Olga Redko
CS366
Assignment 4

When I worked on resnik_similarity.py, I came across a few problems. For example, at first, I did not think about how calculating resnik similarity scores would have strictly required me to compare words that shared the same part of speech. However, I realized that this made sense because it would be fairly nonsensical for, for example, verbs and nouns to be part of the same taxonomy--such concepts are ontologically distinct, and it wouldn't make sense to draw relations between them in terms of ideas like hypernyms. At first, I tried to ensure that similarity scores would only be calculated between synsets sharing the same part of speech by writing the following code:

```
synset1 = wn.synsets(word1)
synset2 = wn.synsets(word2)
for syn1 in synset1:
for syn2 in synset2:
if syn1.split('.')[1] == syn2.split('.')[1]: # to ensure that the synsets have matching parts of speech by comparing "pos" from "word.pos.nn"
...
```

However, this did not help me successfully calculate resnik similarity scores. I later learned that I only had to deal with nouns for this assignment, and I learned that I could do this by writing the following, which was included in my functioning code:

```
synset1noun = wn.synsets(word1, pos=wn.NOUN)
```

Another issue I ran into with resnik_similarity.py was understanding that the lowest common hypernym wasn't always the most informative hypernym because it wasn't necessarily the most specific ancestral node. For a while, I was also incorrectly returning the information content of the hypernym for a given sense of a word instead of words without sense information.

As for wsd.py, I didn't encounter any significant issues, but I did familiarize myself with some helpful features, such as the os.getcwd() method, which returns a string that represents the current working directory. This was helpful when I tried to generalize the location from which to read files such as wsd_contexts.txt and wsd_contexts.txt.gold.txt:

wsd_test_file = open(os.path.join(os.getcwd(), 'wsd_contexts.txt'))