

Robert X.D. Hawkins

CONTACT INFORMATION	Stanford University 450 Serra Mall Stanford, CA 94305	Cell: (217)-549-6923 E-mail: rxdh@stanford.edu WWW: http://rxdhawkins.wordpress.com/
EDUCATION	Stanford University , 2014 – Present PhD Student, Psychology (in Progress) Indiana University , 2010 – 2014 BS with Highest Distinction, Mathematics and Cognitive Science	
ACADEMIC APPOINTMENTS	Graduate Student Researcher Stanford University • Advisor: Noah Goodman	2014 – Present
	Edward A. Knapp Undergraduate Fellow Santa Fe Institute, Santa Fe, NM • Advisor: Simon DeDeo	Summers 2012 & 2013
	Undergraduate Research Assistant Department of Psychological and Brain Sciences, Indiana University • Advisors: James T. Townsend, Robert L. Goldstone, Olaf Sporns	2010 – 2014
JOURNAL PUBLICATIONS	Hawkins, R.X.D. , Frank, M.C., Goodman, N.D. (in prep). Convention formation in a communication model. Hawkins, R.X.D. , Goodman, N.D. (in prep). Questions and answers in dialogue. Degen, J., Hawkins, R.X.D. , Graf, C., Goodman, N.D. (in prep). Over ‘over-informativeness’: rational redundant referring expressions. Hawkins, R.X.D.* , Smith, E.*, Au, C., Arias, J.M., Catapano, R., Hermann, E., Keil, M., Lampinen, A., Raposo, S., Reynolds, J., Salehi, S., Salloum, J., Tan, J., Frank, M.C. (2017). Improving the Replicability of Psychological Science Through Pedagogy. <i>Advances in Methods and Practices in Psychological Science</i> . Monroe, W., Hawkins, R.X.D. , Goodman, N.D., Potts, C. (2017). Colors in Context: A Pragmatic Neural Model for Grounded Language Understanding. <i>Transactions of the Association for Computational Linguistics</i> , 5, 325–338. Avena-Koenigsberger, A, Masic, B., Hawkins, R.X.D. , Griffa, A., Hagmann, P., Goñi, J., and Sporns, O. (2017). Path ensembles and a tradeoff between communication efficiency and resilience in the human connectome. <i>Brain Structure and Function</i> , 222 (1), 603-618.	

- Hawkins, R.X.D.**, Goldstone, R. L. (2016). The formation of social conventions in real-time environments. *PLoS ONE*, 11 (3), e0151670.
- Hawkins, R.X.D.**, Hout, J.W., Eidels, A., Townsend, J.T. (2016). Can two dots form a Gestalt? Measuring emergent features with the capacity coefficient. *Vision Research*, 126, 19–33.
- Silbert, N. H., **Hawkins, R.X.D.** (2016). A tutorial on general recognition theory. *Journal of Mathematical Psychology*, 73, 94-109.
- Hawkins, R.X.D.** (2015). Conducting real-time multiplayer experiments on the web. *Behavior Research Methods*, 47 (4), 966-976
- DeDeo, S., **Hawkins, R.X.D.**, Klingenstein, S., Hitchcock, T. (2013). Bootstrap methods for the empirical study of decision-making and information flows in social systems. *Entropy*, 15 (6), 2246-2276.
- PEER-REVIEWED CONFERENCE PROCEEDINGS **Hawkins, R.X.D.**, Frank, M.C., Goodman, N.D. (2017). Convention-formation in iterated reference games. *Proceedings of the Thirty-Ninth Annual Conference of the Cognitive Science Society*.
- C. Graf, J. Degen, **Hawkins, R.X.D.**, N.D. Goodman (2016). Animal, dog, or dalmatian? Level of abstraction in nominal referring expressions. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society*.
- Hawkins, R.X.D.**, N.D. Goodman (2016). Conversational expectations account for apparent limits on theory of mind use. *Proceedings of the Thirty-Eighth Annual Conference of the Cognitive Science Society*.
- Hawkins, R.X.D.**, A. Stuhlmüller, J. Degen, N.D. Goodman (2015). Why do you ask? Good questions provoke informative answers. *Proceedings of the Thirty-Seventh Annual Conference of the Cognitive Science Society*.
- P.M. Krafft, **Hawkins, R.X.D.**, A.S. Pentland, N.D. Goodman, J.B. Tenenbaum (2015). Emergent collective sensing in human groups. *Proceedings of the Thirty-Seventh Annual Conference of the Cognitive Science Society*.
- BOOK CHAPTERS D. Algom, A. Eidels, **Hawkins, R.X.D.**, B. Jefferson, J.T. Townsend, (2015). Features of response times: Identification of cognitive mechanisms through mathematical modeling. In *The Oxford Handbook of Computational and Mathematical Psychology*.
- TECHNICAL REPORTS A. Stuhlmüller, **R. X. D. Hawkins**, S. Narayanaswamy, N.D. Goodman (2015). Coarse-to-fine sequential Monte Carlo for probabilistic programs. arXiv:1509.02962.
- INVITED TALKS Interacting Minds Center (IMC) Seminar, Aarhus University, August 2017.
- Language Evolution Seminar, University of Edinburgh, August 2017.
- Linguistics Colloquium, University of Tübingen, July 2017.
- Platform talk at STARS Research Symposium, Indiana University, March 2014.

'Grey Matters' graduate student colloquium, Indiana University, November 2013.

CONFERENCE
PRESENTATIONS

Kreiss, E., **Hawkins, R.X.D.**, Degen, J., and Goodman, N.D. (2017) Mentioning atypical properties of objects is communicatively efficient. Poster at 39th Annual Conference of the Cognitive Science Society; London, UK.

Hawkins, R.X.D., Frank, M.C., Goodman, N.D. (2017). Convention-formation in iterated reference games. Talk at 39th Annual Conference of the Cognitive Science Society; London, UK.

Hawkins, R.X.D., Goodman, N.D. (2017) Why do you ask? Good questions provoke informative answers. Poster at CSLI Workshop (*Bridging computational and psycholinguistic approaches to the study of meaning*).

Degen, J., Graf, C., **Hawkins, R.X.D.**, and Goodman, N.D. (2017) "Overinformative" referring expressions aren't really overinformative. LSA Annual Meeting, Jan 5-8.

Kreiss, E., Degen, J., **Hawkins, R.X.D.**, and Goodman, N.D. (2017). Mentioning atypical properties of objects is communicatively efficient. Poster at XPRAG 2017, Cologne, Jun 21-23.

Degen, J., Kreiss, E., **Hawkins, R.X.D.**, and Goodman, N.D. (2017). Mentioning atypical properties of objects is communicatively efficient. Talk at CUNY, MIT, Mar 30-Apr 1.

Hawkins, R.X.D. (2016). The emergence of conventions in real-time environments. Talk at 38th Annual Conference of the Cognitive Science Society; Philadelphia, PA.

Hawkins, R.X.D., N.D. Goodman (2016). Conversational expectations account for apparent limits on theory of mind use. Talk at 38th Annual Conference of the Cognitive Science Society; Philadelphia, PA.

Degen, J., Graf, C., **Hawkins, R.X.D.**, and Goodman, N.D. (2016) Rationally redundant referring expressions: over "overinformativeness." Talk at AMLaP, Bilbao, Sep 1-3.

A. Eidels, **Hawkins, R.X.D.**, J.W. Houpt, J. T. Townsend (2015). The quest for the simplest Gestalt. Talk presented at Psychonomic Society Conference; Chicago, IL; November 19, 2015.

Hawkins, R.X.D., N.D. Goodman (2015). Why do you ask? Good questions provoke informative answers. Talk at 14th Annual Summer Interdisciplinary Conference, Mammoth Lakes, CA, July 11, 2015.

Hawkins, R.X.D. (2015) The formation of lexical conventions in communication games. Guest seminar for CSLI Summer Internship program, Stanford, CA, June 26, 2015.

A. Avena-Koenigsberger, O. Sporns, B. Corominas-Murtra, **Hawkins, R.X.D.**, J. A. Contreras, J. Goñi (2015). Generalized Search Information: an information theoretical approach to network communication through ensembles of

shortest-paths. Poster presented at NetSci 2015, Zaragoza, Spain, June 4, 2015.

Hawkins, R.X.D., R.L. Goldstone (2014). Efficiency, fairness, and stability in a real-time, asynchronous game. Talk presented at 4th Annual Midwest Cognitive Science Conference, Dayton, OH, May 31, 2014.

J.T. Townsend, **Hawkins, R.X.D.**, M.J. Wenger (2013). A feature story on faces: Dimensions, features, and holism. Talk presented at Psychonomic Society Conference; Toronto, Canada, November 14, 2013.

Hawkins, R.X.D., R.L. Goldstone. (2013). Real-time strategy: Multi-level group dynamics in an uncertain environment. Poster at 35th Annual Conference of the Cognitive Science Society; Berlin, Germany, August 2, 2013.

J.W. Houpt, **Hawkins, R.X.D.**, D. Burns, J.T. Townsend (2013). Measuring Configural Superiority with the Capacity Coefficient. Poster at Vision Sciences Society Annual Meeting, Naples, FL, May 12, 2013.

Hawkins, R.X.D., J.W. Houpt, A. Eidels, J.T. Townsend (2012). Fundamental properties of simple emergent feature processing. Poster at Vision Sciences Society Annual Meeting, Naples, FL, May 14, 2012.

Hawkins, R.X.D. (2012). Quantifying emergence in perceptual organization. Talk presented at Midwest Undergraduate Cognitive Science Conference; Bloomington, IN, April 15, 2012. **[Winner of Best Paper Award]**

Hawkins, R.X.D., J.W. Houpt, A. Eidels, J.T. Townsend, M.J. Wenger (2011). Fundamental properties of simple emergent feature processing. Poster at Object Perception, Attention, and Memory; Seattle, WA, November 3, 2011.

Hawkins, R.X.D., J.W. Houpt (2011). Basic features in visual perception. Talk presented at Midwest Undergraduate Cognitive Science Conference; Bloomington, IN, April 2, 2011.

AWARDS AND HONORS

Cognitive Science Society travel grant, 2016

Cognitive Science Society prize for computational modeling in Applied Cognition, 2015

E.K. Potter Fellow, Stanford Graduate Fellowship, 2014

NSF Graduate Research Fellowship, 2014

Phi Beta Kappa, 2013

Sigma Xi Outstanding Undergraduate Research Award, 2013

Indiana University

- Cognitive Science Program Award for Outstanding Achievement, 2013
- Cognitive Science Program Award for Outstanding Contribution, 2012
- Hutton Honors College: Research Partnership Grant, 2011
- Arthur R. Metz Scholarship, 2010
- Science, Technology, and Research Scholar, 2010

TEACHING
EXPERIENCE

Graduate Teaching Assistant, Stanford University

- Computation and Cognition: the Probabilistic Approach, Fall 2016, 2017
- Bayesian Statistics for Psychologists, Summer 2016
- Lab in Experimental Methods, Winter 2016
- Statistical Methods for Behavioral and Social Sciences, Fall 2015

Undergraduate Teaching Assistant, Indiana University

- Programming Languages, Fall 2012, Spring 2013
- Philosophical Foundations of Cognitive Science, Spring 2012

PROFESSIONAL
SERVICE

Ad Hoc Reviewer

- *Journal of Experimental Psychology: Human Perception and Performance*
- *Behavior Research Methods*
- *Cognitive Science*
- *Cognitive Science Society conference proceedings*

Conference Service

- Co-organizer for Stanford-Berkeley Cognitive Area Meetup, 2015, 2017
- Co-organizer for “Emergence of Conventions” symposium at the 38th Annual Meeting of the Cognitive Science Society, Philadelphia, PA, 2016
- Co-organizer for 5th Annual Midwest Undergraduate Cognitive Science Conference, Bloomington, IN, 2013

Departmental Service

- Graduate program committee, 2015-present
- Co-organizer for Stanford cognitive science training seminar, 2017-present
- Co-organizer for Stanford Cog/Neuro area training seminar, 2016-2017
- Stanford graduate admissions committee, 2015-2016

President of IU Student Organization for Cognitive Science, 2011 - 2012

IU Vice Provost for Undergraduate Education Advisory Board, 2011 - 2012