

## Some notes for 610 week 2

-These days, strictly binary branching is widely assumed. That wasn't the case originally. Later, we will briefly look at that development (and much more next semester).

-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 ... man"). There is no way to do this with a  $\Sigma, F$  grammar. [I finally found one place where Chomsky said this: His 'On the notion "rule of grammar"' 1961 (available in the course box in MMH 1401).]

- $\Sigma, F$  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.)