Style Guide
Computational Linguistics
(boldface entries in word list are new as of copyediting 31:1, December 2004)

I. Style Guidelines

Abbreviations. Latin abbreviations (except for *et al.*) are used only in material enclosed within parentheses; in running text, English equivalents such as *that is, for example,* and *compare* are used.

Abstracts. The article should begin with an informative abstract of 150–250 words. It should state the objectives of the work, summarize the results, and give the principal conclusions and recommendations. It is preferable that the abstract not be in the first person, and it should not contain any mathematical notation or cite references. Work planned but not completed should not appear.

Boldface. Boldface is used for the first occurrence of a term: <The **agreement predicates** are defined solely over unordered sets of features.>

Double quotation marks. Double quotes ("x") are used for
1. Quotations (citations) within the text: <He asserted that "no man is an island.">
2. A coining or a special use of a word or phrase: <The word "fractal" suggests something that is "fractured.">

Footnotes. Whenever it does not impede the logic or readability of the article, footnote material should be integrated into text.

In-text lists. In-text lists are introduced with (1), (2), (3), and so on.

Italics. Italics are used for
1. Emphasis: <We want to determine just *why* this happens.>
2. Words or sentences used within the text: <For example, *persuade* controls the subject of its complement, as in *We persuaded John to leave.*>
3. Foreign words or phrases not in common use in English: <One would italicize *pieta* but not per se.>
4. Book titles: <… as described in Chomsky's *Aspects of the Theory of Syntax.*>

Punctuation
1. If three or more items are conjoined, a comma appears before the *and* that precedes the last item: <a, b, and c>.
2. There is a comma after *i.e.* and *e.g.*
3. There is no terminal punctuation following displayed equations.
4. There is a comma in numerals 1,000 and above.
5. Commas and periods appear inside double quotation marks; commas and periods appear outside single quotation marks (except in the colloquial English translation that follows a numbered, glossed non-English example).

Semicolons and colons appear outside both single and double quotation marks.
6. Decade names are written without an apostrophe: <the 1990s>.

Percentages. Percentage is expressed with the percentage symbol (%), always with a numeral, even for percentages less than 10: 95%, 8%.

Relative pronouns. That is used to introduce restrictive relative clauses; *which* is used to introduce nonrestrictive relative clauses.

Single quotation marks. Single quotes ('x') are used for the definition of a phrase or a foreign word/sentence: <One usually defines *etre* as 'to be'.>

Spelling and capitalization
1. American spelling conventions (e.g., *behavior* rather than *behaviour, criticize* rather than *criticise*) are observed throughout the journal.
2. Full sentences following a colon begin with a capital letter.

Word choice. Article rather than *paper* refers to works within *Computational Linguistics* (<*The research reported in this article*> rather than <*The research reported in this paper*>). *Paper* is acceptable in reference to works other than the current one, if it can be appropriately applied (particularly in respect to papers presented at conferences and the like).

II. References

Text references
1. If the author's name occurs in the text, the date is enclosed in parentheses:
   <Hobbs (1978) first proposed that . . .>
   <. . . first proposed in Hobbs (1978)>

2. When the reference itself is within parentheses, and the parentheses enclose nothing other than references, the phrase *e.g.* or *cf.*, or the words *see* or *see also*, the date is not enclosed in parentheses (note that no comma separates the author's name from the date):
   <(Hobbs 1978)>
   <(e.g., Hobbs 1978)>   <(cf. Hobbs 1978)>
   <(see Hobbs 1978)>   <(see also Hobbs 1978)

3. If the parentheses enclose other material, the date is enclosed in square brackets rather than parentheses:
   <(e.g., Cassell et al. [1994] and much research since then)>

4. The word *page* is spelled out in citations:
   <(Stuckard 2000, page 240)>

5. For works with one, two, or three authors, all authors' surnames are given in the in-text citation. For works with four or more authors, *et al.* (in roman type) replaces the surnames of all authors except the first. (The names of all

authors are provided in the corresponding reference entry, regardless of the number of authors.)
    <(Smith 2000)>
    <(Smith and Jones 2000)>
    <(Smith, Jones, and Wexler 2000)>
    <(Smith et al. 2000)>

Reference list. References should be listed alphabetically by author at the end of the article according to the following style. All authors must (where possible) have first names specified.

1. Article in journal:

Akmajian, Adrian and Ray Jackendoff. 1970. Coreferentiality and stress. *Linguistic Inquiry,* 1(1):124–126.
Woods, William A. 1970. Transition network grammars for natural language analysis.*Communications of the ACM,* 13(10):591–606.

2. Book:

Altenberg, Bengt. 1987. *Prosodic Patterns in Spoken English: Studies in the Correlation between Prosody and Grammar for Text-to-Speech Conversion,* volume 76 of *Lund Studies in English.* Lund University Press, Lund.
Winograd, Terry. 1972. *Understanding Natural Language.* Academic Press, New York.

3. Article in edited collection/Chapter in book:

Cutler, Anne. 1983. Speakers' conception of the functions of prosody. In A. Cutler and D. R. Ladd, editors, *Prosody: Models and Measurements.* Springer-Verlag, Berlin, pages 79–92.
Sgall, Petr. 1970. L'ordre des mots et la semantique. In Ferenc Kiefer, editor, *Studies in Syntax and Semantics.* D. Reidel, New York, pages 231–240.
Jurafsky, Daniel, and James H. Martin. 2000. *Speech and Language Processing,* chapter 1. Prentice Hall.

4. Technical report:

Appelt, Douglas E. 1982. Planning natural-language utterances to satisfy multiple goals. Technical Report 259, SRI.
Robinson, Jane J. 1964. Automatic parsing and fact retrieval: A comment on grammar, paraphrase, and meaning. Memorandum RM-3892-PR, The RAND Corporation, Santa Monica, CA.

5. Thesis or dissertation:

Baart, J. L. G. 1987. *Focus, Syntax, and Accent Placement.* Ph.D. thesis, University of Leyden, Leyden.
Spärck Jones, Karen. 1964. *Synonymy and Semantic Classification.* D.Phil. dissertation, Cambridge University, Cambridge, England.
Cahn, Janet E. 1989. Generating expression in synthesized speech. Master's thesis, Massachusetts Institute of Technology, May.

6. Unpublished item:
Ayers, Gail M. 1992. Discourse functions of pitch range in spontaneous and
 read speech. Paper presented at the Linguistic Society of America annual
 meeting.

7. Conference proceedings:
Benoit, Christian and Gerard Bailly, editors. 1989. *Proceedings of the Eurpoean
 Speech Communication Association Workshop on Speech Synthesis,* Autrans,
 September. European Speech Communication Association. Institut de la
 Communication Parlee, Grenoble.

8. Paper published in conference proceedings:
Krahmer, Emiel, M. Swerts, Mariet Theune, and M. Weegels. 1999. Error
 spotting in human-machine interactions. In *Proceedings of EUROSPEECH-
 99,* pages 1423–1426, Budapest.

III. Word List

A-chain (A-bar-chain)
A-position
AltaVista
ambiguity-preserving generation
analog
anaphora generation (n., adj.)
anaphora resolution methods
Appendix, Appendices **(through 30:4)**
appendix, appendices (beginning 31:1)
artificial intelligence (n., adj.)
attribute-value grammars
automatic speech recognition (n., adj.)

back off (v.)
back-off (n., adj.)
backing off (n.)
backing-off (adj.)
back pointer (n.)
back-pointer array
backpropagation
backtracking
backward [exception: backwards dictionary]
backward-looking center
balanced tree structures
Bayes' law (theorem, rule)
beam search algorithm
best-match translation model
best-performing system
bigram-class information
bilexical
bilingual sentence-aligned corpus
binding and accommodation theory
binding principles A, B, C
binding-theoretic evidence
bit-parallel
bitvector
bootstrapping
bound variable (n.)
bound-variable (adj.)

breadth-first search
Brown corpus
byproduct

canceled, canceling
case 1, case 2 (etc.)
case frame patterns
Center Continuation
Center Establishment
Center Retain
Center Shift
centering
centering model
centering theory
chapter 7 (etc.)
chart parser
chi-square test
Chomsky adjunction
Chomsky normal form
chunk parser
class-based interpolated
closed class (n.)
closed-class (adj.)
code set
coexist
cognitive science (n., adj.)
collative semantics
combinatory categorial grammar
Common Lisp
common sense (n.)
commonsense (adj.)
compile time (n.)
compile-time (adj.)
complete-link clustering
complex NP assumption
computational linguistics (n., adj.)
computer-assisted language learning
constituent-matching flexibility
constraint logic programming

construction-specific rules
context-free grammar formalisms
context-group disambiguation
context-sensitive modeling
Continue [in centering theory]
continuous-density model
continuous-speech recognition
conversational move boundaries
co-occur
co-occurrence
Cooper storage
corefer
coreference
corequirement
corpus-dependent translations
cost-effective
co-training
counterevidence
cross-coding
cross entropy (n.)
cross-language
cross-linguistic
cross-linguistically
cross-lingual
cross-linking
cross product (n.)
cross-ranking
cross-training
cross-validate
cross-validation
cut and paste (v., n.)
cut-and-paste (adj.)

database
database corpus
data set
data structure
decision tree (n., adj.)
deep structure (n., adj.)
dependency grammar approach
dialogue
discourse-initial utterance
discourse segment boundaries
discourse-new
discourse-old
discrete-mixture model
dispersion-focalization principle
domain-independent syntactic FUG surge
domain-knowledge hierarchy
draft-building pass
dynamic predicate logic
dynamic programming algorithm

e-mail
empty channel (n.)
empty-channel (adj.)
empty word (n.)
empty-word (adj.)
end-of-string symbol
end user
English-only input

equation (1) [etc.]
error backpropagation
error-correcting output encoding
example (1) [etc.]
expectation maximization (n.)
expectation-maximization (adj.)
Experiment 1

fan-out (n., adj.)
fan out (v.)
feature description language
feature-geometric representation
feature-ranking computation
feed-forward neural networks
feedback set (n.)
feedback-set (adj.)
Figure 1 (etc.)
file change semantics
finer-grained pass
finite state (n.)
finite-state (adj.)
first-order HMM (etc.)
fixed-length lists
fixed-word-order languages
floating-point rounding errors
focused, focusing
formulas
forward-looking center
forward-traversed arcs
free word order (n.)
free-word-order (adj.)
frequency-dependent interpolation
full brevity algorithm
full coverage (n.)
full-coverage (adj.)
full-word-form representation
functional centering
fuzzy matching (n.)
fuzzy-matching (adj.)

Gainen Base [no italics]
garden path sentence
Gaussian
generalized iterative scaling algorithm
generalized phrase structure grammar
generative lexicon
generative semantic analysis
goal weakening (n.)
goal-weakening (adj.)
gold standard (n.)
gold-standard (adj.)
grammatical function (n., adj.)
grid point
graph-theoretic
group-average agglomerative clustering
groupware

hand-coding
hand-encoding
hapax word
hardwire

head-child [but: nonhead child]
head-choice (n., adj.)
head-dependent distinction
head-driven phrase structure grammar
head-driven statistical models
head-finder
head-finding (n., adj.)
head-generation (n., adj.)
head label (n., adj.)
head-lexicalization (n., adj.)
head modifier (n.)
head-modifier (adj.)
head nonterminal (n., adj.)
head-rule (n., adj.)
head table
head tag (n., adj.)
headword
hearer-new
hearer-old
hidden Markov model
hierarchical lexicon models
HTML

incremental algorithm
index, indices
information-retrieval metrics
information-theoretic
initial-state annotator
in scope (adv.)
in-scope (adj.)
International Phonetic Alphabet
Internet
inverted-oriented production

judgment

keyword
knowledge acquisition bottleneck
knowledge representation language
knowledge-base-accessing system

labeled, labeling
language understanding process
language-independent machine
language-learning pedagogy
language-modeling system
language-particular ranking
language-processing tasks
language-processing modules
language-specific errors
Latin square (n., adj.)
learning-based coreference engine
least squares regression
left-branching tree (also: right-branching)
left-right centering
left to right (adv.)
left-to-right (adj.)
letter-tree recognizer
lexical chain (n., adj.)
lexical choice (n., adj)
lexical-functional grammar

lexical rule specification language
lexical scope (n., adj.)
lexical semantics (n., adj.)
lexical score assignment
lexical-knowledge-based approaches
lexicogrammatical
lexicostructural
lexicon entries
lexicons (also allow: lexica)
list-structured formalism
log-likelihood (n., adj.)
log-linear
log-probability

machine-assisted translation
machine-implemented knowledge base
machine learning (n.)
machine-learning (adj.)
machine-readable
machine translation systems
Master Metaphor List
maximum-brackets parse
maximum-entropy model
maximum-likelihood estimation
maximum-likelihood parse
McNemar's test
memoization
model 1, model 2 (etc.)
model-growing method
modeled, modeling
model-theoretic
Modern Hebrew
morpho-lexical
morpho-syntactic
morphotactics
multiple-inheritance (adj.)
multiple-output conversion algorithm

naive
naive Bayes classifier
naive Bayesian ensemble
named entity recognition
n-ary
natural language (n., adj.)
natural language generation
natural-deduction system
natural-language-generating system
natural-language-understanding system
nearest neighbor (n.)
nearest-neighbor (adj.)
neural network (n., adj.)
never-splitting sequences
n-gram
noisy-channel model
non-finite-state procedure
nonhead child
non-native
non-negative
non-negligible
non-noun
non-null

non-numeric
non–tone language
noun phrase antecedent
(an) NP
NPs (plural of NP)
NP's (possessive of NP)
NP-complete

off-line
one-sense-per-discourse heuristic
on-line
on-the-fly (adj.)
on the fly (adv.)
ontology-engineering architecture
ontology-learning architecture
open class (n.)
open-class (adj.)
optimality theory
outperform

parameter estimation algorithm
Pareto-optimal
Pareto ranking (n., adj.)
parse forest
parser-output trees
part of speech (n.)
part-of-speech (adj.)
part-of-speech-tagged corpus
pattern-matching method
Penn Treebank
Ph.D.
Ph.D. thesis
phonological-rule induction algorithm
phrase structure grammar
POS-language models
POS-tagging errors
predicate-argument structure
pre-fixed (meaning "fixed in advance")
prepositional phrase (n.)
prepositional-phrase (adj.)
present-tense (adj.)
probabilistic context-free grammars
probabilistic feature grammars
probability mass function
proper noun (n.)
proper-noun (adj.)
proto-allophones
proto-phonemes
pseudo–disambiguation task
public-domian programs
push-back operation
pushdown (n., adj.)
push down (v.)

Q-structure
qualia structure (n., adj.)
quantifier-raising approach
quasi synonyms
query processing (n.)
query-processing (adj.)
question answering (n.)

question-answering (adj.)

range concatenation grammar
real time (n.)
real-time (adj.)
real-world programming
re-create
red-herring debate
resolution rate
Retain [in centering]
rhetorical structure theory
right-branching tree
right-sibling
Rough Shift
route follower
route giver
rule set
rule-induction technique
run time (n.)
run-time (adj.)

S-dominated C-structure tree
search space (n.)
search-space (adj.)
Section 1.1 (etc.) **(through 30:4)**
section 1.1 (etc.) (beginning 31:1)
semantic cohesion value
semantic distance metric
semantic similarity measure
semantic space (n.)
semantic-space (adj.)
semantic type coercion
the Semantic Web
SemCor
semiautomatically
sense-clustering algorithm
sense-tagged corpus
sense-tagging corpora
sentence-aligned parallel bilingual corpus
sentence alignment techniques
sentence boundary disambiguation
sentence-initial position
sentence-level grammatical function
set-theoretic (adj.)
signaled, signaling
shift-reduce parser
shortest-path problem
single-link clustering
single-string automaton
Smooth Shift [in centering]
source language (n., adj.)
sparse-data problem
spell-checker
spell-checking (n., adj., v.)
spreading activation mechanism
standard letter-tree recognizer
statistical alignment method
statistical language models
statistical parsing approach
step 1, step 2, etc.
stop list

stopword
stress acquisition model
structure-building module
sub-sequence
support-verb constructions
surface-scope-preserving representations

Table 3 (etc.)
tail-recursive parses
target language (n., adj.)
term expansion (n., adj.)
term extraction (n., adj.)
test data (n., adj.)
test set (n., adj.)
text analysis task
text data mining
text generation process
text-planning process
text-processing program
thematic-relation hypothesis
Theorem 1, Theorem 2, etc.
theorem proving (n.)
thesauruses
third-person pronoun
time series (n., adj.)
top level (n.)
top-level (adj.)
topic prominence
topic-linked concentrated word usage
training data (n.)
training-data (adj.)
training set (n.)
training-set (adj.)
tree-adjoining grammar
tree-adjoining parsing
treebank
treebanking
tree-configurational relationship
tree cut model
tree search algorithm
tree-sentence pair
tree set
tree substitution grammar
trigrams
t-test
two-level transducer
type-checking system

unigram language model
UNIX
unknown-word (adj.)
user model info

vector space (n., adj.)
verb-forming processes
very-high-dimensional spaces
voice mail
voweled

Wall Street Journal **(italicized when the publication itself, specifically, is referred to)**
Wall Street Journal corpus (no italics)
Wall Street Journal Treebank (no italics)
Web
Webmaster
Web-mining (adj.)
Web mining (n.)
Web site
weighted deduction system
weighted deductive parsing
weighted majority algorithm
wh-movement
white space
wide-coverage pure unification grammars
wide-scope brackets
Wizard-of-Oz dialogue (models, experiments, etc.)
word alignment (n., adj.)
word-based n-gram models
word boundary (n., adj.)
word class (n., adj.)
word-for-word translation
word formation (n., adj.)
word-frequency distribution
word list (n., adj.)
WordNet
word object (n., adj.)
word reordering (n.)
word-reordering (adj.)
word segmentation (n., adj.)
word segmenter (n., adj.)
word sense (n., adj.)
word stream (n., adj.)
word string cover relation
word token (n., adj.)
word type (n., adj.)
World Wide Web
workhorse

X-bar schema

zeroth