

# Asya Achimova

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Graduate School 1808  
Ambiguity – Production and Perception  
Eberhard Karls Universität Tübingen  
Keplerstr. 2, Rm 089  
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Neuro-Cognitive Modeling Group  
Department of Computer Science  
Eberhard Karls Universität Tübingen  
Sand 14, Rm C420  
72076 Tübingen

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<b>Education</b>	<p><i>Ph.D.</i>, Psychology (Cognitive) Rutgers University, New Brunswick, NJ, May 2014 Thesis: Resolving <i>wh</i>-quantifier ambiguities: Integrating theoretical and experimental perspectives Advisors: Julien Musolino &amp; Viviane Déprez Committee members: Kristen Syrett (Rutgers University), John Trueswell (University of Pennsylvania)</p> <p><i>M.S.</i>, Psychology, Rutgers University, New Brunswick, 2011</p> <p><i>B.A.</i>, English Language and Literature, Perm State University, Perm, Russia, 2007. <i>Summa cum laude</i></p>																
<b>Additional training</b>	<table><tr><td>Bayesian Modeling for Cognitive Science Summer School (Amsterdam).</td><td>2022</td></tr><tr><td>Fifth Summer School on Statistical Methods for Linguistics and Psychology (Bayesian track).</td><td>2021</td></tr><tr><td>European Summer School for Language, Logic, and Information (ESSLLI, online).</td><td>2021</td></tr><tr><td>Web Summer School for Language, Logic, and Information (NASSLLI).</td><td>2020</td></tr><tr><td>European Summer School for Language, Logic, and Information (ESSLLI, Riga, Latvia).</td><td>2019</td></tr><tr><td>Leipzig Spring School on Linguistic Diversity.</td><td>2006</td></tr><tr><td>St. Petersburg Institute of Linguistics, Cognition, and Culture. Summer school.</td><td>2005</td></tr><tr><td>St. Petersburg Institute of Linguistics, Cognition, and Culture. Summer school.</td><td>2004</td></tr></table>	Bayesian Modeling for Cognitive Science Summer School (Amsterdam).	2022	Fifth Summer School on Statistical Methods for Linguistics and Psychology (Bayesian track).	2021	European Summer School for Language, Logic, and Information (ESSLLI, online).	2021	Web Summer School for Language, Logic, and Information (NASSLLI).	2020	European Summer School for Language, Logic, and Information (ESSLLI, Riga, Latvia).	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
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<b>Certificates</b>	<table><tr><td>Certificate program “Leadership in Academia, Industry, and Society”. University of Tübingen</td><td>2022</td></tr><tr><td>Certificate in Cognitive Science, Rutgers University</td><td>2013</td></tr><tr><td>Certificate in Language Learning and Teaching, Rutgers University</td><td>2012</td></tr></table>	Certificate program “Leadership in Academia, Industry, and Society”. University of Tübingen	2022	Certificate in Cognitive Science, Rutgers University	2013	Certificate in Language Learning and Teaching, Rutgers University	2012										
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<b>Research interests</b>	Computational modeling of pragmatic reasoning, ambiguity resolution, quantifier scope, experimental linguistics, atypical language development, first and second language acquisition																
<b>Academic positions</b>	<p><i>Post-doctoral fellow</i> 2018 – present Neuro-Cognitive Modeling Group, University of Tübingen Research Training Group 1808 “Ambiguity: Production and Perception”</p>																

	Visiting scholar Linguistics Program, Wayne State University	2016 – 2018
	Part-time lecturer Institute of Linguistics, University of Leipzig	2015 – 2016
	Teaching Assistant Psychology Department, Rutgers University	2009 – 2013
	Russian Language Instructor Rutgers University	2008 – 2009
<b>Fellowships and awards</b>	Equal oport. 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
	Undergraduate regional fellowship of the Governor of Perm Region.	2004
	Undergraduate fellowship for freshmen for academic excellence.	2003
<b>Publications</b>	<b>Achimova, A.</b> , Scontras, G., Eisemann, E., & M.V. Butz. Active iterative social inference in multi-trial signaling games. <i>Open Mind</i> , accepted.	2023
	<b>Achimova, A.</b> , Stegemann-Philipps, C., Winkler, S., & M.V. Butz. Anaphoric reference in descriptions of surprising events. In Gutzmann, D. & S. Repp (eds.) <i>Proceedings of Sinn und Bedeutung 26</i> .	2022
	<b>Achimova, A.</b> , Scontras, G., Stegemann-Philipps, C., Lohmann, J., & M.V. Butz. Learning about others: Pragmatic social inference through ambiguity resolution. <i>Cognition</i> , 218, 104862.	2022
	Butz, M.V., <b>Achimova, A.</b> , Bilkey, D., & Knott, A. Event-predictive cognition: a root for conceptual human thought. <i>Topics in Cognitive Science</i> , 13(1).	2021
	Stegemann-Philipps, C., Butz, M.V., Winkler, S., & <b>Achimova, A.</b> Speakers use more informative referring expressions to describe surprising events. <i>Proceedings of the 43<sup>r</sup>d Annual Meeting of the Cognitive Science Society</i> .	2021
	Hartmann, J., <b>Achimova, A.</b> , 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. TInCAP User Manual, GRK 1808 Ambiguity Database.	2021
	<b>Achimova, A.</b> , Déprez, V. Specificity affects determiner choice even when definiteness transfers. In Deborah Arteaga (Ed.): <i>L2 grammatical representation and processing. Theory and practice</i> p. 12 – 27, Second Language Acquisition: 136, Bristol; Blue Ridge Summit: Multilingual Matters.	2019

- Achimova, A.**, Déprez, V., Musolino, J. 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. 2018
- Achimova, A.**, Syrett, K., Musolino, J., Déprez, V. Children’s developing knowledge of wh-/quantifier question-answer relations. *Language Learning and Development*, 1. p. 80 – 99 2017
- Achimova, A.**, Staroverov, P., Déprez, V. & Musolino, J. 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. 2015
- Achimova, A.**, Crosby, C., Déprez, V., Syrett, K., Musolino, J. 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. 2013
- Achimova, A.**, Déprez, V., Musolino, J. 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. 2013
- Achimova, A.** 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. 2008
- Achimova, A.** 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. 2004
- Achimova, A.** 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. 2004
- Achimova, A.** English loanwords in Perm local newspapers. *Philologist*, 2, p. 18 – 23. Perm, Russia: Perm State School of Education Press. 2003
- Invited talks** 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

**Conference  
Presentations**

- The role of expertise: Professional linguists as subjects in a psycholinguistic experiment. *Linguistics Program Colloquium*, Wayne State University, Detroit. 2017
- Rethinking a classic puzzle in the acquisition of quantification. *Language and Cognition Lab*, Johns Hopkins University. 2013
- 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: 9<sup>th</sup> Experimental Pragmatics Conference*. Pavia, Italy 2022
- 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 2022
- 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. 2022
- 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)*. 2021
- Achimova, Asya & Martin V. Butz. Discovering shared reality in ambiguity resolution. *Moscow HSE Pragmatics Workshop*. 2021
- 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/> 2021
- 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 2021
- 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 2021
- 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 2020
- 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 2020
- 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. 2019
- Scontras, G., Achimova, A., Stegemann, C., and M. Butz. The added informativity of ambiguous utterances. Poster presented at *Experimental Pragmatics (XPRAG)* Edinburgh, UK. 2019
- 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. 2019

- 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. 2018
- 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. 2015
- 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. 2013
- Achimova, A., Deprez, V. Specificity matters even when definiteness transfers, *International Congress of Linguistics (CIL 19)*. Geneva, Switzerland. 2013
- 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. 2012
- 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. 2012
- 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*. 2012
- Huang, S., Ortega, M., Patel, A., Achimova, A., Deprez, V. Determiner acquisition in L2 French. Poster presented at *Aresty Undergraduate Symposium*. 2012
- Achimova, A., Deprez, V., Musolino, J. Naive speakers vs. professional linguists: same or different. Paper presented at the *6th Annual Rutgers Linguistic Conference (RULing)*, NJ. 2011
- Venezia, F., Achimova, A., Deprez, V., Musolino, J. How to answer which questions: an experimental approach. Poster presented at *Aresty Undergraduate Symposium*. 2011
- 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*. 2011
- 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. 2010
- 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. 2010
- 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. 2010
- 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. 2007
- 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. 2006
- Achimova, A. Factors determining the choice of verb paradigm in child speech. Paper presented at the *International Symposium on Psycholinguistics*, Moscow, Russia. 2006

	Achimova, A. Classification of verb innovations in child speech (evidence from English). Paper presented at the <i>Students conference in Linguistics</i> , Perm, Russia.	2004
	Achimova, A. Polyphony in the novel “A room with a view” by E.M. Forster. Paper presented at the <i>Students conference in World Literature</i> , Perm, Russia.	2003
<b>Teaching</b>	Language learnability. Seminar co-taught with Prof. Martin Butz	Winter 2022
	Cognitive modeling: Practicum	Summer semester 2022
	Typical and atypical language development. Seminar co-taught with Prof. Martin Butz	Winter 2021
	Cognitive modeling: Practicum (online course)	Summer semester 2021
	Cognitive modeling: Practicum (online course)	Summer semester 2020
	Social interactions (online course). Seminar co-taught with Dr. Sarah Fabi and Prof. Martin Butz	Summer 2020
	Natural language and event representations. Seminar co-taught with Christian Stegemann and Prof. Martin Butz	Summer 2019
	Conceptual spaces. Seminar co-taught with Christian Stegemann and Prof. Martin Butz	Winter 2018
	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. Co-taught with Dr. Peter Staroverov (University of Leipzig)	Winter 2015
	Cognition Lab	2009 – 2013
	Russian Language, Introductory course.	2008 – 2009
<b>Mentoring</b>	Maren Ebert-Rohleder. Ph.D. thesis “Rhetorical questions in political speeches”	2020 - 2022
	Sebastian Knoblich. BSc 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 Semester 2021
	Yul Wegner. Lab project in Cognitive Science: “Social effects of ambiguity resolution”	Winter Semester 2020
	Team project in Cognitive Science: “Ambiguity creation as a complex cognitive skill”	Summer semester 2020
	Team project in Cognitive Science: “Inferring speaker preferences through the use of ambiguous utterances”	Summer semester 2019
	Ella Eisemann, BSc. thesis “Ambiguities in Dialogue: The Strategic Use of Ambiguous Utterances in Dialogues and the Rational Speech Act Model”	Summer semester 2019
<b>Professional Service</b>	Ad hoc reviewer for <i>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</i>	
	Equal opportunities representative, search committee for W3 professorship, University of Tübingen	
	Project leader for the Tübingen Interdisciplinary Corpus of Ambiguity Phenomena (TInCAP) <a href="https://tincap.uni-tuebingen.de/">https://tincap.uni-tuebingen.de/</a>	

**Languages**

Russian native  
English fluent  
German advanced (C1 Telc Hochschule Prüfung, November 2022)  
French intermediate

**STATISTICS  
AND PRO-  
GRAMMING  
SKILLS**

R, Python (basic skills), JavaScript

Updated January 12, 2023