Some notes for 610 week 2

-Classic  $\Sigma$ ,F grammars encoded both hierarchy and linear order. Starting in the early 1980's, this was more and more called into question, with the modern assumption being that syntax is fundamentally just about hierarchy. Linear order is imposed for 'interface' reasons.

-Chomsky's stated arguments against Markov processes and for  $\Sigma$ ,F grammars involve (as they must) infinite languages. But the theory of human language syntax he develops does not, in fact, have  $\Sigma$ ,F generation of infinite languages. There is no 'recursion in the base'.

- $\Sigma$ ,F grammars automatically impose structure on the strings they generate. Usually this is of great benefit. But there are cases where we really seem to want 'flat' structure (maybe "the old old old ... man"). There is no way to do this with a  $\Sigma$ ,F grammar. Chomsky made this point a few times in the early 1960's, in solo work and in joint work with George Miller.

 $-\Sigma$ , F derivations have a Markovian character in one crucial sense: The next line is determined solely by the current line. There is no 'look back' or 'look ahead'.

-F here is 'context free'.  $X \rightarrow Y$  is not restricted to apply only in certain contexts. (That obviously causes problems when we get to the members of F that insert lexical items, as surrounding context clearly is crucial for, say, distinguishing transitive and intransitive verbs.)