

Embedded gapping

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I show that, in a number of languages, gapping can occur in embedded clauses. I argue that this provides support for a movement plus deletion analysis of gapping. The ability of gapping to be embedded in a given language depends on the locus of the ellipsis-licensing feature and existence of a landing site for moved constituents sufficiently high in the embedded clause.

Gapping is a construction, discovered and named by Ross (1970), where the finite verb is missing from the clause, (1a). It is fairly common cross-linguistically, (1b).

(1) a. *Some will eat beans and others, ~~will eat~~ rice.* Johnson (2009)

b. *giam šeč'ama vašli rezom = k'i šeč'ama mč'adi*
 Gia ate apple Rezo=CTR ate mchadi

'Gia ate an apple, and Rezo a mchadi.' Georgian

Gapping in embedded clauses. Famously, English and a number of other well-studied languages disallow gapping in embedded clauses, Hankamer (1979) and the subsequent literature:

(2) **Some ate mussels, and she claims that others ate shrimp.* Johnson (2009)

However, the ban on embedding is not universal: adding to the work on Persian by Farudi (2013), I show that embedded gapping occurs in a number of languages including Georgian, (3), as well as Ossetic, Moroccan Arabic, and Russian. Note that in (3) a complementizer is present in the clause that hosts gapping, which shows that it's indeed an embedded clause rather than a quotation.

(3) *ia svams čai-s da vpikrob [rom uča svams ywino-s]*
 Ia drinks tea-DAT and I.think COMP Ucha drinks wine-DAT

'Ia drinks tea and I think that Ucha (drinks) wine.'

Previous Analyses of Gapping. A number of accounts, starting from Jayaseelan (1990), assume that the material that survives gapping moves out of the constituent to be deleted, as shown in (4).

(4) *Some will eat beans and [others rice $\{_{XP} \text{will} \{_{VP} \{_{VP} \text{eat} t_{rice}\}}\}]$*

Some of them, e.g. Aelbrecht (2007), Gengel (2013), and Farudi (2013), use the feature-based approach to ellipsis licensing initially developed by Lobeck (1995) and Merchant (2001). An alternative account of gapping in English, Johnson (2009), analyzes it as a result of vP coordination and across the board movement of the two vPs. The sentence in (1a) is thus parsed as

(5) $[_{TP} \text{some} [_{TP} \text{will} [_{XP} \text{eat} [_{VP} [_{VP} \text{beans} [v [_{VP} t_{VP}]] \& [_{VP} \text{others} [_{VP} \text{rice} [v [_{VP} t_{VP}]]]]]]]]]$

This automatically rules out backwards gapping (assuming that movement proceeds leftwards) and embedded gapping (assuming that a TP from a matrix clause may not dominate a vP from an embedded one). Accordingly, such an analysis is unable to account for the embedding data in (3).

Proposal. I use the basic insight of earlier "move and delete" proposals and assume that, in languages that allow embedded gapping, it results from movement of surviving constituents and deletion of the XP they moved from. The size of the deleted XP may vary: e.g., it may be a TP, vP, or VP. The feature E that triggers deletion is hosted either by $\&^0$, i.e. the head of the conjunction phrase, or a head *within* the clause where gapping occurs. To trigger deletion, the head that bears the ellipsis-licensing feature E must agree with the head whose complement is to be deleted. This differs from the proposal of Aelbrecht (2010) in that probing is assumed to proceed downwards.

(6) $H^0[E] \quad DO \quad [XP \quad [... V^0 t_{DO}] \dots]$
 Agree

The content of the feature E is the following: it imposes a condition on matching between the ellipsis site and the antecedent (I stay agnostic about the precise form of this condition), and requires deletion of the complement of the XP that the HP, the locus of E, agrees with. If the gapping site is *embedded* and the feature E is hosted by $\&^0$, agreement fails for locality reasons. This failure can be obviated if movement out of CPs is possible (as proposed by Farudi 2013). However, if a language exhibits embedded gapping, but prohibits movement out of finite clauses, a feature hosted by $\&^0$ would be unable to license gapping, for locality reasons. This is the case in Georgian: it exhibits gapping, (1b), but bans long distance movement, Harris (1981). Therefore, we are forced to conclude that, in such cases, the licensing feature must be located *within* the clause where gapping occurs. On the other hand, if, in a given language, the left periphery of embedded clauses lacks a landing site for the movement that would feed gapping, as happens in Turkish, Ince (2009), the locus of the E feature can't be determined empirically: gapping won't occur in embedded clauses anyway. If the E feature is placed on a head within the clause itself, and the left periphery of embedded clauses is rich enough, gapping is predicted to occur in embedded clauses. Given the obligatory contrast present in gapping structures, I propose that in such languages the E feature is located on the X^0 (spelled out as *k'i* in Georgian) whose Spec is the contrastive topic:

- (7) A: *gias xorci uq'vars* B: *diax, ias*(=k'i) tevzi uq'vars*
 Gia meat likes yes Ia=CTR fish likes
 'Gia likes meat.' 'Yes, (and) Ia (likes) fish.'

Predictions. This analysis makes a number of correct predictions for languages with low placement of gapping-licensing feature, such as Georgian. First, **backward gapping** is predicted to be grammatical: gapping in such languages should behave fairly similarly to sluicing, (8).

- (8) *me viq'idi xils šen=k'i iq'idi ywinos*
 I will.buy fruit you.SG=CTR you.will.buy wine
 'I (will buy) fruit and you will buy wine.'

Additionally, (8) demonstrates that backward gapping is not an instance of RNR: the gapped verb and the antecedent may mismatch in phonological form; nor does the verb have to be the rightmost in the conjuncts, contrary to what's expected from RNR, Hartmann (2000).

Second, the antecedent and the gap are predicted to be **embeddable in separate matrix clauses**:

- (9) *me darc'mnebuli var [rom rezom sp'ilo abanava]*
 I sure am COMP Rezo elephant bathed
čemi coli=k'i amt'k'icebs [rom guramma behemot'i]
 my wife=CTR claims COMP Guram hippo

'I am sure that Rezo washed an elephant and my wife claims that Guram (washed) a hippo.'

Furthermore, gapping is predicted to be **embeddable in islands**, e.g. in a complex NP:

- (10) *učas nino uq'vars da xmebi momivida [rom zuras rusudani]*
 Ucha Nino loves and rumors came.to.me COMP Zura Rusudan
 'Ucha loves Nino, and rumors reached me that Zura (loves) Rusudan.'

Conclusion. A wider implication of the findings reported here concerns the status of gapping or pseudo-gapping, under this approach, they correspond to different combinations of parameters, as a valid theoretical notion: if my proposal is correct, the type of the ellipsis is determined by the location of the licensing feature and the size of the constituent that is deleted. Descriptively, gapping under this view becomes a mirror image of verb stranding VP ellipsis, Goldberg (2005): instead of evacuating the verb out of a VP and then deleting the remnant constituent, it is DPs that raise out of the (possibly extended) VP, which then undergoes deletion.