Notes on Ross 1970 “Gapping and the Order of Constituents”

(1) (a) *I ate fish, Bill ate rice, and Harry ate roast beef*
(b) *Tom has a pistol, and Dick has a sword*
(c) *I want to try to begin to write a novel, and Mary wants to try to begin to write a play*

(2) (a) *I ate fish, Bill rice, and Harry roast beef*
(b) *Tom has a pistol, and Dick a sword*
(c) *I want to try to begin to write a novel, and*

$$\textit{Mary} \left\{ \begin{array}{r} \textit{to try to begin to write a play} \\ \textit{to begin to write a play} \\ \textit{to write a play} \\ \textit{a play} \end{array} \right.$$

This rule operates to delete indefinitely many occurrences of a repeated main verb in a conjoined structure. The problem of formulating the rule so that it will convert (1c) into any of the sentences in (2c) has not been solved, and seems to require an *ad hoc* abbreviatory convention: I know of no other rules which make use of this convention. There are many other problems that are connected with GAPPING: note, *e.g.*, that the sentences in (3) cannot be converted into those in (4).

(3) (a) *I didn't eat fish, Bill didn't eat rice, and Harry didn't eat roast beef*
(b) *They have been arrested, and we have been being followed*
(c) *I want Bob to shave himself, and Mary wants Bob to wash himself*

(4) (a) **I didn't eat fish, Bill rice, and Harry roast beef*
(b) **They have been arrested, and we (been) being followed*
(c) **I want Bob to shave himself, and Mary to wash himself*

Note that GAPPING operates only forward in English — that is, in *n* conjoined sentences, it is the leftmost occurrence of the identical main verb that causes the *n-1* following occurrences to be deleted. In Japanese, an SOV language, exactly the opposite is the case — it is the rightmost verb among *n* identical verbs that is retained. Thus (5a) becomes (5b).

(5) (a) *watakusi wa sakana o tabe, Biru wa gohan o tabeta*
I (prt) *fish* (prt) *eat, Bill* (prt) *rice* (prt) *ate*
(I ate fish, and Bill ate rice)
(b) *watakusi wa sakana o, Biru wa gohan o tabeta*
I (prt) *fish* (prt), *Bill* (prt) *rice* (prt) *ate*
(I ate fish, and Bill rice)

Schematically, sentences of the form (6a) are converted to sentences of the form (6b), and sentences of the form (7a) are converted to sentences of the form (7b).

(6) (a) SVO + SVO + SVO + ... + SVO ⇒
(b) SVO + SO + SO + ... + SO

(7) (a) SOV + SOV + SOV + ... + SOV ⇒
(b) SO + SO + ... + SO + SOV

(8) The order in which GAPPING operates depends on the order of elements at the time that the rule applies; if the identical elements are on left branches, GAPPING operates forward; if they are on right branches, it operates backward.

Russian has freer word order than English or japanese, and allows both forward and backward Gapping:

(9) (a) *ja pil vodu, i Anna pila vodku*
(I drank water, and Anna drank vodka
(b) *ja vodu pil, i Anna vodku pila*
I water drank, and Anna vodka drank
(I drank water, and Anna drank vodka)

(10) (a) *ja pil vodu, i Anna vodku*
(I drank water, and Anna vodka)
(b) *ja vodu, i Anna vodku pila*
I water, and Anna vodka drank
(I drank water, and Anna vodka)

(11) SCRAMBLING OPTIONAL
GAPPING OPTIONAL

But there is a third sentence, of a type not found in English or Japanese, which can be derived from the deep structure underlying the sentences in (9).

(12) *ja vodu pil, i Anna vodku*
I water drank, and Anna vodka
(I drank water, and Anna vodka)

This sentence is of the schematic form shown in (13):

(13) SOV + SO + SO + ... + SO

At least superficially, (12) provides counterevidence for the hypothesis stated in (8), for GAPPING has operated forward, despite the fact that the verb is on the right branch of the first conjunct. Must the hypothesis then be abandoned?

Ross proposes a clever solution, a specific instantiation of something that became standard a little later: free ordering of the relevant rules:

If we assume that Russian has the deep structure order SVO, and that GAPPING is an 'anywhere rule' — *i.e.*, a rule that can apply at any point in a derivation[3] — then sentences like (10a), (10b), and (12) will be derivable from the deep structure underlying the sentences in (9), but no sentence of the form (14) will be. For if GAPPING is an anywhere rule, it will be able to apply before and after SCRAMBLING, as shown in (15), and the derivations of (10a), (10b) and (12) will proceed as shown in (16).

(15) GAPPING OPTIONAL
SCRAMBLING OPTIONAL
GAPPING OPTIONAL

(16) (a) Base: SVO + SVO $\overset{\textit{Forward Gapping}}{\Rightarrow}$ SVO + SO [=(10a)]

(b) Base: SVO + SVO $\overset{\textit{Scrambling}}{\Rightarrow}$ SOV + SOV $\overset{\textit{Backward Gapping}}{\Rightarrow}$ SO + SOV [=(10b)]

(c) Base: SVO + SVO $\overset{\textit{Forward Gapping}}{\Rightarrow}$ SVO + SO $\overset{\textit{Scrambling}}{\Rightarrow}$ SOV + SO [=(12)]

<Note that this implies what LSLT assumed: That ellipsis processes are transformations, rather than post-syntactic operations.>