Gapping

New topic for next week: strict&sloppy readings; new reading available on MyCourses!

1 Some basic characteristics of gapping

Reminder:

(1) Mary invited John, but Abby didn't ~~invite John~~.   VP ellipsis

(2) Mary invited John, and Abby will ~~invite~~ Tim.   pseudogapping

(3) Mary invited John, and Abby ~~invited~~ Tim.   gapping

"Gapping involves a conjunction of two XPs, where the second conjunct contains a gap, which is interpreted as identical to the verb in the first conjunct." [Vanden Wyngaerd (1999:2)]

The remnant constituent and its correlate in the antecedent are contrasted and bear stress.

Properties of gapping:[1]

- Gapping occurs in coordinate structures, but is disallowed in subordinate clauses, unless the coordination structure is embedded as a whole:

  (4) a.   Peter likes bananas, and Jessica ~~likes~~ pears.
       b. * Peter likes bananas, while Jessica ~~likes~~ pears.
       c. * Peter likes bananas, because Jessica ~~likes~~ pears.
       d. * Peter likes bananas, though Jessica ~~likes~~ pears.
       e.   I think [that Peter likes bananas, and Jessica ~~likes~~ pears].
       f. * Peter likes bananas, and I think that Jessica ~~likes~~ pears.
       g. * I think that Peter likes bananas, and he knows that Jessica ~~likes~~ pears.

- Gapping can elide more than just a main verb

  (5) a. John came to my office on Tuesday, and Bill ~~came to my office~~ on Wednesday.
       b. John gave Sue a book and ~~(John) gave~~ Mary a flower.
           (NB: *...and Mary ~~gave Sue~~ a flower.)
       c. John writes poetry in the garden, and Max ~~writes poetry~~ in the bathroom.

- Neither the antecedent constituent nor the gapped constituent may be embedded within finite clauses.

  (6) a. * John ate apples, and Mary claimed that Tom ~~ate~~ bananas.
       b. * John thinks that Bill will see Susan, and Harry ~~thinks that Bill will see~~ Mary.

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[1]These come from different parts of the literature, not just from Johnson (2009).

- Prepositions cannot be deleted.

  (7) John talked about Bill, and Mary *(about) Susan.

- Negation and modals that appear in the antecedent VP scope over the gapped VP, as well.

  (8) Ward can't eat caviar and Sue beans.
       a. Ward can't eat caviar and Sue can't eat beans.
       b. It can't be that [Ward eats caviar and Sue eats beans].
  (9) Kim didn't play bingo and Sandy sit at home all evening.
       a. Kim didn't play bingo and Sandy didn't sit at home all evening.
       b. It's not the case that [Kim played bingo and Sandy sat all evening]

- Gapping exhibits so-called cross conjunct binding:
  The subject of the first conjunct can bind a pronoun in the second conjunct. This binding relation is not available if the verb is not gapped in the second conjunct.

  (10) a.   No woman$_1$ can join the army and her$_1$ girlfriend ~~join~~ the navy.
        b. * No woman$_1$ can join the army and her$_1$ girlfriend can ~~join~~ the navy.

- A gap cannot precede its antecedent.

  (11) * Jessica ~~likes~~ pears, and Peter likes bananas.

- A gapped clause cannot contain a negative adverb and is odd with modal adverbs:

  (12) a. * Peter likes bananas, but Jessica not ~~like~~ pears.
        b. ?* Peter likes bananas, and Jessica probably ~~likes~~ pears.

2 Gapping is similar to VP-ellipsis in some ways

We might think of gapping as VP-ellipsis (specifically, as similar to pseudogapping, which is derived via VP-ellipsis), with the object first moved out of the VP e.g. via Heavy NP Shift.

(13) a. Some have served mussels to Sue and others swordfish.   gapping
      b. Some have served mussels to Sue and others have swordfish.   pseudogapping

(14) a. ... and others [$_{VP}$ [$_{VP}$ have [$_{VP}$ ~~served t_1 to Sue~~]] swordfish$_1$]
      b. ... and others [$_{VP}$ [$_{VP}$ have [$_{VP}$ ~~served t_1 to Sue~~]] swordfish$_1$]

The identity conditions on pseudogapping play a part in the identity conditions on gapping as well.

- Just as VP-ellipsis fixes scope ambiguities, so does gapping.

(15) a. A student will talk to every alumna (and a dean will, too).
      b. A student will talk to every alumna first and a dean will immediately afterwards.
      c. A student will talk to every alumna first and Dean Edwards will immediately afterwards.

(16) A student will talk to every alumna first and Dean Edwards immediately afterwards.

- Dahl's puzzle: when an ellipsis has two pronouns in it, the first cannot have a strict interpretation if the second has a sloppy interpretation. All other combinations of interpretations are possible.

- Coppock (2001): Gapping shows the same behavior.

(17)　James said he'd rob his constituents and Peter did too.　　　　　　　VP-ellipsis
　　a.　James said, "I will rob my constituents," and Peter said, "I will rob my constituents," too.
　　b.　James said, "I will rob my constituents," and Peter said, "James$_1$ will rob his$_1$ constituents," too.
　　c.　James said, "I will rob my constituents," and Peter said, "I will rob James's constituents," too.
　　d.　* James said, "I will rob my constituents," and Peter said, "James will rob my constituents," too.

(18)　James will explain how he'd robbed his constituents to the police detectives and Peter will to the federal prosecutors.　　　　　　　pseudogapping
　　a.　James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how he$_2$'d robbed his own constituents.
　　b.　James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how James$_1$ had robbed his$_1$ constituents.
　　c.　? James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how he$_2$'d robbed James$_1$'s constituents.
　　d.　* James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how James$_1$ had robbed Peter$_2$'s constituents.

(19)　James will explain how he'd robbed his constituents to the police detectives and Peter to the federal prosecutors.　　　　　　　gapping
　　a.　James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how he$_2$'d robbed his own constituents.
　　b.　James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how James1 had robbed his$_1$ constituents.
　　c.　? James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how he$_2$'d robbed James$_1$'s constituents.
　　d.　* James$_1$ will explain how he$_1$'d robbed his own constituents and Peter$_2$ will explain how James$_1$ had robbed Peter$_2$'s constituents.

3　Gapping is not the same as VP-ellipsis[2]

Although gapping shares several similarities with pseudogapping and VPE, there are many ways in which they are different.[2]

Gapping must be followed by lexical material, VPE need not:

(20)　a.　Mary took Ling 201 at McGill, and Sue ~~took Ling 201~~ *(at Harvard).　　gapping
　　b.　John talked to Bill on Tuesday, but Mary didn't ~~talk to Bill~~ (until Wednesday)　　VPE

Gapping cannot occur in subordination, but VPE can:

(21)　a.　Mary took Ling 201 at McGill, and/*though Sue ~~took Ling 201~~ at Harvard.　　gapping
　　b.　Mary met Bill at McGill, and/though Sue didn't ~~meet Bill at McGill~~.　　VPE

Gapping must follow its antecedent, VPE need not.

(22)　a.　* Sue ~~ate~~ meat, and John ate fish.　　gapping
　　b.　Because Sue didn't ~~eat meat~~, John ate meat.　　(VPE)

VPE acts on phrases, but Gapping need not:

(23)　a.　Mary met Bill (at McGill) and Sue ~~met (Bill)~~ $\left\{ \begin{array}{c} \text{Steve} \\ \text{at Harvard} \end{array} \right\}$[3]　　gapping
　　b.　* Mary will meet Bill at McGill because she didn't ~~meet~~ John.　　VPE

VPE is OK across speakers, but gapping is said not to be (Williams, 1977):[4]

A:　John caught a big fish.
B:　a.　* Yes, and Mary a small one.　　gapping
　　b.　Yes, but Mary didn't ~~catch a big fish~~.　　VPE

VPE is OK inside a complex NP, but gapping is not:

(24)　a.　* The theory that dogs hate cats is compatible with [$_{NP}$ the theory that cats ~~hate~~ dogs].　　gapping
　　b.　The man who likes meat met [$_{NP}$ the woman who doesn't ~~like meat~~].　　VPE

Chao (1987) says gapping cannot be pragmatically licensed, but VPE can be, contra Hankamer and Sag (1976).

(25)　[Hankamer produces an orange, proceeds to peel it, and just as Sag produces an apple, says:]
　　#And Ivan, an apple.　　gapping

(26)　a.　You shouldn't have []!
　　b.　Don't [].
　　c.　I will [] if you do [].　　VPE

VPE is possible in embedded contexts, but gapping is not.

(27)　a.　* Mary ate mussels and she claims that John ~~ate~~ shrimp.　　gapping
　　b.　Mary ate mussels and she claims that John did ~~eat mussels~~, too.　　VPE

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[2]Here I will just show data from VPE, not pseudogapping, but Johnson shows some data from pseudogapping in his paper.

[3]Note that it must be one of these two options, but not both, that survives gapping.
[4]Is that true?

4 Across the board movement

Across-the-board (ATB) movement: mvt of the *same constituent* out of two different conjuncts.

Ross (1967) proposes the Coordinate Structure Constraint:

(28) In a coordinate structure,
    a. no conjunct may be moved,
    b. nor may any element contained in a conjunct be moved out of the conjunct.

The relevant part here is the second part of the SCS, which prevents movement out of a conjunct in a coordinate structure. This explains why (29) is bad:

(29) a. * I wonder what$_1$ [John bought t_1] and [Peter sold a house].
   b. * Should$_1$ [John t_1 buy a car] and [Peter might sell a house]?

In certain constructions the CSC does not apply: if the same constituent is moved out of each conjunct in a coordinate structure, the effect of the CSC is voided. Ross (1967) refers to this type of extraction as "across the board" movement

(30) a. I wonder what$_1$ [John bought t_1] and [Peter sold t_1].
    b. Should$_1$ [John t_1 buy a car] and [Peter t_1 sell a house]?

5 Johnson (2009): Gapping is not (VP)-ellipsis

Johnson (2009): Gapping involves ATB movement, not ellipsis.

(31) Some will eat beans and others rice.
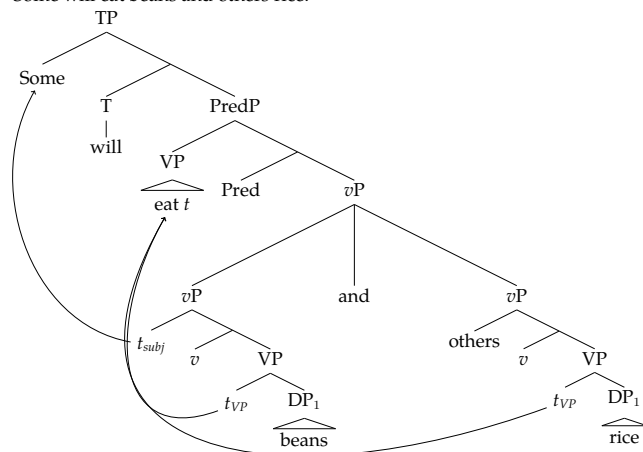
Here, gapping involves the **coordination of two vPs** (a "low coordination"). The identical verb phrase headed by *eat* in the two conjuncts undergoes **ATB movement to the specifier of Predication Phrase**. The subject of the first conjunct, *some*, moves to the specifier of TP.

It is possible to move an object out of the VPs before the ATB movement, here *beans* and *rice*. It is also possible to ATB-move an entire VP, if something else remains in the coordinated VPs.

(32) [$_{TP}$ Some will [$_{PredP}$ [$_{VP}$ eat beans]$_1$ [$_{vP}$ t [$_{VP}$ t on Friday]], and [$_{vP}$ others [$_{VP}$ t on Saturday]]]].

The reasons we thought gapping was like VP-ellipsis were, in fact, an illusion. The same restrictions on Dahl's puzzle occur with ATB movement.[5]

(33) It's [$_{VP}$ explain how he'd robbed his constituents] that James can and Peter can't.
    a. James$_1$ can explain how he$_1$'d robbed his own constituents and Peter$_2$ can't explain how he$_2$'d robbed his own constituents.
    b. James$_1$ can explain how he$_1$'d robbed his own constituents and Peter$_2$ can't explain how James$_1$ had robbed his$_1$ constituents.
    c. ? James$_1$ can explain how he$_1$'d robbed his own constituents and Peter$_2$ can't explain how he$_2$'d robbed James$_1$'s constituents.
    d. * James$_1$ can explain how he$_1$'d robbed his own constituents and Peter$_2$ can't explain how James$_1$ had robbed Peter$_2$'s constituents.

This analysis captures some properties of gapping, e.g.:

- Gapping is acceptable in coordinations but not in subordinations, because ATB movement is only possible in coordination structures.

- Modals and negation that appear in the first conjunct can scope over the second conjunct, as well, because the under the tree structure of (31), modals and negation are in a position that c-commands the two coordinated vPs.

- The cross-conjunct binding is predicted by this analysis, as well, since the subject of the first conjunct moves to Spec of TP, c-commanding the subject in the second conjunct.

Question: Are all of the properties of gapping from above predicted by this?

References

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[5]But the restriction on strict/sloppy identity are more difficult to test with ATB movement.