Problem Set 5 – Lexical Semantics

[due Friday, January 17, 2020]

Exercise 1: Generalized Quantifiers.
The underlined expressions in (15) are candidates to be considered quantificational determiners. For each of them, spell out its denotation in <u>set theory notation</u>, where P is the set coming from the NP (the set of students in (15)) and Q is the set coming from the rest of the sentence (the set of vegetarian individuals in (15)). An example is given in (14). Two notes:
>   (i) the complex Determiner in (15c) is discontinuous, namely **no...but John**. Define
>   it as one item.
>   (ii) For (15d), the intended reading is provided below in quotation marks.

(14)   ⟦**Every P (is) (a) Q**⟧^{w} $= 1$ iff $P \subseteq Q$

(15)   a. **No more than seven students (are) vegetarian**.
        b. **Some but not all students (are) vegetarian**.
        c. **No student but John (is) vegetarian.**
        d. **Only students (are) vegetarian**.
           "All students are vegetarian and nobody other than students is vegetarian."

Exercise 2: Lexical Relations.
a) Use the online WordNet interface (http://wordnetweb.princeton.edu/perl/webwn) to find the path connecting *fruit* to *oak*.

b) Finding paths manually, as done in (a), is cumbersome, right? Sketch a procedure for doing this automatically (Pseudocode).

(This is, obviously, an open-end type of assignment. One can explore just the hyperonyms of the two words, or peruse more information of the WordNet entries. For our purposes, a basic solution is perfectly fine. But in case you get interested, feel free to take other info into account (how costly is this in terms of runtime?) or even implement it.)

Exercise 3: Language Profile.
Write a paragraph about semantic properties of your language. You can use (the table of contents of)
https://www.morganclaypool.com/doi/pdf/10.2200/S00935ED1V02Y201907HLT043
as a hint towards things to write about. For example, answer one of the following questions:
- How does your language encode tense, aspect, or evidentiality?
- Is there negative concord in your language ("I didn't see nobody") and how does it work?
- Give an example of a word with multiple senses in your language. How does it translate?
- Are there resources like WordNet for your language? What information do they contain? http://globalwordnet.org/resources/wordnets-in-the-world/