Natural Language Tutorial Exercise I

Week beginning 17 February 1986

1. Draw a finite state machine (FSM) for the following sentences:

   A noble king will introduce a rich count to a kind princess.

   The kind king may introduce a rich princess to a noble count.

   This rich king will introduce that noble princess.

   A rich king may introduce a noble count to a rich princess.

2. What are the limitations of this method of representation, and what changes could be made to the FSM mechanism to increase its power?

3. Draw syntax tree structures for the following sentences:

   Ortcutt watched the man with the binoculars.

   Very old men and women should not work.

4. Discuss the problems that could arise in parsing these sentences with a recursive transition network (RTN) and describe one method of coping with them.