Übung 7

Today's Übung deals with the implementation of a *bottom-up chart parser*. In

```
~cornell/uebung7.pl
```

you will find all the code you need, except for the implementation of `close_chart` and the inference rules. The code in `earley3.pl`, handed out in class yesterday, will be a helpful model.

Bottom up chart parsing is simpler than Earley parsing. The Scan rule is not needed, nor is the Complete-Left rule. The Predict rule is different, however.

$$\frac{[B \longrightarrow \gamma\bullet, i, j]}{[A \longrightarrow B \bullet \beta, i, j]} (A \longrightarrow B\beta)$$

Only completed items will be used to generate new consequences. (That's what makes it bottom up.) You do not need to do anything with active items on the agenda except add them to the chart (if they are not there already).

In my home directory you will also find

```
~cornell/lexicon.pl
```

and

```
~cornell/grammar7.pl
```

which you can use for testing. Or you can make up your own.

This parser will work for grammars with features, for the most part, if you want to play around with parsing augmented phrase structure grammars. The files in my home directory associate parse tree "features" with all the categories, for example.