Chapter 2, Problem 6: Pronoun Case

A. There is more than one way to encode case distinctions into a grammar like the one we have been working on. One way would be to divide the category NP into NP-NOM (for nominative NPs) and NP-ACC (for accusative NPs). This would entail adding categories NOM-NOM, NOM-ACC, N-NOM, and N-ACC, as well. In order to get the agreement facts, the nominative categories would have to cross-classify with singular and plural, giving NP-SG-NOM, NP-PL-NOM, NOM-SG-NOM, NOM-PL-NOM, N-SG-NOM, and N-PL-NOM. This, in turn, entails a multiplication of the number of grammar rules we need.

A somewhat less redundant approach would be to distinguish between pronouns and non-pronominal NPs, making the case distinction only for pronouns. A version of this is presented in part B of this problem.

B. One way to do this would be to assign *she*, *I*, etc. to the category NOM-PRON and *her*, *me*, etc. to the category ACC-PRON. We could then modify our grammar rules as follows (recall that | means 'or'):

- S → NOMINATIVE VP
- NOMINATIVE → NOM-PRON | NP
- VP → TV ACCUSATIVE
- VP → DTV ACCUSATIVE ACCUSATIVE
- ACCUSATIVE → ACC-PRON | NP

If we want the grammar to handle subject-verb agreement as well as case, we'll need more rules, of course:

- S → NOMINATIVE-PL VP-PL
- S → NOMINATIVE-SG VP-SG
- NOMINATIVE-PL → NOM-PRON-PL | NP-PL
- NOMINATIVE-SG → NOM-PRON-SG | NP-SG
- VP-PL → TV-PL ACCUSATIVE
- VP-SG → TV-SG ACCUSATIVE
- VP-PL → DTV-PL ACCUSATIVE ACCUSATIVE
- VP-SG → DTV-SG ACCUSATIVE ACCUSATIVE
- ACCUSATIVE → ACC-PRON | NP

Notice that there is only one rule for expanding ACCUSATIVE. This is because English verbs don't agree with their objects. Thus by accounting for case as well as agreement, we reduce some of the redundancy of our grammar (compare the rules in (36) on page 39 of the textbook).