

Thomas Schatz

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Birth date July 9, 1986

Nationality French and Swiss

Education

2016	PhD Université Paris 6. Paris, France. Laboratoire de Sciences Cognitives et Psycholinguistique (UMR 8554 ENS/EHESS/CNRS) & Laboratoire d'Informatique de l'École Normale Supérieure (UMR 8548 ENS/INRIA/CNRS). Advisors: Emmanuel Dupoux and Francis Bach.
2011	M.Sc Cognitive Science École Normale Supérieure, Université Paris 5, École des Hautes Études en Sciences Sociales. Paris, France.
2008	B.Sc Mathematics and B.Sc Computer Science Université de Rennes 1. Rennes, France.
2007–2011	École Normale Supérieure de Cachan (<i>Normalien</i> status).

Current Position

2017-present	Postdoctoral Associate Linguistics Department & Institute for Advanced Computer Studies, University of Maryland, College Park, USA.
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Previous Positions

2017-2018	Postdoctoral Fellow Linguistics Department, Massachusetts Institute of Technology, Cambridge, USA.
2016-2017	Postdoctoral Researcher École des Hautes Études en Sciences Sociales, Paris, France (Funded through ERC BOOTPHON).

Fellowships and Awards

2011–2014	<i>Allocation Doctorale Spécifique pour Normalien</i> , École Normale Supérieure de Cachan (€73k).
2009	Award for best student paper - IEEE International Conference on Development and Learning (\$250).
2007–2011	<i>Normalien</i> student, École Normale Supérieure de Cachan (€72k).

Student Mentoring

04/2013–06/2013	1 student, final project for <i>Computational Neuroscience and Machine Learning</i> class, Cogmaster M.Sc program, Paris, France.
09/2013–01/2014	1 student, intern from Cogmaster program, Paris, France.
04/2014–06/2014	2 students, final project for <i>Computational Neuroscience and Machine Learning</i> class, Cogmaster M.Sc program, Paris, France.
04/2017–10/2017	1 student, final internship cloturing M.Sc-level engineering studies at École des Mines de Paris, Paris, France.
09/2018–present	1 linguistics PhD student, University of Maryland, USA.
05/2019–08/2020	1 4th year cognitive science undergrad student, University of Rochester, USA.
09/2019–present	1 linguistics PhD student, University of Maryland, USA.
09/2020–present	1 linguistics PhD student, University of Maryland, USA.

Teaching Activities

2011–2014	Teaching assistant, Cogmaster M.Sc program (École Normale Supérieure, École des Hautes Études en Sciences Sociales, Université Paris 5), Paris, France.
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Scientific Society Membership

2013–2017	Member International Speech Communication Association (ISCA)
2017–2018	Member Cognitive Science Society
2019–2020	Member Cognitive Science Society

Ad Hoc Reviewer

Peer-reviewed international journals

- Cognitive Science
- Cognition
- IEEE Signal Processing Letters
- Journal of Child Language
- JASA
- Frontiers in Psychology

Peer-reviewed international conferences

- INTERSPEECH
- ACL
- CCN
- COLING
- SCIL
- CoNLL

Principal Collaborators

Emmanuel Dupoux, École des Hautes Études en Sciences Sociales, Paris, France
Naomi Feldman, University of Maryland, College Park, USA
Dan Swingley, University of Pennsylvania, Philadelphia, USA
Hynek Hermansky, John Hopkins University, Baltimore, USA
Francis Bach, INRIA, Paris, France
Vijayaditya Peddinti, Google, Mountain View, USA
Rory Turnbull, University of Hawai'i at Manoa, Honolulu, USA
Alejandrina Cristia, CNRS, Paris, France
Sho Tsuji, University of Tokyo, Tokyo, Japan
Christina Bergmann, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands

Publications ([Google Scholar profile](#))

Peer-reviewed International Journals

1. **Schatz, T.**, Feldman, N.H., Goldwater, S., Cao, X-N., & Dupoux, E. (2021). Early phonetic learning without phonetic categories — Insights from large-scale simulations on realistic input. *Proceedings of the National Academy of Science* 118(7).
2. **Schatz, T.**, Bach, F. & Dupoux, E. (2018). Evaluating automatic speech recognition systems as quantitative models of cross-lingual phonetic category perception. *The Journal of the Acoustical Society of America* 143(5), EL372-EL378.
3. Martin, A., **Schatz, T.**, Versteegh, M., Miyazawa., K., Mazuka, R., Dupoux, E. & Cristia, A. (2015). Mothers Speak Less Clearly to Infants Than to Adults: A Comprehensive Test of the Hyperarticulation Hypothesis. *Psychological Science* 26(3), 341-347.

Peer-reviewed International Conferences

1. Li, R., **Schatz, T.**, Matushevych, Y., Goldwater, S. & Feldman, N.H. (2020). Input matters in the modeling of early phonetic learning. *Proceedings of CogSci, 2020*.
2. Matushevych, Y., **Schatz, T.**, Kamper, H., Goldwater, S. & Feldman, N.H. (2020). Evaluating computational models of infant phonetic learning across languages. *Proceedings of CogSci, 2020*.
3. Thorburn, C.A., Feldman, N.H. & **Schatz, T.** (2019). A quantitative model of the language familiarity effect in infancy. *Proceedings of CCN, 2019*.
4. **Schatz, T.** & Feldman, N.H. (2018). Neural network vs. HMM speech recognition systems as models of human cross-linguistic phonetic perception. *Proceedings of CCN, 2018*.
5. Riad, R., Dancette, C., Karadayi, J., Zeghidour, N., **Schatz, T.**, & Dupoux, E. (2018). Sampling strategies in Siamese Networks for unsupervised speech representation learning. *Proceedings of INTERSPEECH, 2018*.
6. Zeghidour, N., Usunier, N., Kokkinos, I., **Schatz, T.**, Synnaeve, G. & Dupoux, E. (2018). Learning filterbanks from raw speech for phone recognition. *Proceedings of ICASSP, 2018*.
7. **Schatz, T.**, Turnbull, R., Bach, F. & Dupoux, E. (2017). A Quantitative Measure of the Impact of Coarticulation on Phone Discriminability. *Proceedings of INTERSPEECH, 2017*.
8. Versteegh, M.*, Thiollière, R.*, **Schatz, T.***, Cao, X-N., Anguera, X., Jansen, A. & Dupoux, E. (2015). The Zero Resource Speech Challenge. *Proceedings of INTERSPEECH, 2015*.
* **Joint first authors.**
9. Synnaeve, G., **Schatz, T.** & Dupoux, E. (2014). Phonetics Embedding Learning with Side Information. *Proceedings of SLT, 2014*.
10. **Schatz, T.**, Peddinti, V., Cao, X., Bach, F., Hermansky, H. & Dupoux, E. (2014). Evaluating Speech Features with the Minimal-Pair ABX Task (II): Resistance to Noise. *Proceedings of INTERSPEECH, 2014*.
11. Fourtassi, A., **Schatz, T.**, Varadarajan, B. & Dupoux, E. (2014). Exploring the Relative Role of Bottom-up and Top-down Information in Phoneme Learning. *Proceedings of ACL, 2014*.

12. **Schatz, T.**, Peddinti, V., Bach, F., Jansen, A., Hermansky, H. & Dupoux, E. (2013). Evaluating Speech Features with the Minimal-Pair ABX Task (I): Analysis of the Classical MFC/PLP Pipeline. *Proceedings of INTERSPEECH, 2013*.
13. Jansen, A., Dupoux, E., Goldwater, S., Johnson, M., Khudanpur, S., Church, K., Feldman, N., Hermansky, H., Metze, F., Rose, R., Seltzer, M., Clark, P., McGraw, I., Varadarajan, B., Bennett, E., Borschinger, B., Chiu, J., Dunbar, E., Fourtassi, A., Harwath, D., Lee, C-y., Levin, K., Norouzi, A., Peddinti, V., Richardson, R., **Schatz, T.** & Thomas, S. (2013). A Summary of the 2012 JHU CLSP Workshop on Zero Resource Speech Technologies and Models of Early Language Acquisition. *Proceedings of ICASSP, 2013*.
14. **Schatz, T.** & Oudeyer, P-Y. (2009). Learning Motor Dependent Crutchfield's Information Distance to Anticipate Changes in the Topology of Sensory Body Maps. *Proceedings of ICDL, 2009*. (Best student paper award).

PhD Thesis

Schatz, T. (2016). ABX-Discriminability Measures and Applications. *Thèse de Doctorat de l'Université Paris 6*.

Invited Presentations

2019	Clunch, Computer and Information Science department, University of Pennsylvania Philadelphia, USA.
2019	Integrated Language Science and Technology seminar, University of Pennsylvania Philadelphia, USA.
2019	CLSP lecture series, Whiting School of Engineering, John Hopkins University, Baltimore, USA.
2019	EdinburghNLP, School of Informatics, University of Edinburgh, Edinburgh, UK.
2018	Phonology Circle, Department of Linguistics, Massachusetts Institute of Technology, Cambridge, USA.
2018	CompLang, Brain and Cognitive Science Department, Massachusetts Institute of Technology, Cambridge, USA.
2017	Séminaire de Recherches en Phonétique et Phonologie, Laboratoire Phonétique et Phonologie, Université Paris 3: Sorbonne Nouvelle, Paris, France.
2017	Internal Seminar, Gatsby Computational Neuroscience Unit, University College London, London, UK.
2016	DEC Lunch Seminar, Département d'Études Cognitives, École Normale Supérieure, Paris, France.
2016	Seminar, Facebook Artificial Intelligence Research, Paris, France.
2013	Workshop on Computational Models of Early Language Acquisition, École Normale Supérieure, Paris, France.
2012	JHU CLSP Workshop on Zero Resource Speech Technologies and Models of Early Language Acquisition, John Hopkins University, Baltimore, USA.

Conference Presentations

2020	Boston University Conference on Language Development (BUCLD), talk.
2019	Cognitive Computational Neuroscience conference (CCN), poster.
2018	Boston University Conference on Language Development (BUCLD), poster.
2018	Cognitive Computational Neuroscience conference (CCN), poster.
2017	Cognitive Computational Neuroscience conference (CCN), poster.
2017	INTERSPEECH conference, poster.
2017	Cognitive Science conference (COGSCI), poster.
2017	International Congress for the Study of Child Language (IASCL), talk.
2014	INTERSPEECH conference, talk.
2013	INTERSPEECH conference, poster.