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# Dr. Asya Achimova

*Website:* [asya-achimova.github.io](https://asya-achimova.github.io)

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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*

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**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*

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

## *Academic employment*

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**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*

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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*

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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**

**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 46<sup>th</sup> Annual Meeting of the Cognitive Science Society*, (Vol. 46), p. 3399 - 3406.

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**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 43<sup>rd</sup> 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. (in press). 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. 85 - 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., Lahrso, 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-

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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*

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| Two models of strategic ambiguity. <i>Computational Cognition Conference</i> , University of Osnabrück, Keynote.   | 2023 |
| Interpreting speech under noise. <i>Cognitive Neuroscience of Human Verbal Communication Group</i> , University of Tübingen.                                     | 2023 |
| Belief inference in verbal communication. <i>Human and Machine Cognition Lab</i> , Cluster of Excellence – Machine Learning for Science, University of Tübingen. | 2022 |
| Ambiguity resolution as Bayesian Inference. <i>GRK 1808 Colloquium</i> , 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. <i>Language and Cognition Lab</i> , Johns Hopkins University.                                  | 2013 |

### *Conference presentations*

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|   | 2024 |
| Achimova, A., Franke, M., & M.V. Butz. Production and interpretation of indirect utterances. Paper to be presented at the 5 <sup>th</sup> Experimental Pragmatics in Italy Conference. Venice. Upcoming.  |      |
| Achimova, A., Franke, M., & M.V. Butz. Inferring the meaning of indirect utterance. Paper presented at the <i>Linguistics of political discourse</i> 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 <i>Common Ground in linguistics: from its construction to its role in mapping meaning</i> . Paris, Nanterre.        |      |
| Achimova, A., van Os, M., Demberg, V., & M.V. Butz. Event predictability affects production of anaphoric references. Paper presented at <i>DGfS Annual Meeting 2024</i> . 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 <i>XPrag 2023</i> : 10 <sup>th</sup> 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 <i>TeaP 2023</i> : 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 <i>XPrag 2022</i> : 9 <sup>th</sup>   |      |

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*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 *44<sup>th</sup> 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 *17<sup>th</sup> 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

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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)*,

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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.

### *Teaching experience*

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#### **University of Osnabrück**

Introduction to statistics and data analysis (lecture + practicum)	Winter 2023
Atypical language development (seminar)	Winter 2023

#### **University of Tübingen**

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

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## *Mentoring experience*

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### **University of Osnabrück**

Hardika Pottey. M.Sc. thesis “Pragmatic inference as problem solving” 2024

Dennis Witowski. B.Sc. thesis “The effect of expertise in trust and risk perception in human-AI interactions” 2024

### **University of Tübingen**

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

Leah Bohr. Lab project “Experimental Validation of the Belief Inference Models” Winter 2022

Sebastian Knoblich. B.Sc. thesis “Top-down influence of world knowledge on speech comprehension” Summer 2022

Marei Bukman. Lab project in Cognitive Science: “Belief inference in reference games” Winter 2021

Yul Wegner. Lab project in Cognitive Science: “Social effects of ambiguity resolution” Winter 2020

Team project in Cognitive Science: “Ambiguity creation as a complex cognitive skill” Summer 2020

Team project in Cognitive Science: “Inferring speaker preferences through the use of ambiguous utterances” Summer 2019

Ella Eisemann. B.Sc. thesis “Ambiguities in Dialogue: The Strategic Use of Ambiguous Utterances in Dialogues and the Rational Speech Act Model” Summer 2019

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## *Professional service*

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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*

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

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

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

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

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## *Technical skills*

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Programming Skills

*R, JavaScript, HTML*



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## *Certificates*

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

## *Languages*

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

Updated July 20, 2024