1986. Papers presenting original research on theoretical and applied aspects of lexicology are being sought. The Centre is interested in research on large-text files and, in particular, in the common concerns of those who are studying lexical knowledge bases. Typical but not exclusive topics include:

- Computational Lexicology
- · Lexicography
- Syntactic and Semantic Analysis
- Natural Language Processing
- Computational Linguistics
- Knowledge Bases
- Use of Machine-Readable Dictionaries and Reference Works
- Structure/Management of Lexical Databases

All submissions will be fully refereed by the program committee. Authors should send seven copies of a detailed abstract (5 to 10 pages, double-spaced) by 15 June 1986 to the Program Committee Chairman:

Dr. Gaston Gonnet

UW Centre for the New OED

University of Waterloo

Waterloo, Ont., Canada, N2L 3Gl.

CSNET: ghgonnetwaterloo BITNET: gonnet@watdcs
The abstract must provide sufficient detail to allow the program committee to assess the merits of the paper. Late submissions risk rejection without consideration. Authors will be notified of acceptance or rejection by 15 August 1986. A working draft of the paper, not to exceed 15 pages, for inclusion in the conference proceedings will be due by 30 September 1986. Conference proceedings will be available at the conference. It is anticipated that most of these papers will be reports on continuing research and that many of them will appear, in more complete form, in scholarly journals.

Subject to the availability of funding, financial assistance will be provided to speakers.

### PROGRAM COMMITTEE MEMBERS

G.H. Gonnet (University of Waterloo), Chairman

G.A. Miller (Princeton University)

A.H. Schabas (University of Toronto)

D.S. Scott (Carnegie-Mellon University)

S.Y. Sedelow (University of Arkansas)

J.A. Simpson (Oxford University Press)

D.E. Walker (Bell Communications Research)

### SPECIAL CL ISSUE ON THE LEXICON

Antonio Zampolli, Nicoletta Calzolari, and Don Walker have agreed to serve as guest editors for a special issue of Computational Linguistics on the lexicon. There is general agreement that the lexicon has been a neglected area, and that current research is addressing problems of importance for all aspects of natural language research. The issue is intended to make the community at large aware of these developments.

All papers submitted will be reviewed in the usual manner. The only difference in procedure is that three (instead of five) copies should be sent to

James Allen (CL Editor)
Department of Computer Science
University of Rochester
Rochester, NY 14627, USA
[acl@rochester.arpa]

one copy should be sent to

Antonio Zampolli (CL Lexicon)
Laboratorio di Linguistica Computazionale CNR
Via della Faggiola 32, I-56100 Pisa, ITALY
[glottolo%icnucevm@wiscvm.arpa]

and one copy to

Don Walker (CL Lexicon)
Bell Communications Research
445 South Street, MRE 2A379,
Morristown, NJ 07960, USA
[walker@mouton.arpa
walker%mouton @csnet-relay
ucbvax!bellcore!walker]

Manuscripts should be received by 31 August 1986.

#### **MEETING INFORMATION**

**ACL 1986 ANNUAL MEETING** 

10-13 June 1986, Columbia University, New York City

**PAPERS** 

The Contribution of Parsing to Prosody in an Experimental Text-to-Speech System

Joan Bachenko, Eileen Fitzpatrick, & C. E. Wright (AT&T Bell Laboratories)

Semantic Acquisition in TELI: A Transportable, User-Customized Natural Language Processor

Bruce Ballard & Douglas Stumberger (AT&T Bell Laboratories)

### **Constraint Propagation in Kimmo Systems**

G. Edward Barton, Jr. (MIT Artificial Intelligence Laboratory)

Computational Complexity in Two-Level Morphology

G. Edward Barton, Jr. (MIT Artificial Intelligence Laboratory)

Japanese Prosodic Phrasing and Intonation Synthesis

Mary E. Beckman & Janet B. Pierrehumbert (AT&T Bell Laboratories)

Computer Methods for Morphological Analysis

Roy J. Byrd, Judith L. Klavans, Mark Aronoff, & Frank Anshen (IBM Thomas J. Watson Research Center)

Morphological Decomposition and Stress Assignment for Speech Synthesis

Kenneth Church (AT&T Bell Laboratories)

Encoding and Acquiring Meanings for Figurative Phrases Michael G. Dyer & Uri Zernik (UCLA)

The Detection and Representation of Ambiguities of Intension

The FINITE STRING Newsletter ACL 1986 Annual Meeting

Brenda Fawcett & Graeme Hirst (University of Toronto)

### Categorial and Non-categorial Languages

Joyce Friedman & Ramarathnam Venkatesan (Boston University)

The Structure of Task-Oriented Dialogues: Evidence from Subdialogue Boundary Markers and the Distribution of Anaphors and their Antecedents

Raymonde Guindon (MCC)

### Time and Tense in English

Mary P. Harper & Eugene Charniak (Brown University)

#### The Intonational Structuring of Discourse

Julia Hirschberg & Janet Pierrehumbert (AT&T Bell Laboratories)

## Commonsense Metaphysics and Lexical Semantics

Jerry R. Hobbs, William Croft, Todd Davies, Douglas Edwards & Kenneth Laws (SRI International)

## A Property-sharing Constraint in Centering

Megumi Kameyama (University of Pennsylvania)

## Parsing a Free-Word Order Language: Warlpiri

Michael B. Kashket (MIT AI Laboratory)

## A Logical Semantics for Feature Structures

Robert Kasper & William Rounds (University of Michigan)

## **Parsing Conjunctions Deterministically**

Donald W. Kosy (The Robotics Institute)

## **Donnellans Distinction and a Computational Model of Reference**

Amichai Kronfeld (SRI International)

## Linguistic Coherence: A Plan-Based Alternative

Diane J. Litman (AT&T Bell Laboratories)

# Copying in Natural Languages, Context-Freeness, and Queue Grammars

Alexis Manaster-Ramer (The University of Michigan)
Semantically Significant Patterns in Dictionary Definitions
Judith Markowitz, Thomas Ahlswede, and Martha
Evens (Illinois Institute of Technology)

# The ROMPER System: Responding to Object-Related Misconceptions Using Perspective

Kathleen F. McCoy (University of Delaware)

## Some Uses of Higher-Order Logic in Computational Linguistics

Dale A. Miller & Gopalan Nadathur (University of Pennsylvania)

## A Sentence Analysis Method For A Japanese Book Reading Machine for the Blind

Yutaka Ohyama, Toshikazu Fukushima, Tomoki Shutoh & Masamichi Shutoh (MIT Media Laboratory)

#### **Recovering Implicit Information**

Martha S. Palmer, Deborah A. Dahl, Rebecca J. Schiffman, Lynette Hirschman, Marcia Linebarger, & John Dowding (SDC-A Burroughs Company)

## A Model of Plan Inference that Distinguishes Between the Beliefs of Actors and Observers

Martha E. Pollack (SRI International)

## Computational Complexity of Current GPSG Theory Eric Sven Ristad (MIT AI Laboratory)

**Defining Natural Language Grammars in GPSG** 

Eric Sven Ristad (MIT AI Laboratory)

## **Bulk Processing of Text on a Massively Parallel Computer**

Gary Sabot (Thinking Machines Corporation)

## A Terminological Simplification Transformation for Natural Language Question-Answering Systems

David G. Stallard (BBN Laboratories Inc.)

## The Writing Process as a Model for Natural Language Generation

Marie M. Vaughan & David D. McDonald (University of Massachusetts)

### Adjoining, Wrapping, and Headed Strings

K. Vijay-Shanker, David J. Weir, & Aravind K. Joshi (University of Pennsylvania)

#### **TUTORIALS**

10 June 1986, Columbia University

#### **Introduction to Computational Linguistics**

Ralph Grishman, (New York University)

This tutorial provides a general overview of computational linguistics. Topics to be considered include the components of a natural language processing system; syntax analysis (including context-free grammars, grammars, augmented context-free grammatical constraints, and sources of syntactic ambiguity); semantic analysis (including meaning representation, semantic constraints, quantifier analysis); and discourse analysis (identifying implicit information, establishing text coherence, frames, and scripts). Examples will be drawn from various application areas, including database interface and text analysis.

### **Natural Language Generation**

Kathy McKeown, (Columbia University)

In this tutorial, we will begin by identifying the types of decisions involved in language generation and how they differ from problems in the interpretation of natural language. Several techniques that have been used for "surface" generation (i.e., determining the syntactic structure and vocabulary of the generated text) will be examined, including grammars, dictionaries, templates. From there, we will move on to other problems in language generation, including how the system can decide what to say in a given situation and how it can order the information for inclusion in a text. Here we will study the constraints that have been used for these decisions in domains such as expert systems, database systems, scene description, and problem solving. We will also look at the interaction between conceptual decisions such as these and decisions in surface generation, considering approaches that propose an integrated solution.

## Structuring the Lexicon

Robert Ingria, (BBN Laboratories Incorporated)

This tutorial will discuss the information that has been stored in the lexicon. It will first deal with the types of information that have typically been placed in lexical entries, detailing what sorts of lexical information is necessary for natural language systems. The format of lexical entries and the relationships between lexical

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entries will be considered next (as in cases of irregularly inflected forms, such go, went, gone, abbreviations and acronyms, such as helo and helicopter, and derived forms, such as destroy and destruction). Alternate places for storing information will also be considered (for example, regular morphological information might be contained in individual lexical entries or in the grammar). The tutorial will conclude with the implications of recent work in linguistic theory for the structure of lexicons for computational purposes.

# Recent Developments In Syntactic Theory and Their Computational Import

D. Terence Langendoen, (Brooklyn College and CUNY Graduate Center)

Currently, a number of very different syntactic frameworks are under intensive development, including government and binding; generalized phrase-structure grammar; lexical-functional grammar; various "relational grammar" frameworks, including arc pair grammar; Montague grammar; tree-adjunct grammar; and numerous others. We provide an overview of these various frameworks, discussing how they arose, how they compare with one another, and how they may be evaluated. We next consider their formal properties, to the extent that these are known (or knowable). Finally, we consider their utility for computational linguists in practical applications.

### **Current Approaches to Natural Language Semantics**

Graeme Hirst, (University of Toronto)

This tutorial provides a survey of various computational approaches to semantics – the process of determining the meaning of a sentence or other utterance. Issues addressed will include definitions of meaning; the differences between linguistic theories of semantics and formalisms suitable for computational understanding of language; knowledge representations that suitable for representing linguistic meaning; the relationship between semantic processing and syntactic parsing; and factors in choosing a semantic formalism for a particular computational application. The approaches to semantics that will be discussed will include procedural semantics, conceptual dependency, Montague semantics, and compositional and knowledge-based approaches.

### **Machine Translation**

Sergei Nirenburg, (Colgate University)

This tutorial will address the recent resurgence of interest in machine translation (MT) in the United States, Europe, and Japan. Topics to be discussed include the variety of objectives for MT systems; various research and developments methodologies; MT as an application area for theoretical linguistics, computational linguistics, and artificial intelligence; environments for MT research; and selected case studies of research projects.

### CONTACT

For further information and registration forms, contact:

Don Walker (ACL), Bell Communications Research, 445 South Street, MRE 2A379, Morristown, NJ 07960, USA [walker@mouton.arpa walker%mouton@csnet-relay; ucbvax!bellcore!walker].

## COLING 86 PRELIMINARY PROGRAM

# 11th International Conference on Computational Linguistics 25-29 August 1986, Bonn, German Federal Republic

!Long papers (40 minutes) are marked by a †; all others are short (20 minutes).]

25 AUGUST

OPENING SESSION INVITED PAPER

10.00-11.00 11.00-11.50

**Lexicon Grammar** 

Morris Gross (France)

SEMANTICS I

13.50-17.00

An Empirically Based Approach Towards a System of Semantic Features†

C.Z. Wibbelt (FR Germany)

Concept and Structure of Semantic Markers for Machine Translation in Mu-Project†

Y. Sakamoto, M. Sato (Japan)

A Code for the Representation of Meanings in a Nagaoian Lexicon Driven Symbol Processor (NLD-SP) System

C.H. van Schooneveld, H.W. Campbell, D.G. Stuart, M. Foudeau (*The Netherlands*)

A Theory of Semantic Relations for Large Scale Natural Language Processing

H. Ruus, E.S. Hanssen (Denmark)

Extending the Expressive Capacity of the Semantic Component of the Opera System†

C. Sedogbo (France)

INVITED PAPER

17.10-18.00

The Use of Neurolinguistic Data in the Construction of Computational Processing Models

V. Fromkin (U.S.A.)

DIALOGUE

Room 1, 13.50-17.00

User Models: The Problem of Disparity†

S. Carberry (U.S.A.)

Pragmatic Sensitivity in NL Interfaces and the Structure of Conversation†

T. Wachtel (FR Germany)

A Two Level Dialogue Representation

B. Christee, G. Ferrari, M. Gardiner, R. Reilly (Italy)

INTERFACILE: Linguistic Coverage and Query Reformulation

Y. Mathieu, P. Sabatier (France)

Analysis of User-Expert Dialogues: Plans and Goals, Subdialogue Boundary Markers, and Antecedent Distribution†

R. Guindon, P. Sladky (U.S.A.)

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GRAMMAR I Room 7, 13.50-17.00 Strategies and Heuristics in the Analysis of a Natural **Branch Cooccurrence Restrictions and the Elimination** Language in Machine Translation of Metarules† Y. Zaharin (France) J. Kilbury (FR Germany) Parsing in Parallel† **Testing the Projectivity Hypothesis** X. Huang, L. Guthrie (U.S.A.) V. Pericliev, I. Ilarionov (Bulgaria) INVITED PAPER Room 10, 11.40-12.30 Particle Homonymy and Machine Translation **Computational Comparative Studies on Romance** K. Fabricz (Hungary) Languages Plurals, Cardinalities, and Structures of Determination -Elia Annibale (Italy) A Case Study on Incompleteness and Inconsistency **PARSING II** Room 10, 14.30-15.50 C.U. Habel (FR Germany) Simulated Annealing as a Parsing Technique† Processing Word Order Variation within a Modified G. Sampson (Great Britain) **ID/LP Framework** Parsing Without (Much) Phrase Structure P. Dev (U.S.A.) M.B. Kac, A.M. Ramer (U.S.A.) Sentence Adverbials in a System of Question Answering Reconnaissance - Attack Parsing without a Prearranged Data Base† M.B. Kac, T.C. Rindflesh, K.L. Ryan (U.S.A.) E. Koktova (Czechoslovakia) PANEL DISCUSSION Room 10, 16.20-18.00 SOFTWARE I Room 8, 13.50-17.00 **Natural Language Interfaces** HUG: A Development Environment for Unification-Organizer: W. Wahlster (FR Germany) based Grammars DISCOURSE I Room 1, 9.00-11.30 L. Karttunen (U.S.A.) The Role of Inversion, Clefting and PP-Fronting in Structural Correspondence Specification Environment† Relating Discourse Elements† Y. Yongfeng (France) M.V. LaPolla (U.S.A.) Conditioned Unification for Natural Language Process-Situational Investigation of Presupposition S. Akama, M. Kawamori (Japan) K. Hasida (Japan) **Linking Concepts** Methodology and Verifiability in Montague Grammar D.S. Bree, R.A. Smit (The Netherlands) S. Akama (Japan) Discourse, Cohesion, and Semantics of Expository Towards a Dedicated Database Management System for A.B. Tucker, S. Nirenburg, V. Raskin (U.S.A.) Dictionaries† **Degrees of Understanding** M. Domenig, P. Shann (Switzerland) E. Hajicova, P. Sgall (Czechoslovakia) MACHINE TRANSLATION I Room 9, 13.50-17.00 GRAMMAR II Room 1, 14.30-17.40 The Transfer Phase of the Mu Machine Translation Categorial Unification Grammars† System† H. Uszkoreit (U.S.A.) M. Nagao, J. Tsujii (Japan) **Dependence Unification Grammar** Lexical Transfer: A Missing Element in Linguistic Theo-P. Hellwig (FR Germany) ries The Weak Generative Capacity of Parenthesis – Free A.K. Melby (*U.S.A.*) **Categorial Grammar** Idiosyncratic Gap: A Tough Problem to Structure-bound J. Friedman, D. Dai, W. Wang (U.S.A.) **Machine Translation** The Relationship between Tree Adjoining Grammars Y. Nitta (Japan) and Head Grammar† Lexical Functional Transfer: A transfer framework K.V. Shanker, D. Weir, A. Joshi (U.S.A.) I. Kudo, H. Nomura (Japan) Categorial Grammars and List Automata for Strata of On Simplifying the Transfer Component in Machine **Non-CF Languages Translation Systems** M.P. Chytil, H. Karlgren (Czechoslovakia) P. Isabelle, E. Macklovitch (Canada) A Simple Reconstruction of GPSG The Need for MT-Oriented Versions of Case and S.M. Shieber (U.S.A.) Valency in MT KNOWLEDGE I Room 7, 9.00-11.30 H.L. Somers (Great Britain) Kind Types in Knowledge Representation† A Parametric NL Translator K. Dahlgren, J. McDowell (U.S.A.) R. Sharp (Canada) DCKR - Knowledge Representation in Prolog and Its 26 AUGUST **Application to Natural Language Processing** 

H. Tanaka (Japan)

Language

Interaction

Conceptual Lexicon Using an Object-Oriented

Elementary Contracts as a Pragmatic Basis of Language

S. Yokoyama, K. Hanakata (Japan)

PARSING I Room 10, 9.00-11.30

Lexicase Parsing: A Lexicon-Driven Approach to Syntactic Analysis†

S. Starosta, H. Nomura (U.S.A.)

#### **Solutions for Problems of MT Parser**

J. Nakamura, J. Tsujii, M. Nagao (Japan)

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E.L. Pershina (U.S.S.R.)

Communicative Triad as a Structural Element of Language Interaction

F.G. Dinenberg (U.S.S.R.)

KNOWLEDGE II

Room 7, 14.30-18.00

Room 8, 9.00-11.30

TBMS: Domain Specific Text Management and Lexicon Development†

S. Goeser, E. Mergenthaler (FR Germany)

**Text Analysis and Knowledge Extraction** 

F. Nishida, S. Takamatsu (Japan)

Context Analysis System for Japanese Text

H. Isahara, S. Ishizaki (Japan)

Disambiguation and Language Acquisition through the Phrasal Lexicon†

U. Zernik, M.G. Dyer (U.S.A.)

Linguistic Knowledge Extraction from Real Language Behavior

K. Shirai, T. Hamada (Japan)

Tailoring Importance Evaluation to Reader's Goals: A Contribution to Descriptive Text Summarization

D. Fum, G. Guida, C. Tasso (Italy)

Domain Dependent Natural Language Understanding

K.H. Munch (Denmark)

MORPHOLOGY I

Morphological Analysis for a German Text-to-Speech System†

A. Pounder, M. Kommenda (Austria)

Synergy of Syntax and Morphology in Automatic Parsing of French Language with a Minimum of Data

J. Vergne, P. Pages (France)

A Morphological Recognizer with Syntactic and Phonological Rules

J. Bear (*U.S.A.*)

A Dictionary and Morphological Analyser for English G.J. Russell, S.G. Pulman, G.D. Ritchie, A.W. Black (Great Britain)

A Kana-Kanji Translation System for Non-Segmented Input Sentences Based on Syntactic and Semantic Analysis

M.Abe, Y. Oshima, K. Yuura, N. Takeichi (*Japan*)

MORPHOLOGY II Room 8, 14.30-15.50

A Compression Technique for Arabic Dictionaries: The Affix Analysis

A. Hamadou (Tunisia)

Machine Learning of Morphological Rules by Generalization and Analogy

K. Wothke (FR Germany)

Une Extension a la Notion de Distance Entre Chaines; Application à la Recherche Rapide de Mots Mal Orthographies

J. Veronis (France)

MACHINE TRANSLATION II

Room 9, 9.00-11.30

Linguistic Developments in EUROTRA since 1983

L. Jaspaert (Belgium)

The <C. A.>, T Framework in Eurotra: A Theoretically Committed Notation for MT<sup>†</sup>

D.J. Arnold, S. Krauwer, M. Rosner, L. des Tombe, G.B. Varile (*Great Britain*)

**Generating Semantic Structure in EUROTRA** 

E. Steiner (FR Germany)

Valency Theory in a "Multilevel" MT-System†

P. Schmidt (FR Germany)

MACHINE TRANSLATION III Room 9, 14.30-18.00

A Compositional Approach to the Translation of Temporal Expression in the Rosetta System<sup>†</sup>

L. Appelo (The Netherlands)

Idioms in the Rosetta Machine Translation System†
A. Schenk (The Netherlands)

NARA: A two-way Simultaneous Interpretation System between Korean and Japanese (Methodological Theory) H.S. Chung (Japan)

Strategies for Interactive Machine Translation: the experience and implications of the UMIST Japanese project†

P.J. Whitelock, M.M. Wood, B.J. Chandler, N. Holden, H.J. Horsfall (Great Britain)

**Pragmatics in Machine Translation**†

A. Rothkegel (FR Germany)

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SEMANTICS II Room 10, 9.00-11.30

A Sign-Theoretical Model of Semantic Structure in Language

C.H. van Schooneveld (U.S.A.)

A Metric for Computational Analysis of Meaning:

Toward an Applied Theory of Linguistic Semantics

S. Nirenburg, V. Raskin (U.S.A.)

**Collative Semantics** 

D. Fass (*U.S.A.*)

A Logical Formalism for the Representation of Determiners

B. Eugenio, L. Lesmo, P. Pogliano, P. Torasso, F. Urbano (Italy)

A Compositional Semantics for Directional Modifiers – Locative Case Reopened

E.W. Hinrichs (U.S.A.)

**Temporal Relations in Texts and Time Logical Interferences** 

J. Kunze (German DR)

INVITED PAPER Room 10, 11.40-12.30

**Text Generation** 

W.C. Mann (*U.S.A.*)

PANEL DISCUSSION

Room 10, 14.30-15.50

**Linguistic Bases for Machine Translation** 

Organizer: C. Rohrer (FR Germany)

PANEL DISCUSSION Room 10, 16.20-18.50

The Lexicon in a Multi-lingual Environment

Organizer: J. Noel (Belgium)

DISCOURSE II Room 1, 9.00-11.30

Combining Deictic Gestures and Natural Language for Referent Identification<sup>†</sup>

A. Kobsa, J. Allgayer, C.R. Siekmann, D. Schmauks, K. Harbusch, W. Wahlster (FR Germanu)

An Approach to Non-Singular Terms in Discourse T. Strzalkowki (Canada)

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**Processing Clinical Narratives in Hungarian** 

G. Proszeky (Hungary)

Definite Noun Phrases and the Semantics of Discourse† M. Pinkal (FR Germany)

**SEMANTICS III** 

Room 1, 14.30-15.50

Learning the Space of Word Meanings for Information Retrieval Systems†

K. Hori, S. Toda, H. Yasunaga (Japan)

On the Use of Term Associations in Knowledge-Based Text Processing

G. Salton (U.S.A.)

Towards the Automatic Acquisition of Lexical Data

H. Trost, E. Buchberger (Austria)

SOFTWARE II

Room 7, 9.00-11.30

PeriPhrase: A Linguistic Programming Language

K. Beesley, D. Hefner (U.S.A.)

SCSL: A Linguistic Specification Language for MT M. Zajac (France)

A User Friendly Augmented Transition Network Programming Environment (APE)

H. Haugeneder, M. Gehrke (FR Germany)

A Language for Transcriptions

Y. Lepage (France)

Variables et Categories Grammaticales dans un Model Ariane Première Esquisse

J.P. Guilbaud (France)

**Deduction Automatique et Systemes Transformationnels** 

J. Chauche (France)

**SOFTWARE III** 

Room 7, 14.30-15.50

CRITAC - A Japanese Text Proofreading System†

K. Takeda, T. Fujisaki, E. Suzuki (Japan)

**Storing Text Using Integer Codes** 

R.N. Ainon (Malaysia)

**BetaText: A General Purpose Text Processing and Text Analyzing System** 

B. Brodda (Sweden)

**DICTIONARY I** 

Room 8, 9.00-11.30

Toward Integrated Dictionaries for M(A)T: Motivations and Linguistic Organization<sup>†</sup>

C. Boitet, N. Nedobejkine (France)

**Indexage Lexical Au GETA** 

A. Bukowski (France)

Experiments with an MT-Directed Lexical Knowledge Bank

B.C. Papegaaij, V. Sadler, A.P. Witkam (The Netherlands)

A Word Database for Natural Language Processing†

B. Barnett, H. Lehmann, M. Zoeppritz (FR Germany)

**DICTIONARY II** 

Room 8, 14.30-15.50

Lexical Data Base Design: The Shakespeare Dictionary Model

H.J. Neuhaus (FR Germany)

An Attempt to Automatic Thesaurus Construction from an Ordinary Japanese Language Dictionary

H. Tsurumaru, T. Hitaka, S. Yoshida (Japan)

Acquisition of Knowledge Data by Analyzing Natural Language

Y. Tanaka, S. Yoshida (Japan)

**Design of Electronic Dictionary Architecture** 

M. Isoda, H. Aiso, N. Kamibayashi, Y. Matunaga (Japan)

PARSING III

Room 9, 9.00-11.30

User Specification of Syntactic Case Frames in TELI, A Transportable, User-Customized Natural Language Processor†

B.W. Ballard (U.S.A.)

Functional Structures for Parsing Dependency Constraints†

H. Jappinen, A. Lehtola (Finland)

Controlled Active Procedures as a Tool for Linguistic Engineering†

H. Luckhardt, M. Thiel (FR Germany)

PARSING IV Room 9, 14.30-18.00

A New Predictive Analyzer of English

H. Musha (Japan)

Generalized Memory Manipulating Actions for Parsing Natural Language

I. Prodanof, G. Ferrari (Italy)

Distributed Memory: A Basis for Chart Parsing†

J. Slack (Great Britain)

The Treatment of Movement-Rules in a LFG-Parser†

H.U. Block, H. Haugeneder (FR Germany)

A Concept of Derivation for LFG

J. Wedekind (FR Germany)

Incremental Construction of C- and F-Structure in a LFG-Parser

H.U. Block, R. Hunze (FR Germany)

Getting Things out of Order, An LFG-Grammar for the Treatment of German Word Order

K. Netter (FR Germany)

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**DISCOURSE III** 

Room 10, 9.00-11.30

Topic Essentials†

U. Hahn, U. Reimer (FR Germany)

Towards Discourse-Oriented Nonmonotonic System B.D. Keplicz, W. Lukaszewicz (*Poland*)

Japanese Honorifics and Situation Semantics

R. Sugimura (Japan)

Foundations of Commonsense Inferencing on the Basis of Observational and Theoretical Facts

M. Dymetman (France)

**Speech Acts of Assertion in Cooperative Informational Dialogue** 

I.S. Knononenko (U.S.S.R.)

INVITED PAPER

Room 10, 11.00-12.30

The Future Direction of Machine Translation

J. Tsujii (Japan)

INVITED PAPER

Room 10, 14.00-14.50

**Discourse Structure** 

W. v. Hahn (FR Germany)

PANEL DISCUSSION

Room 10, 15.00-16.40

Research and Education on Computational Linguistics in an Interdisciplinary Environment

Organizer: R. Johnson (Great Britain)

CLOSING SESSION Room 10, 16.40-17.00

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GRAMMAR III

Room 1, 9.00-11.30

Formal Specification of Natural Language Syntax Using Two Level Grammar†

B. Bryant, D. Johnson, B. Edupuganty (U.S.A.)

On Formalizations of Marcus' Parser

R.N. Farshi (Canada)

A Grammar Used for Parsing and Generation

J.M. Lancel, F. Rousselot, N. Simonin (France)

A Declarative Formulation of DRS Theory†

M. Johnson, E. Klein (U.S.A.)

**GRAMMAR IV** 

Room 1, 15.00-16.40

Buildrs: An Implementation of DR Theory and LFG† H. Wada, N. Asher (U.S.A.)

DDOLOG Issuel

A PROLOG Implementation of Government-Binding Theory†

R.J. Kuhns (U.S.A.)

A Lexical Functional Grammar System in Prolog

A. Eisele (FR Germany)

**GENERATION I** 

Room 7, 9.00-11.30

Knowledge Structures for Natural Language Generation†

P.S. Jacobs (U.S.A.)

**Semantic Based Generation of Japanese German Translation System** 

K. Hanakata, A. Lesniewski, S. Yokoyama (FR Germany)

Synthesizing Weather Forecasts from Formatted Data

R. Kittredge, A. Polguere, E. Goldberg (Canada)

From Structure to Process, Computer-assisted Teaching of Various Strategies for Generating Pronoun

Constructions in French†

M. Zock, G. Sabah, C. Alviset (France)

**GENERATION II** 

Room 7, 15.00-16.40

Generating a Coherent Text Describing Traffic Scene† H.J. Novak (FR Germany)

Generating Natural Language Text in a Dialog System M. Koit, M. Saluveer (U.S.S.R.)

A Paraphraser for Relational Query Languages

A.N. De Roeck, B.G.T. Lowden (Great Britain)

The Computational Complexity of Sentence Generation Using Functional Unification Grammar

G. Ritchie (Great Britain)

SPEECH I

Room 8, 9.00-11.00

Parsing Spoken Language: A Semantic Caseframe Approach†

P. Hayes, A. Hauptmann, J. Carbonell, M. Tomita (U.S.A.)

Divided and Valency-Oriented Parsing in Speech Understanding

G. Niedermair (FR Germany)

The Role of Semantic Processing in an Automatic Speech Understanding System

A. Brietzmann, U. Ehrlich (FR Germany)

Synthesis of Spoken Messages from Semantic Representations†

L. Danlos, F. Emerard, E. Laporte (France)

SPEECH II

15.00-16.40

The Procedures to Construct a Word Predictor in a

Speech Understanding System from a Task-specific Grammar Defined in a CFG or a DCG

Y. Niimi, S. Uzuhara, Y. Kobayashi (Japan)

The Role of Phonology in Speech Processing

R. Wiese (FR Germany)

Computational Phonology: Merged, not Mixed

S. Langeweg, H. van Leeuwen, E. Berendsen (*The Netherlands*)

**Phonological Pivot Parsing** 

G. Dogil (FR Germany)

A Description of the VESPRA Speech Understanding System

R. Haberbeck (FR Germany)

MACHINE TRANSLATION IV

Room 9, 9.00-11.30

Translation by Understanding: A Machine Translation System LUTE†

H. Nomura, S. Naito, Y. Katagiri, A. Shimazu (Japan)

On Knowledge-Based Machine Translation†

S. Nirenburg, V. Raskin, A. Tucker (U.S.A.)

Another Stride Towards Knowledge-Based Machine Translation: A Unification Based Entity-Oriented Approach†

M. Tomita, J. Carbonell (U.S.A.)

MACHINE TRANSLATION V

Room 9, 15.00-16.40

**English-Malay Translation System: a Laboratory Prototype** 

T.L. Cheong (Malaysia)

A Prototype Translation Based on Extracts from Data Processing Manuals

E. Luetkens (Belgium)

A Prototype English-Japanese Machine Translation System for Translating IBM Computer Manuals

T. Tsutsumi (Japan)

Construction of a Modular and Portable Translation System

F. Nishida, Y. Fujita, S. Takamatsu (Japan)

When Mariko Talks to Siegfried – Experience from a Japanese/German Machine Translation Project

D. Roesner, K. Hanakata (FR Germany)

#### **CONTACT**

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#### **ANNOUNCEMENTS**

**ACL SESSION AT NCC'86** 

National Computer Conference 16-19 June 1986, Las Vegas

10:30-12:00, 17 June 1986

An Artificial Intelligence Approach to Document Preparation