Gapping[*]

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1 Introduction

Gapping is an ellipsis in which a verb is removed in one, or more, of a series of coordinations. (1) demonstrates.

(1)   Some ate beans and others, rice.

The name comes from Ross (1970), who appears to be the first to have systematically studied the process. The set of cases for which Gapping is responsible remains controversial, though there is consensus on a certain range of them. A more-or-less standard criterion is that Gapping occurs only in coordinate structures. The two main candidates that don't meet this requirement, but which nonetheless superficially appear to be instances of Gapping, are list-like answers to questions, like those in (2), and comparative constructions, like those in (3).

(2)   Q: Who met who?
       A: Jerry, Sarah; Sally, Mark; Trish, Betsy
(3)   Sally met more parents than Tom, kids.

Many treatments of Gapping – most modern ones – leave these cases out, and so shall I in what follows. See Merchant (2004) for an examination of the instances of answers, and Lechner (1998, 2001a,b, 2004) for an account of how to extend Gapping to the cases of comparatives.

   If Gapping is restricted to coordinations, then one task is to determine whether Gapping is a special instance of one of the many forms of ellipsis found in coordinations, or, if it isn't, how to distinguish it from the others. This problem looms large

because Gapping is commonly credited with being able to elide more than just the finite verb. Ross, for example, gave it the ability to elide the quite remarkable set of strings in (4).

(4)   a.   I want to try to begin to write a novel and Mary ~~wants to try to begin to write~~ a play.

       b.   ? I want to try to begin to write a novel and Mary ~~wants to try to begin~~ to write a play.

       c.   ? I want to try to begin to write a novel and Mary ~~wants to try~~ to begin to write a play.

       d.   ? I want to try to begin to write a novel and Mary ~~wants~~ to try to begin to write a play.

                                                                    (Ross 1970, (2c): 250)

(Strike-outs will indicate elided material from here out.) In fact, however, there is a sharp degradation in these particular examples that favors (4a) over the others. I suspect this is because in (4b-c) there is material left behind by Gapping that matches material in the antecedent clause; in general, these 'remnants' must contrast with parallel terms in the antecedent clause, as we shall see below. If this property of (4b-c) is remedied, the result is improved:

(5)   a.   I want to try to begin to write a novel and Mary ~~wants to try to begin~~ to review a play.

       b.   I want to try to begin to write a novel, and Mary ~~wants to try~~ to set out to review a play.

       c.   I want to try to begin to write a novel, and Mary ~~wants~~ to get ready to set out to review a play.

There remains some awkwardness, especially in (5b) and (5c), perhaps because of the strain involved in contrasting so many terms.

2 Ellipsis in coordinations

Nonetheless, in principle the strings in (5) are Gappable, and this raises the possibility that Gapping could figure in a wide range of coordinations. It might be responsible for creating (6a) or (6b).

(6)   a.   Jerry met ~~the kids from OshKosh~~ and Sally scrutinized the kids from OshKosh.

       b.   Sam ate and ~~Sam~~ was put to bed.

(6a) is an example of what Postal (1974) called 'Right Node Raising', which here removes the object of the first conjunct. There are two potential, non-gapping, sources for (6b). It could be that there is an elision process, as indicated, distinct from Gapping which removes material at the edges of a coordinate. That such a process – what Ross (1967) calls 'Forward Conjunction Reduction' – exists has been widely speculated. The other potential source would deny that there is any ellipsis at all, and instead let the VPs *ate* and *was put to bed* conjoin to jointly take *Sam* as subject. Both treatments have their problems, and evidence distinguishing them is difficult to find.[1]

One feature that distinguishes (1), (4), and (5) from (6) is that the clause holding the Gapped material in (1), (4), and (5) contains remnant material at the left and right edges, but this isn't so in (6). Jackendoff (1971) suggests that this should be taken as a defining trait of Gapping.

Restricting Gapping in this way, however, is not how Ross (1970) would have done it. The goal of his paper, in fact, is to defend the thesis that the conjunct in which a verb is Gapped is determined by the linear position that that verb would have had to other terms in its sentence if it hadn't elided.[2] Ross suggests that if the verb would have preceded its complements, then it will Gap from the second, or subsequent, conjuncts, and the first conjunct will hold the antecedent. If the verb would have followed its complements, on the other hand, then it will Gap from the initial conjuncts, and the antecedent will be found in the final one. So, for instance, he suggests that in languages like Japanese and Russian, where a complement may precede its verb, Gapping is responsible for producing sentences such as (7).

(7)   a. Watakusi-wa sakana-o ~~tabe~~ Biru-wa gohan-o tabeta
          I-top   fish-acc   eat   beer-top rice-acc ate
          'I ate fish and Bill rice.'

      b. Ja vodu ~~pila~~   i   Anna vodku pila.
          I water drank and Anna vodka drank
          'I drank water and Anna vodka'

                                                    (Ross 1970, (5b), (10b): 251)

In such cases, of course, the Gapped verb makes up the right edge of the clause it has been elided from, and this violates Jackendoff's criterion.

Further, if Jackendoff's criterion is relaxed, then examples like (8) could also be seen as instances of Gapping.

(8)   Mary left early and Sally ~~left early~~ too.

In this case, the finite verb of the second conjunct would have Gapped along with the adverb *early*, and removed all of the second conjunct except its subject. Gapping

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1 See Dougherty (1970, 1971) and Burton and Grimshaw (1992) among others.
2 See Koutsoudas (1971) for a fuller exploration of this hypothesis.

might also be credited with (9), which could be seen as a special instance of the forward conjunct reduction case in (6b).

(9)   Jill ate rice yesterday and ~~Jill ate~~ porridge today.

Note that unlike (6b), however, the analysis which denies any ellipsis in (9) is less plausible. Such an account would have to treat *rice yesterday* and *porridge today* as constituents.

In fact, Jackendoff's criterion is not generally adopted, and some of these cases are reasonably classed as Gapping. But for examples like (6a), the consensus appears to be that they are not, in fact, Gapping. Some superficial differences between cases of Right Node Raising, and canonical instances of Gapping, like those in (1), are the following.

Gapping allows a mismatch in inflectional class between the Gapped verb and its antecedent; but Right Node Raising resists this:

(10)   a.   He likes beans and you ~~like~~ rice.
        b.   * He always ~~complains~~ and you sometimes complain.

Right Node Raising is able to remove part of a word, as in (11b), but Gapping isn't:

(11)   a.   * Carly is overpaid and Will under~~paid~~.
        b.   Carly is over~~paid~~ and Will underpaid.

Right Node Raising needs the material it elides to make up a contiguous string, but Gapping can (apparently) elide discontinuous strings, as the contrast in (12) illustrates.

(12)   a.   Carrie gave a set of directions to me, and Will ~~gave~~ a map ~~to me~~.
        b.   * Carrie ~~gave~~ a set of directions ~~to me~~, and Will gave a map to me.

And Right Node Raising can strand prepositions, but Gapping can't (a point made in Neijt 1979; see Abe and Hoshi 1997 for an explanation):

(13)   a.   * John is confident of a successful outing and Peter is dependent on a successful outing.
        b.   John is confident of a successful outing and Peter is dependent on a successful outing.

(Neijt 1979, (85a), (16a): 40)

Hankamer (1979, chapter 1) and Maling (1972) argue that finite verb ellipsis in verb-final languages, like Turkish, is actually Right Node Raising. The jury is still out on languages like Japanese, but in general there appears to be no uniformly agreed-upon instance of Gapping applying to delete material in the first conjunct in the way that Ross suggested. A live hypothesis, then, is that Gapping only arises in the second of two conjuncts. (See Hernández (2007, section 6) for a discussion of this issue and

a proposal that links the availability of Gapping to the kind of coordinator a language has. The kinds of coordinators allowed and OV/VO contrast haven't been properly disentangled.)

The cases in (8) and (9), on the other hand, are better candidates for Gapping. The case in (9) can be put together with examples like (14), in which various kinds of phrases follow the left conjunct:[3]

(14)   a. Did you tell John about our plans or Peter?

        b. Sally talked about the meeting passionately and about its consequences too.

        c. James left unhappy today and unappreciated too.

Ross (1967) analyzed these as involving extraposition of a phrase consisting of *and* or *or* and the string that follows it. (14b), for instance, would have a source like *Sally talked about the meeting and about its consequences too passionately*, and would be formed by moving the underlined phrase to the end of the sentence.[4] But Neijt (1979) argues that they derive instead from Gapping; so (14b) would come from something like (15).

(15)   Sally talked about the meeting passionately, and Sally talked about its consequences too.

One of her arguments on behalf of the Gapping interpretation is that it could make sense of the fact that examples like (16) are blocked.

(16)   * That dress has been designed by my grandma and made.

                                          (Neijt 1979, (141a): 64)

There is no obvious reason why this shouldn't be derived from *That dress has been designed and made by my grandma*, under Ross's analysis. But if Gapping must always include the verb, and we shall see evidence for this shortly, then the ungrammaticality of (16) would be explained if its source is Gapping.

Another reason for believing that some form of ellipsis produces examples such as (9) and (14) is that it could also create examples such as (17).

(17)   Betsy wanted to read a book or a magazine.

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3 See Partee and Rooth (1983) for a description of this ambiguity and an analysis that stands as an alternative to the one based on Gapping described here.

4 Chinese has the interesting property of favoring instances of Gapping like these over the more familiar ones in (1), suggesting that these two cases are not completely identical. See Paul (1999) and Tang (2001) for discussion.

(17) has a meaning which is suggestive of such a source.[5] On one reading, (17) describes a particular desire that Betsy has: she desires to read something that is either a book or a magazine. But on another of its readings, (17) is synonymous with (18), which claims that Betsy has one or the other of two desires:

(18)   Betsy wanted to read a book or Betsy wanted to read a magazine.

This second reading for (17) would be a straightforward consequence of deleting from the second disjunct of (18) *Betsy wanted to read*. Schwarz (1999) argues for this conclusion, and notes that it makes sense of the fact that (19) gets only this latter reading.

(19)   Either Betsy wanted to read a book or a magazine.

This follows from the plausible thesis that *either* marks the left edge of a disjunction, which would force (19) to be a disjunction of clauses from which all but the object in the second clause has Gapped.

These are reasons, then, for believing that ellipsis can produce examples like (9), (14), and (17); and given Neijt's argument from (16), Gapping is probably the form of ellipsis responsible.[6] But note that for cases like (17), it is not necessary that Gapping be the only source. It is consistent with standard views of coordination that (17) could arise by disjoining *a book* and *a magazine* in the embedded clause. And this, or something like it, could be the appropriate representation for this sentence when it gets the first of the interpretations described (i.e., Betsy has a desire to read a book or a magazine).

3 The No Embedding Constraint

To see the reason for classifying (8) as a Gapping construction, it is necessary first to appreciate one of the constraints that controls which strings can Gap. Hankamer (1979) discovered that Gapping cannot affect a verb that is in an embedded clause, as in (20).[7]

(20)   * Alfonse stole the emeralds, and I think that Mugsy ~~stole~~ the pearls.

(Hankamer 1979, (23) 19)

He noted also that the antecedent to a Gap cannot be in an embedded clause. (21) illustrates.

5 And see Munn (1993) for a more recent treatment along these lines.
6 Though, see Sag (1980) for reasons for thinking that an independent ellipsis process is responsible (and Neijt 1979, p. 57ff for counter-arguments).
7 A point also made by Chomsky (1980, p. 190).

(21)   * I think that Alfonse stole the emeralds, and Mugsy ~~stole~~ the pearls.

If (21) is understood as a (somewhat awkward) conjunction of two clauses, rather than as a single clause with an embedded coordination, it is ungrammatical. Now, when Ross's examples in (4) are considered, we can see that there is nothing wrong with a verb in an embedded clause being part of the Gapped material or its antecedent. Rather, what the contrast between (20) and (21) shows is that the Gapped material, and its antecedent, must include the verb of the conjoined clauses. In fact, it is likely that this constraint is even stronger, preventing a Gap or its antecedent from excluding the highest verb of the conjuncts, so I will formulate it as in (22).

(22)   The No Embedding Constraint

Let A and B be conjoined or disjoined phrases, and β be the string elided in B whose antecedent is α in A. Then α and β must contain the highest verb in A and B.

It's this constraint that forms the foundation for Neijt's argument from the ungrammaticality of (16) that (9) and (14) are created by Gapping. Because the No Embedding Constraint requires Gapping to elide at least the verb, it'll block (16). And note too that the No Embedding Constraint would also prevent Gapping from being able to create (6b), since the verbs of the second conjunct remain in this example.

The validity of the No Embedding Constraint turns then on whether (6b) should be classed as a Gapping construction, and also on whether examples such as (23) are instances of Gapping.

(23)   Some have eaten chocolate, and others might ~~eat~~ fruit.

Stump (1977) and, following him, Levin (1986) argued that cases like (23) are produced by an ellipsis process distinct from Gapping, calling it 'Pseudogapping'. Pseudogapping differs from Gapping in being able to apply in contexts other than coordinations, as in (24).

(24)   Sally should eat legumes because she won't eat broccoli.

Furthermore, there are languages which have Gapping, but which don't allow Pseudo-gapping. German is such a language, as the contrast between (25a) and (25b) indicates.

(25)   a.   Sally hat Kumquats gegessen und Dieter Natto.
                Sally has kumquats eaten   and Dieter natto
                'Sally ate kumquats and Dieter ate natto.'
          b. * Sally hat Kumquats gegessen weil   Dieter Natto hat.
                Sally has kumquats eaten   since Dieter natto has
                'Sally ate kumquats because Dieter did natto.'

And German examples parallel to (23) are ungrammatical, again suggesting that these cases cannot be produced by Gapping:

(26)   * Sally hat Kumquats gegessen und Dieter hat Natto.
           Sally has kumquats eaten   and Dieter has natto.
           'Sally ate kumquats and Dieter did natto.'

For this reason, then, I'll adopt a formulation of Hankamer's constraint like that in (22), and assume that neither (6b) nor (23) arises through Gapping.

So far as is known, Gapping is the only ellipsis process constrained by the No Embedding Constraint. To the extent that the No Embedding Constraint is unique to Gapping, then, it can be considered diagnostic of it. It indicates, for example, that cases such as (8) are produced from Gapping. When the second conjunct in (8) is embedded under a verb, as in (27), the result is ungrammatical.

(27)   * Mary left early, and I think Sally too.

I will assume that if an ellipsis obeys the No Embedding Constraint, it is Gapping.

It's less certain, however, that every Gapping construction obeys the No Embedding Constraint. While it is obeyed by Gapping in all of the Germanic languages, and, so far as I know, every other language which has an ellipsis construction that meets the other diagnostics for Gapping obeys the No Embedding Constraint too, there is one reported counter-example: Farsi.[8] Farudi (2013) has discovered that Gaps may occur in embedded contexts in Farsi; some of her examples are in (28).

(28)   a. Māmā chāi xord   va fekr mi-kon-am   bābā qahve
           mother tea ate-3SG and think IMPFV-do-1SG father coffee
           'Mother drank tea and I think father coffee.'

        b. Mahsā in ketāb-ro dust dār-e   va Minu mi-dun-e   ke
           Mahsa this book-OBJ like have-3SG and Minu IMPFV-know-3SG that
           māmān-esh un ketāb-ro.
           mother-3SG that book-obj
           'Mahsa likes this book and Minu knows that her mother that book.'

        c. Rādmehr shām-ro   xorde   va ehtemāl dā-e   ke Giti
           Rodmehr dinner-OBJ eat.PART and possibility have-3SG that Giti
           nāhār-ro
           lunch-OBJ
           'Rodmehr ate the dinner and it's possible that Giti the lunch.'

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8 Ince (2009) shows that it is obeyed in Turkish, Aelbrecht (2009) shows that it is obeyed in Dutch and Farudi (2013) shows that Hindi obeys it as well.

    d. Giti az   Irān farsh ovord   va shenid-am ke xāhar-esh talā.
       Giti from Iran carpet brought.3SG and heard-1SG that sister-3SG gold
       'Giti brought carpets from Iran and I heard that her sister gold.'
                (Farudi 2013, (102a,c): 76, (108d): 82, (114c): 86)

In addition, there are some examples which suggest that Farsi allows the antecedent to a Gap to be in an embedded clause as well. One of those is (29).

(29) Fekr mi-kon-am   ke Nasrin gormeh sabzi-ro   dorost kard   va
      think IMPFV-do-1SG that Nasrin stew   green-OBJ make   did.3SG and
      man adas polow-ro.
      I   lentil rice-OBJ
      'I think that Nasrin made spinach stew and I lentil rice.'
                     (Farudi 2013, (111): 84)

Note that the second conjunct need not be understood as conjoined with the embedded clause in the first conjunct. The antecedent *dorost kard* ('make') is embedded relative to the Gap in just the way that the No Embedding Constraint is designed to block. Unsurprisingly, both the Gap and its antecedent may be in an embedded clause, as in (30).

(30) Ajib   nist   ke Rādmehr māhi-ro xorde vali
      strong not-be.PRES.3SG that Rodmehr fish-OBJ eaten but
      ajib-e   ke   Ānāhitā gusht-ro.
      strange-be.PRES.3SG that Anahita meat-OBJ
      'It's not unusual that Rodmehr ate fish, but it's strange that Anahita meat.'
                   (Farudi 2013, (113b): 85)

    Interestingly, Farudi argues that the locality conditions on movement play a role in constraining the position that the Gap and/or antecedent may be. If the gap and antecedent are in a position from which movement is blocked, the result is ungrammatical. This is illustrated by (31).

(31)   a.   * Giti mardhā-yi ke   futbāl bāzi mi-kon-an   dust dār-e   va
               Giti men-IND that soccer play IMPRV-do-3PL like have-3SG and
               Sārā mardhāyi ke   tenis dust dār-e.
               Sara men   who tenis like have-3SG
               'Giti likes men who play soccer and Sarah likes men who tennis.'

       b.   ?? Parvin ne-mi-dun-e   ki   mive ovord   va Mahsā
               Parvin NEG-IMPFV-know-3SG who fruit brought.3SG and Mahsa
               ne-mi-dun-e   ki   sharāb.
               NEG-IMPFV-know-3SG who wine
               'Parvin doesn't know who brought fruit and Masha doesn't know who
               wine.'

                                              (Farudi 2013, (98a): 72, (99a): 73)

In (31a), the Gap and antecedent are both embedded in relative clauses, and in (31b),
the Gap and antecedent are embedded in indirect questions. Relative clauses and
indirect questions in Farsi are islands for movement, just as they are in English. This
suggests that Gapping in Farsi obeys a different No Embedding Constraint, one that
behaves as if movement were involved. (See Farudi 2013 for an account along these
lines.)

    If we set Farsi aside, or imagine that the No Embedding Constraint can vary, we
can formulate a preliminary definition of Gapping that brings together the criteria
that seem to separate Gapping from other processes.

(32)   Gapping
       In a structure A c B, where c is *and* or *or*, Gapping deletes a string in B that is
       identical to a string in A and satisfies the No Embedding Constraint.

This captures the fact that Gapping is restricted to coordinations (with the caveat
about (2) and (3)), removes material from the second of two conjuncts, and is subject
to Hankamer's No Embedding Constraint. It also entails, because of the requirements
in the No Embedding Constraint, that Gapping can only elide verbs. Neijt (1979)
argues that this outcome is correct as well, citing examples such as those in (33) to
illustrate that Gapping is prevented from applying to Prepositions, Adjectives, and
Quantifiers.[9]

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9 An anonymous reviewer points out that the *either/or* diagnostic of Gapping described above – examples
  like *either in the house or the barn* – suggest that prepositions can Gap. For some indication that the
  placement of *either* cannot be reliably taken to mark the left edge of a disjunct, and therefore that
  Schwarz's analysis will have to be modified, see Johannessen (1993, 1998).

(33)   a.   * Several inches above the ground and several feet ~~above~~ sea level.

       b.   * A five year younger or 10 year ~~younger~~ sister.

       c.   * He ran a few seconds faster or a few minutes ~~faster~~ to his house.

       d.   * Bill drank much too much or a little bit ~~too much~~ wine.

       e.   * John bought a little bit more or a lot ~~more~~.

                                                    (Neijt 1979, (54c, e-h): 27)

And though there are cases, like (34), which look as though they could be achieved if Gapping applies to Nouns, she suggests that these are the products of another ellipsis process, 'Deletion', exemplified by examples such as (35).[10]

(34)   One dog with five legs, another ~~dog~~ with a cow's liver, and a third ~~dog~~ with no head.

                                                    (Neijt 1979, (54a): 27)

(35)   One dog with five legs walked in after another ~~dog~~ with no head left.

There appear to be contexts in which Adjectives are able to Gap; (36), for example.

(36)   a.   Malfoy made Snape happy about his potions and Hagrid ~~happy~~ about his Griffons.

       b.   Hermoine considered Voldemort frightened of Dumbledore and Malfoy ~~frightened~~ of Harry.

So far as I have been able to determine, other categories are not susceptible to Gapping in these contexts, however.

(37)   a.   * Ron let Harry in the dungeon and Filtch ~~in~~ the common room.

       b.   * Dudley considers some witches friends of mine and others ~~friends~~ of yours.

Let us continue to restrict Gapping to strings with verbs in them, then, pending an explanation for the exceptional cases in (36).[11]

There is another, somewhat subtler, consequence of defining Gapping as (32) does. Because (32) requires that the antecedent to a Gapped string be found in the conjunct or disjunct immediately preceding, it will prevent a Gap from finding a more distant antecedent in situations in which there are more than two coordinates. It will correctly prevent examples such as (38), for instance.

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10 This issue concerning the distinction between Deletion and N Gapping is discussed in Jackendoff (1971). Yoshida, Wang, and Potter (2012) has arguments against classing these sorts of ellipses as Gapping.

11 To find contexts in which Adverbs or Complementizers (such as *whether* or *that*) Gap is not possible (because no material within an Adverbial Phrase or Complementizer Phrase can stand to the left of an Adverb or Complementizer), so whether these categories can Gap is undeterminable.

(38)   * John invited Sue, Peter kissed Mary, and Max ~~invited~~ Betsy.

(Neijt 1979, note 7: (vi))

Because the antecedent to *invited* is not found in the immediately preceding conjunct, it cannot Gap in the final conjunct. On the other hand, an example such as (39) is permitted, as Gapping can apply from right to left, taking the conjuncts pair-wise.

(39)   John invited Sue, Peter ~~invited~~ Mary, and Max ~~invited~~ Betsy.

So the Gapped *invited* in the final conjunct finds its antecedent in the immediately preceding conjunct, and this middle *invited* in turn Gaps under identity with the antecedent in the first conjunct.

4 Gapping and Constituency

Let's turn next to the question of how to characterize the set of strings that Gapping can elide. As we have seen in (5a) and (12a) – repeated below as (40) – Gapping can delete strings of terms that are not typically thought to make up constituents in English.

(40)   a. I want to try to begin to write a novel and Mary ~~wants to try to begin~~ to review a play.
        b. Carrie gave a set of directions to me, and Will ~~gave~~ a map ~~to me~~.

Standard parses of English sentences do not form a constituent of *want to try to begin* that excludes *to review a play*; nor do they allow discontinuous strings, like the *gave to me* sequence in (40b). Because syntactic processes are very typically restricted to affecting just constituents, these cases are surprising. If we think of Gapping as a rule that targets strings in a clause and deletes them, then this would be a counter-example to this otherwise valid generalization about such rules.

But it's not that Gapping can delete just any string. Hankamer (1979), for example, observes that there are contrasts like (41).

(41)   a.   Charley writes with a pencil and John ~~writes~~ with a pen.
        b. * Charley writes with a pencil and John ~~writes with~~ a pen.
        c. * Charley writes with a pencil and John ~~writes with a~~ pen.

(Hankamer 1979, p. 18)

It appears that Gapping is prevented from taking part of a preposition phrase and leaving the rest. And, similarly, Gapping cannot elide a portion of an object noun phrase either, as in (42).

(42)   a.   Charley wrote several books on syntax and Jill ~~wrote~~ several books on
            semantics.

       b.   * Charley wrote several books on syntax and Jill ~~wrote several~~ books on
            semantics.

       c.   * Charley wrote several books on syntax and Jill ~~wrote several books on~~
            semantics.

There have been two broad approaches to capturing constraints such as these. In one, generalizations about the shape that the remnants may have are sought. And in the other, generalizations about the elided strings themselves are formulated.

4.1 Conditions on remnants

Hankamer's own approach was of the first kind. He described the constraint responsible for (41) and (42) in terms of a restriction that requires the remnants of Gapping to be 'Major Constituents', which he defined as phrases which are immediate daughters of S (or IP, in modern parlance). Because he held a skeptical view about the existence of VP, this meant that subjects, adverbs, PPs, and objects qualified as Major Constituents, but nothing else. If we admit the existence of VP, we might formulate this along the lines he resorts to in Hankamer (1973, p. 18): "A 'major constituent' of a given sentence S0 is a constituent either immediately dominated by S0, or immediately dominated by VP which is immediately dominated by S0." That we should allow Gapping to see VPs, and therefore adopt this formulation, is indicated by cases such as (43), in which an auxiliary verb has elided.

(43)   Some have prepared kumquats and others ~~have~~ baked pies.

While the status of examples such as (43) is somewhat controversial – Ross (1970) classed them as ungrammatical, and Siegel (1987), where they are marked grammatical, assumes that they are not produced by Gapping – the present consensus appears to be that they are both grammatical and Gapping. That they are Gapping is suggested by the fact that they appear to meet the criteria (32) uses to define Gapping. For example, auxiliary verbs may delete like this only in co-ordinations (compare (44a)), the antecedent must be in the first coordinate (witness (44b)), and it is subject to the No Embedding Constraint (as (44c) suggests).

(44)   a.   * Some have prepared kumquats while others ~~have~~ baked pies.

       b.   * Some ~~have~~ prepared kumquats and others have baked pies.

       c.   * Some wanted to have prepared kumquats, and others wanted to ~~have~~
            baked pies.

To the extent that (43) is grammatical, then, it shows that Gapping can leave the verb+NP string as a remnant. We have already seen, however, that the auxiliary verb+NP string in (45) does not constitute a legitimate Gapping remnant (this sentence, to the extent that it is grammatical, comes about by way of pseudogapping).

(45)   Some have prepared kumquats and others have ~~prepared~~ pies.

Thus, we seek a way of distinguishing these two cases. That is, in the string have+-participle+NP, we want to allow participle+NP to be able to survive as a remnant from Gapping, but prevent have+NP from being a remnant. While it may not be utterly necessary, it seems reasonable to adopt the commonplace view that the participle+NP string is embedded within the have+participle+NP string, and distinguish them that way. (This is just what the No Embedding Constraint, in fact, does.) But this will require the existence of VPs. Thus we should adopt the definition of major constituent that recognizes the existence of VPs.

Hankamer's constraint hasn't been widely adopted. One straightforward difficulty is that the notion 'major constituent' has not been grounded in anything more general. That is, so far as other syntactic processes are concerned, major constituents don't appear to behave as a class, making their use in constraining Gapping somewhat dubious. Moreover, there seem to be counter-examples to Hankamer's constraint. Sag points out,[12] for instance, that it would not permit instances of Gapping like those in (40a), repeated in (46a), and it's hard to see how to modify the constraint so that it could distinguish (46a) from (46b).

(46)   a.   I want to try to begin to write a novel and Mary ~~wants to try to begin~~ to review a play.
        b.   * I want to try to begin to write a novel and Mary ~~wants to try to begin to~~ review a play.

There is, however, evidence that the remnants to Gapping must be able to be factored into constituents. And, indeed, it is likely that they must be partitionable into maximal projections. This would explain the contrast between (42a) and (42b), as well as that between (41b) and (41c). And it would extend to account for the badness of examples such as (47).

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12 His examples are slightly different than mine, but not meaningfully so. See Sag (1980, p. 273).

(47)   a.   * Some read angry letters and others ~~read angry~~ reports.

        b.   * Some bought books about themselves and others ~~bought~~ reports ~~about themselves~~.

        c.   * Some remember your mother and others ~~remember your~~ father.

        d.   * Some brought every package and others ~~brought every~~ wrapper.

        e.   * Some appeared almost happy and others ~~appear almost~~ rich.

        f.   * Some talked only to Smith and others ~~talked only~~ to Jones.

In each of the examples in (47), a subconstituent of the noun phrase, adjective phrase, or prepositional phrase has survived Gapping. If the material that would make these subconstituents full NPs, APs, or PPs is restored, the examples become grammatical. Let's adopt, then, the rather watered-down version of Hankamer's condition on remnants in (48).

(48)   The Constituency Condition of Remnants

        Let P(x) be a parse for a string x. If A is a string of words in a coordinate, from which the substring B has Gapped leaving the string C, then there must be a way of factoring C into a series of maximal projections found in P(A).

This leaves the ungrammaticality of (41b) and (42b,c) to be explained; and it also fails to shed light on the contrast between (46a) and (46b). We will review below a way of deriving the Constituency Condition that extends to these cases.

    Another proposed constraint on remnants is that there may be no more than two of them.[13] Jackendoff (1971) points to examples like those in (49), as evidence.

(49)   a.   * Arizona elected Goldwater Senator, and Massachusetts McCormack Congressman.

        b.   * Millie will send the President an obscene telegram, Paul the Queen a pregnant duck.

                                            (Jackendoff 1971, (23): 25)

But this effect is probably related to the fact that the remnants in Gapping constructions are used to introduce 'new' information into the discourse, a point that Kuno (1976) draws attention to. One way this can express itself is for the remnants, and the parallel terms in the first conjunct – I will call them 'correlates' from now on – to be focused. Gapping constructions can therefore be thought of as appropriate in contexts in which there is an implicit question that the remnants and correlates serve

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13 This is how the constraint is commonly framed, but Jackendoff (1971, p. 26) expresses it as follows: "In by far the most acceptable examples of Gapping, then, there is only one unlike constituent in the second verb phrase, and all the rest must delete."

as answers to. (50), for example, might be thought of as addressing a topic that is expressed by the question: 'Who likes what?'.

(50)   Jerry likes beans and Sally kumquats.

When sentences with Gaps in them are explicitly offered as answers to questions, it is much easier to have more than two remnants, as in (51).

Who will send who what?

(51)   Sally will send Ron pickles, and Martha Hermione kumquats.

Or when the remnants have more descriptive content to them than names do, and are therefore more suitable for introducing new information, the results also improve, as (52) shows.

(52)   Arizona elected a right-wing bastard to the Senate and Massachusetts a moderate wank to the Congress.

This property of the construction probably also plays a role in examples that Hankamer (1973) judged unacceptable and credited to what he called the No Ambiguity Constraint. Some of his examples are in (53).

(53)   a.   Jack calls Joe Mike and Sam ~~calls Joe~~ Harry.
       b.   Jack told Harry that Nixon was a fairy, and Alex ~~told Harry~~ that Agnew had warts.
       c.   Max wanted to put the eggplant on the table, and Harvey ~~wanted to put the eggplant~~ in the sink.

<div align="right">(Hankamer 1973, (57)-(59): 3)</div>

Hankamer argued that these do not get the interpretation that would result from the pattern of Gapping shown because there is another interpretation available that blocks these. This other interpretation, which might be produced by Conjunction Reduction or Gapping or both, is indicated by the ellipses shown in (54).

(54)   a.   Jack calls Joe Mike and ~~Jack calls~~ Sam Harry
       b.   Jack told Harry that Nixon was a fairy, and ~~Jack told~~ Alex that Agnew had warts.
       c.   Max wanted to put the eggplant on the table, and ~~Max wanted to put~~ Alex in the sink.

Hankamer suggested that when Gapping produces ambiguous results, as in these cases, those interpretations which would place the Gap at the leftmost edge are favored, hence the interpretation in (54) but not (53).

But Kuno (1976) argues that these contrasts too are an artifact of the requirement that Gapping remnants introduce new material. He points out that when names are

used, the tendency already present to treat the material within VP as new information will be strengthened. This will, by itself, favor the interpretation in (53) over that in (54), since in neutral contexts the subjects of the first conjunct will not be taken to introduce new material and will, as a consequence, not be suitable correlates for remnants in the second conjunct. This tendency can be overcome if the correlate status of the subject is signaled lexically, as in (55).

(55)   a. Some call Joe Mike and others ~~call Joe~~ Harry.

    b. Some told Harry that Nixon was a fairy, and others ~~told Harry~~ that Agnew had warts.

    c. Some wanted to put the eggplant on the table, and others ~~wanted to put the eggplant~~ in the sink.

If the sentences are uttered with appropriate stress, or if it's clear which arguments are furnishing new information, there is also improvement.[14]

Here, then, is our second condition on the remnants.

(56)   Kuno's Novelty Condition on Remnants

    The phrases in the coordinate that are left over from Gapping introduce new information.

                                             (Kuno 1976, based on (43a): 310)

That the remnants must contrast with their correlates is achieved with a specific kind of intonational contour that has been the subject of considerable study. (See, for example, Hartmann 1998, Féry and Hartmann 2005, Kehler 2000, 2002, Levin and Prince 1986, Winkler 2005, 2006, Schwabe 2000 and Gengel 2007.) This and the Constituency Condition on Remnants in (48) are the best candidates for constraints on what Gapping leaves behind. The remainder of the conditions on Gapping tend to be found in constraints on the strings that can Gap.

4.2 Constraints on the Gapped string

Ross and Hankamer took ellipsis rules in general, and Gapping in particular, to be a phenomenon which deletes a 'variable' in the structural description of a transformational rule. On this conception, the remnants could be thought of as 'targets' in the transformational rule, and the variable that corresponds to the string surrounding these targets would be subject to the ellipsis process. Thus, the structural description

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14 For other problems with the No Ambiguity Constraint, see Quirk, Greenbaum, Leech, and Svartvik (1972, p. 580ff), Stillings (1975), Langendoen (1976), and Sag (1980, p. 211ff). Carlson (2001); Carlson, Dickey, and Kennedy (2005) show that prosody is a controlling factor in this effect, and ground it in how ellipses are processed.

could select maximal projections, accounting for the Constituency Condition on Remnants, and Gapping would delete the rest of the clause.[15]

Now this predicts that the constraints which Ross (1967), for example, identifies as holding of these variables should play a role in defining which strings Gapping can affect. Neijt (1979) is the fullest systematic study of this prediction, and she concludes that it is largely confirmed. Ross's constraints, later incorporated into more general constraints such as Subjacency, are now typically held to govern the distance that things can move. So one way of judging this thesis is to see if there is a match between the strings past which things can move and the strings that can Gap. This is essentially what Neijt found, consider (57)–(59).[16]

(57)   a.   * John came home to find his wife sick, and Bill ~~came home to find~~ his child ~~sick~~.

           * My wife, who I came home to find sick, was in a lousy mood.

       b.   * John must be a fool to have married Jane, and Bill ~~must be a fool to have married~~ Martha.

           * The woman who John was a fool to have married was Jane.

       c.   * Tom went to Florida to learn to play tennis and Bill ~~went to Florida to learn to play~~ squash.

           * What did Tom go to India to become?

       d.   ?? John was upset having received A- for the course, and Bill was upset having received B- for the course.

           ?? What grade was John upset having received for the course?

                                                                    (Neijt 1979, (53: 131-2))

(58)   a.   * John wondered what to cook today and Peter ~~wondered what to cook~~ tomorrow.

           * When did John wonder what to cook?

       b.   * John asked which candidates to interview this morning and Peter ~~asked which candidates to interview~~ this afternoon.

           * When did John ask which candidates to interview?

                                                                    (Neijt 1979, (73) 138)

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15 This is essentially how Sag (1980) formulates the process, which he then couples with a version of Bresnan (1976)'s Relativized A-over-A Condition to capture some of the cases that Hankamer's Major Constituent requirement was aimed at.

16 Note that (58a), and the question corresponding to (58b), are ungrammatical on the construal in which *when* comes from the embedded clause.

(59)   a.   * John discussed my question of which flowers they saw and Bill ~~discussed~~
            ~~my question~~ (of) which animals ~~they saw~~.

            * Which flowers did John believe the claim that Peter saw?

                                          (Neijt 1979, (56): 134 & (64): 136)

In (57) we see instances of the Adjunct condition which prohibits movement out of an
adjunct clause and will have the consequence of preventing Gapping from including
part of an adjunct. In (58) are instances of the Wh-Island Constraint, which prohibits
movement out of indirect questions and here blocks Gaps from including part of an
indirect question. And in (59) is an instance of the Complex Noun Phrase Constraint,
which prevents movement out of clauses embedded within NPs, and would therefore
prevent Gaps from similarly reaching into an NP.

   Neijt also notes some differences between constraints on movement and those
on Gapping. She notes, for instance, that Gapping cannot affect a string that reaches
into a finite clause. There is a difference, then, between examples like (60) and those
that Ross described (such as Ross's (61), in which Gapping reaches into a non-finite
clause).

(60)   a.   * Charles decided that 20 boys are coming along and Harrie ~~decided that~~
            30 girls ~~are coming along~~.

       b.   * The first letter says that you should pay tax and the second letter ~~says~~
            ~~that you should pay~~ V.A.T.

                                          (Neijt 1979, (86): 142-3)

(61)   I want to try to begin to write a novel, and Mary ~~want to try to begin to write~~
       a play.

There is no visible corresponding constraint on movement in English. Certainly
wh-movement is not prevented from coming out of finite clauses:

(62)   a.   How many girls did Charles decide are coming along?

       b.   What did the first letter say that you should pay?

   Neijt suggests that Gapping is subject to Chomsky (1977)'s Tensed S Condition,
which prohibits extraction from finite clauses. When this constraint applies to move-
ment operations, as in (62), Chomsky argued that it can be satisfied if the moved
phrase moves first into the Comp (or Specifier of CP) position of the finite clause
it is going to escape. He formulated the Tensed S Condition so that it could move
things out of finite clauses only if they are in Comp: descriptively, at the left edge of
the clause. That this particular formulation of the Tensed S Condition is at play in the
Gapping construction, Neijt argues, is indicated by the fact that when the remnant is
in the Comp position of the finite clause, the result is improved. Thus, she contrasts
(60) with the relatively grammatical (63).

(63)   a.   Charles may decided which boys are coming along and Max ~~may decide~~
            which girls ~~are coming along~~.

       b.   The first letter says how much tax you should pay and the second letter
            ~~says~~ how much V.A.T. ~~you should pay~~.

                                                        (Neijt 1979, (85) 142)

But there are problems with this way of characterizing such examples. The contrast
between (60) and (63) is conceivably traced back to the availability of another ellipsis
process restricted to questions. This process – also first systematically studied by John
Ross[17] – is known as Sluicing and exemplified by (64).

(64)   I can remember which women Mary knows, but I can't recall which men
       ~~Mary knows~~.

In general, Sluicing elides the sentence that follows a wh-phrase, when that elided sen-
tence has an antecedent previous to it, and when certain conditions on contrastiveness
are met.[18] If Sluicing is capable of eliding just a portion of the sentence it affects, then
examples like those in (63) could conceivably be produced through a combination of
Gapping (eliding the main highest verbs of the conjunct) and Sluicing (eliding the
material in the embedded interrogative).

Nonetheless, even if the examples in (63) are not produced by Gapping alone,
Neijt's conjecture that Gapping obeys the Tensed S Condition remains consistent with
the data. In general, then, her catalogue of facts supports the hypothesis that Gapping
targets the class of strings that are allowed to lie between the target and landing site
of a movement operation. In current syntactic theory, these strings are no longer
characterized in terms of variables in the structural description of a transformational
rule. Movement transformations are instead processes whose parts are partitioned
out to independent modules of the grammar, and the constraints on the distances
that movement operations may traverse are thought to emerge as a consequence of
how these modules play out. A natural way of interpreting the match between what
can Gap and what can be traversed by movement is that Gapping can act on the
constituents that are formed by movement. This presently seems to be the consensus
view: Gapping is capable of acting on the output of a movement operation that
relocates remnants. Sag (1980) may have been the first to propose something along
these lines; see also Jayaseelan (1990). Sag suggests[19] that the variable which Gapping
deletes on the surface must correspond to a constituent formed at Logical Form by
moving the remnants. He relates the movement of the remnants at Logical Form to

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17 See Ross (1969).
18 For recent analyses of Sluicing, see Chung, Ladusaw, and McCloskey (1995) and Merchant (2001,
   2006).
19 See Sag (1980, p. 208).

their bearing focus, which he followed Chomsky (1980) in supposing induced a kind of Focus Movement.

Pesetsky (1982), who similarly concludes that the strings which Gap are formed by movement,[20] brings forward additional data that fit this interpretation of the island effects in (57)-(59). He notes that not only are islands obeyed by the Gapped string, but the strength of island violations is reproduced as well. For instance, there is a strong difference in violations of the wh-island condition that depends on the position from which the term escaping the island originates. Extraction of objects from wh-islands is considerably better than extraction of subjects, as the pair in (65) illustrates.

(65)   a.   ?? Which food does this man know why you ate?

        b.   * Which food does this man know why makes you sick?

This contrast is preserved in Gapping contexts:

(66)   a.   ?? This man knows why you eat spaghetti, and that man, macaroni.

        b.   * This man knows why spaghetti makes you sick, and that man, macaroni.
                        (Pesetsky 1982, (120b): 644 & (121): 645)

Further, Pesetsky argues that other constraints on multiple questions are found in Gapping. One of those constraints, Superiority, prevents wh-movement from moving a term past a c-commanding interrogative phrase. This is what is responsible for the contrast in grammaticality in (67).

(67)   a.   Who gave what to Mary?

        b.   * What did who give to Mary?

Pesetsky reports a similar contrast for the remnants in Gapping. If one of those remnants is a wh-phrase, then it cannot have been moved past a c-commanding remnant; the contrast in (68) mirrors that in (67).[21]

(68)   a.   Bill asked which books I gave to Mary, and which records, to John.

        b.   * Bill asked which books Mary likes, and which records, John.
                        (Pesetsky 1982, (126)&(127): 646)

It's unclear how to formulate Superiority so that it will cover both cases; but in general, the match between (67) and (68) suggests that a similar process is involved in creating both constructions. If the in situ wh-phrases in (67) move – a popular approach to

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20 Pesetsky conjectured that the movement operation occurred on the surface, not at Logical Form as in Sag's work, and that the remnants were moved into Comp position (what would in present terminology be the Specifier of CP).

21 I don't find these contrasts to be of the same strength.

these sorts of multiple questions – then the hypothesis that Gapping remnants move as well makes sense of the match.
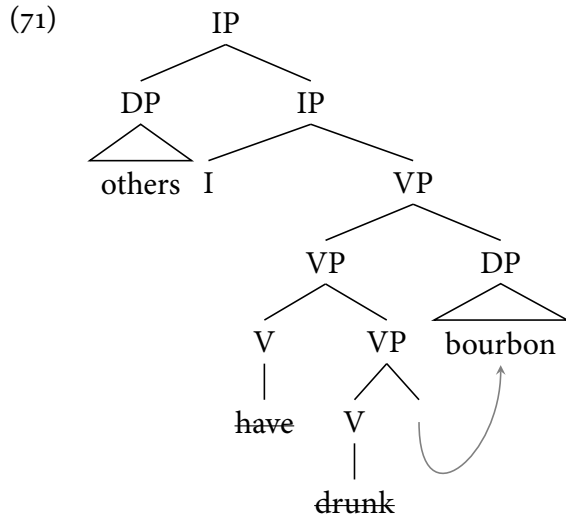
The thesis that Gapping is ellipsis of a constituent from which the remnants move has the interesting side-effect that it explains the Constituency Condition on Remnants. To the extent that movement operations can only target constituents, they will pick out just those strings as remnants which parse as constituents. Moreover, it goes beyond the Constituency Condition and offers a method for blocking the bad examples in (41) and (42) as well. If remnants are just phrases that move, then the cases in (41b) and (42b) would have to arise by moving an NP away from its determiner, and this is not possible. To produce the ungrammatical (41c) and (42c), it would be necessary to move a DP out of a prepositional phrase, and though this is normally quite possible in English, there are movement operations which are constrained in this way. 'Scrambling' in the Germanic languages, for instance, is incapable of stranding prepositions; indeed, Scrambling in the Germanic languages is blocked from moving constituents out of embedded finite clauses as well, matching in this respect the constraint on Gapping that (60) illustrates. Finally, Scrambling in the Germanic languages is plausibly able to move infinitival clauses (the evidence is unclear), but probably cannot move VPs out of embedded clauses. This would explain why embedded infinitival clauses can be remnants (as in (46a)) but embedded VPs cannot (as (46b) shows).

Thus, many of the constraints on remnants and on the strings that can Gap are accounted for if the thesis that Gapping can be fed by movement is given the more specific form in (69).
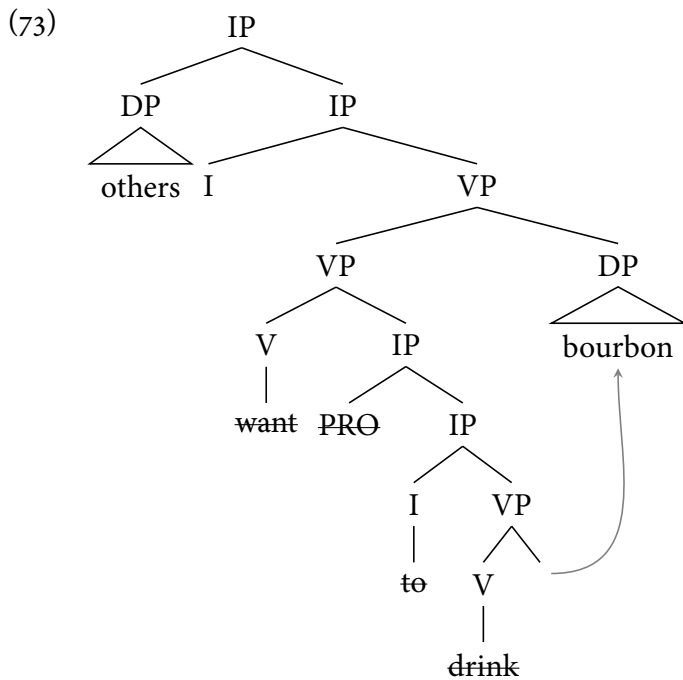
(69)   Gapping elides an XP from which the remnants have scrambled.

Under this interpretation of the facts, examples such as (70) or (72) would have representations like (71) and (73).

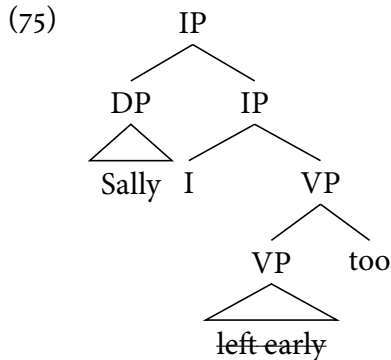(70)   Some have drunk whiskey and others ~~have drunk~~ bourbon.

(71)

```
                    IP
          ┌─────────┴─────────┐
         DP                   IP
        ╱  ╲          ┌───────┴───────┐
      others    I                   VP
                             ┌───────┴───────┐
                            VP               DP
                        ┌────┴────┐         ╱  ╲
                        V        VP      bourbon
                        │      ╱  ╲
                      have    V
                              │
                            drunk
```

(72)   Some want to drink whiskey and others ~~want to drink~~ bourbon.

(73)

```
                    IP
          ┌─────────┴─────────┐
         DP                   IP
        ╱  ╲          ┌───────┴───────┐
      others    I                   VP
                          ┌──────────┴──────────┐
                         VP                      DP
                    ┌─────┴─────┐              ╱  ╲
                    V           IP          bourbon
                    │       ┌───┴───┐
                  want     PRO      IP
                               ┌────┴────┐
                               I         VP
                               │        ╱  ╲
                              to       V
                                       │
                                     drink
```

To produce examples like (8), repeated here as (74), we let Gapping elide the VP without an accompanying scrambling operation, as in (75).

(74)   Mary left early, and Sally ~~left early~~ too.

(75)

```
              IP
           ╱      ╲
        DP          IP
       ╱╲          ╱  ╲
     Sally   I          VP
                      ╱    ╲
                   VP       too
                  ╱╲
              left early
```

And to manufacture examples like (9), repeated below as (76), we should adopt the thesis that subjects can be generated within the VP, and let (9) arise when the subject remains in this position, as is shown in (77).

(76)   Jill ate rice yesterday and ~~Jill ate~~ porridge today.

(77)

```
                    IP
                 ╱      ╲
               I          VP
                        ╱    ╲
                     VP       today
                   ╱    ╲
                VP       DP
               ╱  ╲     ╱╲
            DP    VP  porridge
           ╱╲    ╱╲
         Jill   V
                │
               ate
```
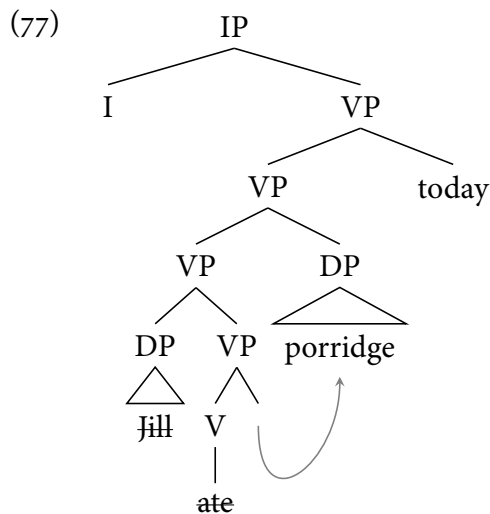
By and large, then, if Gapping can elide VPs, and can do so after terms within that VP have scrambled out, a certain range of central cases can be accounted for.

5 Parallelism and Scope

The odd property of this thesis is that it requires English surface forms to be able to be produced by the Scrambling process that is so transparently a part of, say, German or Dutch word order. English surface forms, however, do not otherwise appear to have been created by Scrambling. One of the unsolved problems of Gapping, then, is to fit the thesis in (69) to the more general syntax of English sentences, or to find a replacement for (69). (See López and Winkler 2003 for a stab at solving this problem.)

If such a fit can be found, however, the technique in (69) can also be extended to cases such as (78), in which Gapping has elided the subject along with the verb and topicalized another constituent.

(78)   On Monday, I bought a car and on Tuesday I̶ b̶o̶u̶g̶h̶t̶ a motorcycle.

(Oirsouw 1987, (158): 146)

(Cases such as these are also found in Kuno (1976, (31a): 307) and Sag (1980, (3.4.16): 266).) If we assume that the topicalized PPs in this example are left-adjoined to IP, then we can combine the techniques used to manufacture (75) and (76) to give the Gap in (78) the representation in (79).

(79)
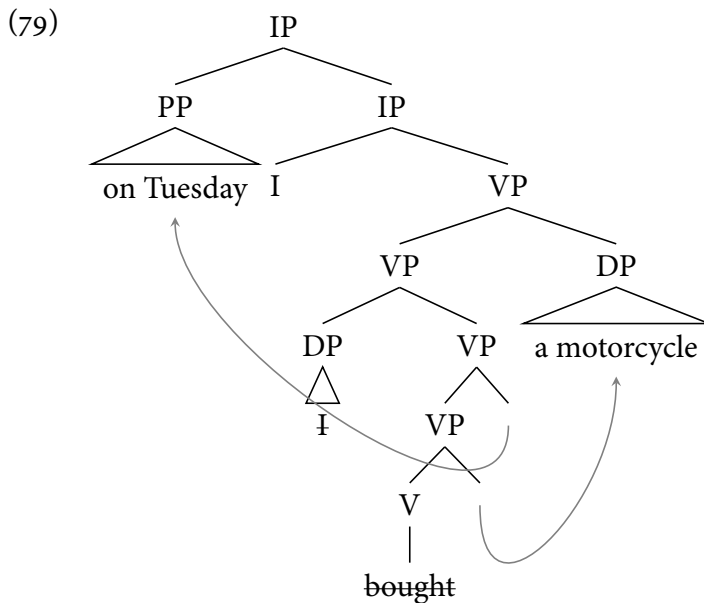
Through this case, another fact about Gapping can be observed: there is a matching requirement on the word order found in the antecedent clause and the clause with the Gap.[22] (80) is relatively ungrammatical when compared to (78).

(80)   ?? I bought a car on Monday, and on Tuesday, a motorcycle.

This fact might be related to another requirement on Gapping: the scope of quantifiers in the antecedent clause must be parallel to those in the clause with the Gap. In (81), for example, if *some girl* has narrower scope than *every book* then *some boy* must also have scope narrower than *every pamphlet*.

(81)   Some girl read every book and some boy every pamphlet.

22 A constraint pointed out in Hankamer (1979) and Pesetsky (1982, p. 658).

But if *some boy* has scope wider than *every pamphlet*, then *some girl* is going to have wider scope than *every book*. In other words, (81) does not support interpretations paraphrased in (82).

(82)   a.   There is some girl who read every book, and for each pamphlet, there is some boy or other who read it.

b.   For each book, there is some girl or other who read it, and there is some boy who read every pamphlet.

A similar parallelism is found in other forms of ellipsis – VP ellipsis, pseudogapping, and sluicing – and it is presently thought that the close relationship between ellipsis and de-accenting is responsible (see Rooth 1992, Fox 2000, Romero 1998, and Takahashi 2006). To the extent that word order expresses information structure, including the focus semantics of a clause, it may be possible to relate the matching requirement that (80) illustrates with the parallelism effect found in cases such as (81).

If the parallelism constraint on the scope of arguments that (81) illustrates is something that Gapping shares with other ellipsis processes, it also displays some unique scopal properties. Oehrle (1987), Oirsouw (1987), Siegel (1984, 1987), and McCawley (1993) discovered that modals and negation in the antecedent clause behave as if they scope over the entire conjunction. For example, McCawley claims that in (83a), *must* is understood to scope over the coordination, producing the interpretation paraphrased by (83b).

(83)   a.   I tried it in both positions, one of which must have been the locked position and the other one the unlocked position, but it wouldn't work either way.

b.   I tried it in both positions, for which it must have been that one was locked and the other unlocked, but it wouldn't work either way.

(McCawley 1993, (20g): 249)

The same is found for the negation part of *didn't* in (84a), which favors an interpretation in which it has the entire conjunction in its scope, yielding the meaning (84b) indicates.

(84)   a.   Kim didn't play bingo and Sandy ~~didn't~~ sit at home all evening.

b.   not ((Kim played bingo) and (Sandy sat at home all evening))

(based on Oehrle 1987, (28): 205)

Siegel suggests that this fact emerges only when Gapping has affected just the highest verb and nothing else. Thus, she points to a contrast between (83a) and (85), in which Gapping has removed *can't* along with the verb that follows.[23]

(85)   Ward can't eat caviar and his guest ~~can't eat~~ beans.

(Siegel 1987, (3): 53)

Indeed, unlike (83a), this sentence can be understood as synonymous with *Ward can't eat caviar and his guests can't eat beans*, in which *can't* is within each conjunct. It is also possible, however, to understand (85) so that *can't* has scope over the conjunction, that is, to be synonymous with "It's not possible for Ward to eat caviar and his guest eat beans."

The generalization that emerges is (86).

(86)   If a modal or negation Gaps alone, then it must scope over the coordination in Gapping. If a modal or negation Gaps with a following verb, then it may scope over the coordination or be understood in each conjunct.

It should be noted that whereas this generalization has been examined with some care for cases involving negation – we will see some problems for it in the last section – it hasn't been given the same scrutiny in cases involving modals. For example, it isn't clear that the paraphrase in (83b) confirms that the modal in (83a) scopes over the conjunction, as (83b) also paraphrases (87), where the modal clearly sits in each conjunct.

(87)   I tried it in both positions, one of which must have been the locked position and the other one must have been the unlocked position, but it wouldn't work either way.

Perhaps a better example is (88).

(88)   X can be true and Y false …
   a.   because they are logically independent.
   b.   # but X can't be true if Y is false.

(88) can express what (89) does, and is therefore compatible with the continuation in (88a).

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23 It should be noted that Gapping is not always successfully able to affect strings with negation in them. Ross (1970), for instance, points to cases like (i) and suggests that Gapping is generally incapable of eliding *not*.

(i)   * I didn't eat fish, Bill didn't eat rice, and Harry didn't eat roast beef.

See also Jackendoff (1971), Stillings (1975), and Sag (1980, p. 195).

(89)   It's possible for X to be true and Y to be false (because they are logically independent).

This is the interpretation that arises if *can* has the coordination in its scope. But (88) can't express what (90) does, and is therefore, unlike (90), incompatible with the continuation in (88b).

(90)   X can be true and Y can be false (but X can't be true if Y is false).

   compare:

   # It's possible for X to be true and Y to be false but X can't be true if Y is false.

In this particular case, then, the prediction in (86) is confirmed: the modal *can* must have scope over a conjunct when it Gaps alone.

   Hulsey (2008) looks at the scope of Gapped modals in cases where a disjunction is involved. What she shows is that when a modal Gaps alone in a disjunction, the scope of the modal is ambiguous. Her centerpiece example is (91).

   For the Red Sox to make the playoffs …

(91)   The Sox must beat the Yankees or the Angels lose to the Mariners.

This sentence can express two requirements, each sufficient for the Red Sox to make it to the playoffs: they beat the Yankees or the Mariners beat the Angels. On this reading, the disjunction scopes over *must*: the interpretation is synonymous with *Either the Red Sox must beat the Yankees or the Angels must lose to the Mariners*. This isn't what (86) describes. On the other hand, (91) can express ignorance about which of two requirements are necessary for the Red Sox to make it to the playoffs; its meaning can be paraphrased by "It's necessary that the Red Sox beat the Yankees or that the Angels lose to the Mariners." This meaning is brought out if the speaker of (91) continues with *but I don't know which*. This is the reading in which *must* has the disjunction in its scope, in line with (86).

   Interestingly, if negation is involved in a disjunction, the only reading available is the one that (86) describes. This can be seen by considering (92).

(92)   John hasn't seen Harry or Bill Sue.

                                                   (Oirsouw 1987, (55b): 208)

(92) has only the meaning paraphrased by (93), not the one paraphrased by (94).

(93)   It's not the case that John has seen Harry or that Bill has seen Sue.

(94)   John hasn't seen Harry or Bill hasn't seen Sue.

Just as (86) requires, the negation in *hasn't* scopes over the disjunction, and cannot be understood as part of each disjunct.

The only counter-example to (86), then, is the one that Hulsey has discovered in (91). She provides an account of this sentence that explains why it is the sole counter-example. The analysis rests on an interpretation of disjunctions that allows them to combine semantically with surrounding material in a way that widens their semantic scope. This feature of disjunctions, Hulsey argues, is responsible for examples like (91) wiggling out of (86).

Perhaps related to these instances of surprising wide scope are cases in which the subject of the antecedent clause takes an unexpectedly wide scope, as McCawley discovered by way of the example in (95); other examples, from Johnson (2000a,b), are in (96).

(95)   No one's$_1$ duck was moist enough or his$_1$ mussels tender enough.

                                                (McCawley 1993, (15a): 248)

(96)   a. Not every girl$_1$ ate a GREEN banana and her$_1$ mother, a RIPE one.

        b. No boy$_1$ joined the navy and his$_1$ mother, the army.

In each of these cases, the quantificational subject of the first conjunct can, as indicated by the indices, bind the pronoun found in the second conjunct. This is normally not possible, as (97) shows, presumably because the contents of the second conjunct do not normally fall within the scope of the material in the first.

(97)   a. * Not every girl$_1$ ate a GREEN banana and her$_1$ mother ate a RIPE one.

        b. * No boy$_1$ joined the navy and his$_1$ mother joined the army.

There is something about Gapping, then, that allows the material in the antecedent clause to have scope over the clause with the gap, and therefore over the conjunction housing both clauses.

McCawley relates these latter examples of exceptional scope to another exotic property of Gapping. It is sometimes possible, he shows, for Gapping to elide a part of the subject along with the verb. Some of his examples are (98).

(98)   a. Too many Irish setters are named Kelly and German shepherds, Fritz.

        b. The duck is dry and mussels, tough.

        c. Your daughter is 16 and son, $17\frac{1}{2}$.

        d. How many states have a veterinary school or cities a zoo?

                            (McCawley 1993, (1a,c,d): 245 & (6a): 246)

When Gapping has not removed the verb from the second conjunct, the material missing from the subject of that conjunct results in ungrammaticality (or a different meaning), as can be seen by comparing (98) with (99).

29

(99)   a.   Too many Irish setters are named Kelly and German shepherds are
            named Fritz.
            ≠ Too many Irish setters are named Kelly and too many German shep-
            herds are named Fritz.

       b.   The duck is dry and mussels are tough.
            ≠ The duck is dry and the mussels are tough.

       c.   * Your daughter is 16 and son is $17\frac{1}{2}$.

       d.   * How many states have a veterinary school or cities have a zoo?

McCawley argues that only terms in 'determiner position' are able to Gap in this way,
pointing to the ungrammaticality of examples such as (100).

(100)   a.   Italian red wines are outstanding and white wines excellent.

        b.   Red wines from Italy are outstanding and white wines excellent.

                                                         (McCawley 1993, (10a): 246)

The reason that McCawley connects these startling instances of Gapping with the
puzzling wide scope of the determiners in (95) and (96) is that, in some of these cases,
the Gapped determiner also appears to be required to have wide scope. For example,
he points to (101a) and notes that it has a paraphrase something like (101b) rather
than (101c).

(101)   a.   Not enough linguists study Russian, literary scholars French, or engineers
             Japanese.

        b.   Not enough linguists, literary scholars and engineers study Russian, French
             and Japanese respectively.

        c.   Not enough linguists study Russian or not enough literary scholars study
             French or not enough engineers study Japanese.

                                                         (McCawley 1993, (12a): 247)

The fact that the paraphrase involves conjunctions rather than the disjunctions the
sentence actually uses indicates that the negation built into *not enough* has scope
wider than the disjunction. The same thing can be seen in (102a), whose paraphrase
in (102b) perhaps makes clearer the wide scope aspect of these cases.

(102)   a.   No cat should eat Puppy Chow or dog, Whiskas.

        b.   It's not the case that any cat should eat Puppy Chow or that any dog should
             eat Whiskas.

The meaning of (102a) requires that the determiner *no* be decomposed into two parts
– "not" and "any" – and that the "not" part scope outside the disjunction. See Johnson
(2000a) for an account.

Gapping, then, allows the subject of the first conjunct to have the second conjunct in its scope. And this appears connected to the ability of Gapping to elide the determiner of the subject in the second conjunct under identity with the determiner of the first conjunct's subject. At least in certain cases, it seems that the availability of Gapping the determiner in the second conjunct lives on the ability of the antecedent determiner to scope outside the coordination, and this is an ability provided by Gapping.

Levine and Kubota (2013) offer the interesting counterexamples to McCawley's generalization in (103).

(103)   a. Some dog barked and donkey brayed last night.
         b. No dog barked or donkey brayed last night.

In these examples it seems that *some* and *no* have elided from the subject of the second conjunct without an accompanying instance of Gapping in the second conjunct. As with (102a), the meaning of (103b) requires that the "not" part *no* scope outside the disjunction, and this, McCawley suggested, should only be achievable in contexts where Gapping has applied. If there is no Gapping in these examples, it suggests that the process responsible for removing determiners in coordinations is independent of Gapping.
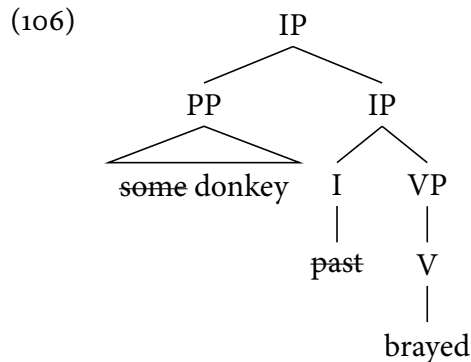
Interestingly, when the tenses of the conjuncts differ, as in (104), these examples become ungrammatical.

(104)   a. * Some dog barked and donkey brays.
         b. * Some dog barks and donkey brayed.
         c. * No dog barked or donkey brays.
         d. * No dog barks or donkey brayed.

If the conjuncts are both in the present tense, then just as in (103), the results are grammatical.

(105)   a. Some dog barks and donkey brays tonight.
         b. No dog barks or donkey brays tonight.

This could be explained if Gapping has indeed applied in (103) and (105), but what has Gapped is not the verb but the tense. The structure for the second conjunct in (103a), on this view, would be (106).

(106)

```
                    IP
              ┌──────┴──────┐
             PP             IP
          ┌───┴───┐      ┌──┴──┐
        ~~some~~ donkey  I     VP
                         │     │
                       ~~past~~ V
                               │
                            brayed
```

This would account for why the tenses must be the same in the two conjuncts – Gapping of tense will only be successful if the tenses are the same – and these cases then fall into McCawley's generalization: when Gapping applies to the predicate in a conjunct, the determiner of that conjunct's subject can Gap too.

It seems, then, that it's Gapping's ability to let the determiner of the first coordinate's subject escape the scope of the disjunction, or conjunction, that is responsible for their ability to Gap. This, perhaps, is why the determiner *a* seems unable to Gap in these contexts – another discovery in McCawley – since when a takes wide scope it does so by means quite different from other quantifiers.

(107)   * A soup was too salty and pie too sweet, but otherwise the food was outstanding.

(McCawley 1993, (5a): 245)

To fit these instances of determiner Gapping into the framework in (69) for understanding the constituency of gaps is quite a challenge. It would seem to require moving all of the subject, except its determiner, along with whatever other remnants there are, out of the VP, and then Gapping that VP. For some recent attempts at just that, see Lin (2002), Johnson (2000a,b) and Ackema and Szendrői (2002).

McCawley's paraphrase of (101a) in (101b) brings out another aspect of the Gapping construction: it has a superficial similarity to the use of *respectively* in coordinations. Not only does a Gapping sentence like (108a) mean something very like what (108b) means, they both involve focus on the related, compared, terms in a similar fashion.

(108)   a. Jill ate beans and Jerry ~~ate~~ rice.
         b. Jill and Jerry ate beans and rice respectively.

Moreover, the constraints on the strings that may Gap roughly match the constraints that the *respectively* construction places on the distance between the coordinated phrases that are being related. So, for instance, just as a string that includes a part of an adjunct clause cannot be Gapped (witness (109a)), so also is it impossible to relate two coordinates with *respectively* across an adjunct (as in (109b)).

32

(109) a. * Tom went to Florida to learn to play tennis and Bill ~~went to Florida to learn to play~~ squash.

   b. * Tom and Bill went to Florida to learn to play tennis and squash respectively.

Similarly, *respectively* seems unable to relate coordinates that are separated by a finite clause in the same way as (60a) (repeated here as (110a)) indicates that Gapping cannot reach into a finite clause.

(110) a. * Charles decided that 20 boys are coming along and Harrie ~~decided that~~ 30 girls ~~are coming along~~.

   b. * Charles and Harrie decided that 20 boys and 30 girls are coming along respectively.

The match isn't perfect: *respectively* can apply to a coordinated argument within a prepositional phrase, as in (111a) and, as we've seen, Gapping cannot target a remnant in this position (compare (111b)).

(111) a. John and Jill stood beside Jim and Mary respectively.

   b. * John stood beside Jim and Jill ~~stood beside~~ Mary.

Still, to a large degree, the constraints on these two constructions are the same. This has led some to attempt to derive one construction directly from the other (see Hudson 1976 and Moltmann 1992 for extended analyses along these lines, and Dougherty 1970, 1971, Goodall 1987, and Muadz 1991 for some relevant discussion). Another coherent approach, however, would be to give to both Gapping and *respectively* a syntax that triggers the same family of constraints.[24]

6 Explanations

An important open question is how Gapping fits into the larger typology of ellipsis. If we are to explain the various odd features of Gapping just reviewed, we should discover how the mechanisms responsible for ellipsis combine to produce Gaps.

   As sketched above, it is possible to distinguish Gapping from Right Node Raising and other coordination-specific ellipses.[25] To the extent, however, that Gapping is restricted to coordinations, there is some reason for hoping that a common underlying licensing environment for all these phenomena exists. Perhaps Gapping is one consequence of the syntax of coordination, which is known to produce unorthodox constituencies. This is the direction that Goodall (1987), Steedman (1990, 1996),

24 See Beck (2000) for an approach along these lines.
25 See McCawley (1998, chapter 9) for a useful canvass.

Muadz (1991), Moltmann (1992), Munn (1993), Zoerner (1995), and many others take. Johnson (2009) expresses a variant of this school that attempts a reduction of Gapping to across-the-board movement, and Vicente (2010) provides arguments against this proposal. The challenge for these accounts is in explaining why Gapping is restricted to VPs (and APs in predicate position), even in languages where coordinations can bring together a wider class of phrases. If Gapping is just one of the ways that coordinations can be expressed, then the null hypothesis is that it should arise in all those situations where coordination is available, and that isn't what happens.

But Gapping also has similarities with the sorts of ellipses that are found in Sluicing and VP Deletion, and this has animated an attempt to overcome the difficulties sketched above for equating these phenomena. Hartmann (1998) proposes that Gapping is a kind of ellipsis that is especially sensitive to the prosody of the sentences it targets. (See Féry and Hartmann (2005) for a study of the prosody of Gapping in German.) And Coppock (2001)[26] argue for an extension of VP Ellipsis which would allow it to produce Gapping. This approach explains why Gapping is restricted to VPs (and perhaps also APs), but faces the challenge of explaining why it only arises in coordinations.

The leading idea in Coppock goes as follows.[27] Gapping is just VP Ellipsis in a situation where what has been conjoined are the VPs beneath an auxiliary verb. That the scenarios where Gapping applies are ones in which VPs have conjoined is the analysis Siegel (1987) gives for examples such as Oehrle's (112).

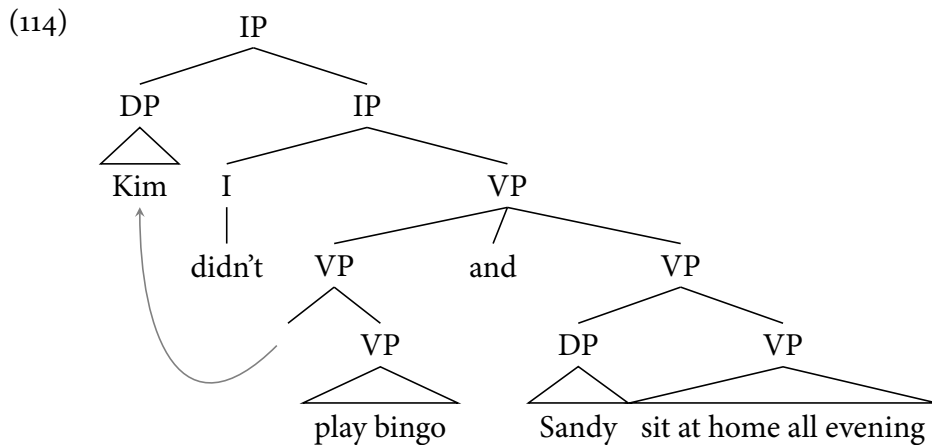(112)   Kim didn't play bingo and Sandy sit at home all evening.

Recall that in these examples, the negation in *didn't* scopes over the conjunction. Siegel suggests that this is because *didn't* is in fact syntactically positioned outside the coordination. On standard assumptions, *didn't* sits in the head position of a sentence and combines with a VP. If we assume that subjects can stand in the Specifier of VP position, then this leads to the expectation that structures like (113) should be possible.

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26 And to a lesser extent, Lin (2002)
27 See also Johnson (2009) and Toosarvandani (to appear).

(113)

```
                    IP
         ┌──────────┴──────────┐
         I                     VP
         │           ┌─────────┼─────────┐
       didn't       VP        and        VP
              ┌──────┴──────┐      ┌──────┴──────┐
             DP            VP     DP             VP
            ╱‾╲           ╱‾╲    ╱‾╲          ╱‾‾‾‾‾╲
           Kim      play bingo  Sandy   sit at home all evening
```
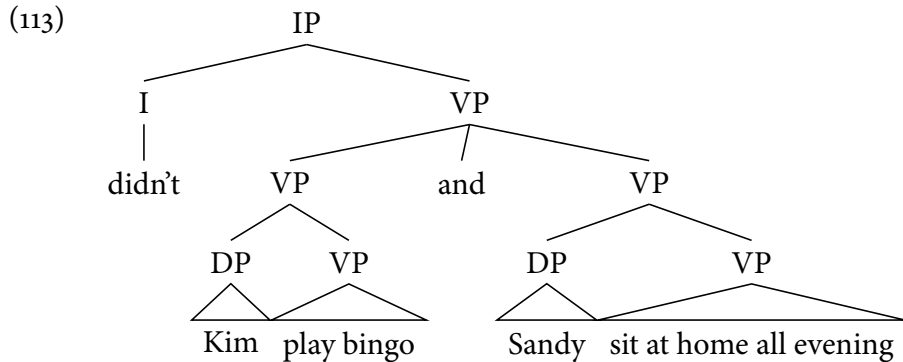
In (113), the subjects of each VP sit in the Specifier of VP and this, obviously, does not get the word order right. Siegel's proposal was to let subjects be able to be generated in either Specifier of VP or Specifier of IP, and then force Specifier of IP to be occupied. This allowed only the subject of the second conjunct to sit in Specifier of VP. The now standard Derived Subjects Hypothesis, which requires all subjects to be generated in Specifier of VP, would produce a structure like that in (113) for the underlying representation of (112). To produce the surface word order could be achieved by letting the subject of the first VP move into Specifier of IP, as in (114).

(114)

```
                   IP
         ┌─────────┴─────────┐
        DP                   IP
       ╱‾╲           ┌────────┴────────┐
      Kim            I                 VP
                     │       ┌─────────┼──────────┐
                   didn't   VP        and         VP
                           ┌─┴─┐            ┌──────┴──────┐
                          VP              DP             VP
                         ╱‾╲             ╱‾╲         ╱‾‾‾‾‾╲
                     play bingo         Sandy   sit at home all evening
```

   This movement appears to violate Ross (1967)'s Coordinate Structure Constraint, which prohibits movement out of a coordination. Lin (2001) proposes a solution to this problem that involves adopting the view in Ruys (1992) that Ross's constraint is a semantic one. Lin argues that the movement in (114) is semantically vacuous, and provides evidence that when the movement in (114) is not semantically vacuous, the result is ungrammatical. Thus the Coordinate Structure Constraint ends up confirming the representation in (114).

   VP Ellipsis plays a role when the main verb, and possibly other portions of the VP, are elided. For instance, (115) will have the representation in (116).

(115)   Some will bring it today and others tomorrow.

(116)
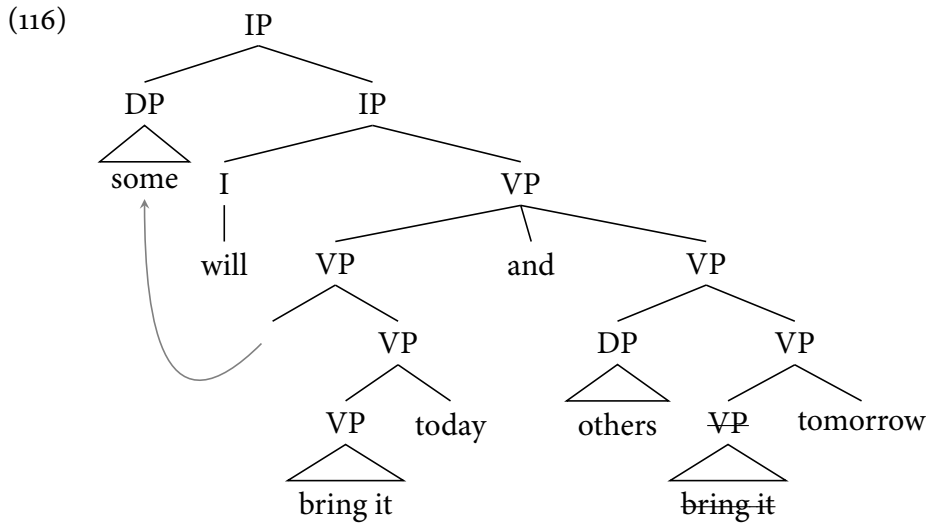
The modal has Gapped in (115) by virtue of being outside the conjunction, and the rest of the material has Gapped by virtue of VP Ellipsis. Gapping, then, acquires traits from both key ingredients: coordination and ellipsis.

Note that VP Ellipsis in English can leave a direct object behind, as in examples like (117). (These are the cases that Stump called "pseudo-gapping.")

(117)   Will likes rice but he doesn't natto.

And this could be the source for examples of Gapping like (118).

(118)   Some like rice and others natto.

This analysis of Gapping has various virtues. It explains why it's only portions of VPs that can Gap, since VPs are the only phrase that can be targeted by VP Ellipsis.[28] It also explains why Gapping only arises in coordinations: it is coordination that is responsible for putting the contents of I^0 out of the second conjunct. It also provides a means for explaining some of the unusual scope properties. For instance, that the negation in (112) scopes over the coordination emerges simply from the geometry of the parse.

It also explains why the phrases that are coordinated in a Gapping construction cannot contain complementizers, as in (119).

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28 In fact, "VP Ellipsis" can affect other phrases if they are the main predicates of a sentence, as in (i).

(i)   He should be happy and she should be [$_{AP}$ △] too.

And so we predict that Gapping should be available in such contexts as well.

(119)   a.   * She believes [[that some ate natto] and [that others rice]].

        b.   * He wanted [[for some to eat natto] and [for others rice]].

compare:

             She believes [that [some ate natto] and [others rice]].

             He wanted [for [some to each natto] and [others rice]].

If what has coordinated in Gapping constructions is a VP, and not a full clause, then the impossibility of a complementizer within the conjuncts is expected.

    Note that if that is the correct explanation for (119), then it entails that in Pesetsky's (68a), the coordinates are not full embedded indirect questions as might otherwise appear.

(68a)   Bill asked [which books I gave to Mary and which records to John].

                                      (Pesetsky 1982, (126): 646)

That is, the source for the Gap in (68a) cannot be (120), where two CPs are conjoined, but is instead (121), where the second clause has a wh-phrase in situ.

(120)   Bill asked [$_{CP}$ [$_{CP}$which books I gave to Mary] and [$_{CP}$which records ~~I gave~~ to John]].

(121)   Bill asked [$_{CP}$which books I [gave to Mary] and [~~gave~~ which records to John]].

This would require that *which books* move out of the first conjunct in a way that violates the Coordinate Structure Constraint. (We'll return to this issue below.) It would also require that *which records* be part of the same question that is formed by moving *which books*, in much the same way that *which records* is understood as part of the same question formed by moving *which students* in (122).

(122)   Which students gave which records to John?

If Gapping forces the wh-phrase in the second conjunct of these examples to stay in situ, we get a (perhaps better) explanation of the contrast Pesetsky offered for (68a) and (68b).

(68b)   * Bill asked which books Mary likes, and which records, John.

The source for (68b) would not be (123), which doesn't have the weak ungrammaticality of (68b).

(123)   Bill asked [$_{CP}$ [$_{CP}$ which books Mary likes] and [$_{CP}$ which records John ~~likes~~]]

Instead, the source for (68b) would be (124), whose second conjunct is a VP that contains the object and subject in that order.

(124)   Bill asked [$_{CP}$ which books Mary [$_{VP}$[$_{VP}$ liked] and [$_{VP}$ ~~liked~~ which records

John]].

Grammatical instances of VPs in English with the requisite object+subject word order are not easy to find, and this might then be the reason (124) is ungrammatical.

If examples like (68a), then, can be analyzed in this way, it's possible that Gapping is not tolerated if the second conjunct is a full CP. This would be explained by an account of Gapping that makes it just Pseudogapping in contexts where VPs have conjoined.

Some of the constraints on Gapping that we have seen can also be given an explanation under this analysis. For instance, part of the No Embedding Constraint straightforwardly emerges. The fact that Gaps cannot appear in embedded environments arises because the coordination necessary to manufacture these cases isn't available. Consider, for example, (125), in which this constraint is violated.

(125)   * Carrie will eat beans and no one knows that Mary natto.

To produce (125), the account would require that the VPs conjoined under *will* be *eat beans* and *eat natto*, and that is at odds with the embedded position that *eat natto* has. Because it derives the No Embedding Constraint, it will also force the remnants of a Gap to be outside of the VP that constitutes the second conjunct. In those cases where the remnant is embedded within that VP, this means that the remnant will have to move. Thus, for instance, in (126), the object *a play* will have to have moved out of the second conjunct.
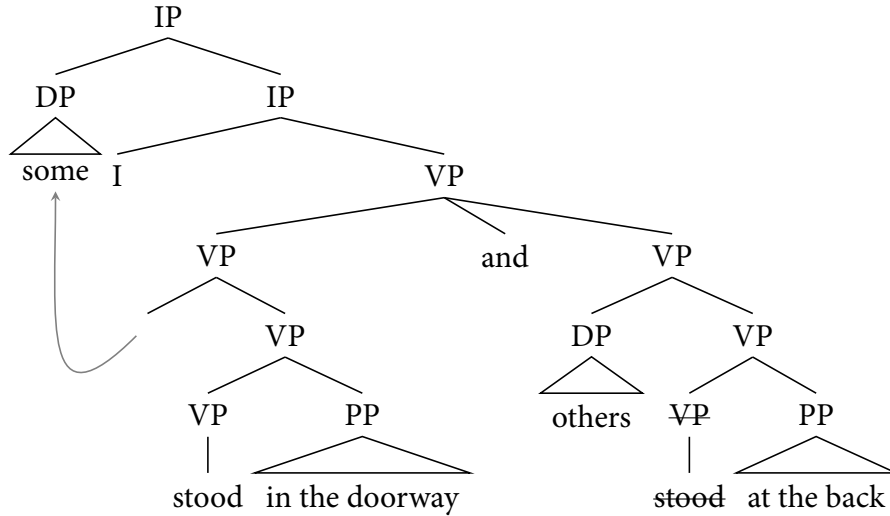
(126)   I want to write a novel and [$_{VP}$ Mary [$_{VP}$ ~~wants to write~~   ] a play].

This movement should be subject to the usual constraints on movement, and this could be the source of the island conditions that Neijt examined. The ungrammaticality of (127), for instance, would arise because *a play* will have to have moved out of an indirect question.
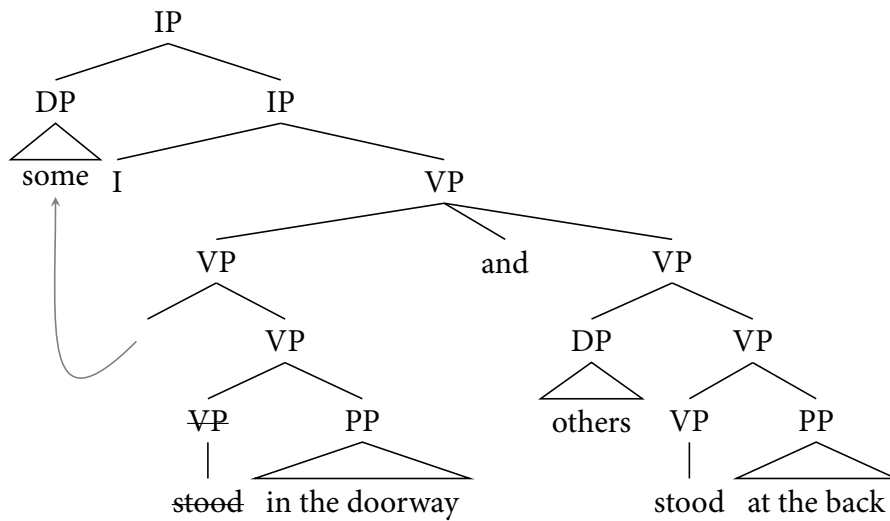
(127)   * I asked when to write a novel and [$_{VP}$ Mary [$_{VP}$ ~~asked when to write~~
] a play].

And, finally, this account explains the direction of Gapping: the Gap must always be in the right conjunct in English and its antecedent in the left conjunct. Because the heads of phrases in English are on the left, the fact that the modal or auxiliary appears to the left of the conjunct, and not to the right, follows. To see why this also derives how the rest of the material that Gaps can elide in the right conjunct but not the left requires seeing how VP Ellipsis plays out in these environments. What we wish to see is why (128a) is grammatical but (128b) is not.

(128) a.   Some stood in the doorway and others at the back.

IP tree diagram for (128a): IP branches to DP (some) and IP; IP branches to I and VP; VP branches to VP and VP with "and" coordinating; first VP branches to VP which branches to VP (stood) and PP (in the doorway); second VP branches to DP (others) and VP which branches to VP (~~stood~~) and PP (at the back).

b.   * Some in the doorway and others stood at the back.

IP tree diagram for (128b): IP branches to DP (some) and IP; IP branches to I and VP; VP branches to VP and VP with "and" coordinating; first VP branches to VP which branches to VP (~~stood~~) and PP (in the doorway); second VP branches to DP (others) and VP which branches to VP (stood) and PP (at the back).

In (128b), VP Ellipsis will have had to elide the VP in the first conjunct and find its antecedent in the second. As we can see from (129), however, this seems to be independently prevented.

(129)   * Sally will ~~stand~~ in the doorway but she won't stand at the back.

Unless this condition on VP Ellipsis is subject to language variation, we should expect that Gaps can only appear in the second of two conjuncts. There should be no backwards Gapping of the sort that Ross thought he detected in Japanese in Turkish, then. In such cases, what appears to be Gapping should instead be credited to Right Node Raising or to a low coordination. See Ha (2008) for discussion of this issue.

This is presently the most successful account of Gapping that attempts to reduce it to other, more general, processes. But it does harbor problems. It doesn't provide an account for why the antecedent to a Gap cannot be embedded (this is part of the No Embedding Constraint, and illustrated in (21)).[29] And it leads to the erroneous prediction that Gapping should only be possible in languages that otherwise have VP Ellipsis (see (25) for an illustration that this isn't true). It also leads to the expectation that the auxiliary or modal that stands outside the coordination should only be able to scope over the coordination. This, as we've seen, isn't always the case. Siegel, recall, finds a contrast in (130).

(130)   a.   Ward can't eat caviar and his guest eat beans.

         b.   Ward can't eat caviar and his guest beans.

In both (130a) and (130b), *can't* is able to scope over the coordination in the way that this account is designed to explain. But in (130b), it is also possible for *can't* to be construed in each conjunct. That is, (130b) (but not (130a)) can be synonymous with *Ward can't eat caviar and his guest can't eat beans.* This indicates that *can't* is semantically part of the second conjunct, and that is just what this account denies.

Further, there are Gapping examples discussed by Repp (2006a,b, 2009) in which some speakers find that the scope of negation is trapped within just the first conjunct. One of these is (131).

(131)   Pete wasn't called by Vanessa but John by Jessie.

                                                              (Repp 2009, (3.2): 84)

Repp reports that her consultants give (131) an interpretation synonymous with *Pete wasn't called by Vanessa but John was called by Jessie.*[30] This is not predicted by the account sketched here as the negation in (131) should be in the same position that *was* is, and this is forced to be outside the coordination. For this example to fall in line with the account, it would be necessary to see negation as having a lower position, one that would put it inside the VP that has elided.

Repp reports a similar reading for German examples of Gapping like that in (132).

(132)   Carl hat meine Katze nicht genommen, aber Harry meinen Hamster.
         Carl has my   cat   not   take,   but Harry my   hamster
         'Carl didn't take my cat but Harry ~~took~~ my hamster.'
                                                              (Repp 2009, (3.21): 94)

The interpretation in which *nicht* negates just the first conjunct in (132) requires a prominent high-low tone contour on *nicht*. This case seems more likely to be

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29 See Toosarvandani (to appear) for an attempt to overcome this problem.
30 This example is ungrammatical in my English.

accommodated by the account, as the position of *nicht* in German is likely much lower than is the position of English *not*. It's conceivable that the VPs that coordinate in German Gapping constructions could still contain *nicht*. (132) would arise if the first of these conjoined VP contained *nicht* and the second didn't. The prosodic prominence of *nicht* might be required to signal that it is not part of the antecedent to the ellipsis. See Repp (2009) for discussion, and an account that differs slightly.

And finally, there are examples which suggest that the strings which can Gap are not exactly the strings that can be elided by Pseudogapping. For instance, Stump (1977) suggests that clausal complements cannot be remnants of Pseudogapping but that they can be remnants of Gapping. He reports the contrasts in (133) as support.

(133)   a.   i.   Alan claimed that he was cheated, and Sandy that she was the one who cheated him.

         ii.   * Alan claimed that he was cheated, and Sandy did that she was the one who cheated him.

      b.   i.   Alan prefers for Tom to do it, and Sandy for Alan to do it.

         ii.   * Alan prefers for Tom to do it, and Sandy does for Alan to do it.

      c.   i.   John wants to go to Europe, and Mary to go with him.

         ii.   * John wants to go to Europe, and Mary does to go with him.

And I believe that the predicate part of a small clause or exceptional Case-marked infinitive makes a better remnant for Gapping than it does for Pseudogapping. I find the contrasts in (134).

(134)   a.   i.   Some believe him handsome and others brave.

         ii.   * Some believe him handsome and others do brave.

      b.   i.   Some believe him to be handsome and others to be brave.

         ii.   * Some believe him to be handsome and others do to be brave.

Examples like these, then, suggest that Gapping is not merely the result of Pseudogapping applying in a low coordination. Gapping has abilities that Pseudogapping doesn't.

In summary: Gapping is a construction in which the highest verb, along with portions of its VP, are elided in the second of two conjuncts. It obeys the No Embedding Constraint (unless its Farsi), it invokes a particular prosodic pattern and it allows certain parts of the first conjunct to scope over the coordination. Presently, there are the two central lines of explanation for these properties being pursued. One makes Gapping a special instance of the way in which coordinations are expressed. The other makes Gapping be a special instance of VP Ellipsis, one which arises just in coordinations.

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