

MARK J. STEEDMAN FBA FRSE
Curriculum Vitae (January 5, 2011)

PRESENT POST: Professor of Cognitive Science and Director of the Institute for Language, Cognition, and Computation, School of Informatics, University of Edinburgh

DATE OF BIRTH: Sept. 18th 1946

NATIONALITY: British

DEGREES:

1968 B.Sc. (hons.) in Experimental Psychology, University of Sussex.

1973 Ph.D. in Artificial Intelligence, University of Edinburgh, (Dissertation: *The Formal Description of Musical Perception*. Advisor: Prof. H.C. Longuet-Higgins FRS).

CAREER:

1969 – 1972 University of Edinburgh: Research Associate, School of Artificial Intelligence, under Professor H.C. Longuet-Higgins FRS.

1972 – 1973 University of Edinburgh: Research Fellow, School of Artificial Intelligence, with Professor H.C. Longuet-Higgins FRS.

1973 – 1976 University of Sussex: Research Fellow, Centre for Research into Perception and Cognition, with Prof. P.N. Johnson-Laird.

1976 – 1983 University of Warwick: Lecturer, Dept. of Psychology.

1983 – 1986 University of Edinburgh: Lecturer in Computational Linguistics, Dept. of Artificial Intelligence and Centre for Cognitive Science

1986 – 1988 University of Edinburgh: Reader in Computational Linguistics, Dept. of Artificial Intelligence and Centre for Cognitive Science

1988 – 1992 University of Pennsylvania, Associate Professor, Dept. of Computer and Information Science.

1992 – 1998 University of Pennsylvania, Professor, Dept. of Computer and Information Science.

1998 – University of Edinburgh, Professor of Cognitive Science, School of Informatics; Director, Institute for Language, Cognition, and Computation (ILCC, formerly ICCS); Adjunct Professor, Department of Computer and Information Science, University of Pennsylvania.

2000 – 2003 Acting Director, Center for Speech Technology Research, School of Informatics/Dept. of Linguistics, Edinburgh.

VISITING POSITIONS:

1980 – 1981 University of Texas at Austin: Alfred P. Sloan Research Fellow, Centre for Cognitive Science.

1982 Max Planck Institute for Psycholinguistics, Nijmegen: Visiting Fellow, summer, 1982.

1986 – 1987 University of Pennsylvania, Philadelphia: Visiting Professor, Department of Computer Science.

1996 IMS University of Stuttgart: Visiting Researcher, Summer, 1996.

2006 IRCS University of Pennsylvania, Sabbatical Visiting Professor.

HONORS:

- 1993 Fellow of the American Association for Artificial Intelligence (AAAI).
- 2002 Fellow of the Royal Society of Edinburgh (FRSE).
- 2002 Fellow of the British Academy (FBA).
- 2006 Member of the Academia Europæa.
- 2007 President of the Association for Computational Linguistics (ACL).
- 2008 Fellow of the Society for the Study of Artificial Intelligence and Simulation of Behaviour (SSAISB).

GRANTS HELD:

- SSRC: HR 4251, “The Semantics of Temporal Description in English”, approx £10,000, 1977-1981 (PI, Univ. of Warwick).
- EEC ESPRIT: project no. 393 “Construction and Interrogation of Knowledge Bases using Natural Language and Graphics”, approx. 500,000 UK pounds, 1984-1989, (a collaborative project with the Fraunhofer Gesellschaft and University, Stuttgart; the Laboratoire de Marcoussis, Compagnie Générale de l’Electricité; Triumph-Adler AG. co-PI with Drs. E. B. Richards and E. Klein at the University of Edinburgh).
- EEC ESPRIT: project BR 3175. In 1987/88 I was the coordinator and a principal investigator on a proposal to the ESPRIT Basic Research Action for a grant of 500,000 UK pounds over two and a half years to the Cognitive Science departments at Edinburgh (as part of a collaborative project with the universities of Amsterdam, Stuttgart, and Tübingen), entitled “Dynamic Interpretation of Natural Language”. Although I had to withdraw my name as a PI in the final stages, due to my imminent move to Penn, this grant was awarded 1989.
- DARPA: N00014-90-J-1863 “Research in Natural Language Processing” for \$2.2M over three years, from July 1990, co-PI with Drs. Joshi, Marcus, Webber, U. Penn.
- NSF: BNS-9021223 “Grammatical Foundations of Prosody and Discourse”, a workshop and conference grant, \$34,225, for one year from 1991. Co-PI with Drs. Polanyi (Rice University) and Ladusaw (UC, Santa Cruz).
- NSF: IRI90-18513 “Computer Synthesis of Contextually Appropriate Intonation for Spoken Language”, for \$155,082 over two years from Sept 1991, PI, U.Penn.
- NSF: IRI91-17110 “Communication, Coarticulation and Dialogue Gesture in Facial Animation” for \$290,000 over three years from Sept 1992, co-PI with Dr. N. Badler, U Penn.
- ARPA: N66001-94-C6043, “Lexical Grammar, Automatic Grammar Acquisition and Multisentence Understanding”, \$2.25M subject to adjustment from Sept 1994. co-PI with Drs. Marcus, Joshi, Webber, U. Penn.
- ARO: DAAH04-94-G0426, “Research in AI”, \$700K subject to adjustment from Sept 1994. co-PI with Drs. Joshi, Marcus, Webber, U. Penn.
- NSF: IRI-9504372, “Synthesising Conversation between Human-like Cooperative Agents”, \$540K (revised) three years from Sept 95, co-PI with Dr. N. Badler, U.Penn.
- DOE: P200A70304, “Computer and Information Science”, Graduate Assistance in Areas of National Need Program, \$367K, 3 years from Sept 1997 (PI, U.Penn).
- UK EPSRC: GR/M96889, “Wide Coverage Parsing and Grammar Induction Using CCG”, £159K, 3 years from Oct 2000 (PI, Univ. Edinburgh).
- UK EPSRC: GR/R02450, “Using Discourse Information to Control Intonation and Ellipsis for Automatic Speech Production”, £60K, 3 years from Oct 2000 (Co-PI with Dr. J. Moore, Univ. Edinburgh).

EU (FET) “Magicster: Embodied Believable Agents,” 406K Euros (Edinburgh Component), 3 years from Dec 2000 (Coordinator and PI, Univ. Edinburgh).

UK EPSRC: GR/R82838, “Visiting Fellowship in Computational Aspects of Categorical Grammar”, for Prof. Nissim Francez, Technion. £40K, 6 months from Apr 2002 (PI, Univ. Edinburgh).

NSF/DARPA “Weakly Supervised Learning For Wide-Coverage Parsing”, one of four projects selected for Fred Jelinek’s CLSP summer workshop, 6 weeks May-June 2002, Edinburgh component \$75K.

EPSRC: GR/S19134, “Visiting Fellowship in Computational Linguistics”, for Dr. Cem Bozsahin, Middle East Technical University Ankara, £10K, 5 months from Jan 2003 (PI, Univ. Edinburgh).

UK EPSRC: GR/S22509, “Visiting Fellowship in Computational Linguistics”, for Dr. Ian Pratt-Hartmann, University of Manchester £7K, 5 months from Feb 2003 (PI, Univ. Edinburgh).

Royal Society of Edinburgh International Exchange Programme “Visiting Fellowship in Computational Linguistics”, for Dr. Cem Bozsahin, Middle East Technical University Ankara, £1K, 1 month from July 2005 (PI, Univ. Edinburgh).

UK ESRC: PTA-026-27-0944, “Syntax, Probability, Prediction, and Memory in Human Sentence Processing,” (Visiting Fellowship for Dr. R. Levy), £32K, 6 months from Sept 2005, (Co-PI with Frank Keller, Univ. Edinburgh).

NSF IIS-041628 (R39058) “IRC in Human Communication”, £21K, 3 yrs from Sept 01 2004, Co-PI.

EU IST Cognitive Systems IP FP6-2004-IST-4-27657 “Paco-Plus: Perception, Action and Cognition through Learning of Object-Action Complexes,” 760K Euros (Edinburgh Component), 4 years from Feb. 2006 extended to May 31 2010 (PI, Univ. Edinburgh).

UK EPSRC: EP/F028938, “Visiting Fellowship”, for Dr. Sumru Ozsoy, Bosphorus University £14K, 3 months from Nov 200 7 (PI, Univ. Edinburgh).

EU ERC Advanced Fellowship 249520 GRAMPLUS: Grammar-Based Robust Natural Language Processing. 1.9M Euro, 5 years from 1 June 2010 (PI, Univ. Edinburgh).

EU IST Cognitive Systems IP EC-FP7-270273 “XPERIENCE”. 1.35M Euro (Edinburgh Component), 5 years from 1 Jan 2011 (Co-PI with Chris Geib and Ron Petrick, Univ. Edinburgh).

TEACHING and ACADEMIC SERVICE:

Graduate and undergraduate courses and graduate seminars on Computational Linguistics, Artificial Intelligence, Programming, Programming Language Concepts, Psychology of Language, Introductory Linguistics, Introductory Psychology, at the Universities of Sussex, Warwick, Edinburgh, Texas at Austin, Pennsylvania, Stuttgart, and the Summer Institutes of LSA and ESLLI. I have also taught a number of short courses in speech and text processing for industry and other non-university groups, such as ARO. I was chair of the IRCS committee to organise and expand undergraduate Cognitive Science Teaching at Penn.

At Edinburgh I have taught AI2, (two sections), Natural Language Software System Design (NLSSD), and the AI Large Practical. Until 2010, I taught Introduction to Cognitive Science (ICS) and Advanced Natural Language Processing (ANLP). I also served on the committee to redesign the Informatics First and Second Year courses, and the Undergraduate Cognitive Science Programs.

Chairman and coordinator for the undergraduate joint honours degree in Computer Science and AI, University of Edinburgh, from 1987 to 1988.

Director of the Graduate Program in Cognitive Science, University of Edinburgh, from 1987 to 1988.

External Examiner, M.Sc. in Cognitive Science, University of Essex, from 1985 to 1988.

Chair of Graduate Admissions, CIS, U.Penn, 1990–1998

Graduate Chair, CIS U.Penn, 1993–1998.

Director, Institute for Communicating and Collaborative Systems, School of Informatics, University of Edinburgh, 1998–present

Acting Director, Centre for Speech Technology Research, School of Informatics, University of Edinburgh, 2000–2003

SERVICE:

- Founding Editor (joint): *Language and Cognitive Processes*, 1984-1992; Senior Editor, *Cognitive Science*, 1997-1999.
- Advisory Editor: *Cognition*, 1980-2002; *Linguistics*, 1979-1992; *Journal of Semantics*, from 1985; *Language and Cognitive Processes*, from 1993; *Language and Speech*, 1994-2000, *Cognitive Science*, from 1996; *Journal of Comparative Germanic Linguistics*, 1996-2000; *Lingua*, 1999-2004; *Computational Linguistics*, from 2005-2008; *Semantics and Pragmatics*, from 2007; *Linguistics in Language Technology*, from 2007; *Syntax*, from 2010.
- Reviewer: *Perception*; *Cognitive Psychology*; *Linguistics and Philosophy*; *Cognitive Science*; *Synthèse*; *Natural Language and Linguistic Theory*; *Language*; *Journal of Computational Linguistics*; *Behaviour and Brain Sciences*; *Artificial Intelligence*, *Linguistic Inquiry*, *Journal of Applied Linguistics* etc. etc. Also referee for numerous publishers and book series (Kluwer, Academic Press, MIT Press, Cambridge UP, Oxford UP, etc.).
- Program Committee for 27th Annual Conference of the Association for Computational Linguistics, Vancouver, June 1989.
- Area Chair for Natural Language Processing, International Joint Conference on Artificial Intelligence, Sidney, Australia. August 1991.
- NIMH Advisory Panel for Cognitive Science, May 1993
- Program Committee for 33rd Annual Conference of the Association for Computational Linguistics, Boston, June 1995.
- Program Committee for the Student Session of the 33rd Annual Conference of the Association for Computational Linguistics, Boston, June 1995.
- Member, Review Committee for Annual International Workshop on Parsing Technology, 1995-1999.
- Member, Review Committee, 9th Amsterdam Colloquium, ILLC Univ. Amsterdam 1993.
- Member, Review Committee, European Conference on Artificial Intelligence 1994-1996
- Member, Program Committee for 35rd Annual Conference of the Association for Computational Linguistics, Madrid, June 1997.
- Member, NIMH Advisory Panel for Cognitive Science, May 1993, June 1997.
- Member, NSF Review Panels March April 1994.
- Member, ESRC/MRC/SERC JCI External Review Committee: Joint Council Initiative in Cognitive Science and Human Computer Interaction (UK) 1996.
- Member, Review Committee, 12th Amsterdam Colloquium, ILLC Univ. Amsterdam 1998.
- Member, NIMH Perception and Cognition Study Section (PEC), Fall 1997-summer 1999.
- Member, NIMH Biobehavioral and Behavioral Processes Study Section 3 (BBBP-3), Fall 1999-Summer 2001.
- Member, NIH Biobehavioral and Behavioral Processes Advisory Panel (BBBP-3), November 2004
- Member, Standing Committee for the Annual European Summer School in Logic, Language, and Information (ESSLLI) from 1999-2002
- Member, Program Committee for 40th Annual Conference of the Association for Computational Linguistics, Philadelphia, June 2002.
- Member, Program Committee for 18th National Conference on Artificial Intelligence, Edmonton, July 2002, Canada.
- Member, Programme Committee, International Conference of Music in Artificial Intelligence, Edinburgh Sept 2002
- Member, review panel, Formal Grammar Conference, Trento August 2002
- Member, review panel, TIME 2002, Manchester August 2002

Member, review panel, International Conference on Spoken Language Processing (ICSLP) 2000.

Member, review panel, TAG+ Conference, Venice, June, 2002.

Member, INRIA External Review Committee for Theme 2A: Paris, October 2002.

Member EPSRC Review College, 2003–2012.

Member, Review Panel, Conference on Semantics and Linguistic Theory (SALT 13), 2003

Member, Review Panel, 4th Conference of the North American Chapter of the Association for Computational Linguistics (HLT-NAACL 2003), Edmonton.

Member, Review Panel, International Workshop on Parsing Technology, (IWPT-03),

Member, Review Panel, EUROGRAPHICS 2003.

Co-Chair, SIGDAT International Conference on Empirical Methods in Natural Language Processing (EMNLP), Sapporo Japan, July 2003

Member, External Review Committee Onderzoeksschool Logika (Dutch Graduate School in Logic) for Dutch Royal Academy for the Sciences (KNAW) February 2004

Member, Review Panel, International Workshop on Parsing Technology, (IWPT-04),

Member, Review Panel, 42nd Annual Meeting of the Association for Computational Linguistics (ACL), Barcelona 2004

Member, Review Panel, Conference on Semantics and Linguistic Theory (SALT 14), 2004

Member, Review Panel, International Workshop on Parsing Technology, (IWPT-04),

Member of the Executive Committee, Association for Computational Linguistics, 2005-2008

Member, Review Panel, 43rd Annual Meeting of the Association for Computational Linguistics (ACL), Ann Arbor MI 2005

Member, Review Panel, SIGDAT International Conference on Empirical Methods in Natural Language Processing (EMNLP) 2005

Member, Review Panel, International Workshop on Parsing Technology, (IWPT-05),

Member, EPSRC Review Panel, People and Interactivity. 2004.

Member, EU FP6 Cognitive Systems Program Review Board for the project COSY, November 2005

Member, Review Panel, 5th Conference of the North American Chapter of the Association for Computational Linguistics (HLT-NAACL 2006)

Member, Review Panel, International Workshop on Parsing Technology, (IWPT-06),

Member, Review Panel, 46th Annual Meeting of the Association for Computational Linguistics (ACL), Prague 2006

Member, NIH Biobehavioral and Behavioral Processes Advisory Panel (BBBP-D(04)), February 2006

Member, EU Advisory Panel for the FP7 Call Computational Cognitive Systems, Luxembourg, March 2006

Member Advisory Board of the MCRI on Asymmetry at the Interface and the Cognitive System, SSHRC, Canada (2004-2009)

Member, EU FP6 Cognitive Systems Program Review Board for the project COSY, November 2006.

Chair Evaluation Committee of the Institute for Logic, Language, and Information, Universiteit van Amsterdam, October-November 2006.

Member, Evaluation Committee for INRIA/LORIA Nancy, July 2008

Chair Midterm Evaluation Committee of the Institute for Logic, Language, and Information, Universiteit van Amsterdam, May 2010.

RESEARCH STATEMENT:

Mark Steedman has been Professor of Cognitive Science in the School of Informatics at the University of Edinburgh since 1998. Previously, he was Professor in the Department of Computer and Information Science at the University of Pennsylvania, which he joined as Associate Professor in 1988, after teaching at the Universities of Warwick and Edinburgh. His PhD is in Artificial Intelligence from the University of Edinburgh. He was a Sloan Fellow at the University of Texas at Austin in 1980/81, and a Visiting Professor at Penn in 1986/87. He is a Fellow of the American Association for Artificial Intelligence, the British Academy, and the Royal Society of Edinburgh, and a Member of the European Academy.

His research interests cover issues in computational linguistics, artificial intelligence, computer science and cognitive science, including syntax and semantics of natural languages and programming languages, wide-coverage parsing, comprehension of natural language discourse by humans and by machine, grammar-based language modeling, natural language generation, and intonation in spoken discourse. Much of his current NLP research is addressed to probabilistic parsing and issues in spoken discourse and dialogue using the CCG grammar formalism, especially the semantics of intonation. He works with colleagues in computer animation using these theories to guide the graphical animation of speaking virtual or simulated autonomous human agents. Some of his research concerns the analysis of music by humans and machines.

PH.D. THESES & POSTDOCS SUPERVISED:

- G.T.M. Altmann. (AI and CCS, Edinburgh). Reference and the resolution of local syntactic ambiguity: the effect of context during human sentence processing. Awarded 1986. Professor, University of York UK.
- H. Reichgelt. (Phil and CCS, Edinburgh, with B. Richards). Reference and Quantification in the Cognitive View of Language. Awarded 1986. Professor, University of the West Indies, Kingston Jamaica
- M. Moens. (CCS, Edinburgh) Tense, Aspect and Time Reference. Awarded 1988. CEO Rhetorical Systems, Edinburgh.
- R. Pareschi (AI and CCS, Edinburgh). Algorithmic Processing of Unification-based Implementations of Extended Categorical Grammars. Awarded 1989. Senior Researcher, Rank Xerox Laboratory, Grenoble France.
- N. Haddock. (AI and CCS, Edinburgh). Incremental Semantic Interpretation and Interactive Syntactic Processing. Awarded 1989. Senior Research Officer Hewlett Packard, Palo Alto CA.
- E. Jowsey. (AI, Edinburgh) Constraining Formal Grammar for Computational Applications. Awarded 1991. Post-doctoral Research Fellow in Computer Science at the University of Essex, UK.
- M. Hepple (CCS, Edinburgh, with E. Engdahl) Word order and Processing in English and Germanic Languages. Awarded 1991. Senior Faculty, University of Sheffield UK.
- C. Pelachaud (CIS, U. Penn, with N. Badler), Communication and Coarticulation in Facial Animation. Awarded 1991. Senior Researcher, INRIA Paris.
- M. Niv (CIS, U. Penn) Processors for Combinatory Grammars. Awarded 1993. Postdoctoral Research Fellow, Dept of Computer Science, Technion, Tel Aviv Israel. SRA Arlington VA.
- M. White (CIS, U. Penn) Temporal Semantics and Temporal Reference. Awarded August 1994. Senior Computational Linguist, Cogentex, Ithaca NY. Faculty, Linguistics, The Ohio State University.
- B. Hoffman (CIS U. Penn) Syntax, Semantics and Discourse Information in Turkish, Awarded Aug 1995. NATO Post-doctoral Fellow, University of Edinburgh. Faculty, Marymount College, Arlington VA.
- S. Prevost (CIS U. Penn) Intonation, Context and Contrastiveness in Spoken Language Generation. Awarded December 1995. Post-doctoral Fellow, MIT Media Lab. Research Scientist, Fuji Xerox. CSO Headpedal Inc. CEO BING, Microsoft.
- J. Park (CIS, U. Penn) Semantics for Combinatory Grammars. Awarded May 1996. Faculty, KAIST Korea.

- C. Ortiz (CIS, U. Penn) *Worlds of Change: Counterfactual Reasoning and Causation*. Awarded December 1996. Post Doctoral Fellow, Harvard. Senior Research Scientist SRI Menlo Park.
- M. Stone (CIS, U. Penn) *Modality in Dialogue: Planning, Pragmatics and Computation*. awarded Dec 1998. **FoLLI Prize for Outstanding Dissertation in Language, Logic and Computation for 1999**. Associate Professor, Rutgers U.
- N. Komagata (CIS, U. Penn), *Information Structure in Texts: A Computational Analysis of Contextual Appropriateness in English and Japanese*. Dec 1999. Assistant Professor, UNJ Trenton
- F. Keller (Informatics, Edinburgh, with A. Sorace) *Gradience in Grammar: Experimental and Computational Aspects of Degrees of Grammaticality*, June 2000. Faculty, University of the Saarlandes Saabrücken. Faculty, University of Edinburgh.
- J. Neumann (Informatics, Edinburgh, with D. Willshaw), *Holistic Processing of Hierarchical Structures in Connectionist Networks*. June 2001. Postdoc, Max Planck Institut for Cognitive Neuroscience, Leipzig
- J. Baldridge (Informatics, Edinburgh), *Lexically Specified Derivational Control in Combinatory Categorical Grammar*, Dec 2002. **Beth Prize for Outstanding Dissertation in Language, Logic and Computation for 2002**. Assistant Professor, University of Texas at Austin.
- J. Hockenmaier (Informatics, Edinburgh), *Data and Models for Statistical Parsing with Combinatory Categorical Grammar*. June 2003. **Pub. BCS Distinguish Dissertations Collection, shortlisted for BCS Distinguished Dissertation 2003**. Assistant Professor, University of Illinois.
- Dr. Stephen Clark (Postdoc 2000-2004, Informatics Edinburgh) on EPSRC grant GR/M96889. Faculty, Computer Science, University of Oxford; Computing Laboratory, University of Cambridge.
- Dr. Johan Bos (Postdoc 2003-2005, Informatics Edinburgh) on EU FP5 grant MAGICSTER. Senior Researcher, University La Sapienza, Rome.
- Dr. Maarike Traat (Informatics, Edinburgh), *Information Structure in Discourse Representation*, June 2006, Postdoc U. Tartu, Estonia.
- Dr. Mark McConville (Informatics, Edinburgh), *An Inheritance-Based Theory of the Lexicon in Combinatory Categorical Grammar* Dec. 2006, Postdoc., University of Edinburgh
- Dr. Ruken Cakıcı (Informatics, Edinburgh), *Wide Coverage Parsing for Turkish*, May 2009, Postdoc., Middle East Technical University.
- Emily Thomforde, Kira Mourão , Tom Kwiatkowski, Prachya Boonkwan, (Informatics, Edinburgh, in progress.)

PUBLICATIONS:

Books

- (1996a) *Surface Structure and Interpretation*, Linguistic Inquiry Monograph **30**, MIT Press.
(2000a) *The Syntactic Process*, MIT Press.
(2001a) *The Syntactic Process*, MIT Press. (paperback edition)
(2011a) *Taking Scope: The Natural Semantics of Quantifiers*, MIT Press. (to appear).

Refereed Journal Articles

- (1977a) “The perception of musical rhythm and metre”, *Perception*, **6**, 555–569.
(1977b) “Verbs, time and modality”, *Cognitive Science*, **2**, 216–234.
(1978a) “The psychology of syllogisms”, with P.N. Johnson-Laird, *Cognitive Psychology*, **10**, 64–99.
(1982a) “On the order of words”, with A.E. Ades *Linguistics and Philosophy*, **4**, 517–558.
(1983a) “On the Generality of the Nested Dependency Constraint and the Reason for an Exception in Dutch”, *Linguistics*, **21.1**, 35–66.
(1984a) “A generative grammar for chord sequences”, *Music Perception*, **2.1**, 52–77.
(1985a) “LFG and Psychological Explanation”, *Linguistics and Philosophy*, **8.3**, 359–385.
(1985b) “Dependency and Coordination in the Grammar of Dutch and English”, *Language*, **61.3**, 523–568.
(1987a) “Combinatory Grammars and Parasitic Gaps”, *Natural Language and Linguistic Theory*, **5**, 403–439.
(1988a) “Temporal Ontology and Temporal Reference”, (with Marc Moens), *Journal of Computational Linguistics*, **14**, 15–28. (Reprinted as 2005u.)
(1988b) “Interaction with Context During Human Sentence Processing”, (with Gerry Altmann), *Cognition*, **30**, 191–238
(1989a) “Ambiguity in Context: a reply”, (with Gerry Altmann), *Language and Cognitive Processes*, **4**, 105–122.
(1990a) “Gapping as Constituent Coordination”, *Linguistics and Philosophy*, **13**, 207–264.
(1991a) “Structure and Intonation”, *Language*, **68.2**, 260–296.
(1993a) “Categorial Grammar”, *Lingua*, **90**, 221–258.
(1994a) “Acquisition of Verb Categories”, *Lingua*, **92**, 471–480.
(1994b) “Specifying Intonation from Context for Speech Synthesis”, (with Scott Prevost), *Speech Communication*, **15**, 139–153.
(1994c) “The Well-tempered Computer”, *Philosophical Transactions of the Royal Society, A*, **349**, 115–130.
(1996b) “Generating Facial Expressions for Speech” (with Catherine Pelachaud and Norman Badler), *Cognitive Science*, **20**, 1–46.
(1999a) “Connectionist Sentence Processing in Perspective”, *Cognitive Science*, **23**, 615–634.
(2000b) “Information Structure and the Syntax-Phonology Interface”, *Linguistic Inquiry*, **31**, 649–689.
(2002a) “Plans, Affordances, and Combinatory Grammar,” *Linguistics and Philosophy*, **25**, 723–753.
(2003a) “Discourse and Information Structure” (With Ivana Kruijff-Korbayová), *Journal of Logic, Language and Information*, **12**, 249–259.
(2006a) “Is Semantics Computational?” (With Matthew Stone), *Theoretical Linguistics* **32**, 73–89.
(2006b) “Categorial Grammar and the Semantics of Contextual Prepositional Phrases,” (with Nissim Francez) *Linguistics and Philosophy*, **29**, 381–417.
(2007a) “CCGbank: A Corpus of CCG Derivations and Dependency Structures Extracted from the Penn Treebank,” (with Julia Hockenmaier) *Computational Linguistics*, **33**, 355–396.
(2008a) “On Becoming a Discipline” (2007 ACL Presidential Address to the 45th Annual Conference) *Computational Linguistics*, **34**, 137–144
(2010a) “The NXT-Format Switchboard Corpus: A Rich Resource for Investigating the Syntax, Semantics, Pragmatics, and Prosody of Dialog,” (With Sasha Calhoun, Jean Carletta, Jason Brenier, Neil Mayo, Dan Jurafsky, and David Beaver), *Language Resources and Evaluation*, **44**, 387–419.

Refereed Conference Papers

Refereed conference papers delivered at meetings which only publish abstracts, and papers appearing in unrefereed collections of working papers, appear under “Recent Invited Addresses” and “Some Recent Talks,” below.

- (1971) “On interpreting Bach”, with H.C. Longuet-Higgins, 6th Annual Machine Intelligence Workshop, Edinburgh, in proceedings published as Meltzer, B. and Michie, D. (Eds.) *Machine Intelligence 6*. Edinburgh: Edinburgh University Press, 221–241. (reprinted as 1987d)
- (1978b) “A programmatic theory of linguistic performance”, with P.N. Johnson-Laird, NATO Conference on Psycholinguistics, Stirling, June 1976, in proceedings published as Smith, P. and Campbell, R. (Eds.) *Recent Advances in the Psychology of Language*. New York: Plenum, 171–192.
- (1980a) “An algorithmic approach to main clause constructions in English”, with A.E. Ades, 2nd Conference of the Society for Artificial Intelligence and the Simulation of Behaviour, Amsterdam, March 1980, in: Hardy, S. et al, (Eds.) *Proceedings of AISB80*, A.I.S.B., University of Sussex, 1–10.
- (1984b) “Natural and Unnatural Language Processing”, SERC Workshop on Natural Language Parsing, University of Essex, Colchester, April 1982. In proceedings published as K. Sparck-Jones and Y. Wilks (Eds.), *Automatic Natural Language Parsing*. Ellis Horwood, 132–140.
- (1984c) “A Categorical Theory of Intersecting Dependencies in Dutch Infinitival Complements”, International Conference on Complementation, Universitaire Faculteiten Sint Aloysius, Brussels, June 1983. In proceedings published as de Geest, W., and Putseys, Y., (eds.), *Sentential Complementation*, Foris, Dordrecht, 215–226.
- (1987b) “A Lazy Way to Chart-parse with Categorical Grammars”, (with Remo Pareschi), Proceedings of the 25th Annual Conference of the Association for Computational Linguistics, Stanford CA, July 1987, 81–88.
- (1987c) “Temporal Ontology in Natural Language”, (with Marc Moens), Proceedings of the 25th Annual Conference of the Association for Computational Linguistics, Stanford CA, July 1987, 1–7. (Reprinted as 2003d)
- (1988c) “Syntax and Intonational Structure in a Categorical Grammar”, Workshop on Human Speech Perception and Natural Language Understanding, Sperlonga Italy, May 1988. In proceedings published as Gerry Altmann (ed.), *Cognitive Models of Speech Processing*, MIT Press: Cambridge MA. 457–482.
- (1989b) “Intonation and Syntax in Spoken Language Systems”, *DARPA Speech and Natural Language Workshop*, Philadelphia PA, February 1989, see Working Papers of the conference, Morgan Kauffman, 222-227
- (1989c) “Syntax and Intonation in Spoken Language Systems,” AAI Workshop on Spoken Language Systems, Stanford, CA, April 1989, see Working Papers of the conference;
- (1989d) “Parsing Spoken Language Using Combinatory Grammars,” *Proceedings of International Workshop on Parsing Technologies*, CMU, Pittsburg August 1989, 162-171.
- (1990b) “Structure and Intonation in Spoken Language Understanding”, *Proceedings of the 28th Annual Conference of the Association for Computational Linguistics*, Pittsburgh, PA, June 1990, 9–17.
- (1991b) “Linguistic Issues in Facial Animation”, (with C. Pelachaud and N.I. Badler), *Proceedings of the Conference on Computer Animation*, Geneva, Switzerland, May 1991.
- (1991c) “Type-raising and Directionality in Combinatory Grammar”, 29th Annual conference of the Association for Computational Linguistics, Berkeley CA, June 1991, 71-78.
- (1993c) “Generating Contextually Appropriate Intonation”, (with Scott Prevost), *Proceedings of the Sixth Conference of the European Chapter of the Association for Computational Linguistics*, Utrecht, April 1993, 332-340.

- (1993d) “Using Context to Specify Appropriate Intonation in Speech Synthesis”, (with Scott Prevost), *Proceedings of EUROSPEECH Conference*, Berlin, September 1993, 2103-2106.
- (1993e) “The Grammar of Intonation and Focus”, *Proceedings of the 9th Amsterdam Colloquium*, ILLI, Amsterdam, December 1993, 17-34.
- (1994b) “Animated Conversation: Rule-based Generation of Facial Expression, Gesture and Spoken Intonation for Multiple Conversational Agents,” (with Justine Cassell, Catherine Pelachaud, Norm Badler, Brett Achorn, Tripp Becket, Brett Douville, Scott Prevost, and Matthew Stone), *Proceedings of the ACM SIGGRAPH '94 Conference*, Orlando FL. 413-420, (reprinted as 1997c, 1998b).
- (1994c) “Modeling the Interaction between Speech and Gesture”, (with Justine Cassell, Matthew Stone, Brett Douville, Scott Prevost, Brett Achorn, Norm Badler and Catherine Pelachaud), *Proceedings of the Sixteenth Annual Meeting of the Cognitive Science Society*, Atlanta GA, August 1994, (to appear).
- (1995a) “Dynamic Semantics for Tense and Aspect”, *Proceedings of the International Joint Conference on Artificial Intelligence*, Montreal, Quebec, Aug. 1995, 1292-1298.
- (1996c) “Representing Discourse Information for Spoken Dialogue Generation”, *Proceedings of International Symposium on Spoken Dialogue, International Conference on Spoken Language Processing (held in conjunction with ICSLP-96)*, Philadelphia Sept 1996, 89-92.
- (1999b) “Alternating Quantifier Scope in CCG”, *Proceedings of 37th Annual conference of the Association for Computational Linguistics*, College Park, June 1999, 301-308
- (2002b) “Formalizing Affordance”, *Proceedings of the 24th Annual Meeting of the Cognitive Science Society*, GMU, Fairfax VA, Erlbaum, 834-839.
- (2002c) (with Julia Hockenmaier and Stephen Clark) “Building Deep Dependency Structures using a Wide-Coverage CCG Parser,” *Proceedings of the 40th Meeting of the ACL*, Philadelphia July 2002, 327-334.
- (2002d) (with Julia Hockenmaier) “Generative Models for Statistical Parsing with Combinatory Grammars,” *Proceedings of the 40th Meeting of the ACL*, Philadelphia July 2002, 335-342.
- (2002e) (with Julia Hockenmaier) “Acquiring Compact Lexicalized Grammars from a Cleaner Treebank,” *Proceedings of Third International Conference on Language Resources and Evaluation (LREC)*, Las Palmas, 2002, 1974-1981.
- (2003b) (with Miles Osborne, Anoop Sarkar, Stephen Clark, Rebecca Hwa, Julia Hockenmaier, Paul Ruhlen, Steven Baker and Jeremiah Crim), “Bootstrapping Statistical Parsers from Small Datasets”, *Proceedings of the Annual Meeting of the European Chapter of the ACL*, Budapest, Hungary, 331-338
- (2003c) (with Rebecca Hwa, Stephen Clark, Miles Osborne, Anoop Sarkar, Julia Hockenmaier, Paul Ruhlen, Steven Baker and Jeremiah Crim), “Example Selection for Bootstrapping Statistical Parsers”, *Proceedings of the Joint Conference of Human Language Technologies and the Annual Meeting of the North American Chapter of the ACL*, Edmonton, Canada, 236-243.
- (2003d) (with Rebecca Hwa, Miles Osborne and Anoop Sarkar), “Corrected Co-training for Statistical Parsers”, *Proceedings of the International Conference on Machine Learning (ICML) Workshop “The Continuum from Labeled to Unlabeled Data”*, Washington, USA, 2003., 95-102, Washington DC.
- (2004a) (with Johan Bos, Stephen Clark, James R. Curran and Julia Hockenmaier), “Wide-Coverage Semantic Representations from a CCG Parser,” *Proceedings of the 20th International Conference on Computational Linguistics (COLING '04)*, Geneva, 1240-1246.
- (2004b) (with Malvina Nissim, Shipra Dingare, and Jean Carletta), “An Annotation Scheme for Information Status in Dialog,” *Proceedings of the 4th Languages Resources and Evaluation Conference (LREC '04)*, Lisbon, May, 1023-1026.
- (2004c) (with Stephen Clark and James Curran) “Object-Extraction and Question-Parsing using CCG,” *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Barcelona, 111 - 118.

- (2005a) (with Sasha Calhoun, Malvina Nissim, and Jason Brenier), “A Framework for Annotating Information Structure in Discourse”, *Proceedings of the ACL Workshop: Frontiers in Corpus Annotation II: Pie in the Sky*, Ann Arbor MI, 45-52.
- (2006c) (with Geib et al.) “Object Action Complexes as an Interface for Planning and Robot Control,” Proceedings of the HUMANOIDS-06 Workshop: Toward Cognitive Humanoid Robots.
- (2007c) (with Chris Geib) “On Natural Language Processing and Plan Recognition,” Proceedings of the 20th International Joint Conference on AI (IJCAI), Hyderabad, 1612-1617.
- (2007d) (with Ron Petrick) “Planning Dialog Actions”, *Proceedings of the 8th SIGdial Workshop on Discourse and Dialogue*, Antwerp, Sept. 2007, 265-272.
- (2007e) (with Akira Ohtani) “Case, Coordination, and Information Structure in Japanese”, *Proceedings of the 21st Pacific Asia Conference on Language, Information and Computation (PACLIC)*, Seoul, Korea, November 2007, 365-374.
- (2008b) (with Petrick et al.) “Representation and Integration: Combining Robot Control, High-Level Planning, and Action Learning,” Proceedings of the International Cognitive Robotics Workshop (CogRob 2008) at ECAI 2008.
- (2008b) (with Akira Ohtani) “On Japanese Desiderative Constructions”, *Proceedings of the 22nd Pacific Asia Conference on Language, Information and Computation (PACLIC)*, Cebu City, Philippines, November 2008, 290-301. (Nominated for Best Paper).
- (2009) (with Laura Rimell and Stephen Clark) “Unbounded Dependency Recovery for Parser Evaluation,” *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Singapore, 813-821.
- (2010c) (with Krüger et al.) “Object-Action Complexes: Grounded Abstractions of Sensorimotor Processes,” Proceedings of the 4th International Conference on Cognitive Systems, Zurich, January 2010.
- (2010d) (with Morgan et al.) “A Bottom-Up Parsing Model of Local Coherence Effects”, Proceedings of the 32nd Annual Meeting of the Cognitive Science Society, Portland OR, 1559-1564.
- (2010e) (with Kwiatkowski et al.) “Inducing Probabilistic CCG Grammars from Logical Form with Higher-Order Unification”, Proceedings of the 2010 Conference on Empirical Methods in Natural Language Processing, Cambridge MA, 1223-1233.
- (2010f) (with Christodoulopoulos et al.) “Two Decades of Unsupervised POS tagging—How Far Have We Come?”, Proceedings of the 2010 Conference on Empirical Methods in Natural Language Processing, Cambridge MA, 575-584.
- (2010g) (with Mourão et al.) “Learning Action Effects in Partially Observable Domains”, Proceedings of the 19th European Conference on Artificial Intelligence, Lisbon, 973-974.

Abstracts, Reviewed Conference Papers, Book Chapters, and Review Papers in Journals

- (1978c) “A procedural model of presupposition”, Conference on Foundations of Semantic Theories, Nijmegen, March 1977, in Seuren, P. (Ed) *A Symposium on Semantic Theory. Grammatik 9*, Katholieke Universiteit, Nijmegen, 118–148.
- (1980b) “The production of sentences, utterances and speech-acts: Have computers anything to say?”, with P.N. Johnson-Laird, in B. Butterworth. (Ed.) *Language Production*, Academic Press: New York, 111–141.
- (1982b) “Reference to past time”, Max Planck Institute Conference on Deixis, Nijmegen, March 1978, and Alfred P. Sloan Foundation Conference on Events, Situations and Actions, Austin TX October 1980. In: Jarvella, R. and Klein, W. (Eds.) *Speech, Place and Action: Studies of Language in Context*, Wiley: London, 1982, 125–157.

- (1984d) “On the Generality of the Nested Dependency Constraint and the Reason for an Exception in Dutch” in Butterworth, B., Comrie, B., and Dahl, O. (eds.), *Explanations for Language Universals*, Mouton, 35–66. (Reprint of (1983a))
- (1985c) “On not being led up the garden path: the use of context by the psychological parser”, with S. Crain, Alfred P. Sloan Foundation Conference on Human Parsing Mechanisms, University of Texas, Austin TX, March 1981. In Dowty, D., Karttunen, L. and Zwicky, A., (eds.), *Natural Language Parsing: Psychological, Computational and Theoretical Perspectives*, ACL Studies in Natural Language Processing, Cambridge University Press, 320–358.
- (1987d) “On interpreting Bach”, with H.C. Longuet-Higgins, H.C. Longuet-Higgins, (ed.), *Mental Processes*, MIT Press:Cambridge MA, 82–104. (Reprint of (1971)).
- (1987d) “Combinatory Grammars and Human Language Processing”, Conference on Modularity in Knowledge Representation and Natural Language Processing, Amherst MA, June 1985. In: Garfield, J. (ed.), *Modularity in Knowledge Representation and Natural Language Processing*, Cambridge Mass.: MIT Press/Bradford Books, 187–205.
- (1988d) “Combinators and Grammars”, Conference on Categorical Grammar, Tucson AZ, May 1985. In proceedings published as Bach, E., Oehrle, R.T., and Wheeler, D. (eds.), *Categorical Grammars and Natural Language Structures*, Dordrecht: Riedel. 417–442.
- (1989e) “Coordination and Constituency in a Combinatory Grammar”, In Mark Baltin and Tony Kroch, (eds.), *Alternative Conceptions of Phrase Structure*, University of Chicago Press: Chicago, 201–231.
- (1989f) “Grammar, Interpretation and Processing from the Lexicon”, Max Planck Institute Conference on Processing and the Lexicon, Nijmegen, June 1986. In William Marslen-Wilson (ed.), *Lexical Representation and Process*, MIT Press: Cambridge MA, 463–504.
- (1991d) “Parsing Spoken Language Using Combinatory Grammars,” in M. Tomita, (ed.), *Current Issues in Parsing Technology*, Kluwer:Dordrecht. 113-126. (Reprint of 1989d).
- (1991e) “Syntax, Intonation and ‘Focus’”, in E. Klein and F. Veltmann, (eds.) *Natural Language and Speech: Proceedings of the Symposium, ESPRIT Conference, Brussels, Nov. 1991*, Springer Verlag, Berlin. 21-38.
- (1992c) “Grammars and Processors”, supposedly to appear in H. Kamp and C. Rohrer, (eds.), *Current Theories in Natural Language Understanding* (working title), Reidel:Dordrecht. (Appears as MS-CIS-92-52).
- (1992d) “Acquisition of Verb Categories”, Conference on Acquisition of the Mental Lexicon, IRCS, University of Pennsylvania, January 1992, to appear in L. Gleitman, (ed.) *Acquisition of the Mental Lexicon* (reprint of 1992a), Cambridge MA: MIT Press/Bradford Books.
- (1992f) “Integrating Grammar and Intonation”, G. Görz (ed.), *Proceedings of KONVENS 92*, Berlin, Springer Verlag. 21-28.
- (1993f) “Surface Structure, Intonation, and Discourse Meaning”, in M. Bates and R. Weischedel, (eds.), *Challenges in Natural Language Processing* CUP:Cambridge. 228-253.
- (1994d) “Information-Based Intonation Synthesis”, (with Scott Prevost), *Proceedings of the ARPA Human Language Technology Workshop*, Plainsboro NJ, March 1994, Morgan-Kauffman, Palo Alto CA. 193-198.
- (1994e) “Implications of Binding for Lexicalized Grammars”, *Proceedings of the 3rd Workshop on Tree-Adjoining Grammar and Related Formalisms*, Université de Paris VII, September 1994, in Anne Abeillé and Owen Rambow, (eds.), *Tree Adjoining Grammars: Formalisms, Linguistic Analysis, and Processing*, CSLI Publications, Stanford CA., (2000), 283-301.
- (1994f) “Automatically Generating Conversational Behaviour in Animated Agents”, with (Justine Cassell, Catherine Pelachaud and Norm Badler) *Abstracts for the Conference on Lifelike Computer Characters '94*, Snowbird, Utah, October 1994, 20-21.

- 1994g** “Categorial Grammar,” in R.E. Asher (ed.), *Encyclopedia of Language and Linguistics*, Pergamon Press, Oxford, 467-477. Reprinted with variations as 1996i, 1997d.
- (1995b)** “Synthesizing Cooperative Conversation,” (with Pelachaud et al.) *First International Conference on Cooperative Multimodal Communication*, Eindhoven, May 1995. (Proceedings appear as 1998c), 68-88.
- (1996d)** “Natural Language Processing” in M. Boden (ed.), *Handbook of Perception and Cognition, 14: Computational Psychology and Artificial Intelligence*, Academic Press. 229-266.
- (1996e)** “Computational Aspects of the Theory of Grammar”, in L. Gleitman and M. Liberman (eds.), *Invitation to Cognitive Science, vol 1: Language*, MIT Press, 247-281.
- (1996f)** “The Role of Prosody and Semantics in the Acquisition of Syntax”, Conference on Signals to Syntax, Brown University, January 1993. in Morgan, James and Katherine Demuth (eds.), *Signal to Syntax*, Erlbaum, NJ., 331-342.
- (1996h)** “The Blues and the Abstract Truth: Music and Mental Models”, in J. Oakhill and A. Garnham, (eds.), *Mental Models in Cognitive Science*, Erlbaum. 305-318.
- (1996i)** “Categorial Grammar,” in Keith Brown and Jim Miller (eds.), *Concise Encyclopedia of Syntactic Theories*, Pergamon Press, Oxford, 31-43. (Revision of 1994g).
- (1996j)** “Does Grammar Make Use of Bound Variables?” International Workshop on Variable Free Semantics, Osnabrück Germany September 1996, in M. Böttner and W. Thümmel (eds.), 2000, *Variable Free Semantics*, Secolo, Osnabrück, 200-209.
- (1997a)** “Temporality”, in J. van Benthem and A. ter Meulen (ed.) *Handbook of Logic and Linguistics*, North Holland. 895-938.
- (1997b)** “Cognitive Algorithms”, in S. Sternberg and D. Scarborough, (eds.), *Invitation to Cognitive Science, vol 4: Conceptual Foundations*, MIT Press, 171-210.
- (1997c)** “Animated Conversation: Rule-based generation of facial expressions, gesture, and spoken intonation for multiple conversational agents”, (with Cassell et al.) in Michael Huhns and Munindar Singh, (eds.) *Readings in Agents*, Morgan Kaufmann, San Francisco CA. 148-155. (Reprint of 1994b *Proceedings of ACM SIGGRAPH '94 Conference*, 413-420).
- (1997d)** “Categorial Grammar,” in Peter Lamarque, (ed.), *Concise Encyclopedia of the Philosophy of Language*, Pergamon Press, Oxford, (revision of 1994g, in press).
- (1998a)** “Connectionist and Symbolist Sentence Processing”, 11th Annual CUNY Conference on Sentence Processing, Rutgers, March 1998, 33 (abstract).
- (1998b)** “Animated Conversation: Rule-based generation of facial expressions, gesture, and spoken intonation for multiple conversational agents”, (with Cassell et al.) in Mark Maybury and Wolfgang Wahlster, (eds.) *Readings in Intelligent User Interfaces*, Morgan Kaufmann, San Francisco CA. 582-591. (Reprint of 1994b *Proceedings of ACM SIGGRAPH '94 Conference*, 413-420).
- (1998c)** “Synthesizing Cooperative Conversation,” (with Pelachaud et al.) in Harry Bunt, Robbert-Jan Beun and Tijn Borghuis, (Eds.), *Multimodal Human-Computer Interaction*, Lecture Notes in Computer Science 1374, Springer Berlin, 68-88.
- (2002f)** “Connectionist and Symbolic Representations of Language,” to appear in *Encyclopedia of Cognitive Science*, Nature Publishing Group, Macmillan.
- (2003c)** “Wide Coverage Parsing and Incrementation in CCG,” in Raffaella Bernardi and Michael Moortgat (eds.), *Linguistic Corpora and Logic Based Grammar Formalisms*, Institute of Linguistics, Universiteit Utrecht, 115-133.
- (2003d)** “Temporal Ontology and Natural Language” (with Marc Moens), in Javier Gutieérrez-Rexach (ed.), *Semantics: Critical Concepts in Linguistics* Vol. IV: The Semantics of Predicates and Inflection, 290-305, Routledge. (Reprint of 1987c.)

- (2004w) “Where does Compositionality Come From?”, papers from the 2004 AAAI Fall Symposium on *Compositional Connectionism in Cognitive Science*, Technical Report FS-04-03, AAAI Press, 59-62.
- (2004y) “APML, a Mark-up Language for Believable Behavior Generation”, (with Berardina de Carolis, Catherine Pelachaud, and Isabella Poggi), in H. Prendinger, (ed.) *Life-like Characters. Tools, Affective Functions and Applications*, 65-85, Springer, Berlin.
- (2004z) “How to use APML to Specify Intonation,” Tech Report, School of Informatics.
- (2005u) “Temporal Ontology and Temporal Reference”, (with Marc Moens), in Inderjeet Mani, James Pustejovsky, and Robert Gaizauskas (eds.) *The Language of Time: A Reader*. Oxford University Press, 93-114. (Reprint of 1988a.)
- (2005v) “Interfaces and the Grammar”, in *Proceedings of the 24th West Coast Conference on Formal Linguistics*, (WCCFL 24), Cascadilla Proceedings Project, Somerville, MA, USA, 19-33.
- (2006c) “Syntactic Variables and Variable-free Syntax,” *Encyclopædia of Language and Linguistics*, 2nd edn., Ed. Keith Brown, v.12:394-402.
- (2006d) “Combinatory Categorical Grammar,” *Encyclopædia of Language and Linguistics*, 2nd edn., Ed. Keith Brown, v.2:610-622.
- (2006e) “Semantics in Categorical Grammar,” *Encyclopædia of Language and Linguistics*, 2nd edn., Ed. Keith Brown, v11:143-142.
- 2007f “Information-Structural Semantics for English Intonation”, in Chungmin Lee, Matthew Gordon, and Daniel Büring (eds.) *Topic and Focus: Cross-linguistic Perspectives on Meaning and Intonation*, Kluwer: Dordrecht.
- (2007g) “On ‘The Computation’,” in Gillian Ramchand and Charles Reiss, (eds.), *The Oxford Handbook of Linguistic Interfaces*, Oxford University Press, Oxford, 575-611
- (2007h. s) “Combinatory Categorical Grammar,” (with Jason Baldridge), in Kirsti Börjars and Bob Borsley, (eds.), *Non-Transformational Theories of Grammar*, Blackwell Oxford, (to appear)
- (2009b) “Welsh Syntactic Soft Mutation”, in *Abstracts of the 6th Old World Conference on Phonology*, Edinburgh, February 22-24, 23..
- (2009c) “Foundations of Universal Grammar in Planned Action” in Morten Christiansen, Chris Collins, and Shimon Edelman (eds.), *Language Universals*, Oxford University Press Oxford, 174-199.
- (2010b) “Embodied Compositionality” (Comment on ‘Embodied Language, Best-Fit Analysis, and Formal Compositionality’ by J. Feldman), *Physics of Life Reviews*, 7, 418-420.
- (2011c) “Computational Linguistic Approaches to Temporality”, in Robert Binnick (ed.) *The Oxford Handbook of Tense and Aspect*, Oxford University Press, (to appear).

Recent Keynote Addresses and Invited Lectures

- Third European Summer School in Language, Logic, and Information, Saarbrücken, August 12-23, 1991.
 “Combinatory Grammars and Natural Language Understanding”, (a course of ten lectures).
- “Processors, Contexts and Grammars”, Current Theories of Natural Language Understanding, seminar series, University of Stuttgart, Germany, January 1990.
- “Combinators and Grammars”, Cornell University Cognitive Science Group (Depts. of Psychology, Linguistics, Philosophy and Computer Science), March 1991. (Three Lectures.)
- “Natural Language at IJCAI-91” Summary address, IJCAI-91, Sydney, Australia, August 1991.
- “Syntax, Intonation, and “Focus””, Invited address to the Basic Research Symposium on Natural Language and Speech, ESPRIT Conference, Brussels, November 1991.
- “Integrating Grammar and Intonation”, Keynote address (Hauptvortrag), KONVENS 92, Verarbeitung natürlicher Sprache, Nürnberg, October 1992.

- “Integrating Grammar, Intonation, and the Processor”, Keynote Address to the CUNY Conference on Natural Language Processing, University of Massachusetts at Amherst, March 1993.
- “Combinators and Grammars”, Forum Lecture to the Linguistics Society of America Summer Institute, July 1993
- “Grammars and Processors”, Keynote Address, BCN Themedag op Communicatie, Center for Behavioural and Cognitive Neurosciences, Rijkuniversiteit Groningen, 13th December 1993.
- “The Grammar of Intonation and Focus”, Keynote Address to the Ninth Amsterdam Colloquium, ILLC University of Amsterdam, December 1993
- “The Well-Tempered Computer”, invited address to the Royal Society discussion meeting “Artificial Intelligence and the Mind: New Breakthroughs or Dead Ends?”, London, April 1994
- “Intonation and Focus in Discourse”, invited address to the Conference on Discourse: Linguistic, Computational, and Philosophical Perspectives, University of Pittsburgh, March 24th-26th 1995.
- “Combinators and Grammars”, Vilem Mathesius Lectures, Charles University Prague, April 17th-21st 1995. (Three lectures).
- “Teaching Undergraduate AI”, Keynote address to the Workshop on Providing and Integrating Educational Resources for Faculty Teaching Undergraduate Artificial Intelligence (UGAI95), 12th-16th June 1995, Temple Univ. Philadelphia.
- “Syntax and Information Structure”, Keynote address to the Fourth International Conference on the Cognitive Science of Natural Language Processing”, Dublin City University, Dublin July 1995.
- “Against Syntactic WRAP”, invited address to the Workshop on Proof Theory, Labeled Deduction & Natural Language, European Summer School on Logic and Language, Barcelona, August 1995.
- “Experiments with synthetic agent communication and interaction”, Invited address to the 2nd Conference on Lifelike Computer Characters, September, 1995 Snowbird, Utah
- “The Syntactic Interface” Institut für Maschinelle Sprachverarbeitung, Universität Stuttgart, June 1996. (eight lectures).
- “Where do Rules Come From?” invited address, Conference on Language Understanding: Neural and Computational Approaches, University of Michigan, Ann Arbor, May 1997.
- “Temporality in Natural Language,” Tutorial, 2nd International Conference on Temporal Logic, Manchester, England, July 1997.
- “Making Use of Intonation in Interactive Dialogue Translation”, invited address, 5th International Workshop on Parsing Technology, Cambridge MA., September 1997.
- “The Syntactic Interface” Vilem Mathesius Lectures, Charles University Prague, Nov 17th–21st 1997. (Three lectures).
- “Intonation and Focus” Vilem Mathesius Lectures, Charles University Prague, Mar 1st–3rd 1999. (Three lectures).
- “How I Learned to Stop Worrying and Love Logical Form,” Invited Lecture, Annual Conference of Formal Grammar, August 1999, held in conjunction with the 10th ESSLLI Summer School, Utrecht.
- “Alternating Quantifier Scope in Monotonic Grammars”. Invited Lecture, Twelfth Amsterdam Colloquium, ILLC University of Amsterdam, December 1999
- “The Productions of Time” Invited Lecture, Workshop on Temporal Reasoning, CNRS Institut des Sciences Cognitives, Lyon, Feb. 2000
- “Grammar and Information,” Vilem Mathesius Lectures, Charles University Prague, Mar 30th–31st, 2000. (Two lectures).
- “The Syntactic Process” Keynote Address, Annual Conference of the Linguistics Association of Great Britain, London, April 2000
- “Formal Grammars for Computational Musical Analysis” Invited Lecture, the Babbage Seminar, Computer Laboratory, University of Cambridge, May 2000.

- “Strict Competence”, Invited Lecture, the 5th TAG+ conference, Jussieu, Paris, May 2000.
- “The Productions of Time” Keynote Address, Summer School, Behavioral and Cognitive Neurosciences, Groningen, July 2000
- “Coordination and the Theory of Grammar”, Keynote address to the annual meeting of the Tokyo Area Circle of Linguistics, Meiji Gakuin University, September 2000.
- “Formalizing Affordance: Logical and Neurological Relations Between Grammar and Action” Invited Address, Maryland Mayfest 2001: Cognitive Neuroscience of Language. May, 2001
- “Why Combinators are Real,” Keynote Lecture, Conference on Logic and Computational Linguistics (LACL), Le Croisic, June 2001.
- “The Categorical Grammar of Intonation,” Invited Address, Workshop on Prosody in Processing, Utrecht, July 2001.
- “Prosody and Information Structure,” Invited Address, Topic Focus Workshop, LSA Summer Institute, Santa Barbara CA, July 2001. Published as [2006f]
- “The Productions of Time”, Keynote Address, *Sinn und Bedeutung*, Osnabrück, October 2001.
- “Coordination and the Theory of Grammar”, Keynote address to Conference on Coordination: Syntax, Semantics and Pragmatics, 16–18 November 2001, European Studies Research Institute, University of Salford.
- “Plans, Affordances, and Temporal Semantics, ” keynote address to the Conference on Perspectives on Aspect, Institute of Linguistics OTS Rijksuniversiteit Utrecht, December 2001.
- “Information Structural Semantics of English Intonation”, Invited talk, INFORMATIONSSTRUKTUR - KONTRASTIVT, Lund December 2002
- “Wide-Coverage Statistical Parsing with Combinatory Categorical Grammar”, Invited paper, Conference on Linguistic Corpora and Logic Based Grammar Formalisms, Utrecht, November 2002
- “Natural Language Processing with CCG,” Vilem Mathesius Lectures, Charles University Prague, Mar 12-14 2003. (Three lectures).
- “Combinatory Logic and Natural Grammar,” Invited paper, Workshop on Logic and Computational Linguistics, LICS Ottawa, June 2003
- “Plans, Affordances, and Temporal Semantics, ” keynote address to the conference *It’s about Time*, LSA Summer Institute, East Lansing Michigan July 2003.
- “Scope Alternation and the Syntax-Semantics Interface”, keynote address, *Colloque de Syntax et Sémantique Paris* (CSSP) October 2003.
- “The Grammar of Musical Chord-Sequences”, keynote address to the session on Mathematical Models for Musical Design, *Institute for Operations Research and the Management Sciences (INFORMS)* Atlanta October 2003
- “Chord Grammars Revisited,” keynote address to the Music Informatics and Cognition Workshop, Sonic Arts Research Centre, Queen’s University Belfast.
- “Scope Alternation and the Syntax-Semantics Interface”, keynote address to the XIVth Conference on Semantics and Linguistic Theory (SALT 14), Northwestern University, May 2004
- “Information Structure and Implicature in English,” keynote address, TABU Day, Rijksuniversiteit Groningen June 2004
- “Wide Coverage Parsing with Combinatory Categorical Grammar,” keynote address, Fourth Categorical Grammar Conference, Montpellier June 2004
- “Scope Alternation and the Syntax-Semantics Interface”, keynote address to the Conference “Strategies of Quantification,” York, July 2004
- “On the Interfaces and the Computational System,” keynote address to “Interfaces: Quatrième Conférence de la Fédération sur le Traitement des Langues Naturelles, Pescara July-Aug 2004

- “Where does Compositionality Come From?”, plenary address to the 2004 AAAI Fall Symposium on *Compositional Connectionism in Cognitive Science*, Technical Report FS-04-03, AAAI Press, 59-62.
- “Interfaces and the Grammar”, keynote address to the 24th West Coast Conference on Formal Linguistics (WCCFL), Vancouver, March 2005. Published as [2005v]
- “Grammar Acquisition by Child and Machine”, keynote address to the Conference on Natural Language Learning (CoNLL), Ann Arbor MI June 2005.
- “Surface Compositional Scope Alternation without Existential Quantifiers”, keynote address to the joint Conferences on Formal Grammar and Mathematics of Language (FG/MoL), Edinburgh July 2005.
- “Plans and the Computational Structure of Language”, keynote address to the Workshop on Representation and Learning in Robots and Animals International Joint Conference on AI (IJCAI), Edinburgh July 2005.
- “Grammar Acquisition by Child and Machine”, keynote address to the European Summer School on Logic Language and Information, Edinburgh August 2005.
- “Plans and the Structure of Cognition”, keynote address to the SFB441 Workshop on Semantic Processing, Cognition and Logic, Tübingen August 2005.
- “Semantics and Pragmatics of English Intonation”, keynote address to the SFB441 Conference on Linguistic Evidence: Empirical, Theoretical, and Computational Perspectives, Tübingen February 2006.
- “Plans and the Structure of Mind and Language”, Invited lectures at Middle East Technical University, Ankara, and Bosphorus University Istanbul, Turkey May 2006.
- “Plans and the Structure of Cognition”, keynote address to the Workshop on Embodied Cognition at the Conference on Artificial Intelligence and Simulation of Behavior (AISB), Bristol, April 2006.
- “Combinatory Grammar and Natural Cognition: Linking the World and Language” ALI Summer School Brisbane, July 2006 (five lectures).
- “Semantics and Implicature in the Meaning of English Intonation,” invited address, TAG+ Conference, Sydney July 2006.
- “The Combinatory Manifesto,” invited address, May Fest 2007, University of Maryland, College Park, May 2007.
- “Plans and the Structure of Mind and Language”, invited address to the inaugural conference, CIMeC Center for Mind/Brain Sciences, University of Trento, Rovereto, May 2007.
- “On Becoming a Discipline”, Presidential Address to the 45th Annual conference of the Association for Computational Linguistics, Prague, June 2007, published as Steedman 2007b.
- “The Computational Problem of Language Acquisition”, invited address to the conference Bridging the Developmental Divide: Sentence Processing Meets Word and Grammar Learning, IRCS, University of Pennsylvania, Philadelphia November-December 2007.
- “Grounding Language in Action Representation”, Keynote Address to the Third International Conference on Cognitive Systems, Karlsruhe, April 2008.
- “The Intonational Interface”, invited talk to the Conference on Experimental and Theoretical Advances in Prosody, Cornell April 2008
- “The Grammar of Scope”, invited talk to the Workshop on Logic, Language and Information (WOLLIC 2008), Edinburgh, July 2008.
- “The Intonational Interface”, invited talk to the Workshop on Prosodic Interface Relations, Stuttgart, November 2008 2008.
- “On Becoming a Discipline”, 2007 ACL Presidential Address to the 45th Annual Conference) published as [2008a] *Computational Linguistics*, **34**, 137-144
- “Combinatory Categorical Grammar for Robust Natural Language Processing”, referee selected tutorial at the 12th Conference of the European Chapter of ACL (EACL) 2009, Athens. (Two lectures). To be published by Morgan and Claypool, San Rafael CA.

- “The Statistical Problem of Language Acquisition” keynote address to the 2nd Workshop on Semantic Processes, Logic, & Cognition, Tübingen, April 2009.
- “From Mirror-Neurons and FOXP2 to Language”, Keynote address to the Morris Symposium on Language, Cognition, and Motor Control, Stony Brook NY, May 2009.
- “Dialog as Planning with Knowledge and Sensing” (with Ron Petrick) ARO Workshop on Situated Understanding of Intention, IRCS, University of Pennsylvania, Philadelphia PA, July 2009.
- “Grounding Language in Object-Centered Affordance (OACs)” invited paper, Workshop on Object-Action Complexes (OACs), Humanoids Conference, 7th December 2009.
- “Computational Grammar Acquisition from CHILDES data using a Probabilistic Parsing Model” (with Kwiatkowski et al.), Workshop on Psycho-Computational Models of Human Language Acquisition, at the 31st Annual Meeting of the Cognitive Science Society.
- “Comments on Topics” (with Calhoun), invited paper, Workshop “Towards a Linguistically-Motivated Annotation Scheme for Information Status”, LSA Conference, Baltimore MD, January 2010.
- “Combinatory Categorical Grammar for Robust Natural Language Processing” invited tutorial, University of Geneva Doctoral School, Leysin, March 2010
- “Combinatory Categorical Grammar as a Framework for Linguistics” invited tutorial, University of York Frameworks, York, April 2010
- “Formal Grammars for Computational Musical Analysis” Music, Pattern, and Math Workshop, Herstmonceux Castle, Sussex, August 2010.
- “Formal Foundation of Grammar in Collaborative Action” 18th ESPP Conference, Bochum, August 2010.
- “Plans and the Structure of Meaning” Dynamics in Semantics, Stuttgart, September 2010.
- “Some Important Problems in Natural Language Processing” Hamming Lecture, University of Edinburgh, September 2010.
- “Intonation, Conversation, and Melody” Invited Lecture, Radcliffe Seminar on Prosody and Dialog in Language and Music, Radcliffe Institute, September 2010.

Some Recent Talks

Synthesizing Cooperative Conversation

International Conference on Cooperative Multimodal Communication, Eindhoven, May 1995

Computer Science Dept., RMIT Melbourne, February 1996.

Microsoft Research Institute, Sydney NSW Australia, February 1996.

The Well-tempered Computer: Computational Theories of Musical Interpretation

Department of Computer Science, Villanova University November 1995.

Complexity and Modularity in Natural Language Processing

Workshop in Cognitive Complexity, Florence December 1995.

Combinatory Grammars and Natural Language Understanding

Psychology Dept, University of New South Wales, Sydney NSW Australia, March 1996.

Cognitive Science Seminar, University of Indiana, Bloomington IN, April 1996.

Department of Psychology, Birkbeck University, London, May 1996.

International Workshop on Variable Free Semantics, Osnabrueck Germany September 1996

Where do Rules Come From?

Workshop on Language Acquisition, Institute for Research in Cognitive Science, University of Pennsylvania, May 1997.

Conference on Language Understanding: Neural and Computational Approaches, University of Michigan, Ann Arbor, May 1997.

Heriot-Watt University Edinburgh. November 1998.

Reanalysis

Invited Response to the papers at the Workshop on Reanalysis, held in conjunction with 11th Annual CUNY Conference on Sentence Processing, Rutgers, March 1998

Natural Languages as Programming Languages

Computer Science Dept, University of York, Oct 1998.

Quantifier Scope in CCG

NYU, New York, November 1998.

Brown University, November 1998.

Information Structure and the Syntax-Phonology Interface

Linguistics and Philosophy Dept., MIT, Cambridge MA, November 1998.

Research Center for English and Applied Linguistics, University of Cambridge. March 2000.

The Computational Logic of Information Structure in Natural Language

Compulog/ELSNET Workshop on The Future of Computational Logic in Language and Speech Technology, Saarbrücken, April 30th 1999

The Role of Intonation in Spoken Dialogue with Machines

invited lecture to the Annual ILASH Lecture Day, Institute for Language, Speech and Hearing, Sheffield, Dec 3rd 1999.

Strict Competence

Dept of Psychology University of Edinburgh. March 2000.

Dept of Psychology, University of Glasgow. March 2000.

Computer Laboratory, University of Cambridge. March 2000.

Formal Grammars for Computational Musical Analysis

Babbage Lecture, Computer Laboratory, University of Cambridge. May 2000.

University of Alberta, Edmonton, March 2001.

University of Michigan, Ann Arbor, May 2001.

The Syntactic Process

Dept of Cognitive Science, University of Groningen. July 2000

Neural and Computational Foundations of Grammar

Gatsby Computational Neuroscience Unit, UCL, London, November 2000

Unifying Intonation, Information Structure and Grammar

Linguistics Department, SOAS London, November 2000

Intonation, Grammar, and Spoken Language Processing

Dept. of Computer Science, University of Bielefeld, January 2001.

ITRI Brighton University, February 2001.

Dept. of Linguistics, Oxford University, February 2001.

Dept. of Computer Science, University of Alberta, Edmonton, March 2001.

Dept. of Linguistics, University of Michigan, Ann Arbor, May 2001.

Center for Cognitive Science, Rutgers University, New Brunswick NJ, May 2001

Dept. of Computer Science, University of Maryland, College Park, May 2001 MD.

Dept of Linguistics, Stanford University, June 2001

North Eastern Syntax Society, Edinburgh December 2001

Dept of Computer Science, University of Toronto, March 2002

The Surface Grammar of Intonation and Information Structure

Universität Leipzig, February 2002

Humboldt University Berlin, February 2002

Syntactic Constraints on Quantifier Scope Alternation

Kings College, University of London, February 2001
Dept of Linguistics, University of Manchester, April 2002
Dept of Linguistics, University of York, December 2002

Plans, Affordances, and Temporal Semantics

Dept. of Linguistics, Universität Konstanz, April 2002
Gatsby Neuroscience Institute, London, March 2003

Linear-Dynamic Event Calculus

Dept of Computer Science, Queen Mary University London, May 2002

Wide Coverage Parsing with Combinatory Categorical Grammar

Dept of Psychology, University of York, December 2002
Philological Society, London, January 2003
Computer Science Dept., University of Manchester, March 2004
Language and Cognitive Science group, University of Rochester NY, May 2004

Scope Alternation and the Syntax-Semantics Interface,

ILLC Discourse in Processing Colloquium, Amsterdam November 2003
Computer Science Department, Trinity College Dublin, May 2005
Linguistics Department, Ohio State University, Columbus, May 2006

Plans and the Computational Structure of Language,

Linguistics Dept., University of British Columbia, Vancouver BC, March 2005.
Computer Science Dept., Simon Fraser University, Burnaby BC, March 2005.
MRC Cognition and Brain Sciences Unit University of Cambridge, November 2005

Semantics and Implicature in the Meaning of English Intonation

Linguistics Department, Ohio State University, Columbus, May 2006
Macquarrie Center for Cognitive Science, Macquarrie University, Sydney, August 2006
Département de Linguistique, Université de Quebec, Montreal, September 2006
Linguistics Department, University of Oxford, Oxford, November 2006
Linguistics Department, NYU, New York NY, February 2007
Linguistics Department, University of Texas, Austin TX, March 2007
Linguistics Department, Cornell University, Ithaca NY, Apr 2007
Linguistics Department, Northwestern University, Evanston IL, Apr 2007

Recent Developments in CCG Parsing

Computer Science, Macquarrie University, Sydney, July 2006

The Computational Problem of Language Acquisition

Linguistics Department, NYU, New York, February 2007
Computer Science Department, University of Texas, Austin, March 2007

”Towards Wide-Coverage Semantics”, Workshop on Semantic Theory and Empirical Evidence, University of Osnabrück, Sept 2009.

The Statistical Problem of Language Acquisition

Linguistics Department, University of Edinburgh, November 2010.