Generative grammar  A generative grammar for a language $\alpha$ aims to capture which sentences are grammatical and which are ungrammatical in $\alpha$. A generative grammar consists of a set of PSRs, a set of TRs and a lexicon.

Phrase Structure Rule (PSR)  A rule type used in generative grammar. A PSR has the schematic form $X \rightarrow Y Z$, which reads “An X may consist of a Y followed by a Z”. Each PSR corresponds to a part of a syntactic tree, in this case to: 

Given a tree like this, we say that X is the mother of Y and Z, that Y and Z are daughters of X, and that Y and Z are sisters. The terminology extends to aunts, grandmothers and granddaughters. Note that only one symbol may appear on the left side of the arrow (this has to do with the single mother restriction I mentioned in class) and that the relative linear order of the daughters, here Y and Z, is also fixed by the PSR (this has to do with the no crossing branches condition also mentioned in class).

Transformational rule (TR)  We’ll get to that next week.

Lexicon  A set of words (ultimately all the words of a language) and their associated part of speech. For now we will represent this as follows:

\[
N = \{\text{Harry, Sally, \ldots}\} \\
V = \{\text{slept, wept, \ldots}\} \\
A = \{\text{happy, lockable, \ldots}\} \\
\ldots
\]

Generate  A generative grammar generates a set of sentences, namely all those sentences that result from applying the rules of the grammar (PSR and TR) and inserting elements from the lexicon.

Overgenerate  A generative grammar overgenerates when it generates ungrammatical sentences.

Undergenerate  A generative grammar undergenerates when it fails to generate grammatical sentences.

(Constituent) Structure  The tree diagram associated with a sentence.

Ambiguity  When a linguistic expression (typically a sentence) has more than one meaning it is ambiguous. For the purposes of this class we distinguish three kinds of ambiguity: pragmatic, lexical, and structural. See LF p. 188-189 for examples and discussion.

Part of Speech  The syntactic category associated with each element in the lexicon. If a word has different uses that involve different syntactic categories — like walk, which can be used as a verb (V) or a noun (N) — then the word appears several times in the lexicon, once for each of its syntactic categories. For now we recognize the following parts of speech: noun (N), verb (V), adjective (A), preposition (P), adverb (Adv), and determiner (D). See LF pp. 195–196 for discussion and useful diagnostics.