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The syntax and licensing of Gapping and Fragments

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CHAPTER 1

Introduction

1 Introduction to ellipsis

Ellipsis (from the Greek *élleipsis* ‘omission’) has been a much studied topic in generative linguistics and still is. The interest for this phenomenon, at least in part, is due to the fact that there is meaning, but no sound in ellipsis. For example, the VP ellipsis in (1a) gives rise to the interpretation *come home*, even though there is no phonological content. As shown by the examples in (1), aside from VP ellipsis, different categories can be targeted by ellipsis. Sluicing, in (1b), is ellipsis after a *wh*-phrase and deletes a clausal category. NP ellipsis in (1c) deletes a noun phrase.

- (1) a. John came home, after Mary did [_{VP} ~~come home~~]. VP ellipsis
b. John saw someone, but I don't know who [_{TP} ~~John saw~~]. Sluicing
c. John ate two apples and Bill ate three [_{NP} ~~apples~~]. NP ellipsis

The discrepancy between (lack of) form and meaning in ellipsis gives rise to several interesting questions among which are the following.

1. What is the linguistic representation of an ellipsis site?
2. What is the role of the preceding linguistic context (i.e. what characterizes a proper antecedent for ellipsis)?
3. What is the role of the preceding linguistic context (i.e. what is the relation between the antecedent and the ellipsis)?

We will briefly take up these questions one by one in the next sections.

1.1 Theories on the nature of ellipsis

There are two main lines of research when it comes to the analysis of the ellipsis site. The first type of approach assumes that the ellipsis site is void of any syntactic structure (e.g. Ginzburg and Sag, 2000; Culicover and Jackendoff, 2005). The minimal syntax that these theories postulate comes at the cost of a more complicated syntax-semantics mapping. I discuss this approach in more detail in chapter 2, where we will see that it faces many obstacles. The second type of approach takes the ellipsis site to contain syntactic structure. Two sub-types can be distinguished within this tradition. The *pro*-theory of ellipsis assumes that the ellipsis site is a null-pronoun (Wasow, 1972; Shopen, 1972; Chao, 1988; Zagana, 1988; Chung et al., 1995; Hardt, 1993, 1999; Fiengo and May, 1994; Lobeck, 1995; López, 1995, 2000; Depiante, 2000; López, 2000). These approaches are based on the observation that ellipsis sites share many commonalities with pronouns. For example, both pronouns and ellipsis are subject to Langacker's (1969) Backwards Anaphora Constraint, which states that anaphoric elements (including ellipsis sites) may not simultaneously command and linearly precede their antecedents ((2b) is from (Ha, 2008)).

- (2) a. Jeff had to go to church last Sunday, because his children did.
 b. * Jeff did, because his children had to go to church last Sunday.
- (3) a. Mary went home, after she finished the report.
 b. * She went home, after Mary finished the report.
- (McCawley, 1984, p.220)

Another example of a similarity between ellipsis and pronouns is that both can have split antecedents, see (4).

- (4) a. John_i arrived and he bought Susan_j a drink. They_{i+j} left together.
 (Hardt, 1999)
- b. Sally wants to sail around the world, and Barbara wants to fly to South America, and they will, if money is available. (Webber, 1978)

The second type of analysis that assumes that there is structure in the ellipsis site is the so-called PF-deletion theory. Under this theory there is a full-fledged syntactic structure in the ellipsis site. As such, the syntax-semantics mapping proceeds as in a non-elliptical sentence. What sets apart an elliptical from a non-elliptical utterance is that in the former the phonological content is not pronounced (Ross, 1969; Hankamer and Sag, 1976; Sag, 1976; Wilder, 1997; Lasnik, 1999a,b; Johnson, 2001; Lasnik, 2001; Merchant, 2001; Tomioka, 1999, 2001; Goldberg, 2005). Over the years, a lot of evidence has accumulated supporting this view. I'll mention here three arguments for this approach.

Since there is no audible material in an ellipsis site, the presence of syntactic material must be detected indirectly. A strong indication that there is structure in the ellipsis site comes from movement (Johnson, 2001). The examples in (5) show

that *wh*-movement out of an elided VP is possible, which strongly suggests that there is structure in the VP ellipsis site. The examples in (6), on the other hand, involving the deep anaphor *do it*, do not allow for extraction (Hankamer and Sag, 1976).

- (5) a. I know which book Max read, and [which book] Oscar didn't [read t_i].
 b. This is the book of which Bill approves, and this is the one [of which] he doesn't [approve t_i]. (Fiengo and May, 1994, p.229)
- (6) a. * I know which book José didn't read for class, and which book Lulumae did it for him.
 (compare: *I know that José didn't read this book for class, but that Lulumae did it for him.*)
 b. * This is the book which O.J. Berman reviewed, and this is the one which Fred won't do it.
 (compare: *O.J. Berman reviewed this book but Fred won't do it.*)
 (Johnson, 2001)

Supporting evidence for the idea that there is extraction and thus structure in the ellipsis site comes from locality effects. The examples in (7) illustrate this on the basis of VP-ellipsis. What these examples show is that, if there is an island in the ellipsis site, this gives rise to ungrammaticality. The fact that island constraints, which are constraints defined in terms of syntactic structure, hold under ellipsis shows that movement takes place out of the ellipsis site. If there is no structure in the ellipsis site it is not clear where the ungrammaticality of the cases in (7) comes from.

- (7) a. * Abby wants to hire someone who speaks a Balkan language, but I don't remember [which Balkan language]_{*i*}; Ben does ~~want to hire someone who speaks~~ t_i
 b. * Abby knows five people who have dogs, but cats_{*i*}, she doesn't ~~know five people who have~~ t_i .

Another argument that there is structure in the ellipsis site is based on P(reposition)-stranding. Merchant (2001, 2004) observes that languages that normally allow P-stranding, also allow for this under Sluicing and Fragments. See, for example, the English and Swedish cases in (8) and (9). As shown in the b-cases, these languages allow P-stranding. The a-cases show that P-stranding is available under Sluicing, as well. Languages that do not normally allow P-stranding, on the contrary, also fail to strand a preposition under Sluicing and Fragments. Consider as an illustration the cases in (10) and (11) from Greek and Russian, respectively. As shown by the b-cases, these languages do not allow P-stranding. The a-cases show that P-stranding under Sluicing is likewise unavailable. This correlation between the availability of P-stranding and allowing for it under ellipsis follows straightforwardly if there is structure in the ellipsis site. In that case, the availability of P-stranding under ellipsis follows from the availability of P-stranding in non-elliptical cases. If, on the other hand, no structure is postulated in the ellipsis site, the correlation would have to follow from something else, though it is not clear what.

(8) **English**

- a. Peter was talking with someone, but I don't know (with) who(m).
 b. Who was he talking with?

(9) **Swedish**

- a. Peter har talat med någon; jag vet inte (med) vem.
 Peter has talked with someone I know not with who
 'Peter talked with someone, but I don't know who.'
 b. Vem har Peter talat med?
 who has Peter talked with
 'Who has Peter talked with?'

(10) **Greek**

- a. I Anna milise me kapjon, alla dhe ksero *(me) pjon.
 the Anna talked with someone but not I.know with who
 b. * Pjon milise me?
 who talked.3s with

(11) **Russian**

- a. Anja govorila s kem-to, no ne znaju *(s) kem.
 Anja spoke with someone, but not I.know with who
 b. * Wem wollte er mit tanzen?
 who wanted he with to.dance

Merchant (2001, 2004) also provides the following argument for structure in the ellipsis site. In languages in which DPs are marked with morphological case, this case marking must correspond to the case that is assigned by the verb in the antecedent, as shown in (12) for German. In a theory in which there is no structure, it must be stipulated that the case on the remnant of ellipsis is the same case as that of its correlate in the antecedent (e.g. Ginzburg and Sag, 2000), or that the verb in the antecedent somehow governs the case on the remnant of ellipsis. It is not clear how such a cross-clausal dependency should be implemented without making any stipulations. As Merchant points out, if there is structure in the ellipsis site, case marking straightforwardly proceeds as in non-elliptical cases.

(12) **German**

- a. Er will jemandem schmeicheln, aber sie wissen nicht, { *wer
 he wants someone.DAT flatter but they know not who.NOM
 / *wen / wem }
 who.ACC who.DAT
 'He wants to flatter someone, but they don't know who.'
 b. Er will jemanden loben, aber sie wissen nicht, { *wer /
 he wants someone.ACC praise but they know not who.NOM
 wen / *wem }
 who.ACC who.DAT
 'He wants to praise someone, but they don't know who.'

Although the debate about whether ellipsis involves a *pro*-form or PF-deletion has not been settled, some of the arguments that have been brought forth to support the *pro*-form approach to ellipsis do not necessarily argue against the PF-deletion approach to ellipsis. Merchant (to appear), for example, shows that the idea that the ellipsis site contains structure does not rule out the possibility that the ellipsis site is treated as a variable in the semantics. On the other hand, some of the facts arguing in favor of the PF-deletion approach to ellipsis are hard to account for under the *pro*-form analysis of ellipsis. The fact that ellipsis sites show clear signs of the presence of syntactic structure is hard to account for under the view that ellipsis sites are structureless pronouns. Of course, it is still possible that both the *pro*-theory and PF-deletion are needed to obtain a full empirical coverage, as argued by, for example, Craenenbroeck (2010). Much of the discussion in this dissertation adds to the body of evidence in favor of the PF-deletion theory of ellipsis.

1.2 The identity condition

A successful instance of ellipsis requires that there be an antecedent available in the discourse. This antecedent should be sufficiently identical to the ellipsis site. At this point, there is no consensus as to what counts as identical. One theory that has been proposed is that syntactic isomorphism is necessary for ellipsis to go through. Under this approach, the antecedent and the ellipsis site must have identical syntax (e.g. Sag, 1976; Fiengo and May, 1994; Chung et al., 1995; Lasnik, 2001; Merchant, 2008a). Another theory that has been proposed is that ellipsis is subject to a semantic identity condition (e.g. Dalrymple et al., 1991; Hardt, 1993; Romero, 1998; Merchant, 2001). Both camps provide fairly strong evidence in favor of their view. To illustrate, consider the following argument in favor of a syntactic isomorphism account. (13) presents examples of Sluicing where the correlate of the *wh*-phrase is an implicit argument in the antecedent (these cases are called *Sprouting* in Chung et al. (1995)) in which the preposition is pied-piped with the *wh*-phrase. Chung (2006, 2013) notes that ellipsis is ungrammatical when there is P-stranding in the ellipsis site, but not in the antecedent, see (14). Since P-stranding makes no semantic contribution, these facts suggest that the identity condition is at least in part syntactic/lexical. Chung argues that the ellipsis site may not contain any words that are not available in the antecedent (the *no new words condition*).

- (13) a. They're jealous, but it's unclear of who.
 b. Joe was murdered, but we don't know by who.
 c. Last night he was very afraid, but he couldn't tell us of what.
- (14) a. * They're jealous, but it's unclear who(m).
 b. * Joe was murdered, but we don't know who(m).
 c. * Last night he was very afraid, but he couldn't tell us what.

On the other hand, there is a plethora of arguments in favor of a semantic identity condition. These arguments concern cases in which there is no syntactic identity,

yet ellipsis is perfectly fine. For example, a sentence containing a gerund can antecede a sluice containing an infinitive, see (15). This constitutes a case where the antecedent and ellipsis are not syntactically isomorphic.

- (15) Decorating for the holidays is easy if you know how ~~[to decorate for the holidays]~~. (Merchant, 2001, p.22)

Similarly, as is well-known, VP-ellipsis allows voice mismatches under ellipsis. That is, an active antecedent may antecede a passive ellipsis clause (16a) or the other way around (16b). These cases constitute another illustration of a syntactic mismatch between antecedent and ellipsis site (though see Merchant (2008a) for an account of these data in terms of a syntactic identity condition).

- (16) a. Steve asked me to send the set by courier through my company insured, and it was ~~sent by courier through my company insured~~. (Kehler, 2002, p.53)
 b. This information could have been released by Gorbachev, but he chose not to ~~release it~~. (Hardt, 1993, p.37)

In this dissertation, I adopt the theory of the identity condition as developed in Rooth (1992) and Tancredi (1992). Rooth and Tancredi propose that the conditions under which ellipsis is allowed to take place, also govern when deaccenting can take place. Although I will not discuss deaccenting in any detail in this dissertation, it is worth noting that this phenomenon shares many characteristics with ellipsis. Therefore, unless we have solid evidence to the contrary, I believe it is best to treat ellipsis and deaccenting on a par. The identity condition I adopt is given in (17).

- (17) **Parallelism:**
 Every phonologically reduced (elliptical or deaccented) sentence E requires that the discourse will contain an antecedent sentence A , which belongs to the focus value of E ($A \in F(E)$). (adapted from Fox, 1999, p.73)
- (18) **Focus semantic value of α , $F(\alpha)$:**
 The set of denotations produced by substituting all elements of the appropriate semantic type for every focused element in α . (Rooth, 1985)

Rooth and Tancredi propose that both ellipsis and phonological reduction require a parallel antecedent sentence. Both authors are aware, though, that the facts are, in fact, more complicated. Specifically, the conditions under which ellipsis may take place are a little stricter than the conditions under which deaccenting is allowed. In (19a) (where deaccenting is indicated with cursive font), for example, the antecedent *call Mary an idiot* allows deaccenting of *insulted her*. This requires the inference that calling someone an idiot implies insulting that person. Under the hypothesis that deaccenting and ellipsis are possible under the same conditions, it comes as somewhat of a surprise that this inference is not possible under ellipsis, see (19b).

- (19) a. First Bill called Mary an idiot. Then John *insulted her*.
 b. * First Bill called Mary an idiot. Then John did ~~insult her~~.

To maintain the idea that the conditions under which deaccenting is allowed are the same as the conditions under which ellipsis is allowed, Rooth (1992) proposes that ellipsis and deaccenting both need a parallel antecedent (cf. (17)), but that ellipsis (but not deaccenting) is subject to an additional condition that the ellipsis site needs to be syntactically isomorphic to the antecedent. Under that account, (19b) is ruled out, because [call Mary an idiot] is not syntactically identical to [insult her].

Merchant (2001) takes a different tack and argues that the identity condition on ellipsis and deaccenting is semantic. On the basis of the difference between (19a) and (19b) Merchant proposes that ellipsis is subject to a stronger semantic condition. Roughly, Merchant's proposal is that in deaccenting, the antecedent must entail the deaccented phrase. Deaccenting in (19a) is allowed, then, because calling someone an idiot entails insulting that person. For ellipsis, however, the antecedent must entail the ellipsis clause, but the ellipsis clause must also entail the antecedent (Merchant calls this condition e-GIVENness¹). Ellipsis is disallowed in (19b), then, because the entailment only goes one way: calling someone an idiot entails insulting that person, but insulting a person does not entail calling that person an idiot. Merchant's proposal captures the facts, though it comes at the cost of having to differentiate between deaccenting and ellipsis, thus giving up the idea that deaccenting and ellipsis are possible under the same conditions. As said, this is unfortunate, since it is preferable that surface anaphora are allowed under the same conditions.

Fox (1999), building on Tancredi (1992), shows that there is no need to abandon this idea. According to Tancredi and Fox, the crucial difference between (19a) and (19b) is that in (19a), there is overt material in the deaccented phrase. Fox proposes that deaccented material is *accommodation seeking*. That is, the non-F marked elements in the deaccenting clause 'look for' an antecedent. If that antecedent is not in the focus value of the ellipsis, then an antecedent that is inferred from the antecedent clause that *is* in the focus set of the ellipsis may be used instead. The case of ellipsis in (19b) does not allow for accommodation, as it does not contain accommodation seeking material. Under Fox' theory, then, there is a single condition on ellipsis and deaccenting.

Hardt (2005a,b) notes that this is not the whole story, since ellipsis also allows for accommodation, as noted by Webber (1978). To illustrate, consider the following

¹Merchant's (2001, p.26) E-GIVENness condition is given in (i).

i. **e-GIVENness**

An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo \exists -type shifting,

- i. A entails F-clo(E), and
- ii. E entails F-clo(A)

F-closure

The F-closure of α , written F-clo(α), is the result of replacing F-marked parts of α with \exists -bound variables of the appropriate type (modulo \exists -type shifting).

example.

- (20) Irv and Martha wanted to dance together, but Martha couldn't.

According to Webber, ellipsis is allowed here, because the following inference holds *Irv and Martha wanted to dance together* \Rightarrow *Martha wanted to dance with Irv*.² Hardt notes that the inference that underlies (20) is not freely available under ellipsis. In (21), for example, inference is not available. Hardt suggests that this is because an antecedent is available that does not require inference (namely *wanted to dance together*).

- (21) Irv and Martha wanted to dance together, but Tom and Susan didn't want to.
 = Tom and Susan didn't want to dance together.
 \neq Tom and Susan wanted to dance with Irv.

Hardt's point is that Fox' idea that deaccented material acts as a trigger for accommodation is too restrictive. What acts as a trigger for accommodation is a mismatch between the anaphor (i.e. deaccented or elliptical phrase) and the actual antecedent. Since both deaccenting and ellipsis allow for accommodation, this no longer constitutes a reason to distinguish the two. Hardt (2005b) proposes the following condition on economy. The essential idea is that accommodation is only possible when a violation occurs.

- (22) **Hardt's (2005b) economy condition on accomodation:**

"[F]or a given discourse D, we produce a default LF L . If L violates no semantically visible constraints, it is the preferred interpretation. If L does violate one or more constraints, inferences can be performed to derive an alternative interpretation L' . L' is a potential interpretation of D if it avoids the constraint violations. If there are several such alternatives, those LF's closest to L are preferred."

- (23) **Hardt's (2005b) notion of closest:**

"[I]f A entails B and B entails C, then B is closer to A than C."

With these conditions on accommodation in place, we can now reformulate the Parallelism condition as follows.

²Hardt (1993) points out that for (20) it is still possible that the ellipsis site simply contains *dance* and that the reading *dance with Irv* is implied by the context. Hardt shows with the example in (i) that this is unlikely. Although the inference 'Martha couldn't nominate Irv' holds here, it cannot be due to the ellipsis site containing just the verb *nominate*, as *nominate* needs an object.

- i. Martha and Irv had planned to nominate each other, but Martha couldn't, because of her political obligations.

2 Gapping

Gapping is one of the main topics of this dissertation (next to Fragments, see below). Gapping is a term Ross (1967) coined for the constructions in (26). In such constructions the finite verb in the second conjunct of a coordination is missing. Next to the finite verb, other material may be silent, too, like the indirect object in (26b).

- (26) a. Some had eaten mussels and others shrimp.
 b. Some have served mussels to Sue and others swordfish. (Johnson, 2009)

Another elliptical construction, often taken to be a subtype of Gapping is Stripping. By definition, Stripping constructions consist of an elliptical phrase consisting of one remnant plus an additive marker like *too* (27a) or a polarity marker such as *not* (27b).

- (27) a. Abby speaks passable Dutch, and Ben, too.
 b. Abby speaks passable Dutch, but not Ben.

On account of the fact that Stripping has the same distribution as Gapping, I will take Stripping to be a subtype of Gapping. The main difference, namely the number of remnants, seems arbitrary. If we consider the polarity or additive marker in Stripping to be a remnant of ellipsis (Boone, 2014), Stripping no longer differs on the basis of the number of remnants.

In English there seems to be a restriction on Gapping that the number of remnants cannot exceed two, see (28).

- (28) a. * Simon quickly dropped the gold and Jack suddenly the diamonds.
 (Jackendoff, 1971)
 b. * John gave a dime to Mary, and Bill a nickel to Jane. (Jayaseelan, 1990)
 c. * John persuaded Bill to see a movie and Harry Mary a TV show.
 (Pesetsky, 1982, p.657)

I am not aware of any such restriction for other languages which have Gapping. The following example illustrates for Dutch that the number of remnants easily exceeds two.

- (29) Jan wil zondag de zonsverduistering fotograferen met een digitale
 John wants Sunday the solar.eclipse photograph with a digital
 camera, maar Karel maandag de maansverduistering met een analoge
 camera but Karel Monday the lunar.eclipse with an analogue
 camera.
 camera
 'John wants to photograph the solar eclipse with a digital camera on Sunday,
 but Karel wants to photograph the lunar eclips with an analogue camera on
 Monday.'

If the number of remnants is not restricted in principle (though it might be by some language particular factor that is independent of ellipsis), a distinction between Gapping and Stripping based on the number of remnants is arbitrary.

There are many theories on Gapping in the literature. I refer the reader to Tran (2010) and Repp (2009) for recent overviews and reviews of the literature on Gapping. This dissertation argues that Gapping is a type of ellipsis (i.e. deletion) (cf. Neijt, 1979; Ross, 1970; Jackendoff, 1971; Hankamer, 1973; Stillings, 1975; Sag, 1976; Hankamer, 1979; Oirsouw, 1987; Hartmann, 2000). In particular, in chapter 2 I show that Merchant's (2004) arguments for analyzing Fragments as a type of ellipsis that involves movement of remnants extend to Gapping. This provides additional evidence for the view that Gapping is derived by movement of remnants followed by deletion (Abe and Hoshi, 1997; Jayaseelan, 1990; Sohn, 1994; Kim, 1997b; Larson, 1990; Coppock, 2001; Lin, 2002).

One of the most peculiar properties of Gapping is its distribution. There are three distributional properties that characterize Gapping, illustrated in (30a-c) (the examples are taken from Johnson (2009)).

(30) **Distributional properties of Gapping**

- a. *Gapping is restricted to coordinate structures:*
 - * Some had eaten mussels, because others shrimp.
- b. *The gap cannot be embedded:*
 - * Some had eaten mussels and she claims that others shrimp.
- c. *The antecedent clause in gapping cannot be embedded:*
 - * She's said Peter has eaten his peas and Sally her green beans, so now we can have dessert.

I will henceforth refer to the collective of (30a-c) as the *Equal Conjunct Requirement*, of which a descriptive generalization is given in (31).

(31) **Equal Conjunct Requirement (ECR):**

Gapping only occurs in coordinations where gap and antecedent are directly conjoined.

Any account of Gapping will have to account for (31). Not many theories have taken issue with the distribution of Gapping (though see Hernández, 2007). One type of approach, which I refer to here as 'low coordination approach', specifically takes issue with the restricted distribution of Gapping. The low coordination approach is admirably successful at capturing the ECR, though it is not without problems. I turn to discuss this approach in the next section.

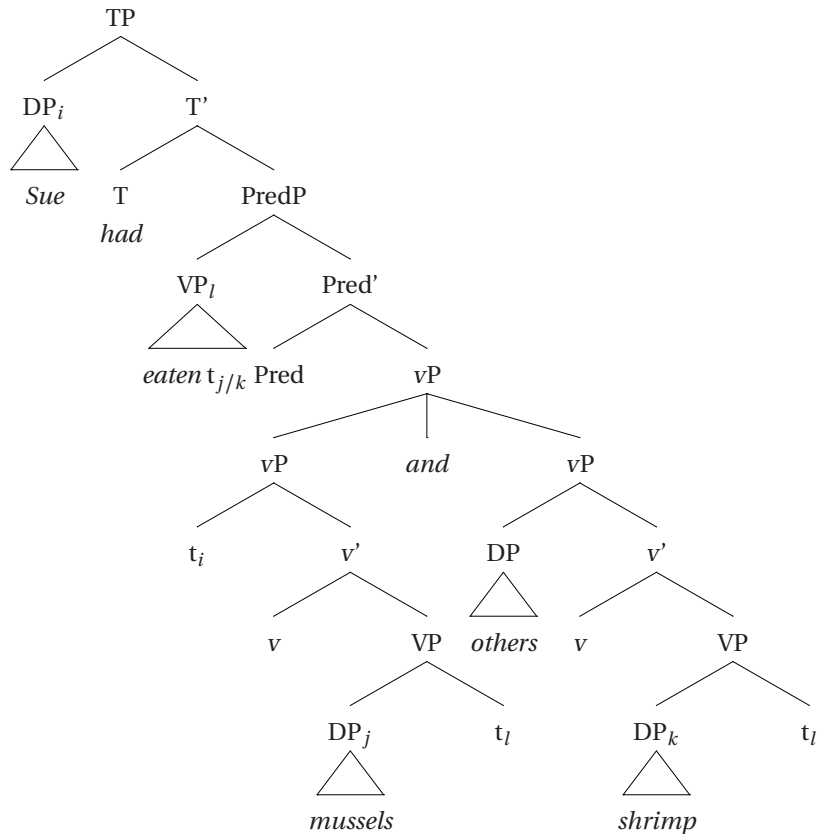
2.1 Low coordination accounts of Gapping

The low coordination approach specifically attempts to explain why the ECR holds. Two theories can be distinguished within this type of approach. Both theories make use of the idea that the coordination holds at a sub-clausal level. One approach is

defended in Johnson (2004, 2009), where it is argued that the gap in the second conjunct is the result of ATB movement of the gapped material to a position dominating the low coordination. The other theory defends the view that the gap in the second conjunct is created by ellipsis (cf. Coppock, 2001; Lin, 2002; Toosarvandani, 2013). I illustrate both accounts below.

Johnson (2004, 2009) argues that the coordination in Gapping is at the vP-level. The gap consists of a trace left by ATB movement of the VP. This VP moves to the specifier of PredP. This approach is illustrated in (32).

(32) **Low coordination plus ATB movement approach to Gapping:**



Noteworthy of this analysis is that the subject of the second conjunct of the coordination remains in situ, whereas the subject of the first conjunct moves to spec,TP. This raises two questions. First, why does movement of the first subject to spec,TP not violate the Coordinate Structure Constraint and second, how does the subject of the second conjunct get case? Johnson (2004, 2009) argues that A-movement is exempt from the Coordinate Structure Constraint. First, there seems to be no evidence for the idea that A-movement is subject to the Coordinate Structure Constraint. Moreover, there are, in fact, cases which seem to suggest that it isn't, such as

(33). In this example, *Mason* has moved from the spec,TP position in the first conjunct of the coordination to the object (i.e. accusative case) position in the matrix clause. The subject of the second conjunct does not parallel this movement, in violation of the Coordinate Structure Constraint. I refer the reader to Johnson (2004) and Lin (2002) for further discussion of A-movement and the Coordinate Structure Constraint.

(33) Liz made Mason_i out [_{TP} [_{TP} t_i to be intelligent] and [_{TP} Sarah to be kind]].

As for the question how the subject of the second conjunct gets case, this is not really clear. The data are not particularly helpful in this regard. For examples like the one in (34), different grammaticality judgments have been reported.³ This variation in judgments plausibly indicates that Case assignment proceeds exceptionally in low coordination Gapping cases.

- (34) a. She ate the beans, and he the rice.
b. She ate the beans, and him the rice.

Setting aside the problem of Case assignment to the subject of the second conjunct, there is strong evidence that Gapping can indeed occur in a low coordination. For example, Johnson (2009) shows that if the subject of the first conjunct is quantificational it can bind a pronoun in the second conjunct, see (35). This possibility follows straightforwardly from the parse in (32), where the subject of the first c-commands the subject of the second conjunct.

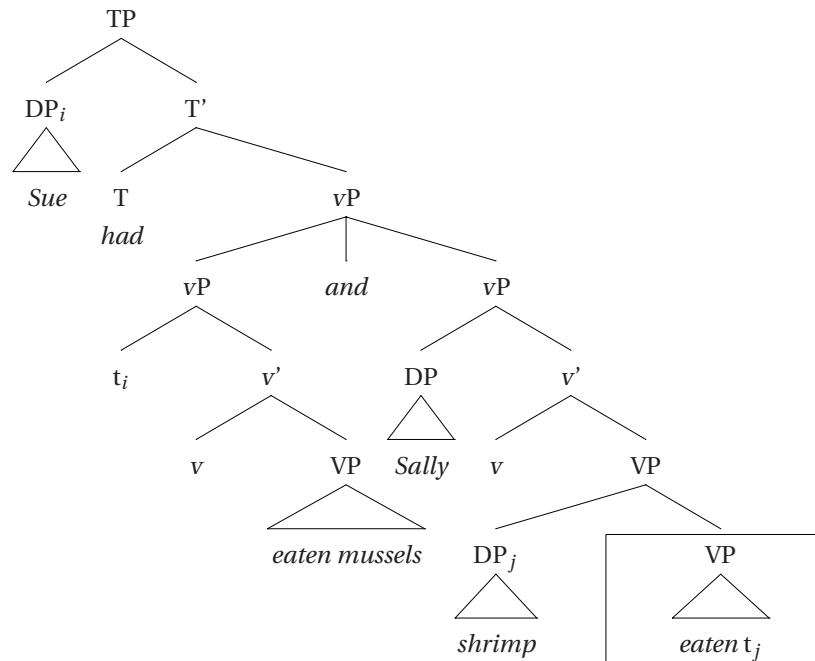
(35) [No woman]₁ can join the army and her₁ girlfriend the navy.

It should be noted, however, that, even though (35) provides evidence that Gapping is possible in a low coordination, this by no means implies that Gapping *must* occur in a low coordination.

Coppock (2001), Lin (2002) and Toosarvandani (2013) advocate a low coordination approach to Gapping in which the gap is created by VP-ellipsis (the elided VP is presented here with a box around it).⁴

³Johnson (2004) notes that both variants are grammatical. Siegel (1987) reports that only (34b) is grammatical. According to Lee (2005, fn.3), some speakers like (34a) and others both.

⁴Lin (2002) advocates a low coordination approach to Gapping in which the gap is created by ellipsis. However, in her account it is not VP-ellipsis, but a distinct ellipsis process. As such, it withstands some of the critique of the VP-ellipsis approach below, but at the cost of postulating a new ellipsis type.

(36) **Low coordination plus VP ellipsis approach to Gapping:**

How does the low coordination approach to Gapping explain the ECR? First, the fact that Gapping is restricted to coordinations follows from the fact that vPs are conjoined: only coordinators are able to conjoin two vPs, subordinators cannot, as they only coinjoin clauses. The second property, the fact that Gapping cannot be embedded, also receives an explanation. If the second conjunct were embedded, hence dominated by a non-shared TP, there would be another T-head in the structure. This T will spell out as an auxiliary, modal or dummy *do*, thereby giving rise to Pseudogapping, not Gapping. According to Johnson (2009), the VP-ellipsis approach to Gapping fails to explain the third property, namely that the antecedent of Gapping may not be embedded. In particular, the sentence in (30c) may receive the following parse under the VP-ellipsis analysis.

- (37) [_{TP} She_i has [_{vP} t_i [_{vP} said that Peter has eaten his peas]]] and [_{vP} Sally eaten her green beans]]

The ATB account straightforwardly rules out (37), since there is no landing position for the two VPs ([_{vP} eaten]) that need to move across the board. The only landing position from which both VPs would bind their trace is spec,PredP in the matrix clause (giving rise to *She has* [_{vP} eaten] *said that Peter has* t_{VP} *his peas and Sally* t_{VP} *her green beans*). In that case, however, the VP of the first conjunct has to skip the spec,PredP in the embedded clause headed by *said*, which arguably constitutes

a minimality violation.⁵ Even though the VP ellipsis account to Gapping cannot rule out the case in (37), it is clear that the low coordination approach in general does very well at explaining the ECR. Nonetheless, this approach is not without problems.

2.2 Problems for the low coordination approach to Gapping

2.2.1 Problems for the VP ellipsis account

In this section, I present arguments against the VP ellipsis account of Gapping. I start by presenting three contexts in which VP ellipsis cannot occur, yet Gapping can.

The first argument against the VP ellipsis approach to Gapping is from Johnson (2004). He observes that Gapping can target APs, as illustrated in (38).

- (38) a. I consider Liz fond of chocolates and Sam ~~fond~~ of pies.
 b. I made Sam angry at Beaner and Betsy ~~angry~~ at Perseus.

The problem (38) poses for the VP ellipsis approach to Gapping is that VP ellipsis is not able to elide APs in these contexts, as shown in (39). It is hard to see what gives VP ellipsis the ability to elide APs only in Gapping contexts. Proponents of the VP ellipsis approach would have to tie the deletion of APs to the fact that VP ellipsis applies in a low coordination. It is unclear how, if at all, this could be executed.

- (39) a. * Vivek made Nishi angry at Melissa, before he made Carrie [_{AP} ~~angry at Melissa~~].
 b. * Will seems happy today, while Nishi seemed [_{AP} ~~happy~~] yesterday.
 c. * I consider Betsy pretty, while you consider Sam [_{AP} ~~pretty~~].

Below, I add two arguments that are similar to Johnson's above in that Gapping takes place in a context in which VP ellipsis is not allowed. Arguably the most severe problem for the VP ellipsis account is that it is not suited to derive 'simple' Gapping sentences. As is well-known, VP ellipsis is only licensed when T is occupied by an auxiliary or by infinitival *to* (see Lobeck, 1995, among others). Neither are present in (40), yet Gapping is perfectly fine in this context, contrary to what the VP ellipsis account predicts.

- (40) Max ate the apple and Sally the hamburger. (Jackendoff, 1971)

⁵Alternatively, the VP of the first conjunct can be assumed to have to move through spec, PredP in the embedded clause to get to the matrix spec, PredP. This possibility can be ruled out by the assumption that movement to spec, PredP freezes the VP. In any case, movement to a next higher spec, PredP position must be ruled out to prevent overgeneration. That is, if movement to spec, PredP can skip or proceed through lower spec, PredP positions, cases like (i) would be incorrectly ruled in.

i. John [_{PredP} [_{VP} left] said he [_{PredP} t_{VP}]]

One may try to salvage the VP-ellipsis approach by proposing that an ‘empty’ T licenses ellipsis in (40). This solution would create more problems than it solves, however. If an empty T is able to license VP ellipsis in Gapping contexts, it should be possible for (40) to have the parse in (41).

- (41) [_{TP} Max ate the apple] and [_{TP} Sally T [_{VP} ate the hamburger]].

In other words, allowing VP ellipsis under an empty T in Gapping contexts would essentially reduce a subset of Gapping, namely the cases that occur in a TP (or CP) coordination, to Pseudogapping. Consequently, the explanation for the ECR would be lost, since Pseudogapping is not restricted to coordinations, see (42a). Also, Pseudogapping is possible when the gap is embedded with respect to its antecedent, see (42b).

- (42) a. Some had eaten mussels, because others had shrimp.
 b. Some had eaten mussels and she claims that others had shrimp.
 (Johnson, 2009)

If an empty T licenses VP ellipsis, nothing would rule out (43a,b) either, which only differs from (42a,b) in that the T that licenses VP ellipsis is now empty. On the other hand, if an empty T *cannot* license VP ellipsis, a simple Gapping case like (40) can't be derived. I take this conundrum as strong evidence that it cannot be VP-ellipsis that underlies Gapping.

- (43) a. * Some had eaten mussels, because
 [_{TP} T [_{VP} others [_{VP} [shrimp]_i [_{VP} eaten ~~t_i~~]]]].
 b. * Some had eaten mussels, and she claims that
 [_{TP} T [_{VP} others [_{VP} [shrimp]_i [_{VP} eaten ~~t_i~~]]]].

A third and similar problem for the VP ellipsis approach is posed by sentences with subjunctive complement clauses. VP ellipsis cannot occur in such contexts (Potsdam, 1997; Lobeck, 1995), see (44a). Contrary to what the VP ellipsis account predicts, Gapping is fine in subjunctive complements, as (44b) shows.

- (44) a. * They requested that bicycles be stored in the shed and cars be
 [_{VP} stored] in the garage.
 b. They requested that bicycles be stored in the shed and cars in the garage.

The examples in (38), (40) and (44) lead to the conclusion that Gapping does not have the same distribution as VP ellipsis and that Gapping cannot be reduced to a subtype of VP-ellipsis.

Another argument against the VP-ellipsis approach to Gapping is that Gapping is wide-spread cross-linguistically, whereas VP ellipsis is not. The VP-ellipsis approach to Gapping predicts, however, that the presence of VP-ellipsis and Gapping should coincide. As exemplified for Dutch in (45), though it has Gapping (45a), it does not have VP ellipsis (45b).

- (45) a. Jan heeft Peter gezien en Marie Suzan.
 John has Peter seen and Mary Susan
 ‘John has seen Peter and Mary has seen Susan.’
- b. * Jan heeft Peter gezien en Marie heeft ook.
 John has Peter seen and Mary has too
 (intended:) ‘John has seen Peter and Mary has, too.’

2.2.2 Problems for the ATB account

I now turn to discuss several problems for the ATB approach to Gapping. A first problem is that the ATB approach cannot (straightforwardly) derive cases of Gapping where the gap is not contiguous. An example of such a case is given in (46a).

- (46) a. (Context: Who persuaded who to examine Mary?)
 John persuaded Dr. Thomas to examine Mary, and Bill Dr. Jones.
(Kuno, 1976)
- b. John [_{VP} persuaded t_i to examine Mary]_j Dr. Thomas, and Bill [_{DP} Dr. Jones]_i t_j .

In this example, the gap is *persuaded to examine Mary*. If this gap is a VP that moves across-the-board to spec,PredP, then the word order is wrongly predicted to be as in (46b). It seems, then, that (46a) cannot be derived under the ATB approach.

Similarly, in a language that has verb final word order, such as Dutch, a Gapping sentence cannot be derived by ATB movement of the VP (nor by ATB movement of just the verb), because, again, it would lead to the wrong word order (namely verb-object). This is shown in the derivations in (47b) and (48b) for the Gapping cases in (47a) and (48a), respectively. (The VP-vacating movement of the direct objects is ignored in the derivations.)

- (47) a. Jan heeft Marie gezien en Peter Karel.
 John has Mary seen and Peter Karel
- b. Jan heeft [_{PredP} [_{VP} gezien]_i [_{VP} [_{VP} Marie t_i]] en [_{VP} Peter Karel t_i]]]
- (48) a. Ik denk dat Jan Marie ziet en Peter Karel.
 I think that John Mary sees and Peter Karel
- b. Ik denk dat Jan [_{PredP} [_{VP} ziet]_i [_{VP} [_{VP} Marie t_i]] en [_{VP} Peter Karel t_i]]]

A second problem for the ATB approach is that Gapping exhibits typical ellipsis behavior. Coppock (2001) shows that, for one, Gapping is able to disambiguate strict/sloppy ambiguities and scope ambiguities. Johnson (2009) notes, however, that these arguments only hold if it can be shown that this behavior is exclusive to ellipsis, which he shows is not the case for strict/sloppy ambiguities. One property that is unique to ellipsis which is found in both Gapping and VP-ellipsis is that they can be resolved by split antecedents. The example in (49a) exemplifies VP ellipsis resolved by a split antecedent. (49b), in turn, shows that Gapping can have a split antecedent, too.

- (49) a. Wendy is eager to sail around the world and Bruce is eager to climb Kilimanjaro, but neither of them can because money is too tight.
(Webber, 1978)
- b. Wendy wants to sail around the world because she loves travel, and Bruce wants to climb Kilimanjaro in order to prove to himself that he can, but neither in order to show off for anyone. (Coppock, 2001)

Gapping examples with split antecedents cannot be derived by the ATB approach, since under the ATB analysis of Gapping a single VP moves across-the-board. There is thus no way to explain the fact that a gap is resolved by two (non-contiguous) antecedents. Split antecedents, then, pose a severe problem for the ATB approach but provide an argument in favor of an ellipsis account of Gapping.

A final argument I present here against an ATB movement account of Gapping, which also appears in Vicente (2010), has to do with the movement of the remnants. The VP-ellipsis and ATB account of Gapping share the idea that VP internal remnants of Gapping must vacate this VP prior to ATB movement or deletion. Under the ellipsis approach, this vacating of the VP only occurs in the VP in the second conjunct that will subsequently be deleted. The existence of such ‘evacuating movement’ has been defended in the domain of ellipsis. The example in (50) shows that such evacuating movement cannot feed VP *movement*, suggesting that ‘evacuating movement’ is only possible under ellipsis (cf. chapter 4). Consider first the example in (50a), which shows that topicalization of a VP without evacuating movement of the direct object is fine. Next, consider the example in (50b), which shows that the evacuating movement of the direct object prior to VP topicalization leads to ungrammaticality. Since having evacuating movement feed VP-movement is a crucial ingredient of the ATB approach to Gapping, (50) constitutes strong evidence against it.⁶

- (50) a. John said he would photograph Mary and [_{VP} photograph Mary]_i he did t_i.
- b. * John said he would photograph Mary and [_{VP} photograph t_j]_i he did [Mary]_j t_i.

To sum up, I have presented several arguments against the existing low coordination approaches in the literature. Nonetheless, we have seen some evidence that

⁶In Dutch, direct objects can scramble out of the VP. In this language, the equivalent of (50) is grammatical. The contrast between (i)/(ii) and (50) is captured by den Besten and Webelhuth’s (1987) generalization that remnant movement is possible only in case the evacuating movement which creates the remnant constituent is independently available.

- i. Marie fotograferen zou Jan nooit doen.
Mary photograph would John never do
‘As for photographing Mary, John would never do that.’
- ii. Fotograferen zou Jan Marie nooit doen (tekenen wel).
Photograph would John Mary never do drawing AFF
‘John would never photograph Mary, but he would draw her.’

Gapping is possible in a low coordination (e.g. scope of the subject of the first conjunct over the subject of the second conjunct). In chapter 2 I present additional arguments that Gapping can occur in a low coordination. However, I argue there against a generalized low coordination approach to Gapping. We have also seen that Gapping shares several characteristics with ellipsis (e.g. it allows for split antecedents and evacuating movement of the remnants of Gapping). It is therefore likely that Gapping involves ellipsis, though we have seen that it cannot be VP ellipsis that underlies Gapping. In the next section, I compare Gapping to several types of ellipsis.

3 A comparison of Gapping and other types of ellipsis

3.1 Gapping versus VP ellipsis, Sluicing and Pseudogapping

It is known at least since Jackendoff (1971) that Gapping, but not most other ellipsis types, obeys the ECR (see (31) above). This difference, which I introduce shortly, has led several scholars to set Gapping apart from ellipsis (e.g. Williams, 1977; Lobeck, 1995). A number of properties indeed distinguish Gapping from ellipsis types such as VP ellipsis and Sluicing (identified by, among others, Jackendoff (1971); Hankamer (1979); Chao (1988)).

However, some properties that have been identified for Gapping also hold for Pseudogapping, which is often taken to be a subtype of VP ellipsis (Jayaseelan, 1990; Lasnik, 1995, 1999b). A typical example of Pseudogapping is given in (51a) and its derivation under the VP ellipsis analysis in (51b).

- (51) a. Mary hasn't dated Bill, but she has Harry. (Lasnik, 1999b)
 b. Mary hasn't dated Bill, but she has [_{DP} Harry]_i [_{VP} dated ~~t_i~~]

It is important to note that if a property of Gapping is not unique to Gapping, it should not be uniquely accounted for by an analysis of Gapping (cf. Coppock, 2001). One such property is its inability of being licensed by a non-linguistic antecedent, as it shares this property with Pseudogapping. The examples in (52) show that VP-ellipsis can be licensed by a non-linguistic antecedent. The examples in (53) and (54) show that Gapping and Pseudogapping cannot be licensed this way.

- (52) **VP-ellipsis**
 a. You shouldn't have!
 b. Don't.
 c. I will, if you do. (Chao, 1988, p.134)

- (53) **Gapping**
 Context: Hankamer produces an orange, proceeds to peel it, and just as Sag produces an apple, says:
 * And Ivan, an apple. (Hankamer and Sag, 1976)

(54) **Pseudogapping**

Context same as in (53):

* And Ivan is an apple. (Coppock, 2001)

In addition, Gapping cannot occur before its antecedent, while VP-ellipsis (55a) and Sluicing (55b,c) can.⁷ Gapping in (56), as pointed out by Coppock (2001), again patterns with Pseudogapping (57).

- (55) a. Because Sue didn't, John ate meat. (Lobeck, 1995)
 b. I don't know what, but John will have something. (Coppock, 2001)
 c. Even though we aren't sure who, we know that someone bought the Van Gogh. (Lobeck, 1995)

- (56) a. * Sue meat and John ate fish.
 b. * Because Sue meat, John ate fish. (Lobeck, 1995)

- (57) * Sue will the lamb, and John will have the salmon. (Coppock, 2001)

We have seen above that Gapping cannot be reduced to a subclass of VP-ellipsis. If Pseudogapping, on the other hand, is a subclass of VP-ellipsis, Gapping must be a different process from Pseudogapping. Why, then, do Gapping and Pseudogapping have many properties in common? One possibility is that what unites the properties of Gapping and Pseudogapping is the presence of contrastively focused remnants that have escaped the ellipsis site. Such contrastively focused remnants are present in both Gapping and Pseudogapping, but not in VP ellipsis and Sluicing. Therefore, the properties shared by Gapping and Pseudogapping that are absent in VP ellipsis and Sluicing might be tied to the presence of contrastively focused remnants. If on the right track, the task is to see how the presence of contrastive remnants blocks the possibility of ellipsis with non-linguistic antecedents and cataphoric ellipsis, something I will not undertake here.

3.2 The closest relative of Gapping: Fragments

There are more properties that have been argued to set apart Gapping from other types of ellipsis (based on Jackendoff, 1971; Hankamer, 1979; Chao, 1988; Lobeck, 1995). As we will see, most of these properties are indeed not shared by any other ellipsis type, including Pseudogapping, unlike the properties discussed in the previous section. However, I show that the properties discussed in this section that are claimed to be unique to Gapping, are actually not unique to Gapping at all. More precisely, I show that these properties are to a large extent also found in Fragments.

⁷The example in (55a) obeys the Backwards Anaphora Constraint. Cataphoric VP-ellipsis is not possible when it does not obey this constraint, as shown by the contrast between (i) and (ii) (cf. Sag, 1976).

- i. After Betsy did, Peter went to the store.
 ii. * Betsy did, after Peter went to the store.

Fragments can be defined as clausal ellipsis across utterances. A typical example of Fragments is given in (58). As shown in (59), Fragments, like Gapping, can also leave multiple remnants.

(58) A: Who did you see?
B: Bill. Fragments

(59) A: Who ate what?
B: John an apple (and Sally a hamburger). Multiple Fragments

I now turn to discuss the properties that have been claimed to single out Gapping from other ellipsis types and show that Fragments shares these properties with Gapping. One property that is claimed to single out Gapping from other ellipsis types is that Gapping is subject to the Equal Conjunct Requirement, as shown in (60).

(60) a. * Mary met Bill at Berkeley although Sue at Harvard.
b. * Charlie thinks that Mary met Bill at Berkeley, and Sarah knows that Sue at Harvard. (Lobeck, 1995, p.22)

No such requirement holds for VP ellipsis (61), Sluicing (62) or Pseudogapping (63) ((61) and (62) are taken from Lobeck (1995, p.22,23)).

(61) a. Mary met Bill at Berkeley although Sue didn't.
b. Charlie thinks that Mary met Bill at Berkeley, but Sarah knows that Sue didn't.

(62) We know someone stole the Van Gogh, even though we aren't sure who.

(63) a. Some had eaten mussels and she claims that others had shrimp. (Johnson, 2009)
b. John will have caviar, although others will beans. (Coppock, 2001)

The example in (64) shows that Fragments cannot occur in an embedded clause. Although this example does not involve conjunction, the similarity to Gapping is nonetheless remarkable.

(64) A: Who has John invited?
B: *I know Mary

A second property that has been claimed to single out Gapping from other ellipsis types is that the latter are typically phrase final (cf. Lobeck, 1995). In other words, it appears that Gapping, as opposed to the other ellipsis types, targets non-constituents. As shown in the examples in (65) (and as was noted in the introduction), VP ellipsis targets a VP constituent and Sluicing targets a TP constituent.

(65) a. John talked to Bill, but Mary didn't [_{VP} talk to Bill].
b. John met someone, but I don't know whom_i [_{TP} John met t_i].

Unlike VP-ellipsis and Sluicing, Gapping seems to target non-phrase final material.

- (66) a. Some have served mussels to Sue and others ~~have served~~ swordfish ~~to Sue~~. (Johnson, 2009)
 b. John persuaded Dr. Thomas to examine Mary, and Bill ~~persuaded~~ Dr. Jones ~~to examine~~ Mary. (Kuno, 1976)

Actually, however, the property of eliding non-phrase final material constitutes another property Gapping shares with Pseudogapping. In cases of Pseudogapping where the remnant of ellipsis is a VP internal argument, it appears that a non-constituent has been deleted, as illustrated in (67).

- (67) People in Greece drink more ouzo than they do ~~drink~~ brandy. (p.16 Levin, 1979)

Pseudogapping is standardly taken to involve movement of the remnant out of the VP prior to VP ellipsis (cf. Jayaseelan, 1990; Lasnik, 1995, 1999b). In that case, what deletes is actually a constituent, as shown in (68).

- (68) People in Greece drink more ouzo than they do [brandy]_i [~~VP drink t_i~~]. (p.16 Levin, 1979)

In chapter 2, I present evidence that Gapping and Fragments also involve movement of the remnants. What is important for our current purposes is that Gapping shares the property of appearing (at least in many cases) to elide a non-constituent with Fragments. In (69), for example, the elided material *I saw* does not form a constituent to the exclusion of the direct object *Bill*.

- (69) A: Who did you see?
 B: I ~~saw~~ Bill.

A third property that has been claimed to uniquely identify Gapping is that it does not seem to be licensed by a licensing element that heads the ellipsis site. VP-ellipsis, for example, is licensed by an AUX-element (Lobeck, 1995; Johnson, 2001), such as auxiliaries, modals and infinitival *to* (arguably negation belongs to the AUX-family, see Potsdam (1997)), as in (70). Other verbal elements do not license ellipsis, as shown in (71).

- (70) a. José Ybarra-Jaegger likes rutabagas, and Holly **does**, too.
 b. José Ybarra-Jaegger ate rutabagas, and Holly **has**, too.
 c. José Ybarra-Jaegger is eating rutabagas, and Holly **is**, too.
 d. Mag Wildwood wants to read Fred's story, and I also want **to**. (Johnson, 2001)

- (71) a. * Sally Tomato started running down the street, but only after José **started**.
 b. * Sally Tomato made Mag laugh, and then José **made**. (Johnson, 2001)
 c. * Fire began pouring out of the building, and then smoke **began**.
 (Bresnan, 1976)

If Pseudogapping is an instance of VP ellipsis, the prediction is that it too is licensed by a member of the AUX-family. The examples in (72) show that if ellipsis is headed by a verbal element, Pseudogapping is indeed impossible.

- (72) a. * Sally Tomato started running down the street, but only after José **started** down the alleyway.
 b. * Sally Tomato made Mag laugh, and then José **made** Fred.
 c. * First, smoke began pouring out of the building, and then flames **began** out of the windows.

Turning to Sluicing next, this ellipsis type is only possible with interrogative *wh*-phrases. Sluicing is impossible with complementizers, *wh*-phrases in clefts and relative pronouns.

- (73) a. Jack bought something, but I don't know **what**.
 b. * Even though Mary hopes **that**, she wonders if anyone interesting is speaking tonight.
 c. * Someone has done the dishes, but I don't know the person **who**. (Kim, 1997a, p.157)
 d. * Somebody stole the car, but noone knew that it was Ben **who**. (Merchant, 2001, p.59)

Contrary to VP ellipsis (including Pseudogapping) and Sluicing, no licensing element can be identified in Gapping. The only elements left after ellipsis are the remnants. There is no particular lexical item in cases of Gapping that can be singled out as licenser. The same holds for Fragments; what is left after ellipsis are just the remnants of ellipsis.

To sum up, Gapping and Fragments can be distinguished from other types of ellipsis on the basis of the following properties (though recall that Pseudogapping also has the second property).

- (74) • Gapping and Fragments cannot occur in embedded contexts.
 • Gapping and Fragments appear to elide non-constituents.
 • There is no licensing element present in Gapping and Fragments.

Some of the similarities between Fragments and Gapping have not completely gone unnoticed. Hankamer (1979) argued that Gapping and Fragments fall in the same category of ellipsis types (cf. also Reich, 2007). In this dissertation I argue that this view is correct. Besides the ones in (74), I show that Gapping and Fragments have

many more properties in common. This raises the question whether we have any reason to formally distinguish Gapping and Fragments. The most obvious difference between Gapping and Fragments is that Gapping occurs in coordinations, whereas Fragments occurs across utterances. One of the questions I set out to answer in this dissertation is whether this difference is one which has to be distinguished on theoretical grounds. I argue that the answer to this question is negative.

4 Overview of the dissertation

In this chapter, I have introduced the concept of ellipsis and laid out some of my assumptions. In the rest of this dissertation I will focus on the ellipsis types Gapping and Fragments. What is important for what will come in the next chapters, is that Gapping is subject to what I called here the Equal Conjunct Requirement. This distributional characteristic has so far not received a satisfactory account. The most successful account is the low coordination approach discussed in section 2.1. I showed, however, that this account has several shortcomings. Many problems for the low coordination theories come from the fact that they are tailor-made to work for English and do not straightforwardly extend to other languages. Since Gapping is not specific to English, but is, in fact, a wide-spread ellipsis type, I look for an alternative explanation of the Equal Conjunct Requirement in this dissertation. One of the theses I will defend in this dissertation is that Gapping constitutes the same ellipsis type as Fragments. That is, both Gapping and Fragments have a similar syntax and are licensed under the same conditions. I show that putting Fragments in the picture helps in finding the correct characterization of the Equal Conjunct Requirement on Gapping.

In chapter 2, I argue on the basis of Merchant's (2004) argument for Fragments that there is syntactic structure in the ellipsis site. I show moreover, that the syntax of Gapping, like the syntax of Fragments, involves movement of the remnants of ellipsis out of the ellipsis site. The syntax of Gapping and Fragments is thus identical, as illustrated in (75). I also show in chapter 2 that what gets targeted by Gapping and Fragments is not a fixed constituent. In other words, the category of XP in (75) may vary.

- (75) a. Max ate the apple and $[_{DP} \text{ Sally}]_i$ $[_{DP} \text{ the hamburger}]_j$ $[_{XP} t_i \text{ ate } t_j]$
Gapping
- b. Who did you see? - $[_{DP} \text{ Bill}]_i$ $[_{XP} \text{ I saw } t_i]$
Fragments

The question that arises from the conclusion that the syntax of Gapping and Fragments is identical, is whether these two ellipsis types should be formally distinguished. The answer depends on the distribution of Gapping and Fragments. Superficially, Gapping and Fragments differ in their distribution in that Gapping targets the second conjunct of a coordination, whereas Fragments targets a stand-alone utterance.

In chapter 3, I adopt the hypothesis that the distribution of ellipsis, including Gapping and Fragments, is governed by the so-called *Licensing Condition* on ellip-

sis. Without getting into the details here, the idea is that ellipsis can take place if the Licensing Condition is satisfied. The question to be answered, then, is whether the second conjunct of a coordination and a stand-alone utterance are different contexts for the purposes of the Licensing Condition. I argue that they are not. I arrive at this conclusion as follows. I first show that the distribution of Gapping and Fragments is very similar. In particular, I show that something similar to the Equal Conjunct Requirement on Gapping holds for Fragments, as well. For example, as noted above, Fragments may not be embedded, just like Gapping, see (76) and (77). I show that the comparison does not stop here, but that Gapping and Fragments are similarly restricted in a number of other ways, as well.

- (76) a. * Harry has invited Sue and I know (that) Bill Mary.
 b. * John knows a man that caught a salmon on Sunday and Bill knows a man (that) a trout on Thursday.
- (77) A: Who has John invited?
 B: *I know Mary

Having identified the (similar) distributional properties of Gapping and Fragments, I proceed by discussing the theories of licensing in the literature, which come in two basic varieties. One account holds that licensing is a matter of syntax, while the other holds that licensing is done in the discourse component. I argue that the syntactic licensing theories cannot account for Gapping or Fragments. The main reason is that the syntactic licensing theories postulate a very local licensing relation between a licensing element and the ellipsis site (e.g. Lobeck, 1995; Merchant, 2001). These theories are therefore ill-equipped to account for the distributional facts, such as those illustrated in (76) and (77). Inspired by the discourse theories of licensing, in particular that of López (2000), I propose a particular discourse licensing condition on Gapping and Fragments. This licensing condition dictates that the ellipsis site and the antecedent must be in a particular discourse relation. Having shown that the same licensing condition governs whether ellipsis can take place in Gapping and Fragments, together with the conclusion from chapter 2 that Gapping and Fragments have the same syntax, it can be concluded that Gapping and Fragments should not be formally distinguished.

Chapter 4 deals with movement under ellipsis. Gapping has traditionally been considered as a type of non-constituent ellipsis. Fragments, in fact, can also be considered a type of non-constituent ellipsis. However, under the movement plus deletion approach to ellipsis, which I argue for in chapter 2, both Gapping and Fragments involve deletion of the constituent that has been vacated by the remnants of ellipsis, cf. (75). This movement out of the ellipsis site is often exceptional in the sense that this movement is not allowed when no ellipsis takes place, as shown in (78) on the basis of Gapping.

- (78) a. * Max ate the apple and $[_{DP} \text{ Sally}]_i [_{DP} \text{ the hamburger}]_j [_{XP} t_i \text{ ate } t_j]$
 b. Max ate the apple and $[_{DP} \text{ Sally}]_i [_{DP} \text{ the hamburger}]_j [_{XP} \bar{t}_i \text{ ate } t_j]$

In chapter 4, I deal with the theory of exceptional movement. The question that I specifically address there is what constrains this movement and what makes this movement possible. To do this, I adopt Fox and Pesetsky's (2005) theory of phases. This theory holds that a set of ordering statements is calculated upon Spell-Out, which are then added to an ordering table. After Spell-Out, no movement may take place that creates a conflicting ordering statement. I argue that, while exceptional movement leads to contradictory ordering statements, exceptional movement is nonetheless possible under ellipsis, because ellipsis has the ability to eliminate the problematic ordering statements.

Chapter 5 concludes this dissertation. It provides a summary and discusses avenues for future research. Part of this chapter is concerned with showing how Gapping and Fragments differ from other types of ellipsis and what these differences might stem from. To explain these differences, I entertain the possibility that the licensing condition on ellipsis is not a condition specific to ellipsis, but follows from a general requirement on recoverability. With this hypothesis in place, the differences between Gapping/Fragments and other ellipsis types are shown to follow.