

Some notes for 610 week 2

-In SSR, p.16, in discussing (41) and (43), examples of 'mirror-image' type languages, I say something which is, at best, misleading: "The presence of one symbol depends on the presence of another that's an arbitrary distance away in the string, a state of affairs that's beyond the bounds of finite-state description." As stated, this is false. We saw that with the really, really, ... sings ex. on the HO on dependencies. What is true is that unbounded dependencies containing other unbounded dependencies in an unlimited fashion are beyond finite-state description. And **that's** the situation with the mirror image type languages.

-Classic Σ, 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 Σ, F grammars involve (as they must) infinite languages. But the theory of human language syntax he develops does not, in fact, have Σ, F generation of infinite languages. There is no 'recursion in the base'.

- Σ, F grammars automatically impose structure on the strings they generate. Usually this is of great benefit, since syntactic transformations are so overwhelmingly structure dependent (and phonology and semantics also care about structure). 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 Σ, F grammar. [One place where Chomsky said this: His 'On the notion "rule of grammar"' 1961. He and George Miller also discussed this issue.]

- Σ, 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.)

