Fifth Conference of the European Chapter of the Association for Computational Linguistics

Proceedings of the Conference

9-11 April 1991
Congress Hall, Alexanderplatz
Berlin, Germany

Published by the Association for Computational Linguistics

©1991, Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Donald E. Walker (ACL)
Bell Communication Research
445 South Street MRE 2A379
Morristown, NJ 07960-1910, USA

Preface

The preparation of the Fifth Conference of the European Chapter of the Association for Computational Linguistics was done, without doubt, under extraordinary circumstances. To characterize the situation one only has to remember that since the Manchester conference there have been four governments on the territory of the former GDR, differing in every imaginable respect. The change in autumn 1989 and the unification on 3 October 1990 - the two outstanding events - were accompanied by an immense number of radical political, economic, and social changes which were not without consequences on the preparation of this conference. We therefore ask for your understanding; not everything went as we wanted and there were some mishaps in preparing the conference which we regret very much. The main reason for this trouble was the inadequacy of communications, which did not improve to a degree necessary for a smooth handling of the organization.

That nevertheless everything went comparatively well is mainly due to two different facts: on the one hand to the energy and enthusiasm which some of our collaborators put in to making a successful outcome possible. We particularly want to thank them here. On the other hand it is also due to the generous financial support which (although not in every case meant for the conference) raised our technical and other facilities to a level allowing more effective work during the last months. This holds above all for the financial aid we received from the Federal Minister of Research and Technology. Finally, we would like to extend our gratitude to the project group KIT-FAST of the Technical University of Berlin, who helped us with their communication facilities.

We received 186 papers which were reviewed and, in addition, about 25 contributions which, in spite of a postponement of the deadline for ten days, unfortunately could not be taken into account. Since the programme permitted only 50 papers contributions of high quality had sometimes to be rejected. With very few exceptions the referees have done their work properly and in time, and the members of the programe committee, each of them responsible for one or several sub-fields, have handled the flood of papers in a competent and committed way. Each paper was reviewed by four referees who had to send one copy of their report to the member of the programme committee responsible for that sub-field and another to the programme chair. On this basis the members of the programme committee, who also had copies of the papers, wrote a general assessment. This procedure guaranteed a largely objective classification of the papers.

Compared with the preceding EACL conferences we increased the number of papers to 50; consequently each paper has only been allowed 6 pages in the Proceedings.

Jürgen Kunze Dorothee Reimann

Programme Committee Chair

Acknowledgements

The Fifth European Conference of the Association for Computational Linguistics was generously supported by

Senat von Berlin
Deutsche Forschungsgemeinschaft

and by donations from

Commission of the European Communities
Gottlieb Daimler - und Karl Benz - Stiftung
IBM Deutschland GmbH

ACL European Chapter Officials

Chair:	Christian Rohrer, University of Stuttgart
Secretary:	Beat Buchmann, Credit Suisse, Zürich
Treasurer:	Michael Rosner, IDSIA, Lugano
Advisory Committee:	Margaret King, ISSCO, Geneva
	Jürgen Kunze, Zentralinstitut für Sprachwissenschaft, Berlin
	Ewan Klein, University of Edinburgh
Nominating Committee:	Anna Sågvall Hein, Uppsala University
	Jan Landsbergen, Philips Research Lab, Eindhoven
	Henrik Holmboe, The Århus School of Business
	Petr Sgall, Charles University, Prague

Conference Organization

Chair: Jürgen Kunze and Dorothee Reimann (Berlin)

Programm Committee:

Leonard Bolc (Warsaw)
Nicoletta Calzolari (Pisa)
Giacomo Ferrari (Pisa)
Eva Hajičová (Prague)
Peter Hellwig (Heidelberg)
Kimmo Koskenniemi (Helsinki)
Bente Maegaard (Copenhagen)
Alexander S. Narin'yani (Moscow)
Elena V. Paducheva (Moscow)
Steve G. Pulman (Cambridge)
Carlo Tasso (Udine)
Henry S. Thompson (Edinburgh)
Harald Trost (Saarbrücken)
Wolfgang Wahlster (Saarbrücken)

Local Arrangements:

Gunter Gebhardi
Renate Henschel
Iris Höser
Uwe Jung
André Kempe
Gerda Klimonow
Sabine Koch
Andreas Küstner
Herbert Küstner
Wolfgang Menzel
Barbara Rüdiger
Lothar Schwarz
Ingrid Starke

Referees

Lars Ahrenberg (Linköping)
Jean-Louis Binot (Everberg)
Christian Boitet (Grenoble)
Gosse Bouma (Groningen)
Edward J. Briscoe (Cambridge)
Ernst Buchberger (Vienna)
Stephan Busemann (Saarbrücken)
Lauri Carlson (Helsinki)
Nicolae Curteanu (Iaşi)
Walter Daelemans (Tilburg)
Laurence Danlos (Paris)
Louis des Tombe (Utrecht)
Marc Domenig (Zürich)
Roger Evans (Brighton)
Norman Fraser (Guildford)
Danilo Fum (Trieste)
Gerald Gazdar (Brighton)
Tom Gerhardt (Luxembourg)
Jan Hajič (Prague)
Johann Haller (Saarbrücken)
Christa Hauenschild (Berlin)
Helmut Horacek (Bielefeld)
Leonid L. Iomdin (Moscow)
Harry Jäppinen (Helsinki)
László Kálmán (Budapest)
Gerard A.M. Kempen (Nijmegen)
Alexander Kibrik (Moscow)
James Kilbury (Düsseldorf)
Steven Krauwer (Utrecht)
Jan Landsbergen (Eindhoven)
Nina N. Leont'yeva (Moscow)
Jan Tore Lønning (Oslo)
Heinz-Dirk Luckhardt (Saarbrücken)
Juri S. Martem'yanov (Moscow)
Wolfgang Menzel (Berlin)
Klaus Netter (Saarbrücken)
Gunter Neubert (Dresden)
Jarmila Panevová (Prague)
Wolf Paprotté (Münster)
Vladimir Pericliev (Sofia)
Patrice Pognan (Paris)
Gábor Prószéky (Budapest)
Claudius Pyka (Hamburg)
Allan Ramsay (Dublin)
Graeme Ritchie (Edinburgh)
Dietmar Rösner (Ulm)
Graham Russell (Geneva)
Hanne Ruus (Copenhagen)
Anna Sågvall-Hein (Uppsala)
Klaus Schubert (Utrecht)
Camilla Schwind (Marseille)
Petr Sgall (Prague)
Bengt Sigurd (Lund)
Harold Somers (Manchester)
Erich Steiner (Saarbrücken)
Oliviero Stock (Povo)
Dan Tufiş (Bucharest)
Giovanni Battista Varile (Luxembourg)
Susan Warwick (Geneva)
Jürgen Wedekind (Stuttgart)
Eric Wehrli (Geneva)
Peter John Whitelock (Edinburgh)
Gerd Willée (Bonn)
Mary McGee Wood (Manchester)
Frank Zänker (Dresden)

Programme

Tuesday, 9 April 1991

9.00	*Opening*	
9.30	*Invited Paper* **Antonio Zampolli** (Italy) Large Reusable Linguistic Knowledge Bases	1
10.30	Coffee Break	
11.00	**Steve G. Pulman** (Great Britain) Comparatives and Ellipsis	2
11.30	**Wolfgang Wahlster, Elisabeth André, Winfried Graf, Thomas Rist** (Germany) Designing Illustrated Texts: How Language Production is Influenced by Graphics Generation	8
12.00	**David M. Magerman, Mitchell P. Marcus** (USA) Pearl: A Probabilistic Chart Parser	15
12.30	Lunch	

	Section A		Section B	
14.00	**Tilman Becker, Aravind K. Joshi, Owen Rambow** (USA) Long-Distance Scrambling and Tree Adjoining Grammars	21	**Fabio Pianesi** (Italy) Indexing and Referential Dependencies within Binding Theory: A Computational Framework	39
14.30	**Alberto Lavelli, Giorgio Satta** (Italy) Bidirectional Parsing for Lexicalized Tree Adjoining Grammars	27	**Manfred Pinkal** (Germany) On the Syntactic-Semantic Analysis of Bound Anaphora	45
15.00	**Stephen J. Hegner** (USA) Horn Extended Feature Structures: Fast Unification with Negation and Limited Disjunction	33	**Longin Latecki** (Germany) An Indexing Technique for Implementing Command Relations	51
15.30	Coffee Break			
16.00	**Patrick Saint-Dizier** (France) Processing Language with Logical Types and Active Constraints	57	**Pete Whitelock** (Great Britain) What sorts of trees do we speak? - A Computational Model of the Syntax-Prosody Interface in Tokyo Japanese	75
16.30	**René Leermakers** (Netherlands) Non-deterministic Recursive Ascent Parsing	63	**Eric Bilange** (France) A Task Independent Oral Dialogue Model	83
17.00	**Tsuneko Nakazawa** (USA) An Extended LR Parsing Algorithm for Grammars Using Feature-Based Syntactic Categories	69	**Steven Bird, Patrick Blackburn** (Great Britain) A Computational Approach to Arabic Phonology	89

Wednesday, 10 April 1991

	Section A		Section B	
9.00	**Dan Tufis, Octav Popescu** (Roumania) A Unified Management and Processing of Word-Forms, Idioms and Analytical Compounds	**95**	**Stephan Busemann** (Germany) Structure-Driven Generation from Separate Semantic Representations	**113**
9.30	**Alan W. Black** (Great Britain), **Joke van de Plassche** (Netherlands), **Briony Williams** (Great Britain) Analysis of Unknown Words through Morphological Decomposition	**101**	**Alison Cawsey** (Great Britain) Using Plausible Inference Rules in Description Planning	**119**
10.00	**Michel Gilloux** (France) Automatic Learning of Word Transducers from Example	**107**	**Lee Fedder** (Great Britain) Generating Sentences from Different Perspectives	**125**
10.30	Coffee Break			
11.00	**Sabine Reinhard, Dafydd Gibbon** (Germany) Prosodic Inheritance and Morphological Generalisations	**131**	**Danilo Fum, Bruno Pani, Carlo Tasso** (Italy) Teaching the English Tense: Integrating Naive and Formal Grammars in an Intelligent Tutor for Foreign Language Teaching	**149**
11.30	**James Kilbury, Petra Naerger, Ingrid Renz** (Germany) DATR as a Lexical Component for PATR	**137**	**Mori Rimon, Jacky Herz** (Israel) The Recognition Capacity of Local Syntactic Constraints	**155**
12.00	**Gunnel Källgren** (Sweden) Parsing without Lexicon: the MorP System	**143**	**Robert Dale, Nicholas Haddock** (Great Britain) Generating Referring Expressions Involving Relations	**161**
12.30	Lunch			
14.00	**Richard P. Cooper** (Great Britain) Coordination in Unification-Based Grammars	**167**	**Matthew W. Crocker** (Great Britain) Multiple Interpreters in a Principle-Based Model of Sentence Processing	**185**
14.30	**Luis Damas, Nelma Moreira** (Portugal), **Giovanni B. Varile** (Luxembourg) The Formal and Processing Models of CLG	**173**	**Helmut Horacek** (Germany) Exploiting Conversational Implicature for Generating Concise Explanations	**191**
15.00	**Gosse Bouma** (Netherlands) Prediction in Chart Parsing Algorithms for Categorial Unification Grammar	**179**	**Elena V. Paducheva** (USSR) Semantic Features and Selection Restrictions	**194**
15.30	Coffee Break			
16.00	**Guy Barry, Mark Hepple, Neil Leslie, Glyn Morrill** (Great Britain) Proof Figures and Structural Operators for Categorial Grammar	**198**	**Sabine Bergler** (USA) The Semantics of Collocational Patterns for Reporting Verbs	**216**
16.30	**Jürgen Wedekind** (USA) Classical Logics for Attribute-Value Languages	**204**	**Michael R. Brent** (USA) Automatic Semantic Classification of Verbs from their Syntactic Contexts: An Implemented Classifier for Stativity	**222**
17.00	**Joep Rous** (Netherlands) Computational Aspects of M-grammars	**210**	**Jean Veronis** (France), **Nancy M. Ide** (USA) An Assessment of Semantic Information Automatically Extracted from Machine Readable Dictionaries	**227**

Thursday, 11 April 1991

9.00	**Arne Jönsson** (Sweden) A Dialogue Manager Using Initiative-Response Units and Distributed Control	**233**	
9.30	**Gudrun Klose, Thomas Pirlein** (Germany) Modelling Knowledge for a Natural Language Understanding System	**239**	Demonstrations
10.00	**Günter Neumann** (Germany) A Bidirectional Model for Natural Language Processing	**245**	
10.30	Coffee Break		
11.00	**Espen J. Vestre** (Norway) An Algorithm for Generating Non-redundant Quantifier Scopings	**251**	
11.30	**Richard Ball, Keith Brown, Anne de Roeck, Chris Fox, Marjolein Groefsema, Nadim Obeid, Ray Turner** (Great Britain) Helpful Answers to Modal and Hypothetical Questions	**257**	Demonstrations
12.00	**Karin Haenelt, Michael Kőnyves-Tóth** (Germany) The Textuel Development of Non-Stereotypic Concepts	**263**	
12.30	Lunch		
14.00	**Bianka Buschbeck, Renate Henschel, Iris Höser, Gerda Klimonow, Andreas Küstner, Ingrid Starke** (Germany) Limits of a Sentence Based Procedural Approach for Aspect Choice in German-Russian Machine Translation	**269**	
14.30	**Jun-ichi Tsujii, Kimikazu Fujita** (Great Britain) Lexical Transfer Based on Bilingual Signs: Towards Interaction During Transfer	**275**	Demonstrations
15.00	**Yannis Dologlou** (Greece), **Giovanni Malnati** (Italy), **Patrizia Paggio** (Denmark) A Preference Mechanism Based on Multiple Criteria Resolution	**281**	
15.30	Coffee Break		
16.00	**Graham Russell, Afzal Ballim, Dominique Estival, Susan Warwick-Armstrong** (Switzerland) A Language for the Statement of Binary Relations over Feature Structures	**287**	
16.30	**Louisa Sadler, Henry S. Thompson** (Great Britain) Structural Non-Correspondence in Translation	**293**	
17.00	*Final Meeting*		

Reserve Papers:

Nelson Correa (Colombia) **299**
An Extension of Earley's Algorithm for S- and L-Attributed Grammars

Hubert Lehmann (Germany) **303**
Towards a Core Vocabulary for a Natural Language System

Heinz-Dirk Luckhardt (Germany) **306**
Sublanguages in Machine Translation - What are they worth?

Allan Ramsay (Ireland) **309**
A Common Framework for Analysis and Generation

Author Index

Elisabeth André 8
Richard Ball 257
Afzal Ballim 287
Guy Barry 198
Tilman Becker 21
Sabine Bergler 216
Eric Bilange 83
Steven Bird 89
Alan W. Black 101
Patrick Blackburn 89
Gosse Bouma 179
Michael R. Brent 222
Keith Brown 257
Bianka Buschbeck 269
Stephan Busemann 113
Alison Cawsey 119
Richard Cooper 167
Nelson Correa 299
Matthew W. Crocker 185
Robert Dale 161
Luis Damas 173
Anne de Roeck 257
Yannis Dologlou 281
Dominique Estival 287
Lee Fedder 125
Chris Fox 257
Kimikazu Fujita 275
Danilo Fum 149
Dafydd Gibbon 131
Michel Gilloux 107
Winfried Graf 8
Marjolein Groefsema 257
Nicholas Haddock 161
Karin Haenelt 263
Stephen J. Hegner 33
Renate Henschel 269
Mark Hepple 198
Jacky Herz 155
Helmut Horacek 191
Iris Höser 269
Nancy M. Ide 227
Arne Jönsson 233
Aravind K. Joshi 21
Gunnel Källgren 143
James Kilbury 137
Gerda Klimonow 269
Gudrun Klose 239
Michael Könyves-Tóth 263
Andreas Küstner 269
Longin Latecki 51
Alberto Lavelli 27
René Leermakers 63
Hubert Lehmann 303
Neil Leslie 198
Heinz-Dirk Luckhardt 306
David M. Magerman 15
Giovanni Malnati 281
Mitchell P. Marcus 15
Nelma Moreira 173
Glyn Morrill 198
Tsuneko Nakazawa 69
Petra Naerger 137
Günter Neumann 245
Nadim Obeid 257
Elena V. Paducheva 194
Patrizia Paggio 281
Bruno Pani 149
Fabio Pianesi 39
Manfred Pinkal 45
Thomas Pirlein 239
Octav Popescu 95
Steve G. Pulman 2
Owen Rambow 21
Allan Ramsay 309
Sabine Reinhard 131
Ingrid Renz 137
Mori Rimon 155
Thomas Rist 8
Joep Rous 210
Graham Russell 287
Louisa Sadler 293
Patrick Saint-Dizier 57
Giorgio Satta 27
Ingrid Starke 269
Carlo Tasso 149
Henry S. Thompson 293
Jun-ichi Tsujii 275
Dan Tufiş 95
Ray Turner 257
Joke van de Plassche 101
Giovanni B. Varile 173
Jean Veronis 227
Espen J. Vestre 251
Wolfgang Wahlster 8
Susan Warwick-Armstrong 287
Jürgen Wedekind 204
Pete Whitelock 75
Briony Williams 101
Antonio Zampolli 1