

Aux and Functional Composition

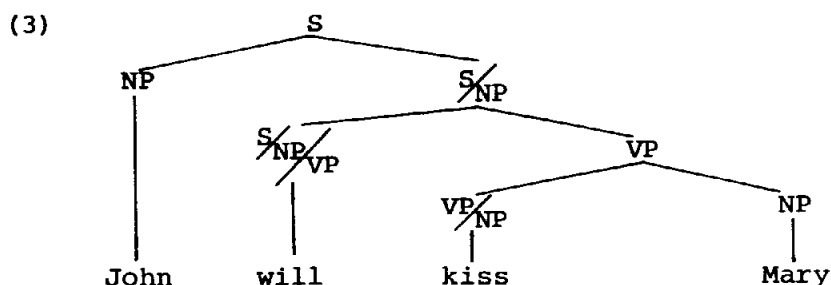
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We have shown that a proper treatment of Aux requires the operation of *functional composition* (FC). We defined FC, as contrasted with *functional application* (FA), in terms of the categorial grammar developed by Bach (1983), as follows:

- (1) a. FA: If $\alpha \in P_{a/b}$ and $\beta \in P_b$, then $\alpha\beta \in P_a$
 b. FC: If $\alpha \in P_{a/b}$ and $\beta \in P_{b/c}$, then $\alpha\beta \in P_{a/c}$
 where P_i is the set of the expressions with the category i

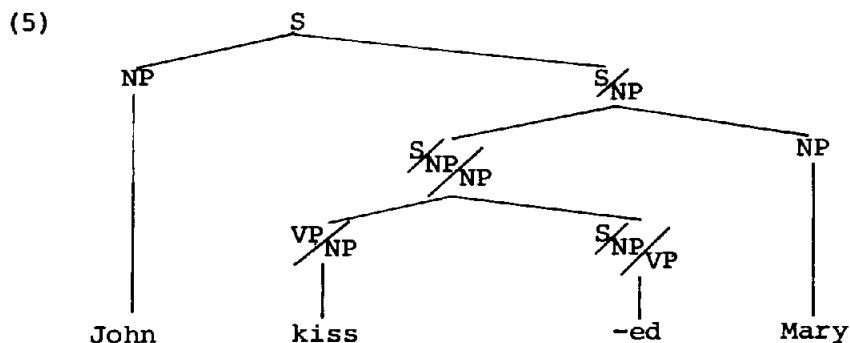
Thus, a sentence like (2) below illustrates FA as shown by (3).

(2) John will kiss Mary.



And a sentence like (4) illustrates FC as in (5).

(4) John kissed Mary.



As is clear from the illustration just sketched above, there need be no categorial distinction between an auxiliary 'word' like *will* and auxiliary 'affix' like *-ed*.

We have also shown that this line of analysis naturally extends to non-auxiliary-like affixes such as the gerundive *-ing* and to such constructions as pseudopassives and activo-passives. Furthermore, and which is important, this theory has a far-reaching effect on the analysis of Japanese; this language seems to receive a natural explanation of such a problematic contrast as (6)-(8):

- (6) a. Sore-ga Aux-ga/no erabareta wake-da.
 "That is the reason Aux was chosen."
- b. Sore-de Aux-ga/*no erabareta wake-da.
 "That explains the reason Aux was chosen."
- (7) a. Sore-ga Aux-ga erabareta hontou-no wakeda.
 "That is the real reason Aux was chosen."
- b. *Sore-de Aux-ga erabareta hontou-no wakeda.
 "That explains the real reason Aux was chosen."
- (8) a. Sore-ga Aux-ga erabareta wake-datta.
 "That was the reason Aux was chosen."
- b. *Sore-de Aux-ga erabareta wake-datta.
 "That explained the reason Aux was chosen."

The Japanese a-sentences represent FA and the b-sentences, FC.