# Outline

Tuesday, October 15, 2019 8:51 PM

## 1. Intro: What part of speech is *friend*?

- a. Twitter Data
  - i. Verb
    - 1) What's your user? I would love to friend you and look at it when finished!
    - 2) If we don't have mutual friends we can't get friended.
    - 3) I accidentally downloaded Facebook and created a profile and friended a bunch of people
  - ii. Noun
    - 1) I got a spooky box from my best friends.
    - 2) Secrets don't make friends, Luke.
    - 3) Just think I saw an old college friend on TV meeting Hilary Clinton
  - iii. Adjective
    - 1) the guy became the national symbol of friend zone in just a day
    - 2) Facebook just put me in the damn friend zone with my wife
    - 3) can someone help me with some friend drama?
- b. Dictionaries
  - i. Dictionary.com verb and noun, but not adjective
  - ii. Merriam-Webster.com verb and noun, but not adjective
- c. Why not adjectives? Should they be treated like compounds?
  - i. friend zone vs. friendzone
    - 1) friendzone does not appear in the Google Books corpus
    - 2) Incidentally, Oxford Dictionaries reports that this can be a verb too!
  - ii. health care vs. healthcare
    - 1) If compounds undergo univerbation, shouldn't friend zone as well?
    - 2) just ate two slices of veggie pizza for lunch so basically I'm all healthed up for at least a month
  - iii. Conclusion: We simply don't traditionally analyze these uses as adjectives because historically they weren't, and they're morphologically unmarked.
    - 1) Linguists have been pretty selective about which criteria they use to determine parts of speech, and tend to cherry pick to accommodate either tradition or their particular theoretical approach (Croft; chapter from *Lexical polycategoriality* which critiques POS analyses).
- d. Problem for other words in English:
  - i. able
    - 1) N: that feeling of abling to run 22 miles a week
    - 2) V: always abling and abetting the horses
    - 3) A: an able mind overcomes challenges
  - ii. time
    - 1) N: still one of my favorite series of all time
    - 2) V: I'm so bored in this class that I'm timing how long I can hold my breath
    - 3) A: 2 years ago today (or yesterday depending on your time zone)

- iii. English is sometimes said / implied to have clear-cut parts of speech (Schachter & Shopen) and sometimes said / implied to have very flexible, fuzzy parts of speech (*Flexible word classes* volume?)
- e. Problem for other languages than English
- i. Nuuhchahnulth examples
- ✓ ii. Iñuit examples
- ☑ iii. Riau Indonesian examples
- ✓ iv. Mundari examples
- v. Chitimacha example
- ✓ vi. Mohawk example
- ✓vii. I have yet to find a language where flexibility hasn't been at some point discussed explicitly in the literature, or discussed in a grammatical description (but went otherwise unnoticed)

### 2. Problem(s)

- a. **Non-Problem I:** How should linguists analyze these cases? 2 approaches:
  - i. conversion / zero-derivation traditional approach; often favored by generativist approaches (though note Distributed Morphology)
  - ii. underspecification newer approach, gradually gaining attention
    - 1) Hengeveld, Rijkhoff, Gil, other well-known cases
- b. Non-Problem II: Determining lexemehood is tricky
  - i. Cognitive literature suggests a connection between different functional uses of the same form
  - ii. Categories are prototypal (Rosch; Lakoff; Taylor)
  - iii. we're not even sure when two senses of a word stop being related
    - 1) Dictionary.com lists 148 senses of run, some nouns, some verbs (but again no adjectives)
    - 2) fast pedestrian motion [1]: I run every day
    - 3) conduct a political campaign [9]: he ran a fair campaign
    - 4) come undone [17]: these stockings run easily
    - 5) operate or function [29]: does it run well?
    - 6) get or become [34]: the well ran dry
  - iv. Linguistic data itself suggests grammatical distinctions between the words:
    - 1) categories of conversion match that of overt derivation
    - 2) conversion involves item-specific knowledge new meaning is unpredictable
      - a) BUT, some languages do have predictably flexible lexemes
      - b) BUT, *all* constructions have item-specific meanings when combined (e.g. singular vs. plural plural forms have some meanings not available to singular forms)
        - i) (historically) brother vs. brethren (now separate lexemes)
        - ii) (historically) cloth vs. clothes (now separate lexemes)
        - iii) (historically) new vs. news
        - iv) blind (hunting) vs. blinds (window)
        - v) custom vs. customs
        - vi) arm vs. arms (military sense is not available in the singular)
        - vii) brain vs. brains
        - viii) *wood* vs. *woods* (don't refer to the same type of thing: one is a material, the other is a group of things that are made of the material)

- c) BUT, at *some* point somebody *did* use a word flexibly, or do an instant conversion, or whatever, that allowed it to jump the POS boundary
- v. Almost anything can be lexicalized (made into a new word)
  - 1) [Interest in lexicalization as contrasted with grammaticalization. What can be lexicalized?]
  - 2) cases of conversion / zero-derivation (already discussed)
  - 3) cases of fully-inflected words (already discussed)
  - 4) cases of entire phrases (already discussed with *friendzone*, but also *comeback*)
- c. Real Problem: How common is flexibility? Does it vary within a language? Across languages?
  - i. Sidestep the issues of how to analyze these forms, and whether distinct uses are related.
  - ii. The question is, "How common is it for a word to be used for non-prototypical functions without any overt marking?"
  - iii. An immediate follow-up question is, what's special about the flexible words? Could it be semantic domain?
  - iv. Croft's markedness theory of parts of speech
  - v. We're interested in the cases which made Croft add the qualification "at *least* as marked" rather than simply state "*more* marked". Why aren't cases of derivation always marked? What determines when derivation is marked vs. unmarked? These are my long-term research questions, and this research is a very very very small step towards answering those, and only a first step as well.

## 3. **Solution** (what I'm doing)

- a. Answering the first part: How flexible are words of English, and English generally?
  - i. For a given word, count how often that word is used in referring, predicating, and referring constructions in a large corpus (database) of English
  - ii. Can assign that word an overall flexibility score (0-1)
  - iii. For a given language, describe how flexible words are generally by using this metric
- b. Answering the second part: Does flexibility correlate with semantic domain?
- c. Laying the groundwork for:
  - a) more data (following the same methods)
  - b) additional correlations

## 4. Methods

- a. not Twitter
- b. Spoken portion of the Open American National Corpus (OANC) (3.5 million words)
- c. Randomly selected wordforms from 100 different frequency bins
  - i. frequency vs. corpus dispersion
- d. Created a list of every instance of those 100 lexemes ( $\sim$ 380,000 total)
- e. Annotated each token for its function: reference, predication, or modification
  - i. distinction between token, wordform, and lexeme
  - ii. problems [with examples]
  - iii. guidelines
  - iv. examples of how I coded data
- f. Data annotation still in progress (about 1/3 done for English)
  - i. As a result, this talk is somewhat theoretical and methodological, with few concrete results

#### 5. Results

- a. tokens for specific lexemes
- b. flexibility diagram for specific lexemes
- c. flexibility score for specific lexemes
- d. all flexibility diagrams for lexemes of English in one chart
- e. flexibility diagram for all of English (so far)
- f. flexibility score for English
  - i. Can sum up my entire dissertation in 1 statistic
- g. (potential) correlates between semantic domain [define] and flexibility
  - i. [do statistics on body part terms vs. non-body part terms, as a dumb initial look at correlation]
  - ii. So far back is the only lexeme which had a fairly even spread across functions
    - 1) Interestingly, I predicted this (just because of the great number of spatial and instrumental and other metaphors derived from body part terms), and it seemed to hold true

### 6. Conclusions

- a. Most words of English do not exhibit much flexibility.
  - i. They're a little boring! But that's okay! It says something about linguists' perception of English as a flexible language - that perception seems to be based on the very notable cases that stand out, rather than actual empirical data
  - ii. Would the empirical data look any different for a language like, say, Nuuchahnulth?
- b. All lexical words of English exhibit *some* flexibility (combination of inflectional possibilities for verbs + omnipredicativity for other categories ensures this)
  - i. most words can predicate almost feels like cheating!
- c. Some semantic domains (appear to, preliminarily) exhibit more flexibility than others: body part terms

### 7. Next Steps

- a. Nuuchahnulth
- b. Other languages
- c. More words from all languages
- d. Diachronic spread of word uses across POS boundaries
  - i. Notice that the verbal examples of *friend* are sense-specific they're all about friending someone on social media. Can you use *friend* as a verb for in-person connections? Maybe.
- e. [List some of your other near-term research questions]

# 8. Background / Context of Research

- a. how I became interested in the problem
  - i. POS tagging for RS
  - ii. lexical categories course @ LSA Institute 2011
- b. I don't typically work with English.