Noun Analysis

Nouns as subject or object, active or passive, direct or indirect objects, singular or plural, proper or improper

Nouns can gives us import clues about the use of language. In the CoNLL table nouns are classified in POSTAG (Part of Speech Tags), with values: NN (singular or mass noun, e.g., door, police), NNS (plural noun, e.g., doors), NNP (proper, singular noun, e.g., John), NNPS (proper plural noun, e.g., Vikings). For te nouns in POSTAG, we can find further information about them in the DEPREL field (Dependency Relation), under such labels as: nsubj (the subject of an active form, "Clinton defeated Dole"), nsubjpass (the syntactical subject of a passive clause, "Dole was defeated by Clinton"), dobj (direct object), and iobj (indirect object). Taken together, POSTAG and DEPREL values can tell you a great deal about your text. We may be particularly interested in those nouns that are social actors (i.e., human or human organizations). In modern scientific writing, however, "things" often play the role of "actors"; variables, for instance, have an effect on other variables, cause things to happen.

There is evidence of a differential use of nouns versus verb (see Chung and Pennebaker, 2007). Females use more verbs (especially auxiliary verbs), while men use more nouns, especially concrete nouns. You may then want to run the routine for concreteness rating.

Active and Passive nouns

Together with passive verb voice, nominalization (i.e., the turning of a verb into a noun, e.g., the lynching, the attack, the rape), can be taken as a sign of **denial of agency**. When we say "the lynching occurred at 3 am in Valdosta", we know neither who did it – the agent – nor whom it was done to – the patient – where agent and patient are "semantic roles", althouugh we may have a good idea of both, at least probabilistically speaking). Nominalization, of course, can be used effectively to make a sentence shorter, since this way you avoid subject, verb, and object, but... what it also does is to deny agency.

In the CoNLL table active/passive nouns are found in these DEPREL (Dependency Relation) values: nsubj (e.g., "Clinton defeated Dole") and nsubjpass (e.g., "Dole was defeated by Clinton").

Direct and indirect objects

In the CoNLL table direct/indirect nouns are found in these DEPREL (Dependency Relation) values: dobj (i.e., the direct accusative object of the verb) and iobj (i.e., the dative – to – object of the verb); e.g., "John gave an apple to Lucy", apple is the direct object and Lucy is the indirect object.

Do certain nouns (e.g., social actors) more typically end up as objects (DEPREL = dobj), i.e., as targets of actions expressed in the verb, rather than subjects (DEPREL = nsubj)?

Proper and improper nouns

In the CoNLL table proper and improper nouns are found in these POSTAG (Part of Speech Tags) values: NN (singular or mass noun, e.g., door, police), NNS (plural noun, e.g., doors), NNP (proper, singular noun, e.g., John), NNPS (proper plural noun, e.g., Vikings).

What does a text with as high a proportion of proper nouns as improper nouns tell you about the text?

You would expect that proper nouns would also be classified in NER as either person, organization, or locality.

References

Chung, Cindy and James Pennebaker. 2007. "The Psychological Functions of Function Words." In: pp. 343-359, Klaus Fiedler (Ed.), *Social Communication*, New York: Psychology Press.