

# A UNIFIED ANALYSIS OF GAPPING AND CLEFT ELLIPSIS

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## 1 Introduction

A common assumption about ellipsis constructions is that they involve deletion of a phrasal constituent. Perhaps the clearest cases of phrasal deletion are sluicing and VP-ellipsis:

- (1) a. Adrian drank something, and Andreas did too.  
      [<sub>VP</sub> drink something]  
      b. Adrian drank something, but I don't know what.  
      [<sub>TP</sub> Adrian drank  $t_{wh}$ ]

In the case of VP-ellipsis, what is deleted is a VP complement of some functional head (e.g., T); in the case of sluicing, what is deleted is the TP complement of C. In other types of ellipsis, such as fragment answers and gapping, what is deleted does not appear to correspond to a phrasal constituent; rather, it is the non-deleted parts ('remnants') that must be phrasal constituents:

- (2) a. What has Adrian drunk? The coffee.  
      [<sub>TP</sub> ~~Adrian has drunk~~ [<sub>DP</sub> the coffee] ]  
      b. Adrian has drunk the coffee, and Andreas the tea.  
      [<sub>TP</sub> [<sub>DP</sub> Andreas] ~~has drunk~~ [<sub>DP</sub> the tea] ]

One popular approach to the ellipsis types in (2) is to invoke movement of the remnants followed by phrasal deletion, thus bringing these ellipsis types more into line with those in (1). For example, Merchant (2004) proposes the structure in (3a) for (2a), and Coppock (2001) proposes the structure in (3b) for (2b), involving VP-coordination and VP-ellipsis (the phrasal node undergoing PF-deletion is underlined):

- (3) a. [<sub>FP</sub> [the coffee]<sub>i</sub> F [<sub>CP</sub>  $t'_i$  C [<sub>TP</sub> ~~Adrian has drunk  $t_i$~~  ] ] ]  
      b. [<sub>TP</sub> Adrian has [<sub>VP</sub> [<sub>VP</sub> drunk the tea] and ...  
          [<sub>VP</sub> Andreas<sub>i</sub> [<sub>VP</sub> the coffee<sub>j</sub> [[<sub>VP</sub>  $t_i$  ~~drunk  $t_j$~~  ] ] ] ] ] ] ]



## b. Who is it that plays the banjo? It's Bill.

The question that I want to address is whether truncated clefts (henceforth, ‘TCs’) such as that in (6b) contain an elliptical cleft clause and are thus parallel in structure to full clefts such as (6a).<sup>2</sup> I will argue that at least some TCs must involve ellipsis, and that in these cases the ellipsis must be licensed by a syntactic dependency between the cleft clause CP and an overt CP, as in Carrera Hernández’s analysis of gapping. This analysis is supported by the fact that the relevant TCs show similar restrictions to gapping. Crucially, TCs do not have a plausible derivation in terms of ATB movement, as they do not require a coordinate structure in order to be licensed. This means that Johnson’s (2009) analysis, which does manage to capture the specific restrictions on gapping, cannot be extended to TCs. Ideally, the (almost) parallel restrictions on gapping and TCs should receive a parallel analysis. This paper thus provides an indirect argument against Johnson’s analysis of gapping.

The paper is organised as follows. In section 2, I outline Carrera Hernández’s (2007) analysis of gapping in more detail and show how it can be extended to TCs given certain modifications. I make a distinction between TCs that are subject to the intrasentential antecedent requirement and those that are not; the former are only possible if premodified by an *if*-clause. In such cases, I argue that ellipsis is licensed by a syntactic dependency between the deleted cleft clause CP and the *if*-clause CP. In section 3, I show that this analysis can account for the almost exact parallelism between the restrictions on gapping and those on (certain) TCs; these can be expressed in terms of three restrictions on syntactic dependencies in general (obligatoriness, c-command and locality). Furthermore, the one key difference between TCs and gapping – that the latter require a coordinate structure while the former do not (and perhaps do not even allow one) – can be accounted for given some modifications to Carrera Hernández’s assumptions about locality. In section 4, I show that TCs in Russian provide additional support for the present analysis. Russian has a clear distinction between TCs that cannot have been derived by ellipsis and TCs that must have been derived by ellipsis. As expected, the latter show the restrictions characteristic of gapping, while the former do not. Section 5 examines another prediction of the analysis: that TCs should tolerate multiple remnants, like gapping. I show that this is correct for English and Russian, and that the pattern of multiple remnants in English corresponds to that available for gapping into an *embedded* clause; by contrast, the pattern of multiple remnants in Russian corresponds to that available for gapping in a *matrix* clause. Given that English TCs are biclausal, while Russian

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<sup>2</sup> This question has been raised previously in the literature. Merchant (2001:115ff.), in a discussion of the apparent island-repairing property of sluicing, considers (and argues against) the possibility of reducing sluicing to ‘pseudosluicing’, in which the ellipsis site for an example such as (ia) contains a truncated cleft, as in (ib), as opposed to a full clausal remnant, as in (ic):

- (i) a. Someone just left – guess who.  
 b. [CP who<sub>i</sub> [TP ~~it~~ just left]]  
 c. [CP who<sub>i</sub> [TP it was ~~it~~]]

Merchant argues that there is no general process of CP-deletion which could apply to derive truncated clefts. (As I do not appeal to CP-deletion, this argument is compatible with the analysis I give in this paper.) There are other discussions of truncated clefts in the literature, but I have not been able to find any that tackle the question of whether they involve full syntactic structure corresponding to the cleft clause. Declerck (1983) argues in detail that reduced clefts really are reduced forms of clefts, but does not analyse the structure of reduced clefts. Büring (1998) argues that reduced clefts involve an empty category corresponding to the cleft clause, but does not compare this account with a full-structure analysis. Mikkelsen (2005) notes that one might take the parallel in meaning between reduced and full clefts to indicate an ellipsis analysis, but she opts instead for an approach whereby the pronominal subject *it* is anaphoric to a contextually salient property. See also Hedberg (2000) for useful discussion of the semantic and pragmatic properties of truncated clefts.

TCs are monoclausal, this difference in the availability of multiple remnants is expected. I suggest that the restrictions on multiple remnants in English can be related to case-adjacency, while Russian has fewer restrictions on multiple remnants because of its rich case morphology. Section 6 is the conclusion.

## 2 A Uniform Analysis of Gapping and Truncated Clefts

### 2.1 Carrera Hernández (2007) on Gapping

I will first outline Carrera Hernández's (2007) analysis of gapping, on which my analysis of TCs will be based. Carrera Hernández (henceforth 'CH') argues that gapping involves a syntactic dependency between two conjoined TPs: the gapped TP (the 'dependent') and a full TP (the 'antecedent') that supplies the interpretation of the gapped material. CH assumes that the T head of the gapped TP bears categorial features ([+V,-N]), phi-features and tense, but is not associated with a 'lexical address' (i.e., a link to a lexical entry). Thus, according to the Inclusiveness condition (Chomsky 1995, Neeleman & van de Koot 2002), the features of null T cannot be licensed, as Inclusiveness requires all features in a syntactic tree to originate ultimately in the lexicon. Null T must therefore be 'bound' by a non-null [+V,-N] antecedent in order to be associated with a lexical address and satisfy Inclusiveness. Because syntactic dependencies in general require c-command, this suggests that the relevant binding relation must hold between the maximal projections of the two TPs, rather than between the T heads themselves. Thus, in the structure in (7), a dependency (which CH assumes to involve a 'chain', roughly in the sense of Brody 1995) is formed between the two underlined TPs, where the first c-commands the second (the 'null' property of the second T and its projections is indicated with a <sub>0</sub> subscript):

- (7) [<sub>&P</sub> [TP Adrian has drunk the coffee] [<sub>&'</sub> and [TP<sub>0</sub> Andreas T<sub>0</sub> eaten the apple] ] ]

Given these assumptions, however, it is only possible to generate gapping examples where T is null and the verb is retained.<sup>3</sup> CH follows Williams (1997) and Ackema & Szendrői (2002) in assuming an additional process of 'dependent ellipsis', whereby a null head licensed in the above manner may itself license the head of its dependent (specifier or complement) as null. Thus, in (8), the null T can 'gap' V via dependent ellipsis:

- (8) [<sub>&P</sub> [TP Adrian has drunk the coffee] [<sub>&'</sub> and [TP<sub>0</sub> Andreas T<sub>0</sub> V<sub>0</sub> the tea] ] ]

While the assumption of dependent ellipsis in addition to the basic gapping mechanism seems undesirable from a theoretical point of view, cases of 'determiner-sharing' (McCawley 1993) provide evidence that something like dependent ellipsis is required. In (9a), gapping of

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<sup>3</sup> This type of gapping is sometimes referred to as 'subgapping', and has been discussed in particular with reference to German, as its availability is more restricted than that of gapping (see, e.g., Maling 1972). There are restrictions on subgapping in English too; for example, a modal may not be gapped leaving behind multiple auxiliaries, as in (i):

(i) \*Adrian must have drunk the coffee, and Andreas ~~must~~ be eating the apple.

As yet I have no explanation for restrictions of this kind.

the T in the second conjunct allows for gapping of D (the head of T's specifier), which is not otherwise permitted, as shown in (9b):<sup>4</sup>

- (9) a. The duck is dry and ~~the~~ mussels ~~are~~ tough.  
 b. \*The duck is dry and ~~the~~ mussels are tough.

As Williams (1997) notes, dependent ellipsis appears to operate recursively in examples such as (10a), where gapping enters an embedded clause. Ackema & Szendrői (2002) argue on the other hand that dependent ellipsis must be non-recursive because of examples such as (10b), where the D of an object DP cannot be gapped:

- (10) a. John wants to decapitate Fred and Bill T<sub>0</sub> V<sub>0</sub> T<sub>0</sub> V<sub>0</sub> Pierre.  
 b. \*Bob gave too many magazines to Jessica and Harry T<sub>0</sub> V<sub>0</sub> D<sub>0</sub> newspapers to Joanne.

They argue that the 'nullness' property of a null head may be shared with other heads in its extended projection, thus giving the impression of recursive ellipsis in some cases.<sup>5</sup> They draw a parallel with case, which is assigned to a DP but may also be morphologically realised on other heads in the extended projection of that DP, though not normally on dependents of that DP.<sup>6</sup>

To summarise, then, CH proposes that gapping involves a syntactic dependency between two TPs that licenses the head of the second TP as null. I will refer to this type of ellipsis as 'head-ellipsis' to distinguish it from the 'phrasal ellipsis' involved in sluicing and VP-ellipsis. Once head-ellipsis is licensed, further ellipsis may be achieved through dependent ellipsis, whereby a null head may license the head of its complement or specifier as null. Dependent ellipsis appears to be recursive in principle, though there are (as yet unclear) limits on its application.

## 2.2 Extending the Analysis to Truncated Clefts

If we restrict our attention to TCs which occur in isolation, then it seems as though only TCs with a DP, PP or finite CP focus are fully felicitous:

<sup>4</sup> For alternative analyses of dependent ellipsis, see Johnson (2000) and Lin (2002) in particular.

<sup>5</sup> It is not really clear how (10a) can be derived under this assumption, however. The only way in which the infinitival clause could be understood as part of the same extended projection as the matrix clause is if restructuring has taken place. It is generally assumed, however, that infinitival clauses in English do not involve restructuring (see Cable 2004 for a comparison with bare infinitives, which he argues do involve restructuring). A further problem with Ackema & Szendrői's ban on recursion is that, although gapping into an embedded finite clause is sometimes difficult, it does appear to be possible with bridge verbs (e.g., Moltmann 1992, Johnson 1996):

- (i) a. ?\*Adrian regretted that he drank the tea, and Andreas V<sub>0</sub> C<sub>0</sub> DP<sub>0</sub> T<sub>0</sub> V<sub>0</sub> the coffee.  
 b. Adrian said that he drank the tea, and Andreas V<sub>0</sub> C<sub>0</sub> DP<sub>0</sub> T<sub>0</sub> V<sub>0</sub> the coffee.

Again, a restructuring account of the contrast between (ia) and (ib) does not seem possible here, and we seem to have to accept that dependent ellipsis can sometimes operate recursively.

<sup>6</sup> 'Case-stacking' in certain Australian languages, such as Lardil, would appear to be an exception to this, however (see, e.g., Richards 2013 and references cited there).

- (11) a. A: What was it that Adrian drank?  
B: It was the coffee. (DP)  
b. A: Where was it that Adrian drank the coffee?  
B: It was in the billiard room. (PP)  
c. A: What was it that annoyed Adrian?  
B: It was that you drank all the coffee. (finite CP)  
d. A: What is it that Adrian is above all?  
B: ?#It's thirsty. (AP)  
e. A: What is it that Adrian wants to do above all?  
B: ?#It's drink coffee. (VP)  
f. A: What is that Adrian wants to do most of all?  
B: #It's to drink coffee. (non-finite CP/TP)

Yet all of these TCs become perfectly acceptable in the construction that Declerck & Seki (1990) call the 'premodified reduced *it*-cleft', which consists of a TC preceded by an *if/when*-clause:

- (12) a. If there's anything that Adrian drank, it was the coffee. (DP)  
b. If there's anywhere that Adrian drank coffee, it was in the billiard room. (PP)  
c. If there's anything that annoyed Adrian, it was that you drank all the coffee. (finite CP)  
d. If there's anything Adrian is, it's thirsty. (AP)  
e. If there's anything Adrian wants to do, it's drink coffee. (VP)  
f. If there's anything Adrian wants, it's to drink coffee. (non-finite CP/TP)

There are two separate aspects of the data in (11) and (12) that call for an explanation: (i) the contrast between DP/PP/CP<sub>fin</sub> on the one hand and AP/VP/CP<sub>non-fin</sub> on the other, and (ii) the fact that this difference is neutralised by the presence of an *if*-clause. With respect to (i), at least for DP/PP versus AP, the distinction could be accounted for given the structural difference posited in Reeve (2011, 2012a) between 'matching' and 'promotion' derivations for clefts.<sup>7</sup> I argue that clefts may in principle either involve base-generation of the clefted XP (i.e., the focus) in post-copular position, in which case the cleft clause (i.e., the relative clause) is adjoined to the clefted XP, or a structure in which the clefted XP originates in the cleft clause (which is base-generated in post-copular position) and moves to a left-peripheral position in the cleft clause. These two structures are illustrated in (13a,b) respectively:

- (13) a. [TP it was<sub>j</sub> [VP t<sub>j</sub> [DP [DP the coffee] [CP Op<sub>i</sub> that Adrian drank t<sub>i</sub>] ] ] ]  
b. [TP it was<sub>j</sub> [VP t<sub>j</sub> [CP [DP the coffee]<sub>i</sub> that Adrian drank t<sub>i</sub>] ] ]

Crucially, while the promotion structure in (13b) is available in principle whatever the category of the clefted constituent, the matching structure in (13a) is only available if a relative operator is available that corresponds in category to the clefted XP (see Heggie 1993 for a related proposal).<sup>8</sup> This limits the matching structure to occurring in DP-clefts (where

<sup>7</sup> The idea that clefts are ambiguous in this way goes back to Pinkham & Hankamer (1975). The ambiguity has also been argued to apply to restrictive relative clauses (e.g., Carlson 1977, Sauerland 1998, Aoun & Li 2003).

<sup>8</sup> In fact, I argue that the promotion structure is also restricted, in that the focus-moved XP must be interpreted contrastively in the sense of É. Kiss (1998). The fact that the focus of TCs never needs to be interpreted contrastively (i.e., there need not be an explicitly mentioned alternative to the focus) thus provides another

the overt versions of the relative operator are *which* and *who*), finite CP-clefts (which also seem to allow *which*) and locative and temporal PP-clefts (where the overt relative operators are *where* and *when* respectively). Assuming that the absence of an overt relative operator for APs also indicates the lack of a corresponding null operator, then, only the promotion structure in (13b) is available for AP-clefts. We can now view the contrast in the availability of truncated DP/PP/CP-clefts as compared with AP-clefts as having a structural origin: the use of the matching structure means that the cleft clause is an adjunct, and hence optional; by contrast, the obligatory promotion structure in AP-clefts means that the clefted XP must originate in the cleft clause CP, which is therefore obligatory in a TC. If the above claims about AP-clefts are correct, then truncated AP-clefts must be derived by ellipsis. This suggests that the difference between (11d) and (12d) has to do with ellipsis licensing by the *if*-clause: ellipsis is only possible if the cleft clause CP enters into a syntactically local relation with some antecedent CP, which is the case in (12d) but not in (11d).

The cases involving VP and non-finite clause foci in (11/12d,e) are less straightforward, as in these cases there is no corresponding full *it*-cleft:

- (14) a. \*It's drink coffee<sub>VP</sub> that Adrian wants to (do).  
 b. \*It's to drink coffee<sub>TP(-fin)</sub> that Adrian wants.

It is instructive to compare these unacceptable examples with specificational pseudoclefts, which do permit VP and non-finite clause foci:

- (15) a. What Adrian wants to do is drink coffee<sub>VP</sub>.  
 b. What Adrian wants is to drink coffee<sub>TP(-fin)</sub>.

A number of authors have argued that specificational pseudoclefts are actually ‘concealed question-answer pairs’ in which the post-copular constituent is a clausal constituent that undergoes partial deletion.<sup>9</sup> For example, Den Dikken et al. (2000) adopt the following structure for pseudoclefts, in which the question CP occupies the specifier of a Topic Phrase, the copula occupies the Top head and the complement of Top is a TP in which non-focused material is deleted:

- (16) [<sub>TopP</sub> [<sub>CP</sub> what Adrian likes to do] [<sub>Top'</sub> [<sub>Top</sub> is] [<sub>TP</sub> ~~Adrian likes to drink coffee~~] ] ]

Suppose, then, that the TCs in (12e,f) are elliptical counterparts of the structure in (17), which is identical to the promotion structure in (13b) but without movement of the clefted XP:<sup>10</sup>

argument for the claim I make that the focused XP of TCs, as well as the remnants of gapping, do not undergo movement prior to ellipsis (i.e., gapping and TCs involve non-phrasal ellipsis).

<sup>9</sup> Other proponents of the question-answer analysis of specificational pseudoclefts include Ross (1972) and Schlenker (2003). The main motivation for such structures is the pervasive existence of connectivity effects in specificational pseudoclefts, whereby the post-copular focus behaves as if it is c-commanded by some element in the *wh*-CP, a relation which clearly does not hold on the surface. A number of other authors have argued for an alternative approach in which connectivity effects are derived semantically (e.g., Jacobson 1994, Sharvit 1999, Cecchetto 2000, Heller 2002, Romero 2005). As Sharvit (1999) recognises, however, the deletion approach seems to have an advantage over the semantic approach in accounting for certain cases of Condition C connectivity.

<sup>10</sup> I assume, contrary to what I argued in Reeve (2011, 2012a), that the copula in clefts is base-generated as a T element. This is necessary in order to capture the locality restrictions on the CP-CP dependency in terms of Relativised Minimality (see esp. section 3.3). (The structure adopted by Den Dikken et al. 2000 would also

(17) [TP it [T is] [CP (that) Adrian wants to drink coffee] ]

I would like to argue that the non-constituent ellipsis that derives the premodified TCs in (12e,f), as well as the pseudoclefts in (15a,b), is contingent on the presence of a local c-commanding CP.<sup>11</sup> In (15a,b), this CP is the question CP occupying subject position (or topic position, in the analysis of Den Dikken et al. 2000); in (12e,f) it is the *if*-clause (which, following a number of authors, including Iatridou 1991, I take to be a CP headed by *if*). I assume that this *if*-clause is adjoined to TP, as in (18a,b), where the underlined CPs enter into a syntactic dependency. This dependency licenses a null C, which in turn licenses one or more lower heads as null via dependent ellipsis:<sup>12,13</sup>

(18) a. [TP [CP if there's ...] [TP it [T is] [CP 0<sub>C</sub> 0<sub>DP</sub> 0<sub>T</sub> 0<sub>V</sub> 0<sub>T</sub> drink coffee] ] ]  
 b. [TP [CP if there's ...] [TP it [T is] [CP 0<sub>C</sub> 0<sub>DP</sub> 0<sub>T</sub> 0<sub>V</sub> to drink coffee] ] ]

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suffice for this purpose.) While this raises questions of how the structure is interpreted semantically, I must leave the investigation of this question for future research.

<sup>11</sup> If pseudoclefts involve a gapping-like dependency between two CPs, this could potentially provide an explanation for the fact, noted by Den Dikken et al. (2000:67ff.), that gapping is ungrammatical in (specificational) pseudoclefts:

(i) \*What Bill is is overbearing, and what Sue is T<sub>0</sub> timid.

Under the present analysis, (i) would involve the dependencies indicated in (ii) (gapping dependency in **bold**, pseudocleft dependency underlined):

(ii) [ [TP [CP what Bill is] is [CP C<sub>0</sub> DP<sub>0</sub> T<sub>0</sub> overbearing] ] & [TP<sub>0</sub> [CP what Sue is ] T<sub>0</sub> [CP C<sub>0</sub> DP<sub>0</sub> T<sub>0</sub> timid ] ]

If we take the ultimate dependent to be the head of the null projection, this would involve two crossing dependencies, which might explain the ungrammaticality of (i) if crossing dependencies (whether understood linearly or structurally) are generally dispreferred (e.g., Pesetsky 1982).

<sup>12</sup> One problem with this and with any deletion analysis of both pseudoclefts and truncated clefts is the variation in the acceptability of an overt complementiser in the non-deleted versions. For example, the fact that (ia) is possible without the complementiser (Den Dikken et al. 2000; though cf. Higgins 1973) is one piece of evidence that there is really a full clausal constituent in cases like (15), and the fact that no complementiser is possible suggests that this constituent is TP. On the other hand, the non-deleted version of (12e,f) is impossible with or without the complementiser, as shown in (ib). In this case it is not so much the structure that is the problem as the interpretation: a post-copular declarative CP is entirely possible in (ic), but where *it* seems to have an interpretation along the lines of 'the problem' or 'the relevant thing' and the CP specifies the content of this problem or thing:

- (i) a. What Adrian wants is (\*that) he wants to drink coffee.  
 b. \*If there's anything Adrian wants, it's (that) he wants to drink coffee.  
 c. What's wrong? Nothing, it's (just) that I want to drink coffee and there isn't any.

I leave this problem for future research, while noting that the *it is CP* structure is at least structurally grammatical.

<sup>13</sup> As expected given the availability of dependent ellipsis, determiner-sharing also appears to be possible in TCs, as in (ia), though it is difficult to test whether this is because of dependent ellipsis or because the underlying cleft is something like (ib) (which, however, is not fully acceptable):

- (i) a. If he bought many books about some scientific topic, then it was books about physics.  
 b. ?It was books about physics that he bought many of.

In both gapping and TCs, then, a dependency holds between two categorially identical phrasal nodes: TPs (or CPs or VPs) in the case of gapping, and CPs in the case of TCs.<sup>14</sup> In the next section, I will show that this analysis can account for the locality parallels between gapping and TCs, as well as certain differences between them.

### 3 Similarities and Differences Between Gapping and Truncated Clefts in English

#### 3.1 Properties of Grammatical Dependencies

In section 2, I proposed that TCs come in two types: one with a ‘matching’ (base-generation) structure, in which the cleft clause CP is an optional adjunct, and one with a ‘promotion’ structure, in which the cleft clause CP is the complement of the copular T, and truncation is achieved through head-ellipsis (and dependent ellipsis). Let us refer to these as ‘Type A’ and ‘Type B’ TCs respectively. This gives us the relatively simple picture in ((19):

(19)	Type	Categories of clefted XP	Gapping restrictions?
	A	DP, PP (locative/temporal), CP <sub>[+fin]</sub>	No
	B	PP (other), AP, VP, CP <sub>[-fin]</sub>	Yes

Because Type A TCs do not require a syntactic dependency to license ellipsis, they are not expected to be subject to conditions on syntactic dependencies. By contrast, the only way to create Type B TCs is by establishing a syntactic dependency; hence we expect these TCs to be subject to conditions on such dependencies. What kind of conditions are expected to hold of Type B TCs? Carrera Hernández (2007:2109), following Koster (1987) and Neeleman & van de Koot (2002), identifies five properties of syntactic dependencies in general: obligatoriness (the dependent must find an antecedent), locality (the dependent must find its antecedent within its local domain), c-command (the antecedent must c-command the dependent), uniqueness of antecedent (each dependent must find a unique antecedent) and non-uniqueness of dependents (an antecedent can have more than one dependent). Of these, the first three are the most relevant to accounting for the parallels between gapping and TCs, and I will therefore focus on them here to the exclusion of the other properties.<sup>15</sup>

<sup>14</sup> This might suggest that the condition can be stated more strictly than in Carrera Hernández (2007): as identity of category rather than identity of  $[\pm V, \pm N]$  specification (i.e., in the terminology of Grimshaw 2005, identity of both categorial and functional specification rather than identity of categorial specification). However, I retain Carrera Hernández’s assumption that only  $[\pm V, \pm N]$  specification is relevant, primarily because of the multiple auxiliary facts discussed in section 3.3.

<sup>15</sup> Because of the obligatory exhaustive interpretation of *it*-clefts, it is independently impossible to test for non-uniqueness of dependents in the case of truncated clefts. Thus, (i) is arguably unacceptable because the TC *It’s thirsty* implies that there is no other relevant property that Adrian has, which is contradicted by the second TC *It’s hungry*:

(i) ?\*If there’s anything Adrian is, it’s thirsty and it’s hungry.

It is also difficult to test for uniqueness of the antecedent: two *if*-clauses modifying the same clause appear to require coordination, which means that there is presumably a single antecedent CP (consisting of the coordinated *if*-clauses) for the TC in (ii):

(ii) If there’s anything Adrian is, (and) if there’s anything Andreas is, it’s thirsty.

### 3.2 Obligatoriness

As we have seen, gapping is generally ill-formed in the absence of a sentence-internal antecedent:

- (20) a. Adrian drank tea, and Andreas ~~drank~~ coffee.  
 b. \*Andreas ~~drank~~ coffee. (as a response to *Who drank what?*)

Under CH's analysis, this simply follows from the lack of a sentence-internal antecedent for the null-headed TP in (20b). We also saw above that Type B TCs follow the same pattern, in that they are ill-formed unless licensed by a sentence-internal *if*-clause:<sup>16</sup>

- (21) a. A: What is it that Adrian is above all?  
 B: ?#It's thirsty. (AP)  
 b. A: What is it that Adrian wants to do above all?  
 B: ?#It's drink coffee. (VP)  
 c. A: What is that Adrian wants to do most of all?  
 B: #It's to drink coffee. (non-finite CP/TP)

On the other hand, Type A TCs can occur in the absence of an *if*-clause, as expected if DP/PP/CP-clefts have the 'matching' structure, and hence the cleft clause CP is an adjunct that does not need to be structurally present:

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<sup>16</sup> In presented versions of this work, I argued that AP-TCs represent an 'intermediate' case between DP-TCs and, for example, VP-TCs, because there are two potential structures for AP-TCs, one corresponding to the full cleft, with movement of the clefted AP, and one without movement:

- (i) a. [<sub>TP</sub> I think that it's [<sub>CP</sub> thirsty<sub>i</sub> ~~that Adrian is t<sub>i</sub>~~ ] ]  
 b. [<sub>TP</sub> I think that it's [<sub>CP</sub> ~~that Adrian is~~ thirsty ] ]

On the assumption that *thirsty* can adjoin to CP in (ia), this structure allows for CP-deletion, while the non-movement structure in (ib) requires head-ellipsis. I suggested that CP-deletion, as a type of phrasal ellipsis, should pattern with sluicing and VP-ellipsis in not requiring an intrasentential dependency, which should permit the AP-TC to occur in isolation. However, given the constraint on promotion clefts proposed in Reeve (2012a) – that the clefted XP must be interpreted contrastively in the sense of É. Kiss (1998) – an isolated AP-TC should also be subject to this restriction, unlike a premodified AP-TC. Indeed, the presence of explicit contrast does seem to make (21a) more acceptable, but does not lead to a corresponding improvement in (21b):

- (ii) a. A: Adrian is hungry, isn't he?  
 B: No, it's thirsty, not hungry.  
 b. A: Adrian wants to eat cake, doesn't he?  
 B: ?#No, it's drink coffee, not eat cake.

In fact, with respect to some of the properties to be discussed below, the AP-TC is better than the VP-TC even where explicit contrast is not present. I have no explanation for this, except that it might marginally be possible to use the (ia) structure (not available at all for VP-TCs) even without contrast. A remaining problem with the suggestion made here is that it is not clear how the CP-deletion in (ia) can be licensed, given the apparent lack of a functional head higher than C that could do so (and cf. Merchant's 2001 arguments against CP-deletion).

- (22) a. A: What was it that Adrian drank?  
 B: It was the coffee. (DP)  
 b. A: Where was it that Adrian drank the coffee?  
 B: It was in the billiard room. (PP)  
 c. A: What was it that annoyed Adrian?  
 B: It was that you drank all the coffee. (finite CP)

Additional observations about DP-clefts provide further support for the analysis. One restriction on full *it*-clefts discussed in Reeve (2012a) is the impossibility of NPI-licensing in examples like (23b), as compared with its availability in the parallel pseudocleft, as in (23a). On the other hand, if the NPI does not head the clefted DP, as in (23c), then licensing is possible, showing that negation may scope over the clefted XP in principle (cf. Linebarger 1980):

- (23) a. What I don't have is any bread.  
 b. \*It's any bread that I don't have.  
 c. It was a doctor with any competence that wasn't available.

The ungrammaticality of (23b) therefore cannot be due to a failure of reconstruction for NPI-licensing. In Reeve (2012a), I instead followed Heycock & Kroch (2002) in attributing the ungrammaticality of (23b) to an anti-c-command constraint on NPIs: an NPI may not c-command its licenser. Thus, assuming a simple definition of c-command in terms of first branching node, (23b) will be ungrammatical under either a matching or a promotion structure:<sup>17</sup>

- (24) a. \*<sub>[TP it's [DP [DP any bread] [CP Op<sub>1</sub> that I don't have t<sub>1</sub> ] ] ]</sub>  
 b. \*<sub>[TP it's [CP [DP any bread]<sub>1</sub> that I don't have t<sub>1</sub> ] ]</sub>

What does the present analysis predict about truncation of NPI-clefts? First, assuming that NPIs require sentential negation to take scope over them, the presence of an NPI in the clefted XP should force the presence of a cleft clause CP containing sentential negation. Thus, a truncated NPI-cleft must involve ellipsis rather than an optional cleft clause. If the NPI heads the clefted DP, as in (24), however, the truncated version should still be ungrammatical. On the other hand, I argued in section 2.2 that Type B TCs do not (necessarily) involve movement of the clefted XP, which means that a truncated NPI-cleft could be derived from a structure parallel to (25):

- (25) <sub>[TP it's [CP that I don't have [DP any bread] ] ]</sub>

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<sup>17</sup> I. Landau (p.c.) asks why, if Merchant's (2004) analysis of fragment answers is correct, NPIs can be licensed in fragment answers, given that the NPI-headed constituent in (iB), for example, should end up c-commanding the deleted negation:

- (i) A: What don't you have?  
 B: Any bread.

One possibility is that fragment answers do not, after all, require movement of the remnant to a left-peripheral position such as SpecFP. The phenomena that Merchant adduces in support of a movement analysis would then have to be reanalysed (for example, as conditions on deletion, which would independently be needed to constrain gapping), a task I leave for future research.

In this structure, the negation clearly scopes over the NPI, and the NPI-headed constituent does not c-command the negation, and thus does not violate the anti-c-command constraint. Thus, we predict that NPI-TCs will be ungrammatical in isolation, because only the Type A structure in (24a) will be permitted in the absence of an *if*-clause, yet this structure violates the anti-c-command constraint on NPIs. On the other hand, a sentence-internal *if*-clause should make the structure in (25) available, and hence the NPI-TC should become grammatical. This is correct, as shown by the contrast between (26a) and (26b):<sup>18</sup>

- (26) a. What is it that you don't have?  
       B: \*It's any bread.  
       b. If there's anything I don't have, it's any bread.

In addition, we predict that TCs in which the NPI does not head the clefted DP should be as acceptable in isolation as their overt counterparts. This also seems to be correct: (27a), the truncated version of (23c), seems almost fully acceptable. As expected, then, an *if*-clause may also premodify this kind of TC, as in (27b):

- (27) a. A: What kind of doctor wasn't available?  
       B: ?It was a doctor with any competence.  
       b. If there's anyone that wasn't available, it was a doctor with any competence.

Thus, in addition to the evidence for a syntactic dependency in Type B TCs, this subsection has provided evidence that cleft truncation does not necessarily involve movement of the clefted constituent, and hence that it involves head-ellipsis rather than phrasal ellipsis.<sup>19</sup>

### 3.3 Locality

Carrera Hernández (2007) argues that Relativised Minimality (e.g., Rizzi 1990, 2004) is the locality condition constraining syntactic dependencies. According to modern versions of RM (e.g., Rizzi 2004, Abels 2012), a dependency (e.g., movement) is blocked if there is an intervening node (where intervention is usually defined in terms of c-command) bearing the feature(s) that are involved in creating or licensing the dependency. In other words, other features of the intervener are irrelevant for RM. According to Carrera Hernández, the features involved in creating the dependency licensing gapping are the categorial features [ $\pm V, \pm N$ ]. Thus, a gapping dependency between two TPs involves the feature specification [ $+V, -N$ ], and any intervening node specified as [ $+V, -N$ ] should therefore block the dependency. This accounts for the ungrammaticality of examples such as (28), where the gapped (dependent) TP is in a subordinate clause with respect to the ungapped (antecedent) TP (see also Hankamer 1979, Chao 1988, Johnson 2009):

- (28) \*Adrian drank tea, and I think that Andreas ~~drank~~ coffee.

<sup>18</sup> It seems that not all speakers find (26b) entirely acceptable – some find it less acceptable than the pseudocleft in (23a), for example (e.g., David Pesetsky, p.c.) – but there is certainly a sharp contrast with (26a).

<sup>19</sup> A string-deletion account, such as those of Wilder (1997), Den Dikken et al. (2000) and Hofmeister (2010), would, of course, yield the same results as a head-ellipsis account here.

In this example, there is at least one [+V,-N] node (e.g., the T head of the second conjunct) that c-commands the gapped TP but does not c-command the ungapped TP.

If Carrera Hernández's (2007) analysis is adopted fully for TCs, then even a standard Type B TC such as (12e) should never be possible, given the structure I am assuming, repeated in (29):

(29) [<sub>TP</sub> [<sub>CP</sub> *if there's ...*] [<sub>TP</sub> *it* [<sub>T</sub> *is*] [<sub>CP</sub> 0<sub>C</sub> 0<sub>DP</sub> 0<sub>T</sub> 0<sub>V</sub> 0<sub>T</sub> *drink coffee*] ] ]

In (29), there are two [+V,-N] nodes (italicised) c-commanded by the *if*-clause that might be considered interveners: the lower TP segment of the matrix clause (which dominates the cleft clause CP) and the T head of this TP (which c-commands the cleft clause CP). In the case of the TP segment, I will assume that c-command is defined as follows (in terms of the segment/category distinction of May 1985):<sup>20</sup>

(30) *C-command*:

A category A c-commands a category B (where a segment of an adjunction structure is not a category, but all the segments of a single adjunction structure form a single category) iff:

- i. A excludes B (i.e., no segment of A dominates B) and B excludes A.
- ii. All categories dominating A dominate B.

Because one segment of TP dominates the *if*-clause CP in (29), condition (30i) prevents this CP from c-commanding the matrix TP. Because the lower segment of TP is not a category, it is not c-commanded by the *if*-clause either. Hence, neither the matrix TP category nor the lower segment of it counts as an intervener for the CP-CP dependency.

As for the copular T, I will assume that dependencies are sensitive not just to the category of the antecedent and dependent, but also to their maximal/minimal status. Although much work in the Minimalist tradition has attempted to elide the differences between minimal and maximal projections on the basis of the Inclusiveness condition (e.g., Chomsky 1995, Neeleman & van de Koot 2002), work on locality theory still typically assumes that a basic distinction must be made between heads and phrases (see Rizzi 2001:90 for an explicit statement to this effect). Thus, given that RM refers to identity of features, an intervention account somehow has to exclude the head that attracts a moving phrase from itself acting as an intervener in the dependency between the moved phrase and its trace/copy. For example, if in (31a) F is the feature of some functional projection that licenses movement of YP bearing the same feature, this should constitute intervention, as YP c-commands X, which c-commands the lower copy of YP. Yet it is not clear how we can alter the notion of intervention such that in (31b), the classic weak island configuration, ZP blocks movement of YP but X does not:

(31) a. [<sub>XP</sub> YP<sub>[F]</sub> [<sub>X'</sub> X<sub>[F]</sub> [ ... ~~YP~~<sub>[F]</sub> ... ] ] ]  
 b. [<sub>XP</sub> YP<sub>[F]</sub> [<sub>X'</sub> X<sub>[F]</sub> [ ... ZP<sub>[F]</sub> ... [ ... ~~YP~~<sub>[F]</sub> ... ] ] ] ] ]

<sup>20</sup> The definition in (30) resembles Kayne's (1994) definition, except that he only requires that A exclude B, not vice versa. As far as I can tell, the only reason for this asymmetry is to avoid a linearisation clash in the case of head-adjunction: in his system, a head X adjoined to a head Y must be taken to asymmetrically c-command Y if X is to be linearly ordered with respect to Y. Given that there is still lively debate as to whether head-movement should even be conceived of as a syntactic adjunction operation (e.g., Brody 2000, Chomsky 2001, Matushansky 2006), this does not seem an overwhelming piece of evidence for the one-way exclusion requirement, which is otherwise no less stipulative than the mutual exclusion requirement in (30).



While the variation in acceptability in (33d-g) remains to be explained, the contrast with (33a-c) is clear evidence for a distinction between Type A TCs, which do not need intrasentential licensing, and Type B TCs, which do.

Furthermore, in addition to the ban on clausal embedding, there is evidence for a ban on embedding within a clause. Den Dikken et al. (2000:65) note that specificational pseudoclefts sometimes disallow multiple auxiliaries. They give the examples in (34), with an AP focus:

- (34) a. \*What John never is could be angry with any of his friends.  
 b. \*What John never is has been angry with any of his friends.

However, this ban on multiple auxiliaries seems to make exactly the categorial cut we expect given the present analysis: multiple auxiliaries are permitted with DP and locative PP foci, but not with VP, non-finite clause or NPI foci:

- (35) a. What bothered John most of all must have been Bill's attitude.  
 b. Where Adrian drank the coffee must have been in the garden.  
 c. ?\*What Adrian wanted to do must have been drink coffee.  
 d. ?What Adrian wanted must have been to drink coffee.  
 e. \*What Adrian doesn't have must have been any bread.

As expected, this pattern extends to TCs:

- (36) a. If there's anything that bothered John, it must have been Bill's attitude.  
 b. If there's anywhere Adrian drank coffee, it must have been in the garden.  
 c. ?\*If there's anything Adrian wanted to do, it must have been drink coffee.  
 d. ?? If there's anything Adrian wanted, it must have been to drink coffee.  
 e. \*If there's anything Adrian didn't have, it must have been any bread.

These apparently puzzling facts can be accounted for if, in addition to the requirement for a dependency in the (c-e) examples, we assume that functional heads are optional in principle (as in, e.g., Grimshaw 1997, and in contrast to most implementations of the cartographic approach; e.g., Cinque 1999). Thus, suppose there is minimally a single functional projection in a clause (T), containing finite inflection or an finite auxiliary, and that any further auxiliaries head optional functional projections. When present, then, these additional [+V,-N] functional projections may act as interveners, blocking the gapping dependency in the (c-e) examples.

### 3.4 C-command and Embedding

According to Carrera Hernández (2007), the c-command condition on syntactic dependencies accounts for the ungrammaticality of examples such as (37), in which the ungapped TP (the antecedent) is in a subordinate clause with respect to the ungapped TP (the dependent) (see also Jackendoff 1972, Lobeck 1995, Johnson 2009):<sup>23</sup>

<sup>23</sup> (37) is, of course, grammatical under the reading where *think* takes scope over both *Adrian drank tea* and *Andreas drank coffee*. In the structure giving rise to this reading, the antecedent TP would c-command the dependent TP. The impossible reading of (37) is the one where *Andreas drank coffee* has a matrix interpretation; i.e., where it is outside the scope of *think*.

(37)\*I think that Adrian drank tea, and Andreas ~~drank~~ coffee.

Since the antecedent TP (*Adrian drank tea*) does not c-command the dependent TP (*Andreas drank coffee*) in (37), a syntactic dependency cannot be established between them, and the null T fails to be licensed. The present analysis of TCs thus predicts that Type B TCs, which also involve such a dependency, cannot involve embedding of the antecedent in a parallel fashion to (37). Given that, by hypothesis, pseudoclefts such as (15) involve head-ellipsis licensed by a *wh*-CP, and *wh*-CPs can be embedded in *if*-clauses, we can construct examples such as those in (38) to test this prediction.

- (38) a. If Andreas is wondering what Adrian drank, it was the coffee.  
 b. If Andreas is wondering where Adrian drank the coffee, it was in the billiard room.  
 c. If Andreas is wondering what annoyed Adrian, it was that you drank all the coffee.  
 d. ?If Andreas is wondering what Adrian is above all, it's thirsty.  
 e. ??If Andreas is wondering what Adrian wants to do above all, it's drink coffee.  
 f. ??If Andreas is wondering what Adrian wants above all, it's to drink coffee.  
 g. ??If Andreas is wondering what I don't have, it's any bread.

Admittedly, the contrasts are not very clear here, but what is clear is that the examples in (38a-c) are perfectly acceptable, while there is something slightly odd about the examples in (38d-g). While this does not correspond to the severe ungrammaticality of (37), the contrast does at least go in the direction expected under the present analysis. More investigation is needed to determine why, in general, gapping examples involving a violation of one or more conditions on syntactic dependencies are worse than TC examples involving such a violation.

### 3.5 Dependence and Precedence

Carrera Hernández (2007) assumes an asymmetric structure for coordination, in which a given conjunct c-commands any conjuncts to its right, but not vice versa (e.g., Munn 1993). Thus, the fact that the ungapped (antecedent) TP must precede the gapped (dependent) TP (e.g., Ross 1970, Jackendoff 1972, Lobeck 1995) follows from the c-command condition discussed in the last subsection, as the ungapped TP does not c-command the gapped TP:<sup>24</sup>

(39) \*Andreas ~~drank~~ coffee, and Adrian drank tea.

This explanation will not straightforwardly extend to TCs, however. If *if*-clauses may be adjoined to TP, and if both left- and right-adjunction are possible, then there is no predicted link between c-command and precedence. If, on the other hand, *if*-clauses occupy a leftward specifier position, or may only be left-adjoined, clause-final *if*-clauses must be derived by leftward movement of the remainder of the matrix clause around the *if*-clause. In this case, it

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<sup>24</sup> It is well known that 'backward gapping' of this type does exist in other languages: in particular, in OV languages (e.g., Japanese) and in languages with A-scrambling to pre-VP position (e.g., Russian) (e.g., Ross 1970). It has been argued, however, that these do not involve the same mechanism as gapping, but some other coordination-specific process such as right node raising or across-the-board movement (Maling 1972, Ackema 2010).

is not clear whether we expect a link between c-command and precedence: this depends whether the movement of the matrix clause reconstructs for the ellipsis dependency.

There is an alternative explanation for (39), however, which does not require us to resolve this complex set of questions, and which has some generality. Williams (1997) observes that anaphoric dependencies such as that between a pronoun and an R-expression are sensitive to both linear order and embedding. He formulates the generalisation in (40), which he calls the General Pattern of Anaphoric Dependence (GPAD):

- (40) In an anaphoric dependency, the dependent category must either:
- i. follow its antecedent, or
  - ii. be located in a clause subordinate to the clause containing the antecedent.

The effects of the GPAD can be illustrated by the examples in (41) (*italics* indicate coreferential DPs; SMALL CAPITALS indicate main stress):

- (41) a. Anyone [who has written *his term paper*] can turn *it* in to me now.  
 b. Anyone [who has written *it*] can turn *his term paper* in to me now.  
 c. Anyone can turn *his term paper* in to me now [who has written *it*].  
 d. \*Anyone can turn *it* in to me now [who has written *his TERM PAPER*].

Examples (41a) and (41c) conform to GPAD because the antecedent (*his term paper*) precedes the dependent (*it*). Example (41b) conforms to GPAD because, although the dependent precedes the antecedent, the dependent is in a clause subordinate to that containing the antecedent. On the other hand, in (41c) the dependent is in a clause superordinate to that containing the antecedent, and so GPAD is violated, preventing the dependency from holding. Williams notes that this pattern extends to VP-ellipsis, as in (42):

- (42) a. Anyone who wants to *see the doctor* can *VP*.  
 b. Anyone who wants to *VP* can *see the doctor*.  
 c. Anyone can *see the doctor* who wants to *VP*.  
 d. \*Anyone can *VP* who wants to *see the DOCTOR*.

Importantly, the GPAD does not prevent coreference, only dependence. Thus, where the value of an anaphoric expression can be recovered from a previous mention of the referent, rather than from a sentence-internal antecedent, then there no sentence-internal dependency is necessary for coreference to hold between the italicised elements. Putting main stress on *term paper* in (41d) and on *doctor* in (42d) controls for this possibility, as main stress on these constituents implies that they have not been mentioned in the current discourse context, and that the pronoun or elided VP really is anaphorically dependent on the stressed constituent. If these constituents are destressed, however, as in (41d) and (42d), the effects of GPAD are neutralised, as the pronoun or elided VP may be anaphorically dependent on the previous mention of *term paper* or *see the doctor* in the first sentence:

- (43) a. A: Can I turn in my term paper?  
 B: Yes, anyone can turn it in to me now who has WRITTEN his term paper.  
 b. A: Can I see the doctor?  
 B: Yes, anyone can VP who WANTS to see the doctor.

While these examples show that pronominal anaphora and VP-ellipsis do not require sentence-internal antecedents, gapping involves an *obligatory* sentence-internal dependency.

Thus, we expect the GPAD to *always* apply to gapping, and thus to Type B TCs as well. Indeed, in (39) the anaphoric expression (the gapped TP) does not follow its antecedent (the ungapped TP), nor is it located in a clause subordinate to that containing the antecedent (i.e., there is no CP/TP that dominates the gapped TP that does not also dominate the ungapped TP). Thus, the GPAD is violated and the dependency is ill-formed.

That the GPAD also holds of the dependency hypothesised for Type B TCs can be shown by the examples in (44). Not surprisingly, as Type A TCs can occur in isolation, they can also be followed by an *if*-clause, as in (44a-c). However, for Type B TCs, where a preceding mention of the elided material is not enough it is not possible to license ellipsis with a following *if*-clause, as shown in (44d-g):

- (44) a. What did Adrian drink? It was the coffee, if there's anything that Adrian drank.  
 b. Where did Adrian drink coffee? It was in the billiard room, if there's anywhere that Adrian drank coffee.  
 c. What annoyed Adrian? It was that you drank all the coffee, if there's anything that annoyed Adrian.  
 d. What is Adrian above all? \*It's thirsty, if there's anything Adrian is.  
 e. What does Adrian want to do? ??It's drink coffee, if there's anything Adrian wants to do.  
 f. What does Adrian want? \*It's to drink coffee, if there's anything Adrian wants.  
 g. What doesn't Adrian have? \*It's any bread, if there's anything Adrian doesn't have.

If Carrera Hernández's (2007) explanation of the precedence condition on gapping in terms of asymmetric coordination and c-command were correct, then the data in (44) would be problematic for the present analysis, unless certain assumptions about the attachment site of *if*-clauses and the reconstruction properties of the gapping dependency could be justified. I have argued in this subsection that the facts in (44) fall together not only with (39), but with the pronominal anaphora pattern in (41) and the VP-ellipsis pattern in (42), if it is assumed that GPAD constrains anaphoric dependencies in general.

### 3.6 The Coordination Restriction

Another apparently idiosyncratic fact about gapping, often taken to be its most significant property, is that it is restricted to coordinate structures with *and* (e.g., Hankamer 1979). Thus, for example, an adverbial clause cannot be either the antecedent or the dependent of a gapping dependency:

- (45) a. \*Because/if/when Adrian drank tea, Andreas ~~drank~~ coffee.  
 b. \*Adrian drank tea because/if/when Andreas ~~drank~~ coffee.

Unlike the properties of gapping discussed above, the coordination restriction clearly does not hold of TCs: in fact, our paradigm cases of Type B TCs, such as the NPI-TC in (46a), involve an adverbial *if*-clause. In fact, certain Type B TCs cannot even be licensed in a coordinate structure, as in (46b); compare the well-formed Type A example in (46c):<sup>25</sup>

<sup>25</sup> For some reason that is not clear to me, TCs with an AP or VP focus in coordinate structures seem much better than (46b), as in (ia-b):

- (46) a. If there's anything I don't have, it's any bread.  
 b. ?\*There's something I don't have, and it's any bread.  
 c. There's something I really don't like, and it's bread.

Carrera Hernández (2007) rules out examples like (45b), with a clause-final gapped adverbial clause, as a Relativised Minimality violation: the 'subordinator' *because*, for example, blocks the relation between the matrix TP and the TP in the adverbial clause. Although she does not assign a category to *because*, this suggests that she is treating it as a C, and hence as [+V,-N]. Although she does not explicitly account for the illegitimacy of gapping in (45a), this would follow from the c-command condition, as the TP of the adverbial clause would not c-command the matrix TP.

I argued in section 3.2 that the dependency between the *if*-clause CP and the cleft clause CP in (46a) is licensed because the matrix TP and its head (realised by the copula) do not act as interveners. By contrast, in (46b) the highest TP of the second conjunct should act as an intervener, as the first conjunct TP c-commands it under the definition in (30). This correctly accounts for the deviance of (46b) (though see footnote 25 for some problems). Furthermore, we can account for the unacceptability of (45a) (with *if*) as follows. The structure of (45a) is as follows:

- (47) [TP [CP *if* Adrian drank tea] [TP Andreas T<sub>0</sub> V<sub>0</sub> coffee] ]

In order for gapping to succeed in (47), a dependency must be established between the *if*-clause CP and the matrix TP. Given the definition of c-command in (30), however, this dependency cannot be established, as the CP c-commands neither the double-TP adjunction category (this TP does not exclude CP) nor the lower segment of that structure (only categories are related by c-command).<sup>26</sup>

- (i) a. ?There's something Adrian certainly is, and it's thirsty.  
 b. ?There's something I can do really well, and it's drive forklift trucks.

There is still something odd about these examples in comparison with DP examples, though. Furthermore, there is a contrast between (ia-b) and (iia-b); the examples become perfect where the demonstrative *that* is used instead of *it* (in fact, the use of *that* even improves the Type A example in (46c)):

- (ii) a. There's something Adrian certainly is, and that's thirsty.  
 b. There's something I can do really well, and that's drive forklift trucks.

I currently have no explanation for these facts.

<sup>26</sup> One might wonder, however, why the TP-adjoined *if*-clause could not license V-ellipsis, giving rise to a pseudogapping-like result. As (ib) shows, we do not generally want to allow pseudogapping to be derived in this fashion:

- (i) a. ?If Adrian drank tea, Andreas did V<sub>0</sub> coffee.  
 b. \*If there's anyone Adrian insulted, he did V<sub>0</sub> Andreas.

I assume that the relevant restriction here is on recoverability of the antecedent, which I take to be a form of 'e-giveness' in Merchant's (2001) sense. In particular, I assume that the recoverability condition on gapping requires mutual entailment between the F-closure of the dependent and the F-closure of the antecedent. This requires the dependent to be of propositional type, like the antecedent *if*-clause; because VP is a predicate, it does not fulfil this requirement and hence cannot undergo head-ellipsis. This assumes, of course, that gapping is different from VP-ellipsis (under Merchant's analysis), where e-giveness may apply to an existentially type-shifted VP. For space reasons, I omit further discussion of this issue here.



- c. \*Èto byla/bylo Marija<sub>i</sub>/Mariju<sub>i</sub> Ivan ljubil <sub>i</sub>.  
 this was.F.SG/N.SG Mary-NOM/Mary-ACC Ivan.NOM loved
- d. \*Èto Marija<sub>i</sub>/Mariju<sub>i</sub>, kogo Ivan ljubil <sub>i</sub>.  
 this Mary-NOM/Mary-ACC who.ACC Ivan.NOM loved

In the literature, the *èto*-cleft is almost always treated as parallel in structure to focus-fronting constructions such as (49b) (e.g., King 1993, Junghanns 1997, Geist & Błaszczak 2000, Markman 2008, Reeve 2012a).<sup>27</sup> There are two main reasons to adopt this type of analysis, aside from the fact that *Mariju* in (49a) must be focused. First, as in focus-fronting constructions, the focused XP in *èto*-clefts must be interpreted contrastively in the sense of É. Kiss (1998); that is, there must be explicit mention of an alternative in the context, as indicated here by the completion *ne Ljudmilu*. Second, *èto*-clefts pattern with focus-fronting in exhibiting ‘case connectivity’: the focused XP (here, *Mariju*) must bear the case assigned to the gap position (here, accusative), and cannot be nominative. What this suggests is that (49a) is obligatorily derived by movement of the clefted XP to a left-peripheral position in the clause. For example, in Reeve (2012a,b) I analyse *èto*-clefts roughly as in (50):

- (50) [<sub>EqP</sub> èto [<sub>Eq</sub> Eq [<sub>TP</sub> Mariju<sub>i</sub> [<sub>TP</sub> Ivan [<sub>T</sub> T [<sub>VP</sub> ljubil <sub>t<sub>i</sub></sub> ] ] ] ] ] ]

Here, *èto* occupies a ‘higher’ subject position in the clause, which I analyse as the specifier of a head, Eq, encoding semantic identity.<sup>28</sup> The TP complement of Eq is a standard finite clause, except that the object *Mariju* has undergone focus-movement, adjoining to TP.

## 4.2 Two Types of ‘Truncated Cleft’ in Russian

Interestingly, Declerck & Seki’s (1990) ‘premodified reduced *it*-clefts’ (i.e., TCs with a preceding *if*-clause) have two possible translations in Russian, illustrated in (51):

- (51) a. Esli Ivan i ljubil kogo-to, to èto byla Marija /\*Mariju.  
 if Ivan.NOM and loved anyone then this was.F.SG Mary-NOM /Mary-ACC
- b. Esli Ivan i ljubil kogo-to, to èto (\*byla) Mariju/\*Marija.  
 if Ivan.NOM and loved anyone then this was Mary-ACC/Mary-NOM
- Both: ‘If there’s anyone that Ivan loved, it was Mary.’

I will refer to (51a) as a ‘Type 1’ TC and to (51b) as a ‘Type 2’ TC. The differences between these two types of TC have to do with (i) the presence/absence of an overt copula agreeing with the post-copular constituent, and (ii) the case-marking on the ‘clefted’ DP. In (51a), an overt copula is obligatory (at least, if the clause is to be interpreted as past tense), and the post-copular DP is obligatorily nominative. Thus, (51a) has the relevant properties of a standard specificational copular sentence such as (52):

- (52) Pričinoj avarii \*byla/byli neispravnye tormoza.  
 reason-INSTR.F.SG accident-GEN was.F.SG/ PL broken.NOM.PL brakes.NOM.PL  
 ‘The reason for the accident was broken brakes.’

<sup>27</sup> Gundel (1977) is an exception, but she is more concerned with the referential status of *èto* than with the properties of the cleft clause in relation to the clefted XP.

<sup>28</sup> I treat Eq as a focus-sensitive operator which associates with the moved focus, deriving a specificational (or equative) interpretation.



- a. Net, èto byl Ivan.  
no this was Ivan
- b. #Net, èto Ivana.  
no this Ivan-ACC  
'It was Ivan.'

This follows if the ellipsis in (54b) needs a sentence-internal antecedent, while (54a) is not derived by ellipsis and hence does not need a sentence-internal antecedent.

#### 4.4.2 Precedence

Unsurprisingly, given the acceptability of (54a), Type 1 TCs may be post-modified by an *if*-clause; however, Type 2 TCs may not be licensed by a following *if*-clause:

- (55) a. Èto byl Ivan, esli Maria i ljubila kogo-to.  
this was Ivan.NOM if Maria.NOM and loved who-ACC
- b. \*Èto Ivana, esli Maria i ljubila kogo-to.  
this Ivan-ACC if Maria.NOM and loved who-ACC  
'It was Ivan, if Maria loved anyone.'

Because head-ellipsis involves an obligatory dependency, the GPAD applies to this dependency, as discussed in 3.4. Since the intended antecedent in (55b), the *if*-clause, follows the dependent, the TC, the dependency is ill-formed according to the GPAD, as the dependent does not occur in a subordinate clause with respect to the antecedent.

#### 4.4.3 Coordination

While Type 2 TCs can be licensed by an adjoined *if*-clause, they may not be licensed in a coordinate structure:

- (56) a. Maria ljubila kogo-to, i èto byl Ivan.  
Maria loved someone and this was Ivan.NOM  
'Maria loved someone, and it was Ivan.'
- b. \*Maria ljubila kogo-to, i èto Ivana.  
Maria loved someone and this Ivan-ACC  
'Maria loved someone, and it was Ivan.'

As expected, then, example (56b) thus patterns with English (46b), while (56a) patterns with English (46c). Because (56a) does not involve ellipsis, there is no dependency between the conjuncts. In (56b), which must involve ellipsis, a dependency is necessary, but in this case the projection hosting *èto* (which I labelled EqP in (50)) will block this dependency.

#### 4.4.4 Locality: A Problem?

An apparent problem for the present analysis is that there seems to be only a slight contrast in the acceptability of (57a,b), in which a TC is embedded with respect to the *esli*-clause:<sup>30</sup>

- (57) a. *Esli Maria i ljubila kogo-to,*  
 if Maria.NOM and loved who-ACC  
*to ja dumaju, što èto byl Ivan.*  
 then I think that this was Ivan.NOM
- b. ?*Esli Maria i ljubila kogo-to,*  
 if Maria.NOM and loved who-ACC  
*to ja dumaju, što èto Ivana.*  
 then I think that this Ivan-ACC  
 ‘If Maria loved anyone, then I think that it was Ivan.’

Given the present analysis, (57b) might be expected to be much worse than it is, as there is at least one [+V,-N] node that is more local to the *if*-clause in the sense discussed in 3.2, and hence the dependency licensing ellipsis should be blocked. One possible explanation for the acceptability of (57b) is that it has a grammatical alternative derivation in terms of embedded fragment answers, which are permitted in Russian, unlike in English. This option is illustrated in (58a). As (58b) shows, Type 2 TCs are marginally permitted in this environment, even though there is no preceding *esli*-clause at all:

- (58) Q: *Maria ljubila Borisa, ne tak li?*  
 Maria.NOM loved Boris.ACC not so.PRT  
 ‘Maria loved Boris, didn’t she?’
- a. *Net, ja dumaju što Ivana.*  
 No I think that Ivan-ACC
- b. ?*Net, ja dumaju što èto Ivana.*  
 no I think that this Ivan-ACC  
 ‘No, I think that \*(it was) Ivan.’

As for the presence of *èto* in (57b) and (58b), it may be that this is a different type of *èto* from the one found in *èto*-clefts. Junghanns (1997) argues that in some cases, *èto* simply functions as an ‘emphatic particle’ that attaches to *wh*-words, as shown by the fact that *wh+èto* may appear sentence-medially and that *èto* may appear internal to a *wh*-phrase (examples from Junghanns 1997:186):

- (59) a. *Graždanin! Vy što že èto volnuete inturista?*  
 citizen you what PRT this pester foreign.tourist  
 ‘Citizen! Why are you pestering the foreign tourist?’
- b. *Nekotoroe vremja on soobražal, [kakim èto obrazom] on popal v*  
 some time he thought which this way he ended.up in  
*neizvestnuju komnatu...*  
 strange room  
 ‘For some time he wondered how the hell he ended up in this strange room.’

<sup>30</sup> I have received differing opinions on the status of (57b), but according to Elena Titov (p.c.), while this example is better than non-embedded examples such as (54b), it is “still not fully grammatical.”

In fact, *èto* may also appear in elliptical questions such as the following, given appropriate context:

- (60) a. Èto menja? / Menja èto?  
 this me.ACC / me.ACC this  
 ‘Is it me?’  
 b. Menja li (èto)?  
 me.ACC QPRT this  
 ‘Is it me?’  
 c. Kogo èto?  
 who.ACC this  
 ‘Who(m) is it?’

One way of capturing these examples without sacrificing the explanation of (54b) is by requiring emphatic particle *èto* to attach either to the right of a *wh*-word or to the right of C. In (57b), (58b) and (60c), *èto* may attach to the right of the overt complementiser *čto*. In (59) *èto* attaches to the right of a *wh*-word/phrase. Finally, the examples in (60a-b) are questions, which under standard assumptions require a [+Q] C to be present. This [+Q] C is overtly present in the form of *li* in (60b), and *èto* may attach to the right of this C.<sup>31</sup> On this analysis, then, the examples in (57b), (58b) and (59)-(60) involve fragment answers rather than TCs, and the conditions on syntactic dependencies are not expected to apply. In matrix declaratives such as (54b), on the other hand, I assume that C is either absent or inactive, and hence emphatic *èto* is impossible here. The alternative analysis of (54b) as a TC is ruled out because a gapping dependency cannot be established.

#### 4.4.5 Summary

In this section, I have shown that the two types of TCs in Russian contrast in the expected way with respect to at least three properties: obligatoriness, precedence and coordination. Type 2 TCs, which must be derived by ellipsis, given the presence of obligatory case connectivity, are subject to gapping-like restrictions. On the other hand, Type 1 TCs, which cannot have been derived by ellipsis, given the ungrammaticality of an overt cleft clause, are not restricted in the relevant ways. As for locality, while embedded TCs appear to be possible in Russian, these are possibly not TCs at all, but embedded fragment answers featuring the emphatic particle version of *èto*.

## 5 Conclusion

I have argued that truncated clefts are sometimes derived via ellipsis, and that such TCs involve the same ellipsis mechanism as gapping. Given that TCs do not require coordinate structures, a unified analysis of TCs and gapping cannot be based on coordination, which rules out many of the analyses in the literature (e.g., Williams 1997, Lin 2002, Johnson 2009). I have argued instead, following Carrera Hernández (2007), that gapping and cleft

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<sup>31</sup> As [+Q] C is non-overt in (60a), this of course means that emphatic *èto* cannot be analysed as a kind of clitic here. Presumably it cannot be enough for emphatic *èto* to cliticise to the focus *menja*, as otherwise (54b) should also be possible.

truncation involve head-ellipsis (plus optional dependent ellipsis) licensed by a syntactic dependency with a fully-specified antecedent clause. As with other syntactic dependencies, the gapping/truncation dependency is subject to obligatoriness, c-command, locality and the GPAD. I have shown that, given independently-motivated structures for full clefts in English and Russian, this analysis predicts that certain TCs (English Type B, Russian Type 2) are ill-formed in the absence of a local, c-commanding CP.

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