

# Thomas Schatz

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**Birth date** July 9, 1986

**Nationality** French and Swiss

## Education

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2016	<b>PhD</b> 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	<b>M.Sc Cognitive Science</b> École Normale Supérieure, Université Paris 5, École des Hautes Études en Sciences Sociales. Paris, France.
2008	<b>B.Sc Mathematics</b> Université de Rennes 1. Rennes, France.
	<b>B.Sc Computer Science</b> Université de Rennes I Rennes, France.
2007–2011	<b>École Normale Supérieure de Cachan</b> ( <i>Normalien</i> status).

## Current Position

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2017 – ...	<b>Postdoctoral Associate</b> Department of Linguistics & UMIACS, University of Maryland, College Park, MD, USA .
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## Former Position

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2017–2018	<b>Postdoctoral Fellow</b> Department of linguistics, Massachusetts Institute of Technology, Cambridge, MA, USA .
2016–2017	<b>Postdoctoral Researcher</b> École des Hautes Études en Sciences Sociales, Paris, France (Funded through ERC BOOTPHON).

## Fellowships and Awards

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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).

## Supervision of Graduate Students

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04/2017–10/2017	One student, full-time, final internship cloturing M.Sc-level engineering studies at École des Mines de Paris, Paris, France.
04/2014–06/2014	Two students, part-time, final project for <i>Computational Neuroscience and Machine Learning</i> class, Cogmaster M.Sc program, Paris, France.
09/2013–01/2014	One student, part-time, intern from Cogmaster program, Paris, France.
04/2013–06/2013	One student, part-time, final project for <i>Computational Neuroscience and Machine Learning</i> class, Cogmaster M.Sc program, Paris, France.

## Teaching Activities

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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

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

## Ad Hoc Reviewer

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Peer-reviewed international journals: Cognition  
Peer-reviewed international conferences: COLING, INTERSPEECH

## Principal Collaborators

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Naomi Feldman, University of Maryland, College Park, USA  
Emmanuel Dupoux, École des Hautes Études en Sciences Sociales, Paris, France  
Alejandrina Cristia, CNRS, Paris, France  
Sharon Goldwater, University of Edinburgh, Edinburgh, UK  
Sho Tsuji, Ecole Normale Supérieure, Paris, France  
Christina Bergmann, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands  
Francis Bach, INRIA, Paris, France  
Vijayaditya Peddinti, Google, Mountain View, USA  
Hynek Hermansky, John Hopkins University, Baltimore, USA

## Publications

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*Number of citations based on Google Scholar on August 24, 2018.*

### Peer-reviewed International Journals

1. **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). Citations: 1.
2. 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*, (Vol. 26, n°3, pp. 341-347). Citations: 39.

### Peer-reviewed International Conferences with Proceedings

1. **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*. Citations: 0.
2. 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*. Citations: 0.
3. 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*. Citations: 3.
4. **Schatz, T.**, Bach, F. & Dupoux, E. (2017). ASR Systems as Models of Phonetic Category Perception. *Proceedings of CCN, 2017*. Citations: 0.
5. **Schatz, T.**, Turnbull, R., Bach, F. & Dupoux, E. (2017). A Quantitative Measure of the Impact of Coarticulation on Phone Discriminability. *Proceedings of INTERSPEECH, 2017*. Citations: 0.
6. 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*. Citations: 79.  
\* *Joint first authors.*
7. Synnaeve, G., **Schatz, T.** & Dupoux, E. (2014). Phonetics Embedding Learning with Side Information. *Proceedings of SLT, 2014*. Citations: 35.

8. **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*. Citations: 28.
9. 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*. Citations: 6.
10. **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*. Citations: 59.
11. 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., Norouzian, 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*. Citations: 65.
12. **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). Citations: 6.

#### PhD Thesis

**Schatz, T.** (2016). ABX-Discriminability Measures and Applications. *Thèse de Doctorat de l'Université Paris 6*. Citations: 9.

## Invited Presentations

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2018	Phonology Circle, Department of Linguistics, Massachusetts Institute of Technology, USA.
2018	Complang - Discussion Group on Language and Computation, Massachusetts Institute of Technology, USA.
2017	Séminaire de Recherche en Phonétique et Phonologie (SRPP), Laboratoire de Phonétique et Phonologie, Université Paris 3, 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

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2018	Boston University Conference on Language Development (BUCLD), poster.
2018	Cognitive Computational Neuroscience conference (CCN), poster.
2018	Learning Language in Humans and in Machines (L2HM), 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.