Preface

The recent resurgence of interest in lexical semantics (LS) has brought many linguistic formalisms closer to the knowledge representation (KR) languages utilized in AI. In fact, some formalisms from computational linguistics are emerging which may be more expressive and formally better understood than many KR languages. Furthermore, the interests of computational linguists now extend to include areas previously thought beyond the scope of grammar and linguistics, such as commonsense knowledge, inheritance, default reasoning, collocational relations, and even domain knowledge.

With such an extension of the purview of “linguistic” knowledge, the question emerges as to whether there is any logical justification for distinguishing between lexical semantics and world knowledge. The purpose of this workshop is to explore this question in detail, with papers addressing the following points:

1. Possible methods for determining what is lexical knowledge and what is outside the scope of such knowledge.

2. Potential demonstrations that the inferences necessary for language understanding are no different from supposed non-linguistic inferences.

3. Arguments from language acquisition and general concept development.

4. Cross-linguistic evidence for the specificity of lexical semantic representations.

5. Philosophical arguments for the (impossibility of the) autonomy of lexical knowledge.

6. Theoretical approaches and implemented systems that combine lexical and non-lexical knowledge.

The current volume contains the written versions of the papers and panel positions presented at the (first) workshop on Lexical Semantics and Knowledge Representation, held at the University of California, Berkeley, on June 17, 1991, in conjunction with the meeting of the 29th Annual Meeting of the Association for Computational Linguistics.

James Pustejovsky
Chair, Program Committee

Acknowledgements

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LEXICAL SEMANTICS AND KNOWLEDGE REPRESENTATION

17 June 1991
University of California
Berkeley, California, USA

A workshop sponsored by the
Special Interest Group on the Lexicon (SIGLEX)
of the
Association for Computational Linguistics

FINAL PROGRAM

Opening session (chair: James Pustejovsky)
9:00-9:10 Opening statement (JP)
9:10-9:40 Keynote address: Knowledge Representation and Knowledge of Words
   Richmond Thomason
9:40-9:55 discussion

Session 1 (chair: James Pustejovsky)
9:55-10:15 Syntax-Driven and Ontology-Driven Lexical Semantics
   Sergei Nirenburg and Lori Levin
10:15-10:35 Knowledge Management for Terminology-Intensive Applications: Needs and Tools
   Ingrid Meyer
10:35-10:55 Interpretation without Semantics
   Stephen Helmreich

10:55-11:10 coffee break

Session 2 (chair: Robert Wilensky)
11:10-11:30 Logical Structures in the Lexicon
   John Sowa
11:30-11:50 Conventional Metaphor and the Lexicon
   James Martin
11:50-12:10 Representation of Semantic Knowledge with Term Subsumption Language
   Gerrit Burkert and Peter Forster

12:10- 2:00 lunch
Session 3 (chair: Peter Norvig)
2:00-2:20 Predictable Meaning Shifts: Some Linguistic Properties of Lexical Implication Rules
Nicholas Ostler and B.T.S. Atkins
2:20-2:40 Lexical Operations in a Unification-based Framework
Ann Copestake and Ted Briscoe
2:40-3:00 Lexical Structures for Linguistic Inference
Peter Anick and Sabine Bergler
3:00-3:20 In So Many Words: Knowledge as a Lexical Phenomenon
Willem Meijs and Piek Vossen

3:20-3:35 coffee break
Session 4 (chair: Bran Boguraev)
3:35-3:55 Redefining the 'Level' of the 'Word'
Melissa Macpherson
3:55-4:15 Semantic Emphasis and the Structure of Verb Fields
Juergen Kunse
4:15-4:35 Lexical and World Knowledge: Theoretical and Applied Viewpoints
John White
Michael Herweg

4:55-5:10 coffee break

Session 5 (chair: James Pustejovsky)
5:10-6:30 Roundtable Discussion: Acquisition and Reusability of Lexical and World Knowledge
Martha Evans, Nicoletta Calsolari, Martha Palmer, Eiji Yokota, Tomoyoshi Matsukawa
6:30-6:50 discussion

6:50-7:00 closing (JP)

Alternate Papers:
Presupposition and Default Reasoning: A Study in Lexical Pragmatics
Robert Mercer
Lexicon, Ontology, and Text Meaning
Boyanc Onyshkevych and Sergei Nirenburg
A Two-Level Knowledge Representation for Machine Translation: Lexical Semantics and Tense/Aspect
Bonnie Dorr
The Autonomy of Shallow Lexical Knowledge
Kathleen Dahlgren
# TABLE OF CONTENTS

**Preface**  
James Pustejovsky ...................................................................... iii  

**Knowledge Representation and Knowledge of Words**  
Richmond Thomason ................................................................... 1

**Syntax-Driven and Ontology-Driven Lexical Semantics**  
Sergei Nirenburg and Lori Levin ........................................................ 9

**Knowledge Management for Terminology-Intensive Applications: Needs and Tools**  
Ingrid Meyer ........................................................................... 20

**Interpretation without Semantics**  
Stephen Helmreich ...................................................................... 34

**Logical Structures in the Lexicon**  
John Sowa .............................................................................. 38

**Conventional Metaphor and the Lexicon**  
James Martin ........................................................................ 56

**Representation of Semantic Knowledge with Term Subsumption Language**  
Gerrit Burkert and Peter Forster ........................................................ 67

**Predictable Meaning Shifts: Some Linguistic Properties of Lexical Implication Rules**  
Nicholas Ostler and B.T.S. Atkins ...................................................... 76

**Lexical Operations in a Unification-based Framework**  
Ann Copestake and Ted Briscoe ........................................................ 88

**Lexical Structures for Linguistic Inference**  
Peter Anick and Sabine Bergler ..................................................... 102

**In So Many Words: Knowledge as a Lexical Phenomenon**  
Willem Meijs and Piek Vossen ................................................... 113

**Redefining the 'Level' of the 'Word'**  
Melissa Macpherson .................................................................... 127

**Lexical and World Knowledge: Theoretical and Applied Viewpoints**  
John White ............................................................................. 139

**Aspectual Requirements of Temporal Connectives: Evidence for a Two-level Approach to Semantics**  
Michael Herweg ......................................................................... 152

**A Model for the Interaction of Lexical and Non-lexical Knowledge in the Determination of Word Meaning**  
Peter Gerstl ............................................................................ 165

**For the Lexicon that has Everything**  
Martha Evens, Joanne Dardaine, Yu-Fen Huang, Sun M Li, Judith Markowitz, Frank Rinaldo, Margi Rinaldo, Robert Struts .................................................... 179

**Acquiring and Representing Semantic Information in a Lexical Knowledge Base**  
Nicoletta Calzolari ...................................................................... 188

**General Lexical Representation for an Effect Predicate**  
Martha Palmer ........................................................................ 198

**Development of the Concept Dictionary: Implementation of Lexical Knowledge**  
Tomoyoshi Matsukawa and Eiji Yokota ................................................. 206

**Presupposition and Default Reasoning: A Study in Lexical Pragmatics**  
Robert Mercer .......................................................................... 224

**Lexicon, Ontology, and Text Meaning**  
Boyan Onyshkevych and Sergei Nirenburg ............................................. 238

**A Two-Level Knowledge Representation for Machine Translation: Lexical Semantics and Tense/Aspect**  
Bonnie Dorr ............................................................................ 250

**The Autonomy of Shallow Lexical Knowledge**  
Kathleen Dahlgren ..................................................................... 264