Lecture 5: Morphology

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1 Morphology

With morphology, we’re looking at the words only, not the semantics. We’ll be trying to classify words for later use by “Part of Speech” (PoS) tagging. Some of the common divisions in linguistics include: adjectives, articles, interjections, nouns, prepositions, conjunctions, adverbs, verbs, and pronouns. Some linguists break these tags down even more. For example, one could break adverbs down into sentential adverbs, qualifiers, phrasal adverbs, and particles.

Unfortunately, there are fuzzy boundaries, and cases we can’t be sure about. But, because these cases so rarely occur, we can statistically ignore the rarer cases.

Usually, to classify words, we must make a dictionary lookup. However, if we look at the parts of speech of surrounding words of an unknown word, we can find what the most likely PoS of the unknown word is.

1.1 Major classifications

Open class

- “lexical”
- More contentful words
- Examples: nouns, adjectives, verbs

Closed class

- functional
- “knitting text together”
• grammatical cues
• not much semantic content
• Examples: prepositions, pronouns, interjections, conjunctions

If we see a word we’ve never seen before, or if we see a word in a new way, it is probably of the open class.

A morpheme is the minimal unit we can break things down to. For example, “-s” is a morpheme for pluralization of nouns, even though it has other uses. There are two types of morphemes, Inflectional and derivational.

Inflectional morphemes don’t change the part of the speech of a word, or the meaning of the word. Derivational morphemes change one or the other.

Examples of inflectional:

• “-ing” to form a gerund, but this could also be considered to be derivational
• “-ed”
• “-s” to make nouns plural, or to makes verbs singular

Examples of derivational:

• “-ly”
• “-ness”
• “-age”
• “-er”
• “un-”
• “re-”

English doesn’t have many inflections. But, they can be quite common in other languages, such as Latin and Finnish. For example, the word for “daughter” can change depending on the number and the part of the sentence in which the word is used.
1.2 Nouns

Nouns tend to get inflected for

- **number** - plural/singular, dual
- **gender** - male, female, neutral
- **animacy** - animate/inanimate
  - case
    - nominative (subject (sort of))
    - accusative (direct object (sort of))
    - dative (Indirect object)
    - genitive (possessive (sort of))
    - inessive (exists in a place)
    - illative (going to a place)

There are some exceptions however. With gender, the gender of the word is not necessarily the gender of the object. French and Spanish languages have no neutral gender. Every noun is either male or female. Chairs, chalkboards, swimming pools, light fixtures, doors, and windows are all female in Spanish, even though they are really genderless objects. And, the word for “a person” is feminine, even if describing a male person. (“una persona” in Spanish)

With number, in Britain, a sports team is singular when referring to itself, but is plural otherwise. The example in class was “Chicago have won the Super Bowl”, where most people in the US would have “Chicago has won the Super Bowl.” Well, most people in the US say “Maybe next year,” but that’s a different topic. [Well, next year we’ll get the World Series. I suppose we could do both. –dpb]

Nouns represent sets of things. Even the word “boy” could represent the set of all boys.

1.3 Pronouns

Pronouns represent a specific thing from a set. If we say “he”, we are referring to a specific person. Similarly, if we say “they”, we’re referring to a specific group of people. A pronoun shares its meaning with its antecedent. But, the meaning relies on the context of the sentence. If we said “Bob
bought his books last week,” we could assume that “his” referred to Bob, but “his” could refer to any other male, and we could add a sentence such that the antecedent of “his” becomes unclear. But, we know it couldn’t refer to a female. Pronouns can distinguish between first, second and third person, and in some languages, can distinguish between singular and plural.

Other types of pronouns include reflexive pronouns, anaphora, cataphora, demonstratives, deixis, and pleonastic. With reflexive pronouns, such as “myself”, we can make sentences that just sound wrong, but we can’t find a grammatical rule that says it’s wrong. Anaphora refer to the antecedent. With cataphora, the antecedent come after the pronoun. Demonstratives (like “this” or “that”) can be anaphoric, but at times, there may be no antecedent at all. A deixis means there is no linguistic antecedent, such as when we point to an object and say “That is...”. Pleonastic pronouns don’t have an antecedent, linguistic or otherwise. For example, “It’s raining.” The word “it” is obviously a pronoun, but it has no antecedent.

1.4 Adjectives

Adjectives are set modifiers. They are ways of describing the objects in a set. Some examples we used in class were “red”, “small”, and “former”. With “red”, we can visualize the set of red objects easily, but for the other two, we have some fuzzy boundaries. A big mouse is still a small animal, and a former senator is not a senator. So adjectives like “small” are somewhat relative, and words like “former” really put an object into a group that it wouldn’t be in without the adjective. Though, syntactically, all adjectives are the same.

1.5 Determiners

Determiners determine what part of the set we are referring to. Some common determiners are: “a”, “the”, “every”, “none / no”, “all”, “many”, “few”, “a few”, “at least five”, etc. If we were to say “Every boy runs,” syntactically, we’re getting a specific group from the set of all boys, even though we are describing the whole set.

1.6 Verbs

Verbs are predicates. Verbs tend to be inflected for:
**tense** past, future, present

**person and number** though the verb is usually inflected for agreement when a pronoun is used out of paradigm.

**aspect** perfective, progressive, habitual, etc.

Sometimes pronouns are used out of paradigm, and the verbs used are the same as if the pronoun were used in its usual context. For example, “they” is used for 3rd person plural, and also for 3rd person non-gender singular. But, we still say “they are” for a 3rd person singular, even though the 3rd person singular form of the verb is “is”.

The more a word or part of speech is used, the more irregularity can be retained. For example, the plural of cow is kine, but because it isn’t widely used by the masses, the word has died out.