
Dr. Asya Achimova

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Department of General and
Computational Linguistics
University of Tübingen
Keplerstr. 2, Rm 285
72074 Tübingen

Neuro-Cognitive Modeling Group
Cognitive Science Center
University of Tübingen
Sand 14, Rm C420
72076 Tübingen

Education

Ph.D. Psychology (Cognitive)

Rutgers University, May 2014

Thesis *Resolving wh-quantifier ambiguities: Integrating theoretical and experimental perspectives.*

Advisors: Julien Musolino & Viviane Déprez

Committee members: Kristen Syrett (Rutgers University), John Trueswell (University of Pennsylvania)

M.Sc. Psychology (Cognitive)

Rutgers University, 2011

B.A. English language and literature

Perm State University, Russia, 2007

Research interests

Computational modeling of pragmatic reasoning, ambiguity resolution, quantifier scope, experimental linguistics, atypical language development, first and second language acquisition, digital humanities

Academic employment

Emmy Noether group leader

April 2024 - present

University of Tübingen

- Department of General and Computational Linguistics

Visiting professor of cognitive modeling (Vertretungsprofessur W2) *2023 - 2024*

University of Osnabrück

- Institute of Cognitive Science

Postdoctoral fellow

2018 - 2023

University of Tübingen

- Neuro-Cognitive Modeling Group
- Research Training Group “Ambiguity: Production and Perception”

Visiting scholar

2016 - 2018

Wayne State University, Detroit

- Department of Linguistics

Lecturer, 50%

2015 - 2016

University of Leipzig

- Institute of Linguistics

Teaching assistant

2009 - 2013

Rutgers University

- Department of Psychology

Russian language instructor

2008 - 2009

Rutgers University

- Department of German, Russian, and East European Languages and Literatures

Additional training

Bayesian Modeling for Cognitive Science Summer School. Amsterdam	2022
Fifth Summer School on Statistical Methods for Linguistics and Psychology (Bayesian track, Potsdam/online).	2021
European Summer School for Language, Logic, and Information (ESSLLI)	2021
Web Summer School for Language, Logic, and Information (NASSLLI).	2020
European Summer School for Language, Logic, and Information (ESSLLI). Riga	2019
Leipzig Spring School on Linguistic Diversity.	2006
St. Petersburg Institute of Linguistics, Cognition, and Culture. Summer school.	2005
St. Petersburg Institute of Linguistics, Cognition, and Culture. Summer school.	2004

Fellowships and awards

Emmy Noether research group funding (€1.3 mln)	2024
Equal opport. grant for researchers working during the pandemic (€1.000)	2021
Athene-Program (support for early career female researchers) (€20.000)	2020
Paula Menyuk Travel Award for conference expenses, awarded at BUCLD 38.	2013
Paula Menyuk Travel Award for conference expenses, awarded at BUCLD 38.	2012
Undergraduate fellowship for seniors for academic excellence.	2006
Undergraduate federal fellowship of the Government of the Russian Federation.	2005

Publications

Journal articles

Butz, M. V., Mittenbühler, M., Schwöbel, S., **Achimova, A.**, Gumbsch, C., Otte, S., & S. Kiebel (2024). Contextualizing predictive minds. *Neuroscience & Biobehavioral Reviews*, 168, 105948.

Achimova, A., Scontras, G., Eisemann, E., & M.V. Butz. 2023. Active iterative social inference in multi-trial signaling games. *Open Mind*, 7, pp. 111–129.

Achimova, A., Scontras, G., Stegemann-Philipps, C., Lohmann, J., & M.V. Butz. 2022. Learning about others: Pragmatic social inference through ambiguity resolution. *Cognition*, 218, 104862.

Butz, M.V., **Achimova, A.**, Bilkey, D., & Knott, A. 2021. Event-predictive cognition: a root for conceptual human thought. *Topics in Cognitive Science*, 13(1).

Achimova, A., Syrett, K., Musolino, J., Déprez, V. 2017. Children's developing knowledge of wh-/quantifier question-answer relations. *Language Learning and Development*, 1. p. 80 – 99.

Proceedings

Achimova, A., van Os, M., Demberg, V., & M.V. Butz. 2024. Interpreting implausible event descriptions under noise. In *Proceedings of the 46th Annual Meeting of the Cognitive Science Society*, (Vol. 46), p. 3399 – 3406.

Achimova, A., Stegemann-Philipps, C., Winkler, S., & M.V. Butz. 2022. Anaphoric reference in descriptions of surprising events. In Gutzmann, D. & S. Repp (eds.) *Proceedings of Sinn und Bedeutung 26*, pp. 20–34. Universität zu Köln.

Stegemann-Philipps, C., Butz, M.V., Winkler, S., & **Achimova, A.** 2021. Speakers use more informative referring expressions to describe surprising events. *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*.

Achimova, A., Déprez, V., Musolino, J. 2013. What makes pair-list answers available: an experimental approach. In LaCara, N., Fainleib, L. & Park, Y. (Eds.) *NELS 41: Proceedings of the 41st Annual Meeting of the North East Linguistic Society*, Amherst, MA.: GLSA.

Achimova, A., Crosby, C., Déprez, V., Syrett, K., Musolino, J. 2013. Which account of wh-/quantifier interaction should everyone adopt: a new take on a classic developmental puzzle. In S. Baiz, N. Goldman, & R. Hawkes (Eds.) *Proceedings of the 37th annual Boston University Conference on Language Development*, p. 1 – 12. Boston, MA: Cascadilla Press.

Achimova, A. 2008. Verb Innovations in Spontaneous Speech of Children. In T. Marinis, A. Papangeli, & V. Stojanovik. (Eds.) *Proceedings of the Child Language seminar 2007 – 30th Anniversary*, p.4 - 14. Reading, UK.

Chapters in volumes (peer-reviewed)

Achimova, A., Ebert-Rohleder, M., Geiger, L., Klenk, J., Reid, M., Vollstedt, T., Zirker, A. (2024). Ambiguity in Discourse: The Tübingen Interdisciplinary Corpus of Ambiguity Phenomena. In Ilaria Fiorentini, I. & Zanchi, C. (Eds.) *Vagueness, ambiguity, and all the rest. Linguistic and pragmatic approaches*, p. 84 – 108. John Benjamins Publishing Company.

Achimova, A., Déprez, V. 2019. Specificity affects determiner choice even when definiteness transfers. In Deborah Arteaga (Ed.): *L2 grammatical representation and processing. Theory and practice* p. 12 – 27, Second Language Acquisition: 136, Bristol; Blue Ridge Summit: Multilingual Matters.

Achimova, A., Deprez, V., Musolino, J. 2018. Structural asymmetry in question/quantifier interactions. In Katalin E. Kiss & Tamás Zétényi (Eds.): *Linguistic and cognitive aspects of quantification* p. 13 – 30, Studies in Theoretical Psycholinguistics, vol. 47, Springer, Cham.

Other publications

Hartmann, J., **Achimova, A.**, Ebert, L., Ebert-Rohleder, M., Elxnath, N., Geiger, L., Hofmaier, L., Klenk, J., Lahrsow, M., Metzger, S., Schole, G., Reid, M., Stegemann-Philipps, C., Titt, R., Vollstedt, T., Wagner, W., & S. Winkler. 2021. Tübingen Interdisciplinary Corpus of Ambiguity Phenomena (TInCAP) User Manual, GRK 1808 Ambiguity Database.

Achimova, A., Staroverov, P., Déprez, V. & Musolino, J. 2015. Pair-list answers in naive speakers and professional linguists. In Arkadiev, P.M., Kapitonov, I.S., Lander, Y.A., Rakchilina, E.V., Tatevosov, S.G. (Eds.) *Donum semanticum: Opera linguistica et logica in honorem Barbarae Partee a discipulis amicisque Rossicis oblata* p. 21 – 35. Moscow: [Jaziki slavyanskoy kultury] Languages of slavic culture.

Achimova, A. 2004. Polyphony in the novel “A room with a view” by E.M. Forster. In

N.S. Bochkareva (Ed.), *Problems of Method and Poetics in World Literature*, p. 119 – 122. Perm, Russia: Perm State University Press.

Achimova, A. 2004. Innovations in the formation of verbs in spontaneous speech of English-speaking children, I.G. Ovchinnikova (Ed.), *Topics in Socio- and Psycholinguistics. Variability of Language Development*, p. 153 – 158. Perm, Russia: Perm State University Press.

Achimova, A. 2003. English loanwords in Perm local newspapers. *Philologist*, 2, p.18 – 23. Perm, Russia: Perm State School of Education Press.

Invited talks

Two models of strategic ambiguity. *Computational Cognition Conference*, University of Osnabrück, Keynote. 2023

Interpreting speech under noise. *Cognitive Neuroscience of Human Verbal Communication Group*, University of Tübingen. 2023

Belief inference in verbal communication. *Human and Machine Cognition Lab*, Cluster of Excellence – Machine Learning for Science, University of Tübingen. 2022

Ambiguity resolution as Bayesian Inference. *GRK 1808 Colloquium*, University of Tübingen. 2018

The role of expertise: Professional linguists as subjects in a psycholinguistic experiment. *Linguistics Colloquium*, Wayne State University, Detroit. 2017

Rethinking a classic puzzle in the acquisition of quantification. *Language and Cognition Lab*, Johns Hopkins University. 2013

Conference presentations

2024

Achimova, A., Franke, M., & M.V. Butz. Production and interpretation of indirect utterances. Paper to be presented at the 5th *Experimental Pragmatics in Italy* Conference. Venice. September 27, 2024.

Achimova, A., van Os, M., Demberg, V., & M.V. Butz. Interpreting implausible event descriptions under noise. Poster presented at the 46th *Annual Meeting of the Cognitive Science Society*. Rotterdam. July 25, 2024.

Achimova, A., Franke, M., & M.V. Butz. Inferring the meaning of indirect utterance. Paper presented at the *Linguistics of political discourse* Summer school. Graz, Austria. July 2, 2024.

Achimova, A., Franke, M., & M.V. Butz. Probing the state of common ground through indirectness. Paper presented at the conference *Common Ground in linguistics: from its construction to its role in mapping meaning*. Paris, Nanterre.

Achimova, A., van Os, M., Demberg, V., & M.V. Butz. Event predictability affects production of anaphoric references. Paper presented at *DGfS Annual Meeting 2024*. Work group: Naturalistic approaches to reference. Bochum.

2023

Achimova, A., van Os, M., Knoblich, S., Demberg, V., & M.V. Butz. Predictability in production and perception of anaphoric references. Paper presented at *XPrag 2023: 10th biennial meeting of Experimental Pragmatics*. Paris.

Dietrich, S., Achimova, A., Butz, M.V., & B. Rolke. Was it the bear or the lion? Evaluating different disambiguation cues in pronoun interpretation. Poster presented at *TeaP 2023: Conference of Experimental Psychologists*, Trier, Germany.

2022

Achimova, A., Musolino, J., Pasquinelli, R., Butz, M.V., & B. Landau. Semantic meaning of scalar terms in speakers with Williams Syndrome. Paper presented at *XPrag 2022: 9th biennial meeting of Experimental Pragmatics*. Pavia, Italy.

Achimova, A., & M. Beukman. Ambiguity remains a rare skill for learning about others even when stimuli carry social relevance. Paper presented at *KogWis 2022: 5th Biannual Conference of the German Society for Cognitive Science*. Freiburg, Germany.

Achimova, A., Musolino, J., Pasquinelli, R., Butz, M.V., & B. Landau. Understanding of linguistic scales in speakers with Williams Syndrome. Flash talk and poster presented at the *44th Annual Meeting of the Cognitive Science Society* Hybrid conference, Toronto, Canada.

2021

Achimova, Asya & Martin V. Butz. Social inferencing in communication. Poster presented at the *Meaning in Context Workshop* at the *Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS 2021)*.

Achimova, Asya & Martin V. Butz. Discovering shared reality in ambiguity resolution. *Moscow HSE Pragmatics Workshop*.

Achimova, Asya, Stegemann-Philipps, Christian, Butz, Martin V., & Susanne Winkler. Referring to agents in an artificial world: The role of predictability. *Sinn und Bedeutung* 26. <https://osf.io/wu329/>

Stegemann-Philipps, C., Butz, Martin V., Winkler, Susanne & Achimova, A. Speakers use more informative referring expressions to describe surprising events. Poster presented at the *43rd Annual Meeting of the Cognitive Science Society* Virtual conference.

Achimova, A., Ebert-Rohleder, M., Elxnath, N., Geiger, L., Hofmaier, L., Klenk, J., Vollstedt, T., & Zirker, A. Ambiguity in Discourse: The Tübingen Interdisciplinary Corpus of Ambiguity Phenomena. Paper presented at the *17th International Pragmatics Conference*, Winterthur, Switzerland. July 1, 2021. Virtual conference.

2020

Achimova, A., and M.V. Butz. Ambiguous descriptions facilitate information gain. Flash-talk presented at the workshop *From Efficient Coding to Information Gain: Information-Theoretic Principles in Models of Human Decision Making* held at the *42st Annual Meeting of the Cognitive Science Society*. Virtual conference.

Achimova, A., Eisemann, E., and M.V. Butz. Bayesian preference inference in dialogue. Poster presented at the *42st Annual Meeting of the Cognitive Science Society*. Virtual conference.

2019

Achimova, A., Staroverov, P., Scontras, G., and M. Butz. Topics take wide scope: An empirical test of a theoretical claim. *Information Structure and Ambiguity – The Process of Integrating Sentences into Discourse*. Tübingen, Germany.

Scontras, G., Achimova, A., Stegemann, C., and M. Butz. The added informativity of ambiguous utterances. Poster presented at *Experimental Pragmatics (XPRAG)* Edinburgh,

UK.

Scontras, G., Achimova, A., Stegemann, C., and M. Butz. On the purpose of ambiguous utterances. Poster presented at the *41st Annual Meeting of the Cognitive Science Society*. Montreal, Canada.

2018

Achimova, A., Butz, M., Déprez, V., Musolino, J. More ambiguous questions: Discourse licensing of inverse scope *Workshop on Ambiguity as Information Gaps: Processes of Creation and Resolution*, Tübingen, Germany.

2015

Achimova, A., Déprez, V., Musolino, J. The subject/object asymmetry in questions with quantifiers: syntax or discourse? *Workshop on Linguistic and Cognitive Aspects of Quantification*, Budapest, Hungary.

2013

Musolino, J., Achimova, A., Landau, B. Logic and felicity in the face of mental retardation: Evidence from linguistic quantification in Williams Syndrome. Paper presented at *Boston University Conference on Language Development 38 (BUCLD)*, Boston, Massachusetts.

Achimova, A., Deprez, V. Specificity matters even when definiteness transfers, *International Congress of Linguistics (CIL 19)*. Geneva, Switzerland.

2012

Achimova, A., Crosby, C., Deprez, V., Syrett, K., Musolino, J. Which account of wh-/quantifier interaction should everyone adopt: a new take on a classic developmental puzzle. Paper presented at *Boston University Conference on Language Development 37 (BUCLD)*, Boston, Massachusetts.

Achimova, A., Deprez, V., Musolino, J. Informal judgments in formal settings: pair-list answers in naïve speakers and professional linguists. Paper presented at *Penn Linguistic Colloquium (PLC 36)*, UPenn, Philadelphia, PA.

Crosby, C., Achimova, A., Deprez, V., Musolino, J. How did every child answer each question? Wh-/quantifier interaction in children. Poster presented at *Aresty Undergraduate Symposium*.

Huang, S., Ortega, M., Patel, A., Achimova, A., Deprez, V. Determiner acquisition in L2 French. Poster presented at *Aresty Undergraduate Symposium*.

2011

Achimova, A., Deprez, V., Musolino, J. Naïve speakers vs. professional linguists: same or different. Paper presented at the *6th Annual Rutgers Linguistic Conference (RULing)*, NJ.

Venezia, F., Achimova, A., Deprez, V., Musolino, J. How to answer which questions: an experimental approach. Poster presented at *Aresty Undergraduate Symposium*.

Kon, M., Achimova, A., Deprez, V., Musolino, J. Who can participate in an experiment: a study on linguistic methodology. Poster presented at *Aresty Undergraduate Symposium*.

2010

Achimova, A., Deprez, V., Musolino, J. What makes pair-list answers available: an experimental approach. Paper presented at the *41th Annual Meeting of North East Linguistic Society (NELS)*, UPenn, Philadelphia, PA.

Achimova, A., Deprez, V., Musolino, J. Reinterpreting wh/quantifier interaction: what can experimentation tell us about grammar. Poster presented at the *Fourth International Conference on Cognitive Science*, Tomsk, Russia.

Achimova, A., Deprez, V., Musolino, J. Resolving wh-/quantifier ambiguities: an experimental approach. A talk presented at the *5th Annual Rutgers Linguistic Conference (RULing)*, NJ.

2007

Achimova, A. Token frequency, type frequency and phonological features of input: Influence on verb acquisition. Poster presented at the *Child Language Seminar*, Reading, Great Britain.

2006

Achimova, A. Verb form building innovations in child speech (5-7-year-olds). Paper presented at the *Problems of Child Language Studies Seminar*, St. Petersburg, Russia.

Achimova, A. Factors determining the choice of verb paradigm in child speech. Paper presented at the *International Symposium on Psycholinguistics*, Moscow, Russia.

2004

Achimova, A. Classification of verb innovations in child speech (evidence from English). Paper presented at the *Students conference in Linguistics*, Perm, Russia.

2003

Achimova, A. Polyphony in the novel “A room with a view” by E.M. Forster. Paper presented at the *Students conference in World Literature*, Perm, Russia.

Mentoring experience

Ivan Rygaev. Ph.D. thesis “Production and interpretation of anaphoric references”	2024 - 2027
Maren Ebert-Rohleder. Ph.D. thesis “Rhetorical questions in political speeches”	2020 - 2024
M.Sc. theses	4
B.Sc. theses	3
Team and lab projects	5

Teaching experience

University of Osnabrück

Introduction to statistics and data analysis (lecture + practicum) *Winter 2023*

Atypical language development (seminar) *Winter 2023*

University of Tübingen

Language and communication systems across species (seminar), co-taught with Prof. Dr. Martin Butz *Winter 2024*

Cognition in context (seminar), co-taught with Prof. Dr. Martin Butz *Summer 2024*

Language learnability (seminar), co-taught with Prof. Dr. Martin Butz *Winter 2022*

Cognitive modeling (practicum) *Summer 2022*

Typical and atypical language development (seminar), co-taught with Prof. Dr. Martin Butz *Winter 2021*

Cognitive modeling (practicum) *Summer 2021*

Cognitive modeling (practicum) *Summer 2020*

Social interactions (seminar), co-taught with Christian Stegemann-Philipps & Prof. Dr. Martin Butz *Winter 2019*

Natural language and event representations (seminar), co-taught with Christian Stegemann-Philipps & Prof. Dr. Martin Butz *Summer 2019*

Conceptual spaces (seminar), co-taught with Christian Stegemann-Philipps & Prof. Dr. Martin Butz *Winter 2018*

Leipzig University

Academic skills for linguists. B.A. course *Winter 2016*

Bilingualism and second language acquisition. M.A. course *Summer 2015*

Experimental methods in Linguistics. Graduate seminar. *Summer 2015*

Rutgers University

Cognition Lab *2009 - 2013*

Russian language, introductory course *2008*

Professional service

Ad hoc reviewer for journals: *Applied Psycholinguistics; Language Acquisition; Topics in Cognitive Science; Frontiers in Psychology; Journal of Psycholinguistic Research; First Language; Language, Cognition, and Neuroscience; Cognitive Processing; Linguistic Review; Cognitive Science; Languages; Cognition; Behavioral Sciences*

Reviewer for granting agencies: *DFG, Austrian Science Fund (FWF), NSF*

Equal opportunities representative, search committee for W3 professorship, University of Tübingen

Member of the Ethics Committee for Psychological Research

Project leader for the Tübingen Interdisciplinary Corpus of Ambiguity Phenomena (TInCAP) <https://tincap.uni-tuebingen.de/>

Co-organizer of the workshop “Multiple addressing in public discourse” workshop, Tübingen July 15-16, 2022

Co-organizer of the workshop “Background beliefs in the construction of meaning”,
Tübingen, January 9-10, 2025

Technical skills

Programming Skills	<i>R, JavaScript, HTML</i>
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Certificates

Certificate program “Leadership in Academia, Industry, and Society”	<i>University of Tübingen, 2022</i>
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Certificate in Cognitive Science	<i>Rutgers University, 2013</i>
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Certificate in Language Learning and Teaching	<i>Rutgers University, 2012</i>
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Languages

Russian	<i>Native</i>
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English	<i>Fluent</i>
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German	<i>Advanced (C1 TELC Hochschule, November 2022)</i>
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French	<i>Intermediate</i>
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Updated November 29, 2024