Name: Eric Wu	**Date:** 4/29

Short Homework Assignment 2

Due April 29 at Midnight

Below, there are three typed feature structures modeled as directed acyclic graphs. **FS1** represents a sentence that has the main verb *agreed*. **FS2** represents a Noun Phase containing the head word *couple*. **FS3** represents a Noun Phrase that begin with the determiner *the*. For this question, do the following:

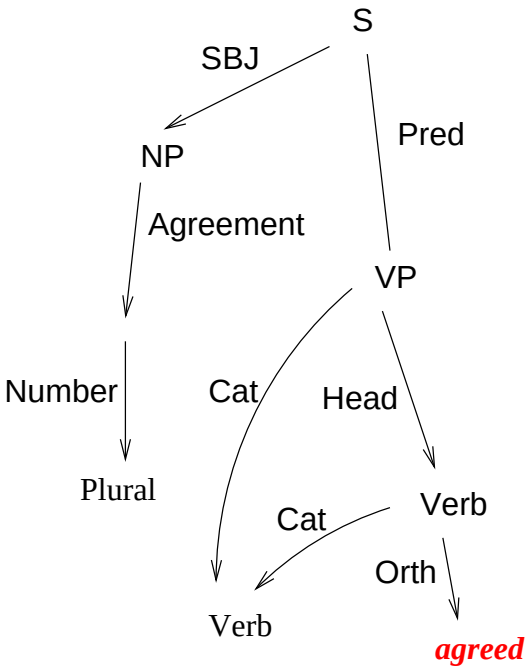
1. Unify **FS2** and **FS3** at the roots. You can do this by redrawing the combined FS $FS2 \sqcup FS3$ or drawing extra edges and labels on **FS2** or **FS3** in the figure. The result will be a representation of the phrase *the couple*.

2. Unify the result of the previous step (i.e., $FS2 \sqcup FS3$) with the graph rooted at NP in **FS1**. Once again, you can either draw a new sentence DAG or you can modify **FS1** on the test to reflect this change. The result will be a representation of the sentence *the couple agreed*. Note that *couple* is a word that can act, in some respects, as if it is either a singular or a plural noun.

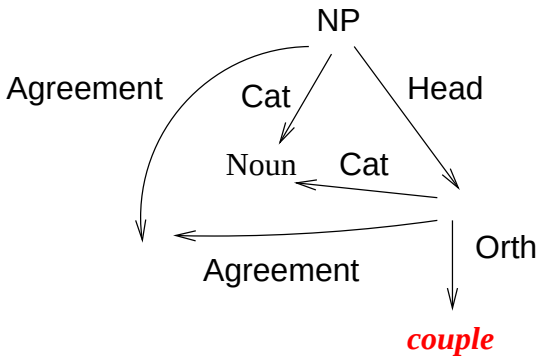
Please scan your drawings of parts 1 and 2 and submit through NYUClasses (.pdf file only). To be clear, the submission can either be: (i) a printout of the question, with additional graphs or parts of graphs added; or (ii) a new sheet of paper with your drawn graphs. You can draw this by hand or use graphics software (xfig, photoshop, etc.), at your discretion.

3 Typed Feature Structures

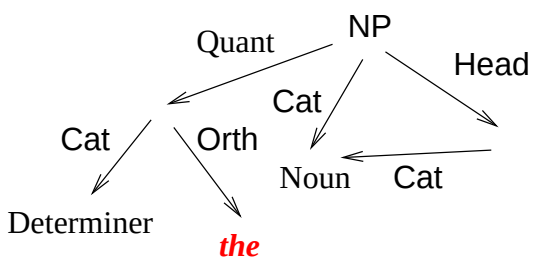
FS1



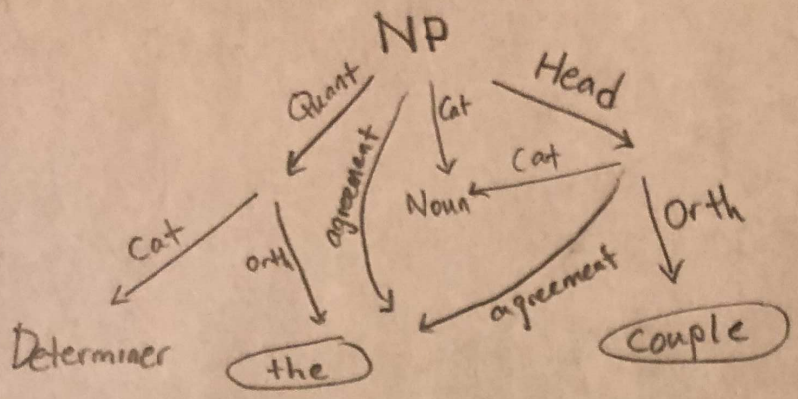
FS2



FS3



1. FS2 ⊔ FS3



2. FS1 ⊔ (FS2 ⊔ FS3)