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## Constructions emerging : a usage-based model of the acquisition of grammar

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## Bibliography

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- Abbot-Smith, K., Lieven, E. & Tomasello, M. (2008), 'Graded representations in the acquisition of English and German transitive constructions', *Cognitive Development* 23(1), 48–66.
- Abbot-Smith, K. & Tomasello, M. (2006), 'Exemplar-learning and schematization in a usage-based account of syntactic acquisition', *The Linguistic Review* 23(3), 275–290.
- Akhtar, N. (1999), 'Acquiring basic word order: evidence for data-driven learning of syntactic structure', *Journal of Child Language* 26(2), 339–56.
- Alishahi, A. & Stevenson, S. (2008), 'A computational model of early argument structure acquisition', *Cognitive Science* 32(5), 789–834.
- Alishahi, A. & Stevenson, S. (2010), 'A computational model of learning semantic roles from child-directed language', *Language and Cognitive Processes* 25(1), 50–93.
- Ambridge, B. (2013), 'How do children restrict their linguistic generalizations? An (un-)grammaticality judgment study', *Cognitive Science* 37(3), 508–43.
- Ambridge, B. & Lieven, E. V. M. (2011), *Child Language Acquisition. Contrasting Theoretical Approaches*, Cambridge University Press, Cambridge, UK.
- Ambridge, B., Pine, J. M. & Rowland, C. F. (2012), 'Semantics versus statistics in the retreat from locative overgeneralization errors', *Cognition* 123(2), 260–79.
- Ambridge, B., Pine, J. M., Rowland, C. F., Freudenthal, D. & Chang, F. (2014), 'Avoiding dative overgeneralisation errors: semantics, statistics or both?', *Language, Cognition and Neuroscience* 29(2), 218–243.
- Arnon, I. (2010), *Starting Big. The Role of Multi-Word Phrases in Language Learning and Use*, Doctoral dissertation, Stanford University.

- Bailey, D. R. (1997), *When Push Comes to Shove : A Computational Model of the Role of Motor Control in the Acquisition of Action Verbs*, Doctoral dissertation, University of California, Berkeley.
- Baillargeon, R. & Wang, S.-H. (2002), 'Event categorization in infancy', *Trends in Cognitive Sciences* **6**(2), 85–93.
- Baker, M. (2001), *The Atoms of Language: The Mind's Hidden Rules of Grammar*, Basic Books, New York, NY.
- Baldwin, D. A. (1993), 'Early referential understanding: Infants' ability to recognize referential acts for what they are', *Developmental Psychology* **29**(5), 832–843.
- Bannard, C., Lieven, E. & Tomasello, M. (2009), 'Modeling children's early grammatical knowledge', *Proceedings of the National Academy of Sciences of the United States of America* **106**(41), 17284–9.
- Bannard, C. & Matthews, D. (2008), 'Stored word sequences in language learning: the effect of familiarity on children's repetition of four-word combinations', *Psychological science* **19**(3), 241–8.
- Beckwith, R., Tinkler, E. & Bloom, L. (1989), 'The acquisition of non-basic sentences', in *Proceedings of the Boston University Conference on Language Development*.
- Beekhuizen, B. (2010), *On abstraction in construction grammar. An exercise in methodology*, M.A. thesis, Leiden University.
- Beekhuizen, B. (2011), *Annotation guidelines for the Block Game Project*, Technical report.
- Beekhuizen, B. & Bod, R. (2014), 'Automating Construction Work. Data-Oriented Parsing and Constructivist Accounts of Language Acquisition', in R. Boogaart, T. Colleman & G. Rutten, eds, *Extending the Scope of Construction Grammar*, Mouton, Berlin, pp. 47–74.
- Beekhuizen, B., Bod, R. & Verhagen, A. (2014), 'The linking problem is a special case of a general problem none of us has solved', *Linguistics* **90**(3), e91–e96.
- Beekhuizen, B., Bod, R. & Verhagen, A. (to appear), 'Acquiring relational meaning from the situational context . What linguists can learn from analyzing videotaped interaction', in J. Evers-Vermeul & E. Tribushinina, eds, *Usage-based approaches to language acquisition and language teaching*.
- Beekhuizen, B., Bod, R. & Zuidema, J. (2013), 'Refining the all-fragments assumption: The search for parsimony in redundancy', *Language and Speech* **56**(3), 257–264.

- Beekhuizen, B., Fazly, A., Nematzadeh, A. & Stevenson, S. (2013), 'Word learning in the wild: What natural data can tell us', in *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*.
- Beekhuizen, B., Fazly, A. & Stevenson, S. (2014), 'Learning meaning without primitives: Typology predicts developmental patterns', in *Proceedings of the 36th annual meeting of the Cognitive Science Society*.
- Beekhuizen, B., Zuidema, J. & Bod, R. (2013), 'Three design principles of language: The search for parsimony in redundancy', *Language and Speech* 56(2).
- Berk, S. & Lillo-Martin, D. (2012), 'The two-word stage: motivated by linguistic or cognitive constraints?', *Cognitive Psychology* 65(1), 118–40.
- Bidgood, A., Ambridge, B., Pine, J. M. & Rowland, C. F. (2014), 'The retreat from locative overgeneralisation errors: A novel verb grammaticality judgment study', *PLOS one* 9(5), e97634.
- Bloom, L. (1970), *Language development: Form and function in emerging grammars*, MIT Press, Cambridge, MA.
- Bloom, L. (1991), *Language development from two to three*, Cambridge University Press, New York, NY.
- Bloom, L., Lightbown, P. & Hood, L. (1975), 'Structure and variation in child language', *Monographs of the Society for Research in Child Development* 40.
- Blythe, R., Smith, K. & Smith, A. D. M. (2010), 'Learning times for large lexicons through cross-situational learning', *Cognitive Science* 34(4), 620–42.
- Bod, R. (1998), *Beyond grammar: An experience-based theory of language*, CSLI, Stanford, CA.
- Bod, R. (2009), 'From exemplar to grammar: A probabilistic analogy-based model of language learning', *Cognitive Science* 33(5), 752–793.
- Bod, R., Scha, R. & Sima'an, K., eds (2003), *Data-Oriented Parsing*, University of Chicago Press, Chicago, IL.
- Bod, R. & Smets, M. (2012), 'Empiricist Solutions to Nativist Puzzles by means of Unsupervised TSG', in *Proceedings of the European Chapter of the Association for Computational Linguistics*.
- Boogaart, R. (2009), 'Semantics and pragmatics in construction grammar: the case of modal verbs', in A. Bergs & G. Diewald, eds, *Contexts and constructions*, Benjamins, Amsterdam, pp. 213–241.

- Borensztajn, G. (2011), *The neural basis of structure in language. Bridging the gap between symbolic and connectionist models of language processing*, Doctoral dissertation, University of Amsterdam.
- Borensztajn, G., Zuidema, W. & Bod, R. (2009), 'Children's grammars grow more abstract with age. Evidence from an automatic procedure for identifying the productive units of language', *Topics in Cognitive Science* 1, 175–188.
- Boster, C. T. (1997), *Processing and parameter setting in language acquisition*, Doctoral dissertation, University of Connecticut.
- Bowberman, M. (1974), 'Learning the structure of causative verbs: A study in the relationship of cognitive, semantic and syntactic development', *Papers and reports on Child Language Development* 8, 142–178.
- Bowberman, M. (1982), 'Evaluating competing linguistic models with language acquisition data: Implications of developmental errors with causative verbs', *Quaderni di Semantica* 3, 5–66.
- Bowberman, M. (1990), 'Mapping thematic roles onto syntactic functions: Are children helped by innate linking rules?', *Linguistics* 28, 1253–1290.
- Bowberman, M. (1993), 'Typological perspectives on language acquisition: Do crosslinguistic patterns predict development?', in E. V. Clark, ed., *Proceedings of the Twenty-fifth Annual Child Language Research Forum*, CSLI Publications, Stanford, CA, pp. 7–15.
- Braine, M. D. (1963), 'On learning the grammatical order of words', *Psychological Review* 70, 323–346.
- Braine, M. D. (1976), *Children's First Word Combinations*, University of Chicago Press, Chicago, IL.
- Bretherton, I., McNew, S., Snyder, L. & Bates, E. (1982), 'Individual differences at 20 months: analytic and holistic strategies in language acquisition', *Journal of Child Language* 10(2), 293–320.
- Brown, R. (1957), 'Linguistic determinism and the part of speech', *Journal of Abnormal and Social Psychology* 55, 1–5.
- Brown, R. (1973), *A First Language*, Harvard University Press, Cambridge, MA.
- Brugman, H. & Russel, A. (2004), 'Annotating multimedia/multi-modal resources with ELAN', in *Proceedings of the Fourth International Conference on Language Resources and Evaluation*.
- Bybee, J. (2006), 'From usage to grammar: The mind's response to repetition', *Language* 82(4), 711–733.

- Carletta, J. (1996), 'Assessing agreement on classification tasks: the kappa statistic', *Computational Linguistics* 22(2), 249–254.
- Chang, N. C.-L. (2008), *Constructing grammar: A computational model of the emergence of early constructions*, Doctoral dissertation, University of California, Berkeley.
- Choi, S. (2006), 'Preverbal spatial cognition and language-specific input: Categories of containment and support', in K. Hirsh-Pasek & R. M. Golinkoff, eds, *Action Meets Word. How Children Learn Verbs*, Oxford University Press, Oxford, UK, chapter 7, pp. 191–207.
- Chomsky, N. (1957), *Syntactic Structures*, Mouton, The Hague.
- Chomsky, N. (1962), 'Explanatory models in linguistics', in E. Nagel, P. Suppes & A. Tarski, eds, *Logic, Methodology and Philosophy of Science*, Stanford University Press, Stanford, CA, chapter 9, pp. 528–550.
- Chomsky, N. (1965), *Aspects of the Theory of Syntax*, MIT Press, Cambridge, MA.
- Chomsky, N. (1975), *Reflections on Language*, Pantheon, New York, NY.
- Chomsky, N. (1986), *Knowledge of Language: Its Nature, Origin, and Use*, Praeger, Westport, CT.
- Chomsky, N. (1993), 'A minimalist program for linguistic theory', in K. L. Hale & S. J. Keyser, eds, *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, MIT Press, Cambridge, MA, pp. 1–52.
- Clark, E. V. (2003), *First Language Acquisition*, Cambridge University Press, Cambridge, UK.
- Clark, H. H. (1996), *Using Language*, Cambridge University Press, Cambridge, UK.
- Croft, W. (2001), *Radical Construction Grammar: Syntactic Theory in Typological Perspective*, Oxford University Press, Oxford, UK.
- Croft, W. & Cruse, D. A. (2004), *Cognitive Linguistics*, Cambridge University Press, Cambridge, UK.
- Cross, T. (1977), 'Mothers' speech adjustments: the contribution of selected child listener variables', in C. Snow & C. Ferguson, eds, *Talking to Children: Language Input and Acquisition*, Cambridge University Press, Cambridge, UK, pp. 151–188.
- Daelemans, W. & Van den Bosch, A. (2005), *Memory-Based Language Processing*, Cambridge University Press, Cambridge, UK.

- Dąbrowska, E. (2012), 'Different speakers, different grammars: Individual differences in native language attainment', *Linguistic Approaches to Bilingualism* 2(3), 219–253.
- Dąbrowska, E. (2014), 'Recycling utterances: A speaker's guide to sentence processing', *Cognitive Linguistics* 25(4), 617–653.
- de la Higuera, C. (2010), *Grammatical Inference. Learning Automata and Grammars*, Cambridge University Press, Cambridge, UK.
- de Saussure, F. (1916), *Course de Linguistique Générale*, Payot, Paris.
- de Villiers, P. A. & de Villiers, J. G. (2000), 'Linguistic determinism and the understanding of false beliefs', in P. Mitchell & K. J. Riggs, eds, *Children's reasoning and the mind*, Psychology Press, Hove, UK, pp. 191–228.
- Deprez, V. & Pierce, A. (1993), 'A cross-linguistic study of negation and functional projections in early grammar', *Linguistic Inquiry* 24, 25–67.
- Dodson, K. & Tomasello, M. (1998), 'Acquiring the transitive construction in English: the role of animacy and pronouns', *Journal of Child Language* 25(3), 605–22.
- Dowty, D. (1991), 'Thematic proto-roles and argument selection', *Language* 67(3), 547–619.
- Du Bois, J. W. (1987), 'The discourse basis of ergativity', *Language* 63, 805–855.
- Fazly, A., Alishahi, A. & Stevenson, S. (2010), 'A probabilistic computational model of cross-situational word learning', *Cognitive Science* 34(6), 1017–1063.
- Feldman, J. A. (2006), *From Molecule to Metaphor: A Neural Theory of Language*, MIT Press, Cambridge, MA.
- Ferreira, F., Bailey, K. G. & Ferraro, V. (2002), 'Good-Enough Representations in Language Comprehension', *Current Directions in Psychological Science* 11(1), 11–15.
- Ferreira, F. & Patson, N. D. (2007), 'The 'Good Enough' Approach to Language Comprehension', *Language and Linguistic Compass* 1(1-2), 71–83.
- Fillmore, C. J., Kay, P. & O'Connor, M. C. (1988), 'Regularity and Idiomaticity in Grammatical Constructions: The Case of Let Alone', *Language* 63(3), 501–538.
- Fisher, C. (2002), 'The role of abstract syntactic knowledge in language acquisition: a reply to Tomasello (2000).', *Cognition* 82(3), 259–78.

- Fleischman, M. & Roy, D. K. (2005), 'Why verbs are harder to learn than nouns. Initial insights from a computational model of intention recognition in situated word learning', in *Proceedings of the 27th Annual Meeting of the Cognitive Science Society*.
- Frank, M. C., Goodman, N. D. & Tenenbaum, J. B. (2008), 'A Bayesian framework for cross-situational word-learning', *Advances in Neural Information Processing Systems* **20**, 1–8.
- Frank, M. C., Goodman, N. D. & Tenenbaum, J. B. (2009), 'Using speakers' referential intentions to model early cross-situational word learning', *Psychological Science* **20**(5), 578–585.
- Frank, S. L. & Bod, R. (2011), 'Insensitivity of the human sentence-processing system to hierarchical structure', *Psychological Science* **22**, 829–834.
- Frank, S. L., Bod, R. & Christiansen, M. H. (2012), 'How hierarchical is language use?', *Proceedings of the Royal Society B: Biological Sciences* **279**(22), 4522–4531.
- Freudenthal, D., Pine, J. & Gobet, F. (2010), 'Explaining quantitative variation in the rate of Optional Infinitive errors across languages: a comparison of MOSAIC and the Variational Learning Model', *Journal of Child Language* **37**(3), 643–69.
- Geeraerts, D. (2010), 'Schmidt redux: How systematic is the linguistic system if variation is rampant?', in K. Boye & E. Engeberg-Pedersen, eds, *Language Usage and Language Structure*, De Gruyter Mouton, Berlin/New York, pp. 237–262.
- Gentner, D. (1978), 'On Relational Meaning: The Acquisition of verb meaning', *Child Development* **49**, 988–998.
- Gentner, D. & Boroditsky, L. (2001), 'Individuation, relativity, and early word learning', in M. Bowerman & S. C. Levinson, eds, *Language Acquisition and Conceptual Development*, Cambridge University Press, Cambridge, UK, chapter 8, pp. 215–256.
- Gentner, D. & Bowerman, M. (2009), 'Why some spatial semantic categories are harder to learn than others. The Typological Prevalence Hypothesis', in J. Guo, E. Lieven, N. Budwig, S. Ervin-Tripp, K. Nakamura & S. Ozcaliskan, eds, *Crosslinguistic approaches to the psychology of language. Research in the tradition of Dan Isaac Slobin*, Psychology Press, New York, NY, chapter 34, pp. 465–480.
- Gigerenzer, G. (1991), 'From tools to theories: A heuristic of discovery in cognitive psychology', *Psychological Review* **98**(2), 254–267.

- Gigerenzer, G. & Brighton, H. (2009), 'Homo Heuristicus: Why biased minds make better inferences', *Topics in Cognitive Science* 1(1), 107–143.
- Gleitman, L. (1990), 'Sources of Verb Meanings', *Language Acquisition* 1(1), 3–55.
- Gleitman, L. R., Cassidy, K., Nappa, R., Papafragou, A. & Trueswell, J. C. (2005), 'Hard words', *Language Learning and Development* 1(1), 23–64.
- Goldberg, A. E. (1995), *Constructions. A Construction Grammar Approach to Argument Structure*, Chicago University Press, Chicago, IL.
- Goldberg, A. E. (2006), *Constructions at Work. The Nature of Generalization in Language*, Oxford University Press, Oxford.
- Golinkoff, R. M., Hirsh-Pasek, K., Bailey, L. M. & Wenger, N. R. (1992), 'Children and adults use lexical principles to learn new nouns', *Developmental Psychology* 28(1), 99–108.
- Goodall, J. (1986), *The Chimpanzees of Gombe. Patterns of Behavior*, Harvard University Press, Cambridge, MA.
- Graf, E., Theakston, A., Lieven, E. & Tomasello, M. (2015), 'Subject and object omission in children's early transitive constructions: A discourse-pragmatic approach', *Applied Psycholinguistics* 36(3), 1–27.
- Hespos, S. J. & Baillargeon, R. (2001), 'Reasoning about containment events in very young infants', *Cognition* 78(3), 207–45.
- Hollich, G. J., Hirsh-Pasek, K. & Golinkoff, R. M. (2000), 'Breaking the language barrier: An emergentist coalition model for the origins of word learning', *Monographs of the Society for Research in Child Development* 65(3), 1–135.
- Hyams, N. (1986), 'Core and peripheral grammar and the acquisition of inflection', in *Proceedings of the Boston University Conference on Language Development*, Boston, MA.
- Hyams, N. (2011), 'Missing subjects in early child language', in J. de Villiers & T. Roeper, eds, *Handbook of generative approaches to language acquisition*, Springer Verlag, Dordrecht, the Netherlands, pp. 13–52.
- Jackendoff, R. (1990), *Semantic Structures*, MIT Press, Cambridge, MA.
- Jackendoff, R. (2002), *Foundations of Language: Brain, Meaning, Grammar, Evolution*, Oxford University Press, Oxford, UK.
- Jackendoff, R. & Wittenberg, E. (2014), 'What you can say without syntax: A hierarchy of grammatical complexity', in F. J. Newmeyer & L. B. Preston, eds, *Measuring Linguistic Complexity*, Oxford University Press, Oxford, UK, chapter 4.

- Jones, G., Gobet, F. & Pine, J. M. (2000), 'A process model of children's early verb use', in *Proceedings of the 22nd Annual Meeting of the Cognitive Science Society*, pp. 723–728.
- Jurafsky, D. (1996), 'A Probabilistic Model of Lexical and Syntactic Access and Disambiguation', *Cognitive Science* 20(2), 137–194.
- Jurafsky, D. (2003), 'Probabilistic modeling in psycholinguistics: Linguistic comprehension and production', in R. Bod, J. Hay & S. Jannedy, eds, *Probabilistic Linguistics*, MIT Press, Cambridge, MA, pp. 39–96.
- Jurafsky, D. & Martin, J. (2009), *Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics and Speech Recognition*, Prentice Hall.
- Kaminski, J., Call, J. & Fischer, J. (2004), 'Word learning in a domestic dog: evidence for "fast mapping"', *Science* 304(5677), 1682–3.
- Kay, P. (2002), 'An Informal Sketch of a Formal Architecture for Construction Grammar', *Grammar* 5, 1–19.
- Kirby, S. (1999), *Function, Selection and Innateness. The Emergence of Language Universals*, Oxford University Press, Oxford, UK.
- Kwiatkowski, T. (2011), *Probabilistic Grammar Induction from Sentences and Structured Meanings*, Doctoral dissertation, University of Edinburgh.
- Lakoff, G. (1987), *Women, Fire and Dangerous Things: What Categories Reveal About the Mind*, Chicago University Press, Chicago, IL.
- Lakoff, G. (1990), 'The invariance hypothesis: Is abstract reason based on image-schemas?', *Cognitive Linguistics* 1, 39–74.
- Landau, B., Smith, L. B. & Jones, S. (1992), 'Syntactic context and the shape bias in children's lexical learning and adults', *Journal of Memory and Language* 31, 807–825.
- Langacker, R. W. (1987), *Foundations of Cognitive Grammar. Volume I: Theoretical Prerequisites*, Stanford University Press, Stanford, CA.
- Langacker, R. W. (1988), 'A usage-based model', in B. Rudzka-Ostyn, ed., *Topics in Cognitive Linguistics*, Benjamins, Amsterdam, The Netherlands, pp. 127–161.
- Langacker, R. W. (2000), 'A dynamic usage-based model', in M. Barlow & S. Kemmer, eds, *Usage Based Models of Language*, CSLI Publications, Stanford, CA, pp. 1–64.

- Langacker, R. W. (2005), 'Construction grammars: Cognitive, Radical and less so', in F. J. R. de Mendoza Ibañez & M. S. Peña Cervel, eds, *Cognitive Linguistics. Internal Dynamics and Interdisciplinary Interaction*, Mouton, Berlin, pp. 101–159.
- Langacker, R. W. (2009), 'A dynamic view of usage and language acquisition', *Cognitive Linguistics* 20(3), 627–640.
- Lebeaux, D. & Pinker, S. (1981), 'The acquisition of the passive', in *Proceedings of the Boston University Conference on Language Development*.
- Levinson, S. C., Meira, S., & The Language and Cognition Group (2003), 'Natural Concepts' in the Spatial Topological Domain – Adpositional Meanings in Crosslinguistic Perspective: An Exercise in Semantic Typology', *Language* 79(3), 485–516.
- Lewis, D. (1969), *Convention. A Philosophical Study*, Harvard University Press, Cambridge, MA.
- Lieven, E., Behrens, H., Speares, J. & Tomasello, M. (2003), 'Early syntactic creativity: a usage-based approach', *Journal of Child Language* 30(2), 333–370.
- Lieven, E., Pine, J. & Baldwin, T. (1997), 'Lexically-based learning and early grammatical development', *Journal of Child Language* 24(1), 187–219.
- Lieven, E., Salomo, D. & Tomasello, M. (2009), 'Two-year-old children's production of multiword utterances: A usage-based analysis', *Cognitive Linguistics* 20(3), 481–507.
- Macnamara, J. (1972), 'Cognitive basis of language learning in infants', *Psychological Review* 79(1), 1–13.
- MacWhinney, B. (1985), 'Hungarian language acquisition as an exemplification of a general model of grammatical development', in D. I. Slobin, ed., *The Crosslinguistic Study of Language Acquisition. Vol. 2: Theoretical Issues*, Erlbaum, Hillsdale, New Jersey, pp. 1069–1155.
- Majid, A., Boster, J. S. & Bowerman, M. (2008), 'The cross-linguistic categorization of everyday events: a study of cutting and breaking.', *Cognition* 109(2), 235–50.
- Marcotte, J.-P. (2005), *Causative alternation errors in child language acquisition*, Doctoral dissertation, Stanford University.
- Matusevych, Y., Alishahi, A. & Vogt, P. (2013), 'Automatic generation of naturalistic child-adult interaction data', in *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*.

- McCauley, S. M. & Christiansen, M. H. (2014a), 'Acquiring Formulaic Language: A Computational Model', *The Mental Lexicon* 9(3), 419–436.
- McCauley, S. M. & Christiansen, M. H. (2014b), 'Prospects for usage-based computational models of grammatical development: argument structure and semantic roles', *Wiley Interdisciplinary Reviews: Cognitive Science* 5(4), 489–499.
- McClelland, J. & Kawamoto, A. (1986), 'Mechanisms of sentence processing: Assigning roles to constituents of sentences', in J. L. McClelland, D. Rumelhart & T. P. research Group, eds, *Parallel Distributed Processing: Explorations in the Microstructure of Cognition. Volume II*, MIT Press, Cambridge, MA, chapter 16.
- McClure, K., Pine, J. M. & Lieven, E. V. M. (2006), 'Investigating the abstractness of children's early knowledge of argument structure', *Journal of Child Language* 33, 693–720.
- Moerk, E. (1972), 'Principles of interaction in language learning', *Merrill-Palmer Quarterly* 18, 229–257.
- Naigles, L. R., Hoff, E. & Vear, D. (2009), 'Flexibility in early verb use: Evidence from a multiple-n diary study', *Monographs of the Society for Research in Child Development* 74(2).
- Needham, A. & Baillargeon, R. (1993), 'Intuitions about support in 4.5-month-old infants', *Cognition* 47, 121–148.
- O'Grady, W. (1997), *Syntactic Development*, University of Chicago Press, Chicago, IL.
- Pérez-Leroux, A. T., Pirvulescu, M. & Roberge, Y. (2007), 'Null objects in child language: Syntax and the lexicon', *Lingua* 118(3), 370–398.
- Peters, A. M. (1983), *The Units of Language Acquisition*, Cambridge University Press, Cambridge, UK.
- Pinker, S. (1984), *Language Learnability and Language Development*, Harvard University Press, Cambridge, MA.
- Pinker, S. (1989), *Learnability and Cognition: The Acquisition of Argument Structure*, MIT Press, Cambridge, MA.
- Quine, W. (1960), *Word and Object*, MIT Press, Cambridge, MA.
- Radford, A. (1990), *Syntactic Theory and the Structure of English: The Nature of Early Child Grammar*, Blackwell, Oxford, UK.

- Regier, T. (1992), *The Acquisition of Lexical Semantics for Spatial Terms : A Connectionist Model of Perceptual Categorization*, PhD thesis, University of California, Berkeley.
- Rissanen, J. (1978), 'Modeling by shortest data description', *Automatica* 14(5), 465–471.
- Roy, D. K. & Pentland, A. P. (2002), 'Learning words from sights and sounds: a computational model', *Cognitive Science* 26, 113–146.
- Sabbagh, M. A. & Baldwin, D. A. (2005), 'Understanding the role of communicative intentions in word learning', in N. Eilan, C. Hoerl, T. McCormack & J. Roessler, eds, *Joint Attention: Communication and Other Minds*, Oxford University Press, Oxford, UK.
- Sadock, J. (1982), 'The Bennish optative: The spontaneous ergative construction in child speech', in *Chicago Linguistic Society Parasession on Nondeclaratives*, pp. 186–193.
- Savage-Rumbaugh, S., Murphy, J., Sevcik, R., Brakke, K., Williams, S. & Rumbaugh, D. (1993), 'Language comprehension in ape and child', *Monographs of the Society for Research in Child Development* 58(3-4).
- Scha, R. (1990), 'Taaltheorie en Taaltechnologie; Competence en Performance', in R. de Kort & G. Leerdam, eds, *Computertoepassingen in de Nederlandstek*, L VVN, Almere, pp. 7–22.
- Schlesinger, I. M. (1971), 'Production of utterances and language acquisition', in D. I. Slobin, ed., *The Ontogenesis of Grammar. A Theoretical Symposium*, Academic Press, New York, NY, pp. 63–101.
- Siskind, J. M. (1996), 'A computational study of cross-situational techniques for learning word-to-meaning mappings', *Cognition* 61(1-2), 39–91.
- Skousen, R. (1989), *Analogical Modeling of Language*, Kluwer Academic Publishers, Dordrecht.
- Smets, M. (2010), *A U-DOP approach to modeling language acquisition*, M.Sc. thesis, University of Amsterdam.
- Smith, K., Smith, A. D. M. & Blythe, R. A. (2011), 'Cross-Situational Learning: An Experimental Study of Word-Learning Mechanisms', *Cognitive Science* 35(3), 480–498.
- Snow, C. E. (1977), 'Mothers' speech research: From input to interaction', in C. E. Snow & C. A. Ferguson, eds, *Talking to Children. Language Input and Acquisition*, Cambridge University Press, Cambridge, UK, chapter 1, pp. 31–50.

- Steedman, M. (2000), *The Syntactic Process*, MIT Press, Cambridge, MA.
- Stevens, J. S. (2011), 'Learning Object Names in Real Time with Little Data', in *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*.
- Stolcke, A. (1994), *Bayesian Learning of Probabilistic Language Models*, Doctoral dissertation, University of California, Berkeley.
- Theakston, A. L., Maslen, R., Lieven, E. V. M. & Tomasello, M. (2012), 'The acquisition of the active transitive construction in English: A detailed case study', *Cognitive Linguistics* 23(1), 91–128.
- Tomasello, M. (1992), *First Verbs: A Study of Early Grammatical Development*, Cambridge University Press, Cambridge, UK.
- Tomasello, M. (1995), 'Pragmatic contexts for early verb learning', in M. Tomasello & W. E. Merriman, eds, *Beyond Names for Things. Young Children's Acquisition of Verbs*, Lawrence Erlbaum Associates, Hillsdale, New Jersey, chapter 5, pp. 115–146.
- Tomasello, M. (1999), *The Cultural Origins of Human Cognition*, Harvard University Press, Cambridge, MA.
- Tomasello, M. (2003), *Constructing a Language: A Usage-Based Theory of Language Acquisition*, Harvard University Press, Cambridge, MA.
- Tomasello, M. (2008), *Origins of Human Communication*, MIT Press, Cambridge, MA.
- Tomasello, M. & Farrar, M. J. (1986), 'Joint attention and early language', *Child Development* 57(6), 1454–63.
- Valian, V. (2009), 'Abstract linguistic representations and innateness. The development of determiners', in W. Lewis, S. Karimi, H. Harley & S. Farrar, eds, *Time and Again: Theoretical Perspectives on Formal Linguistics in Honor of D. Terence Langendoen*, John Benjamins, Amsterdam, The Netherlands, pp. 189–206.
- van Hoek, K. (1997), *Anaphora and Conceptual Structure*, Chicago University Press, Chicago, IL.
- van Trijp, R. (2008), *Analogy and Multi-Level Selection in the Formation of a Case Grammar*, Doctoral dissertation, Universiteit Antwerpen.
- Verhagen, A. (2005), *Constructions of Intersubjectivity*, Oxford University Press, Oxford, UK.
- Verhagen, A. (2006), 'Dreigt polysemy uit de hand te lopen? Een oefening in semantische categorisering', *Voortgang: Jaarboek van de Nederlandistiek* 24, 159–168.

- Verhagen, A. (2009), 'The conception of constructions as complex signs. Emergence of structure and reduction to usage', *Constructions and Frames* 1, 119–152.
- Wexler, K. & Culicover, P. (1980), *Formal principles of language acquisition*, MIT Press, Cambridge, MA.
- Xu, F. & Tenenbaum, J. B. (2000), Word learning as Bayesian inference., in *Proceedings of the 22nd Annual Meeting of the Cognitive Science Society*.
- Yang, C. (2002), *Knowledge and learning in natural language*, Oxford University Press, Oxford, UK.
- Yang, C. (2011), 'A Statistical Test for Grammar', in *Proceedings of the 2nd Workshop on Cognitive Modeling and Computational Linguistics*, number June, Portland, Oregon, pp. 30–38.
- Yu, C. & Smith, L. B. (2007), 'Rapid word learning under uncertainty via cross-situational statistics', *Psychological Science* 18(5), 414–20.
- Zipf, G. K. (1935), *Psycho-biology of Languages*, MIT Press, Cambridge, MA.