

## Charles Yang

**Charles Yang** is Professor of Linguistics at the University of Pennsylvania. He received his PhD from MIT in 2000, and his SM in Computer Science from MIT in 1997, after receiving a BS in Computer Science from Case Western Reserve University in 1994. His expertise resides in language acquisition and processing, as well as in language change with specific focus on morphology and the mental lexicon. His work also addresses fundamental issues regarding the evolution of language and cognition. Prof. Yang makes simple observation that learners make mistakes when they learn a language. Yet, to the trained eye, these mistakes are far from random; in fact, they often closely resemble perfectly grammatical utterances by adults in other languages. This type of error analysis suggests a novel view of language learning in which learners are endowed with a fixed set of hypotheses about language that these hypotheses compete to match the child's ambient language in a Darwinian fashion. His work presents evidence for this perspective from the study of vocabulary and grammar and language change over time.

### Books

(2016) *The Price of Linguistic Productivity*. MIT press.

(2006) *The Infinite Gift*. Scribner's. New York.

(2002) *Knowledge and Learning in Natural Language*, Oxford University Press

### List of publications

#### Articles and Chapters

(2017) [The growth of language: Universal grammar, experience, and principles of efficient computation](#). (With Stephen Crain, Robert Berwick, Noam Chomsky, and Johan Bolhuis. Neuroscience and Biobehavioral Review (special issue on the biology of language

(2017) [How to wake up irregular \(and speechless\)](#). In Bower, Horn, Zanuttini (eds.) On looking into words (and beyond). (Tribute to [Stephen R. Anderson](#), who gave me my first linguistics job.)

(2017) [When nobody wins](#) With [Kyle Gorman](#). To appear in Franz Rainer, Francesco Gardani, Hans Christian Luschützky and Wolfgang U. Dressler (ed)., Competition in inflection and word formation. Dordrecht: Springer. (This paper refines and extends some analyses of paradigmatic gaps in [POP](#) and supercedes the earlier 2012 work below with Preys and Browczyk.

(2017) [How to make the most out of very little](#). In honor of Lila Gleitman. To appear in Topics in Cognitive Science.

(2016) [Learning datives: The Tolerance Principle in L1 and L2 acquisition](#). (With Silvina Montrul). Second Language Research.

- (2016) [Testing the Tolerance Principle: Children form productive rules when it is more computationally efficient to do so.](#) (With Kathryn Schuler and Elissa Newport). To appear in Cogsci society meeting.
- (2016) [The pursuit of word meanings.](#) (With Jon Stevens, Lila Gleitman, and John Trueswell). In press in Cognitive Science.
- (2017) [Rage against the machine: Evaluation Metrics in the 21st century.](#) To appear in Language Acquisition.
- (2017) [Statistical evidence that a child can create a combinatorial linguistic system without linguistic input: Implications for language evolution.](#) (With Susan Goldin-Meadow) Neuroscience and Biobehavioral Review (special issue on the biology of language)
- (2015) [Input and its structural description.](#) In 50 years later: Reflections on Chomsky's Aspects. (With Julie Anne Legate and Allison Ellman)
- (2015) [Negative knowledge from positive evidence.](#) Language
- (2015) [For and against frequencies. Comments on Ambridge et al.](#) J. Child Language
- (2014) Hauser, M.D.; Yang, C.; Berwick, R.; Tattersall, I.; Ryan, M.; Watumull, J.; Chomsky, N.; Lewontin, R. in press. The mystery of language evolution. Frontiers in Language Science.
- (2014). Richie, R, Yang, C. & Coppola, M. [Modeling the Emergence of Lexicons in Homesign Systems.](#) Topics in Cognitive Science: 6, 183-195.
- (2013) [Recursive misrepresentations: Reply to Levinson \(2013, Language\).](#) (With Julie Anne Legate & [David Pesetsky](#)). To appear in Language.
- (2013) [Who's afraid of George Kingsley Zipf?](#) Significance: The Magazine of the Royal Statistical Society and the American Statistical Society. Dec. 29-34.
- (2013) [Ontogeny and Phylogeny of Language.](#) PNAS.
- (2013) [Modeling the Emergence of Lexicons in Homesign Systems.](#) (With Russell Richie & Marie Coppola). Journal version to appear in Topics in Cognitive Science. Winner of the best computational modeling paper at 2013 Cognitive Science Society meeting (Berlin)
- (2013) [The pursuit of word meanings.](#) (With Jon Stevens, Lila Gleitman and John Trueswell). Manuscript; comments welcome.
- (2012) [Assessing child and adult grammar.](#) In Berwick & Piattelli-Palmarini (Eds.) Rich Languages from Poor Inputs. Oxford: Oxford University Press. (With [Julie Anne Legate](#)) Longer version can [be downloaded here](#).
- (2012) [Productivity and paradigmatic gaps.](#) Slides from NELS2012 at CUNY. Joint work with Kyle Gorman, Jennifer Preys, and Margaret Browczyk.

- (2012) [Input and Universal Grammar](#). Slides from an invited talk at the Second Language Research Forum (SLRF) at CMU. A tutorial that emphasizes how input effects in language learning are compatible with, and in fact favor, Universal Grammar based approaches to language acquisition. Materials are drawn from my various previous writings.
- (2012) [Verb islands in adult and child language](#). BUCLD Proceedings from the 2011 meeting. (With Alix Kowalski). Prefinal version.
- (2011) [Usage unevenness in child language supports grammar productivity](#). BU Conference on Language Development.
- (2011) [A statistical test for grammar](#). ACL CMCL Portland (condensed version of the 2009 ms). [Slides from the talk](#)
- (2011) [Computational models of syntactic acquisition](#).. (In press) *WIRE Interdisciplinary Review: Cognitive Science*.
- (2009) [Three factors in language variation](#). *Lingua* special issue on language variation.
- (2009) [Review of Finite State Morphology](#). (With Erwin Chan). *Word Structure*. 1:2, 245-254.
- (2008) [The great number crunch](#). *Journal of Linguistics*. 44, 205-228.
- (2007) [Morphosyntactic learning and the development of tense](#). (With J.A.Legate). A new approach to Root Infinitives. *Language Acquisition* 315-344.
- (2006) [Word segmentation: Quick but not dirty](#) (with T. Gambell). Manuscript, Yale University.  
More complete writeup of the 2004 TICS paper part I: nobody seems to care about part II.
- (2005) [On productivity](#). *Yearbook of Language Variation*, 5, 333-370.
- (2005) [The richness of the poverty of the stimulus](#). (With J.A.Legate). On the occasion of [Happy Golden Anniversary](#), *Generative Syntax: 50 years since Logical Structure of Linguistic Theory*.
- (2004) [Universal Grammar, statistics, or both](#). *Trends in Cognitive Sciences*. 451-456.
- (2002) [Empirical reassessment of the poverty stimulus argument](#). (With J.A.Legate). *Linguistic Review*, 19, 151-162.
- (2001) [Internal and external forces in language change](#). *Language Variation and Change*. 12, 231-250.
- (2000) [Dig-dug, think-thunk](#). Review of Steven Pinker's *Words and Rules: The ingredients of language*. London Review of Books.
- (1999) [Estimation of software reliability by stratified sampling](#).. *ACM Transactions on*

*Software Engineering and Methodology*. 8, 263-283.

(1999) [Unordered merge and its linearization](#). *Syntax*. 2, 38-64.

### Recent Scholarly Activities

2009

Dec. Workshop in honor of Carol Chomsky. MIT.

Oct. Center for Language & Speech Processing (CLSP), Johns Hopkins.

Sept. Input & syntactic acquisition workshop. UC Irvine.

Aug. Plenary lecture. XIXth International Conference on Historical Linguistics. Nijmegen, the Netherlands.

May. Workshop on recursion in language and cognition. UMass Amherst.

May. 20 hour lectures in language acquisition. Graduate school of linguistics. The Basque Country.

Jan. The Schultink lecture. Holland Graduate School of Linguistics. Groningen. The Netherlands.

Jan. 5 lectures on the mechanisms of language acquisition. LOT Winter School. Groningen. The Netherlands.

2008

Dec. CUNY Graduate Center.

[Oct. Ikerbasque lecture. The Guggenheim Museum, Bilbao, the Basque Country.](#)

July. Workshop on linguistic interface. International congress of linguistics. Seoul.

June. Workshop on artificial language learning and computational models. Utrecht, the Netherlands.

June. Workshop on frequency effects in language acquisition. Wuppertal, Germany.

May. Workshop on productivity and grammar. Tufts.

April. Workshop on morphosyntactic variation. UMass Amherst  
April Bard College.

Feb. Princeton.

Feb. NYU.

Jan. Chicago.

2007

Dec. Origin of man and language Workshop. European Science Foundation. Rome.

Nov. Utrecht University, the Netherlands

Nov. [Empirical methods in language acquisition research \(EMLAR\)](#)

Nov. Il Dono Infinito. Festival della Scienza. Genoa.

Oct. Workshop on statistics and syntax. MIT.

Oct. UMass, Amherst.

Aug. Workshop on models of language acquisition. Cog Sci Society Annual Meeting, Nashville, TN.

June. IRCS undergraduate workshop. Penn.

June. Workshop on language variation. Venice.

May. Workshop on syntactic variation. York.

April. Cornell.

Feb. Panel on models of language change. Penn Linguistics Colloquium.