Marieke Woensdregt

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Positions held

July **Upcoming position starting July 1st: Postdoctoral researcher**, *University of Oslo*.

2021-May On project titled Vision shapes language: Referential communication in blind, sighted and

2022 newly-sighted individuals, funded by the Research Council of Norway.

PI: Dr. Paula Rubio-Fernández

2019-present **Postdoctoral researcher**, Radboud University Nijmegen.

On NWO-Vidi funded project titled *Elementary particles of conversation*

PI: Prof. Mark Dingemanse

Education

2015–2019 **PhD in Linguistics**, *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.

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
- 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. (under review). Streamlining complex language interactions: Cognitive and interactive mechanisms for mutual understanding. [available on request]
- 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

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

Invited talks

- 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., & Dingemanse, M. (2019). How language adapts to noise. Simulation and Modelling User Group Meeting, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands.. Nov., 2019.
- Woensdregt, M., Kirby, S., Cummins, C., & Smith, K. (2019). Co-evolution of language and mindreading: A computational perspective. Computational Cognitive Science Lab Meeting, Radboud University, Nijmegen, The Netherlands. Oct., 2019.
- 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

- 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.
- o 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.)
- o 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 coevolution 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.
- o Woensdregt, M., Kirby, S., Cummins, C., & Smith, K. (2016). Modelling the co-development of word learning and perspective-taking. 38th CogSci Conference, Philadelphia.
- o 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.
- o 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.

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 Language Processing in Python, 2020 (BA), Radboud University Nijmegen, The organiser & Netherlands. This is a new course that was being taught for the first time at Radboud Lecturer 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.

demonstrator

Computer lab Simulating Language, 2015; 2016; 2017; 2018; 2019 (MSc), University of Edinburgh,

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,

Tutor Cross-linguistic Variation: Limits and Theories, 2015 (BA), University of Edinburgh, UK.

Supervision

Assistantship

Research Main supervisor for research assistantship of MSc student Simon Møller Nielsen for project titled "Aligning minds: Cultural co-evolution of language and perspectivetaking", led by myself, Prof. Riccardo Fusaroli and Prof. Kristian Tylén. 100 hours to program communication experiment, funded by Seed Funding from the Interacting Minds Centre at Aarhus University, Denmark, 2021.

Assistantship

Research 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 Thesis project of Jacqueline van Arkel titled "How do people resolve misunderstanding Project 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 of Jacqueline van Arkel titled "Does Other-Initiated Repair Add Internship Efficiency to Communication? An Agent-Based Simulation Extending the Rational Project 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 project of Anna Kapron-King titled "Cultural Co-Evolution of Language Dissertation 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.

Dissertation

MSc 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

- o 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: Cognition, Cognitive Science, Journal of Language Evolution, Language Dynamics and Change, Mind & Language, Nature Human Behaviour.
- o Ad-hoc reviewing for conferences: Evolang XI, Evolang XII, Evolang XIII, CogSci 2021.
- 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)
- o 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.

Languages & Skills

- Dutch (native), English (near-native), Frisian (advanced), German (intermediate),
 French (intermediate), Spanish (basic)
- o Python, R, Bash, LATEX, HTML, CSS

References

Pl of current **Prof. Mark Dingemanse**.

postdoc Role: PI of current postdoctoral position

Email address: m.dingemanse@let.ru.nl

PhD Prof. Simon Kirby.

supervisor Role: Lead supervisor of PhD

Email address: simon.kirby@ed.ac.uk

PhD Prof. Kenny Smith.

supervisor Role: Second supervisor of PhD

Email address: kenny.smith@ed.ac.uk