher Education Academy (in recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education); awarded May 2018.

Course organiser & Lecturer **Agent-based Cognitive Modelling**, 2022 (MSc), Radboud University, The Netherlands. I am currently developing this course, to be taught in Sept.-Oct. 2022 as a 3-ECTS elective in the Artificial Intelligence masters at Radboud University.

Guest lecturer	**Leading Questions in Cognition Language & Communication**, 2021 (BA), University of Amsterdam, The Netherlands. I delivered a guest lecture on *Language Evolution & Social Cognition*.
Guest lecturer	**Pragmatics**, 2021 (BA), Radboud University, The Netherlands. I delivered a guest lecture on *Pragmatics and Language Evolution*.
Guest lecturer	**Cognition & Complexity**, 2021 (MSc), Radboud University, The Netherlands. Together with Dr. Mark Blokpoel I delivered a guest lecture on *Why is scaling up models of language evolution hard?*, based on our CogSci 2021 paper.
Course organiser & Lecturer	**Language Processing in Python**, 2020 (BA), Radboud University Nijmegen, The Netherlands. This is a new course that was being taught for the first time at Radboud University in the academic year of 2020-2021. Together with one other lecturer, I carried full responsibility for developing the entire course from scratch. I also carried full responsibility for developing and delivering the lectures and tutorials for the first half of the course (on the basics of programming in Python), as well as providing assistance during the development and delivery of the lectures and tutorials for the second half of the course.
Guest lecturer	**Simulating Language**, 2018 (MSc), University of Edinburgh, UK. I delivered two lectures on (i) Bayesian learning and (ii) Iterated Bayesian learning.
Computer lab demonstrator	**Simulating Language**, 2015; 2016; 2017; 2018; 2019 (MSc), University of Edinburgh, UK.
Tutor	**Linguistics and English Language 1B**, 2018 (BA), University of Edinburgh, UK.
Tutor	**Introduction to Cognitive Science**, 2017 (BSc), University of Edinburgh, UK.
Tutor	**Linguistics and English Language 1**, 2016-17 (BA), University of Edinburgh, UK.
Tutor	**Child Bilingualism: Language and Cognition**, 2016 (MSc), University of Edinburgh, UK.
Tutor	**Linguistic Theory and the Structure of English**, 2015 (BA), University of Edinburgh, UK.
Tutor	**Cross-linguistic Variation: Limits and Theories**, 2015 (BA), University of Edinburgh, UK.

Supervision

Research Assistantship	Main supervisor for research assistantship of MSc student Simon Møller Nielsen for project titled *"Role of perspective-taking in building communicative conventions"*, led by myself, with collaborators Prof. Riccardo Fusaroli and Prof. Kristian Tylén. 125 hours to program referential communication experiment and run participants, funded by Seed Funding from the Interacting Minds Centre at Aarhus University, Denmark, 2021.
Research Assistantship	Main supervisor for research assistantship of MSc student Jacqueline van Arkel for project titled *"The cultural evolution of collatoral signals"*, led by myself and Prof. Mark Dingemanse. 232 hours to program and analyse computational models, funded by the Centre for Language Studies at Radboud University, The Netherlands, 2021.

MSc Thesis Project	Thesis project of Jacqueline van Arkel titled *"How do people resolve misunderstanding in conversation through repair? Introducing a framework built on belief revision and coherence"* for MSc in Human-Machine Communication at University of Groningen, The Netherlands, 2020-2021.
MSc Internship Project	Internship project of Jacqueline van Arkel titled *"Does Other-Initiated Repair Add Efficiency to Communication? An Agent-Based Simulation Extending the Rational Speech Act Framework"* for MSc in Human-Machine Communication at University of Groningen, The Netherlands, 2020. This project led to a conference paper that was accepted for a talk at the SIGNLL Conference on Computational Natural Language Learning (CoNLL).
MSc Dissertation	Dissertation project of Anna Kapron-King titled *"Cultural Co-Evolution of Language and Pragmatic Ability"* for MSc in Linguistics at University of Edinburgh, 2019. This project led to a conference abstract that was accepted for a poster presentation at Evolang XIII, 2020.
MSc Dissertation	Dissertation project of Yiyun Zhao titled *"Simulating the interaction between mindreading and language in development and evolution"* for MSc in Evolution of Language and Cognition at University of Edinburgh, 2016.

Professional service

○ Main organiser of *Interaction Meetings*: an informal meeting ground for the community of Nijmegen researchers working at the intersection of language and social interaction. Our monthly meetings consist of talks, paper discussion, and critical overview sessions.
○ Member of Open Science Community Nijmegen
○ Ad-hoc reviewing of journal articles for: *Adaptive Behavior, Cognition, Cognitive Science, Journal of Language Evolution, Language Dynamics and Change, Mind & Language, Nature Human Behaviour, Rescience C*.
○ Ad-hoc reviewing for conferences: *Evolang, CogSci*.
○ Co-organiser of LEL Postgraduate Conference, University of Edinburgh, 2016.
○ Student Member of Education Committee for MSc Brain & Cognitive Sciences, University of Amsterdam, 2012–2013.

Grants & Awards

○ Seed Funding from the Interacting Minds Centre at Aarhus University (round January 2021), together with Prof. Riccardo Fusaroli and Prof. Kristian Tylén, for experimental research project titled *Aligning minds: Cultural co-evolution of language and perspective-taking*. In this project, we are piloting and running an innovative experimental design to investigate how the role of perspective-taking affects the types of conventional communication systems that emerge (32.680,00 DKK).
○ PPLS-Gray postgraduate publication prize, University of Edinburgh. Awarded for Woensdregt, M., & Smith, K. (2017). Pragmatics and Language Evolution. In Aronoff, M. (Ed), *Oxford Research Encyclopedia of Linguistics*. doi: 10.1093/acrefore/9780199384655.013.321 (£250)

- Second place in Three Minute Thesis competition for PhD students of School for Philosophy, Psychology and Language Sciences, University of Edinburgh, 2016.
- Principal's Career Development PhD Scholarship, University of Edinburgh, 2015–2018. (£42,000)
- Erasmus Grant for Internship Abroad, University of Amsterdam, Sept.–Feb. 2014. (€1,320)

Public outreach

- Lead organisor of interactive demo on conversational repair (*"How 'huh?' helps"*) for adults at the DRONGO Language Festival in Nijmegen, 2020. (Live demo was cancelled due to COVID-19 outbreak.)
- Lead organisor of interactive demo on conversational repair (*"How 'huh?' helps"*) for children aged 6+ at the Kletskoppen Child Language Festival in Nijmegen, 2020.
- Volunteer for Workshop on Language Evolution for primary schools in and around Edinburgh. Helped deliver six 1-hour workshops, 2019.
- Interactive exhibit for children on memory games used to study non-human primates' behaviour. July 2018, Budongo Trail, Edinburgh Zoo.
- Science correspondent on 'Neurolinguistics & Aphasia' for the Journal of the Amsterdam Network of Psycholinguists (het WAP). Two articles per year, 2012–2016.
- Co-organiser of *"Culture, Communication and Context"* event for Innovative Learning Week "Ideas in Play", Feb. 2016, University of Edinburgh.
- Volunteer for *"Cultural Evolution in Action"* event for Innovative Learning Week "Dive in!", Feb. 2015, University of Edinburgh.

References

PI of current postdoctoral position

Prof. Iris van Rooij, Radboud University.
Role: PI of current postdoctoral position
Email address: iris.vanrooij@donders.ru.nl

PI of previous postdoctoral position

Dr. Paula Rubio-Fernández, University of Oslo.
Role: PI of previous postdoctoral position
Email address: paula.rubio-fernandez@ifikk.uio.no

PI of first postdoctoral position

Dr. Mark Dingemanse, Radboud University.
Role: PI of first postdoctoral position
Email address: mark.dingemanse@ru.nl

Co-PI of previous postdoctoral position

Dr. Julian Jara-Ettinger, Yale University.
Role: Co-PI of previous postdoctoral position
Email address: julian.jara-ettinger@yale.edu