

Figurative Language Processing
Preview of ESLLI-2007 Course Structure
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Topics: One per Day

1. Figurative language
 2. Metonymy
 3. Metaphor
 4. Idioms
 5. Humor
- ... and Natural Language Processing (NLP)

Figurative Language Overview

- the literal-figurative scale
- figurativeness criteria from *Figurative Language* (Dobrovolskij and Piirainen 2005)
- borderline cases: non-literal, but non-figurative expressions
- when applied to lexical units, “literal” and “non-literal” refer to different word senses

- why do people use figurative language
- relevance to NLP
- relevance to translation/MT
- discussion of word alignment experiment (examples)

Metonymy Overview

- Definition (one entity stands for a related one)
- Regular patterns of metonymy
- Existence of patterns universal, but not all *individual* patterns available in each language
- Violation of selectional restrictions led to proposal of type coercion
- Curious phenomenon of multiple reference led to proposal of predicate coercion
- Corpora have been annotated for metonymically used named entities

Metonymy recognition as Word Sense Disambiguation

- A supervised learning approach by Nissim and Markert (2003)
- Other machine learning approaches

Metaphor Overview

- Linguistic theories of metaphor
- Psycholinguistic processing models and experiments

Metaphor and Computation

- Metaphor and selectional restrictions
- Metaphor reasoning systems
- Metaphor resources (databases, annotated corpora)
- Metaphor detection

Idiom Overview

A class of linguistic expressions with fuzzy boundaries

- Most idioms are multi-word expressions
- Most idioms are “irregular”, “special”, or “restricted” in at least some respects

Idioms across languages and cultures

Why should NLP care?

- Ambiguity
- Frequency
- Idiom dictionaries
- Lexical representation
- Machine Translation

Idiom extraction

- Distinguish between regular multi-word expressions and idioms
- Fazly and Stevenson (2006)
- Degand and Bestgen (2003)

Humor Overview (Sketch!)

Humor is different from previously discussed phenomena

- lexicon vs. text
- detection (recognition) vs. generation

Humor theories

Approaches to computational humor generation

- types
- strategies

pun generation vs. NLG

- templates
- communicative goal

joke generation vs. joke collection and retrieval

an anaphora joke generator: resources and components