

Final Review

Linguistics 384, Winter 07 (Martin-Lozano)

March 8, 2007

1 Topics to be covered

1. Writer's Aids
2. Machine Translation
3. Computer Aided Language Learning

2 Format of the exam

1. Term Matching: (see below)
2. Calculations:
 - Minimum Edit Distance
 - Venn Diagrams
 - Bag of Words Method
 - Context-free grammars
 - Syntactic Trees

3 Terms to know

3.1 Writers' Aids

- | | | |
|---------------------------------|-------------------------------------|----------------------------|
| – productivity | – phonetic errors | – dictionary lookup |
| – inflection | – run-on errors | – dictionary construction |
| – tokenization | – split errors | – insertion |
| – detection | – isolated words | – deletion |
| – correction | – (words in) context | – substitution |
| – Spoonerism | – nonword error detection | – transposition |
| – word recognition | – isolated-word error correction | – single-error misspelling |
| – interactive spelling checkers | – context-dependent word correction | – multi-error misspelling |
| – automatic spelling correctors | | |

- semantics
- array
- positional bigram array
- nonpositional bigram array
- domain-specificity
- minimum edit distance
- graph
- acyclic graph
- transition probabilities
- confusion probabilities
- local syntactic errors
- long-distance syntactic errors
- syntax
- linear order
- constituents
- syntactic tree
- category
- lexical category
- morphology
- function word
- open class
- closed class
- phrase structure rule
- generative
- structurally ambiguous
- hierarchical
- recursive
- infinite
- context-free grammar
- parsing
- local syntactic errors
- long-distance syntactic errors

3.2 Machine Translation

- translation
- machine translation
- (lexical) ambiguity
- structural ambiguity
- source language
- target language
- hyponym
- hypernym
- synonym
- interlingua
- dictionary
- lexicon
- lexical gap
- light verb
- idiom
- reversibility
- transformer architecture
- direct transfer
- transfer component
- comparative grammar
- robustness
- text alignment
- sentence alignment
- word alignment
- machine learning
- training data
- bag of words
- underlying representation
- intelligibility
- accuracy
- error analysis
- test suite
- taboo words

3.3 Computer Aided Language Learning

- call
- icall
- first language acquisition
- second language acquisition
- motherese
- explicit grammar instruction
- implicit grammar instruction
- stages of adult language learning
- transfer errors
- frame-based system
- branching system
- generation system
- text alignment
- concordancer
- lemmatization
- morphological generation
- syntactic generation
- syntactic parsing
- meta-linguistic knowledge
- error analysis

- mal rule
- student model
- explicit correction

- metalinguistic
feedback
- recast

- clarification request
- elicitation
- repetition