

Specifying Coordination

An Investigation into the Syntax of Dislocation, Extraposition and Parenthesis

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Abstract. Coordination is a syntactic construction with a varying semantics. I argue that besides additive, disjunctive and more specialized kinds of coordination, there is another main type, namely one that can be characterized as specification. Grammatical configurations involving specifying coordination can be found at diverse levels of sentence structure. This provides an new perspective on a range of syntactic phenomena, such as apposition, parenthesis, left- and right-dislocation, and extraposition. Certainly, all these constructions are different, and they have been studied before in isolation – but they also have properties in common. I propose a basic typology in terms of four independent factors: restrictiveness, anchoring, backgrounding, and place of attachment. A common problem for the analysis of non-restrictive material is that it is a priori unclear how to incorporate such phrases and clauses in the host structure, since the syntactic relationship between the two cannot be expressed in terms of regular subordination, which is an automatic result of syntactic merger according to the standard view. Furthermore, several types of phrases or clauses can show up either in a dislocated position or as an intervening parenthesis, which is also unexpected from a traditional perspective. These problems can be solved by means of the particular mode of construal discussed in this chapter, specifying coordination, which is then divided into two kinds: i) restrictive specifying coordination, which can be used to explain extraposition, ii) non-restrictive (parenthetical) specifying coordination, which triggers a secondary message (a proposition if the parenthesis is anchored). Thus, it is shown that superficially very different syntactic constructions make use of the same abstract mechanisms.

1. Introduction

Typical examples of coordination involve the combination of comparable constituents by means of the coordinative conjunctions *and* or *or*. Evidently, the meaning of these two central coordinators is different, which already suggests that coordination is a syntactic construction with a varying semantics. This idea will be confirmed in section 2, where a typology of coordinators is presented. With this as a background, I will argue in this chapter that there is another main type of coordination, namely specifying coordination. As we will see in sections 3-6, this opens up a completely new perspective on phenomena as diverse as extraposition, appositive relative clauses, intervening parentheses, and dislocation constructions, all of which can be shown to involve coordination-like characteristics.

The most transparent form of specifying coordination is found in the (non-restrictive) appositional construction. Examples are *my best friend, John* or *my neighbor, a nice guy*. Here, two comparable phrases are combined; the second can be understood as a specification or explication of the first. As far as I know, Kraak & Klooster (1968) were the first to subsume appositions under coordination. The similarities between standard coordination and apposition were also stressed in Quirk et al. (1985) and Sturm (1986). Later, Koster (2000) and Rijkhoek (1998) used the idea of specifying coordination as a construction type to explain certain properties of extraposition. The present chapter, which expands on ideas I expressed in earlier work, tries to strengthen these views not only by accumulating more evidence and providing more precise analyses, but also by going beyond previous proposals in that it seeks to generalize specifying coordination to parenthetical construal. In doing so, it provides a possible approach to what is in fact a long-standing problem in generative linguistics, namely the question how to incorporate non-restrictive construction types into the grammar.

This chapter is organized as follows. Section 2 contains a typology of coordinators and related linkers in English and Dutch, the two languages to which the empirical domain of the discussion will mainly be limited. Section 3 introduces the concept of specifying coordination, and shows that

appositions have many characteristics of standard coordination. Furthermore, it is argued in some detail why extraposition is to be analyzed in these terms as well. Section 4 contains a discussion of non-restrictive construal. It is claimed that this always brings about a secondary message, which is then syntactically analyzed in terms of a non-restrictive specifying coordination phrase. It is argued that there is an implicit predicative secondary proposition in appositional constructions. A structural proposal is suggested, which explains the similarities with appositive relative clauses and the existence of intermediary types. Section 5 is about anchoring. It is argued that many dislocation constructions and parentheses are anchored, like appositions. In each case, the anchor is interpreted as the subject of an implicit predication. Furthermore, backgrounding constructions are shown to be syntactically similar to afterthoughts, but semantically and pragmatically different in that they do not provide new information. Section 6 expands the idea of anchoring such that a discourse category like ‘sentence topic’ may constitute an anchor, and it contains a discussion of left-dislocation constructions. Section 7 provides an overview of different types of parentheses, which result from a number of interacting parameters, including the possibility of anchoring, the information status, and the place of attachment of a particular parenthetical phrase or clause. Finally, section 8 is the conclusion.

2. A typology of coordinators in English and Dutch

In constructing a sentence, phrases can be combined by means of coordination. This syntactic operation is extraordinarily flexible:

- Coordination can be applied at any level of syntactic structure.
- Coordination can be applied both iteratively and recursively.
- There are various coordinators, which trigger different semantic relationships between the conjuncts.¹

The first property is illustrated in (1a-c), where nouns, prepositional phrases and clauses are coordinated, respectively. The relevant constituents are put between brackets; coordinators are italicized.

- (1) a. Yesterday, I bought some [spoons *and* forks].
 b. I am afraid we have mice [[behind the cupboard] *or* [in the attic]].
 c. [[John is going to the cinema] *and* [I would like to accompany him]].

The difference between iteration and layered recursion is exemplified in (2a/b). In (2a), the subject simply consists of a list of participants in the event. In (2b), however, different instances of coordination are nested, which leads to subgroups, as is indicated by the brackets.²

- (2) a. [John, Paul, Mary, *and* Susan] are going to the cinema tonight.
 b. [either [John *and* Paul], *or* [Mary *and* Susan]] are allowed to leave the house.

Thus, coordination is a syntactic construction. The associated semantics depends on the particular coordinator that is used (regardless of whether it is overt or implicit). The central coordinators are *and* and *or*, which correspond to an additive and disjunctive relationship, respectively. Their meanings correlate with the homonymous Boolean operators.

¹ The term *conjunct* is somewhat confusing. It refers to one of the coordinated phrases, whether the coordination as a whole constitutes conjunctive coordination, disjunctive coordination, or something else (see table 1).

² Here, I am presupposing that distributive constructions are structurally similar to additive constructions. See De Vries (2005) and the references there for a more sophisticated discussion.

It is likely that all languages have the means to express such relationships. Zwart (2005) reports on noun phrase coordination, based on a survey of 162 languages from different families. Although there is some variation regarding the way coordination is instantiated syntactically (for example, one may distinguish the comitative strategy and the summary strategy from standard coordination; see also Dik 1968, Mithun 1988, Stassen 2000/2003, Haspelmath 2007), apparently every single one of these languages is able to relate phrases in the intended way.

Let us consider the semantic types of coordination in English and Dutch in some more detail.³ Apart from standard coordination with *and* and standard disjunction with *or*, there are more specialized coordinators that have a more limited distribution. In Dutch, the contrasting *maar* ‘but’, the explicative *want* ‘for’, and the concluding *dus* ‘so’ are also coordinators. For conjoined main clauses this can be shown unequivocally by the verb second test. In (3a), the second clause has obligatory V2; therefore, it is a main clause, which contrasts with the otherwise comparable subordinate clause in (3b). Moreover, there is no inversion in (3a), so the relevant linkers cannot be analyzed as (conjunctive) adverbs.⁴

- (3) a. Joop gaat naar huis *en/of/maar/want/dus* Jaap **gaat** naar de film.
 Joop goes to home and/or/but/for/so Jaap goes to the movies
 ‘Joop is going home, and/or/but/for/so Jaap is going to the movies.’
 b. Joop gaat naar huis *omdat/terwijl* Jaap naar de film **gaat**.
 Joop goes to home because/while Jaap to the movies goes
 ‘Joop goes home because/while Jaap goes to the movies.’

The linker *noch* ‘nor’ does trigger inversion, but, unlike conjunctive adverbs such as *daarom* ‘therefore’ and *toch* ‘still’, it has characteristics typical of a coordinator: it can link categories other than clauses (as in *leuk noch aardig* ‘nice nor friendly’ or *jongens noch meisjes* ‘boys nor girls’), it cannot be preceded by a central coordinator (**en noch*), and it is obligatorily left-peripheral. Let us call it a semi-coordinator. The same can be said about *alsmede* and *alsook* ‘and also’.

In English, the equivalents of the above-mentioned coordinators in Dutch can also be considered coordinators (coordinating conjunctions; Dutch, ‘nevenschikkende voegwoorden’). A general test is that clauses introduced by a coordinator cannot be preposed (4a), unlike subordinated clauses (4b):

- (4) a. (* And/or/but/for/so John is staying home,) Mary is going to the movies (, and/or/but/for/so John is staying home).
 b. (Because/while/since/although John is staying home,) Mary is going to the movies (, because/while/since/although John is staying home).

A complete overview of coordinators in English and Dutch is provided in table 1.

³ In this chapter the discussion is restricted to English and Dutch, mainly. For a discussion of semantic types of coordinators, especially in Slavic languages, see also Malchukov 2004.

⁴ Perhaps confusingly, the word *dus* ‘so’ can function as an adverb as well. Compare (3a) to i) and ii), which are also main clauses:

i) ... (en) Jaap gaat *dus* naar de film.

ii) ... (en) *dus* gaat Jaap naar de film. [here, topicalization of *dus* leads to inversion]

In both cases, the clause can be introduced by the coordinator *en* ‘and’, which is impossible in (3a): ...(**en*) *dus* Jaap gaat naar de film. This follows if *dus* in (3a) is analyzed as the coordinator itself.

Table 1. Coordinators (central, specialized, and semi-) in English and Dutch.

<i>type of coordination</i>	<i>coordinator (English)</i>	<i>coordinator (Dutch)</i>
additive (conjunctive, copulative)	and	en , (alsmede [†] ^), (alsook [†] ^), annex ^{###}
negative additive	(nor [*])	(noch [*] ^)
disjunctive (alternative)	or slash ^{##} [/] c.q. [casu quo] (respectively ^{**})	of , ofwel ^{††^^} , oftewel ^{†††^^} , danwel ^{†^^} slash ^{##} [/], schuine streep ^{##} c.q. [casu quo] (respectievelijk ^{**})
adversative (contrasting)	but [*] , (yet [*])	maar [*] , doch [†]
causal (explicative)	for [#]	want ^{##}
illative (concluding)	(so ^{**}), ergo [†]	dus ^{**} , ergo [†]

[†] Formal register.

^{††} Emphatic and exclusive. Often used with an initial coordinator (see table 2).

[^] Triggers inversion in a main clausal conjunct.

^{^^} Optionally triggers inversion in a main clausal conjunct.

^{*} Renders both conjuncts negative.

^{**} To be distinguished from its use as an adverb. Only if it is initial and not preceded by a central coordinator.

[#] To be distinguished from its use as a preposition or specialized complementizer.

^{##} To be distinguished from its use as a noun.

^{###} To be distinguished from its use as an adjective.

It is worthwhile noting that some coordinative constructions can be combined with a so-called initial coordinator, which is in fact a focus adverb (Hendriks 2004, De Vries 2005, Johannessen 2005). An example is given in (5).

- (5) *Zowel* Joop *als* Anna is vorige week getrouwd.
 both Joop and Anna is last week married
 ‘Both Joop and Anna got married last week.’

Such correlative constructions (also called ‘reeksvormers’ in Dutch) are always semantically distributive. In (5), *Joop* and *Anna* cannot be understood to be married to each other: there must have been two wedding events. The agreement on the auxiliary is obligatorily singular.

An overview of such coordinative combinations is given in table 2. They can be additive, disjunctive or adversative, but, as far as I am aware, there are no combinations with a causal or illative meaning.⁵

Table 2. Correlative coordinators in English and Dutch.

<i>type of relation</i>	<i>correlative (English)</i>	<i>correlative (Dutch)</i>
additive (conjunctive, copulative)	both...and	en...en, zowel...als
negative additive	neither...nor [*]	noch...noch
disjunctive (alternative)	either...or, whether...or	of/ofwel/hetzij/danwel...of/ofwel/hetzij/danwel [#]
adversative (contrasting)	not only...but(...)also	niet alleen...maar(...)ook

^{*} Renders both conjuncts negative. Also triggers inversion in main clausal conjuncts.

[#] Not everybody likes every combination, but all sixteen combinations have been attested. Generally, there is a preference for equal parts.

⁵ The correlative resultative construction *so...that* (Dutch, *zo...dat*) is subordinative, which is evident from the verb final word order of the *that*-clause in Dutch.

Often, coordinated phrases or clauses are semantically symmetrical (balanced), that is, they have a comparable status with respect to the context and with respect to each other. This, however, is by no means necessary. Example (6) illustrates temporal consecution, (7a/b) involve implications, and (8) is the famous *balansschikking* (lit. ‘balance-arrangement’) in Dutch (see Welschen 1999 for extensive discussion):

- (6) Let us plant these seeds now, and harvest the crop this summer.
- (7) a. Give him the money, or he will shoot you.
b. Say that again, and I will leave the house.
- (8) De kat was nog niet van huis of de muizen begonnen te dansen.
the cat was yet not of house or the mice started to dance
‘As soon as the cat had left the house, the mice started to dance.’ (fig.)

Especially the last two suggest that constructions can be syntactically coordinative, but semantically subordinative (cf. Culicover & Jackendoff 1997). Of course, causal and illative coordinations also belong to this type. Interestingly, the reverse pattern is also possible. A number of prepositions and prepositional phrases semantically act like coordinators. These are called insubordinators in Van der Heijden (1999). An example is given in (9):

- (9) Iedereen *behalve* Joop droeg een jas.
everyone except Joop wore a coat
‘Everyone except Joop was wearing coats.’

Here, *iedereen* ‘everyone’ and *Joop* are noun phrases that can be used as the subject of the predicate *droeg een jas* ‘wore a coat’. The relation between the two is determined by the insubordinator *behalve* ‘except’. Semantically, the construction expresses subtractive coordination (‘but not’).

Despite that, a number of tests show that insubordinators are syntactically subordinative. First, the conjoined phrase can be preposed, which is impossible with coordinated phrases; compare (10a) to (10b), where the underscore indicates the normal position:

- (10) a. [*Behalve* Joop] droeg iedereen een jas.
except Joop wore:SG everyone a coat
‘Except Joop, everyone was wearing coats.’
b. * [*En* Joop] droeg(-en) Anna _ een jas.
and Joop wore(-PL) Anna a coat
‘And Joop, Anna _ were wearing coats.’

Also note that the verb obligatorily shows singular agreement with the subject in (10a). Furthermore, insubordinative clauses display verb final. Since clausal complements of *behalve* ‘except’ start with the standard complementizer *dat* ‘that’, for which V-final is expected anyway, I will illustrate this with the comparative insubordinator *zoals* ‘like’:

- (11) Ik zou graag boeken willen kunnen schrijven zoals Rembrandt schilderijen
 I would gladly books want can write like Rembrandt paintings
kon maken.
 could make
 ‘I would like to be able to write books like Rembrandt could draw paintings.’

Here, the clause starting with *zoals* has the word order of a subordinate clause, which differs from the word order in clauses coordinated to a main clause; compare (3) above, for instance.

Table 3 contains an overview of insubordinators.⁶ Several of these are semantically comparative (which is close to additive), or subtractive (which is close to adversative).

Table 3. Insubordinators (including insubordinative phrases) in English and Dutch.

<i>type of relation</i>	<i>insubordinator (English)</i>	<i>insubordinator (Dutch)</i>
comparative	as, like (as...)as (more...)than	zoals, evenals, net als, gelijk ^{††} (even/zo...)als (meer...)dan
negative comparative	as little as [*] , no more than [*] let alone [*]	evenmin als [*] , zomin als [*] laat staan [*]
additive	as well as ^{**} with ^{**} , together with ^{**} next to ^{**}	behalve [^] met ^{**} , samen met ^{**} naast ^{**}
subtractive	except (for), besides [†] , apart from, excluded [#] without ^{**}	behalve [^] , met uitzondering van, uitgezonderd ^{##} zonder ^{**}
negative substitutive	instead of	in plaats van
adversative	contrary to	in tegenstelling tot

^{*} Renders both ‘conjuncts’ negative.

^{**} Only in the (positive or negative) comitative sense.

[†] To be distinguished from its use as a conjunctive adverb.

^{††} Flemish.

[#] Follows the second ‘conjunct’.

^{##} Optionally follows the second ‘conjunct’.

[^] *Behalve* can be used both subtractively and additively, depending on the context and the use of negation and adverbs like *ook* ‘also’.

Notice that many insubordinators can take a clausal complement starting with the subordinator *dat* ‘that’ in Dutch.

Ellipsis phenomena, in particular gapping, are possible in any clausal construction that is semantically coordinative. The examples in (12) show this for semantically balanced coordination and insubordination;^{7,8} (13) shows that regular subordination and semantically unbalanced coordination do not license gapping.

⁶ Here is an alphabetical list of regular subordinators (subordinating conjunctions) in English. They are closely related to (or even indistinguishable from) prepositions: *after, although, if, because, before, lest, once, since, that, though, till, unless, until, whether, while*.

⁷ Interestingly, the equivalents of (12b/c) without gapping necessarily involve subordinate clauses: ... *behalve dat Joop een aap tekende* ‘except that Joop drew a monkey’; ... *als Joop apen kan tekenen* ‘as Joop can draw monkeys’.

⁸ According to the reviewer, the equivalent of (12b) in Spanish or Catalan is unacceptable.

- (12) a. Joop kocht appels en Anna _ bananen.
 Joop bought apples and Anna _ bananas
 b. Niemand tekende een dier behalve Joop een aap _.
 nobody drew an animal except Joop a monkey
 c. Niemand kan zo goed dieren tekenen als Joop apen _.
 nobody can so good animals draw as Joop monkeys
 ‘Nobody can draw animals so well as Joop monkeys.’
- (13) a. * Joop brought the cake because Anna _ the flowers.
 b. * Joop brought the cake, for Anna _ the flowers.

Thus, it seems that the possibility of gapping is semantically constrained, rather than syntactically. (See Van der Heijden 1999 for more discussion and Dutch data.) On a general note, it is thinkable that insubordinative phrases lacking a verb always involve ellipsis, even in apparently simple cases such as (9). If so, it needs to be established whether comparative deletion or subdeletion (see Bresnan 1973, Chomsky 1977, den Besten 1978, Corver 2006, among others) can be generalized to these constructions, or if different types of ellipsis must be distinguished. These issues are beyond the scope of this chapter.

Next, let us have a look at conjunctive adverbs and similar phrases (Dutch, ‘voegwoordelijke bijwoorden’). These are adverbs that relate a proposition to the discourse (context), instead of modifying the proposition itself. Crucially, they do not syntactically conjoin clauses (although this may apparently be the case if they figure in juxtaposed sentences). Common examples are *however*, *furthermore*, and *finally*. An overview is presented in table 4. Importantly, conjunctive adverbs must be semantically distinguished from modal sentence adverbs such as *certainly* or *probably*, which involve an evaluation of the truth or probability of the relevant proposition by the speaker. Both, of course, involve some kind of meta-information.

Table 4. Conjunctive adverbs (and some comparable transitional phrases) in English and Dutch.

<i>type of relation</i>	<i>conjunctive adverb (English)</i>	<i>conjunctive adverb (Dutch)</i>
contrasting	however, though [*]	echter
	conversely, (by contrast), (on the other hand)	daarentegen, (aan de andere kant)
	nevertheless, nonetheless, (despite that), (then again)	niettemin, nochtans, evenwel, desondanks, desalniettemin
	still, yet ^{##}	toch
	anyway, anyhow, (even so), (all the same), (at any rate)	althans, (hoe dan ook)
	otherwise ^{**}	anders
substitutive	contrarily, rather ^{**} , (on the contrary)	integendeel
	instead	(in plaats daarvan)
substitutive-concluding	(in brief), (to sum up)	kortom, samengevat
concluding	therefore, thus	daarom
	so ^{##} , hence, henceforth	dus ^{##}
additive	consequently, accordingly, (as a result)	dientengevolge, bijgevolg, derhalve, zodoende, deswege
	furthermore, moreover, additionally, (in addition)	verder, bovendien, daarenboven, daarnaast, buitendien, hierenboven
	also, ...too, plus	ook, tevens
	incidentally, besides, (by the way)	trouwens, overigens
negative additive	neither	evenmin

temporal-additive	finally, lastly next [#] , then ^{**} (at the same time) first(ly), second(ly), ... (in the first/second/... place)	ten slotte dan [*] tegelijk, tegelijkertijd (ten eerste), (ten tweede), ... (in de eerste/tweede/... plaats)
temporal [†]	meanwhile, (in the meantime) again, (once more) hitherto	intussen, ondertussen, onderwijl opnieuw, andermaal, wederom (tot dusver), (tot zover), (tot nu toe)
comparison	likewise, similarly, analogously	evenzo, evenzeer, (net zo)
explication, illustration	namely, (that is), (after all) (in other words) specifically (for example), (for instance) (to illustrate) (in fact)	namelijk, immers (met andere woorden) (in het bijzonder) bijvoorbeeld (om een voorbeeld te geven) (in feite)

* To be distinguished from its use as a subordinating conjunction or preposition.

** To be distinguished from its use as a regular adverb.

To be distinguished from its use as an adjective.

To be distinguished from its use as a coordinator or regular adverb.

† To be distinguished from temporal adverbs relating to events (instead of the discourse).

In English, conjunctive adverbs and phrases are often left-dislocated, but in principle they can also be parenthetically constructed in other positions (whether intervening or right-peripheral), even though not every single one of them has all of these possibilities. An illustration is (14):

(14) (However,) Joop (,however,) did not like this proposal (, however).

In Dutch, conjunctive adverbs are often constructed as regular adverbs. If they are fronted to the first position, they trigger inversion, as is shown in (15):

- (15) a. Joop heeft *daarentegen* voor het voorstel gestemd.
Joop has conversely for the proposal voted
‘Conversely, Joop has voted for the proposal.’
b. *Daarentegen heeft* Joop voor het voorstel gestemd.

However, they can also be treated as parentheses:

(16) (?Daarentegen,) Joop (,daarentegen,) heeft voor het voorstel gestemd (?, daarentegen).

Some others must be left-dislocated:

- (17) a. *Integendeel*, Joop heeft voor het voorstel gestemd.
on.the.contrary Joop has for the proposal voted
b. * *Integendeel* heeft Joop voor het voorstel gestemd.
c. * Joop, *integendeel*, heeft voor het voorstel gestemd.
d. * Joop heeft voor het voorstel gestemd, *integendeel*.

At present it is unclear to me how to predict these differences from the lexical semantics of the relevant conjunctive adverbs, so I will leave the issue aside.

Finally, to be complete, there are some frequent correlative combinations that are semantically coordinative, but do not involve a coordinator; see table 5.

Table 5. Correlative combinations in English and Dutch.

<i>type of relation</i>	<i>combination (English)</i>	<i>combination (Dutch)</i>
contrasting	for one thing...for another thing, on one hand...on the other hand	enerzijds...anderzijds aan de ene kant...aan de andere kant nu eens...dan weer ('at one time...then again')
comparative	like...so	zo(als)...zo
correlation	the [+comparative]...the [+comparative]	hoe [+comparative]...hoe/des te [+comparative], des te [+comparative]...des te [+comparative]

To summarize, there are several true coordinators and other elements that behave semantically comparable. There is a clear overlap in the various semantic relationships that are brought about by such constructions. Proper coordination itself must be defined as a syntactic construction, which, depending on the particular coordinator, can express a variety of meanings. This, then, will serve as a background for the next sections, in which I will propose that there is another semantic main type of coordination, which will shed light on appositional constructions, extraposition, and various types of parentheses. As a result, the meaning overlap between conjunctive adverbs and true coordinating constructions will be expanded even further.

3. Specifying coordination at various levels

3.1. Appositions as conjuncts

Appositional constructions consist of an anchor and the actual apposition, a non-restrictive modifier, which provides a specification or alternative description of the anchor.⁹ A typical example is given in (18), where *Joop* is the anchor and *my roommate* the apposition:

(18) Have you met *Joop, my roommate*?

The intonation suggests that the apposition is a kind of parenthesis (more evidence for this is presented in section 4). Even so, there are clear indications that an apposition is structurally attached to its anchor, and hence forms a constituent with it. In (18), the anchor is the direct object. In (19a) it is the subject, in (19b) the indirect object, in (19c) the complement of an adverbial prepositional phrase. In all cases, the apposition appears adjacent to the anchor.

- (19) a. Joop, *my roommate*, gave me a birthday present.
b. I gave Joop, *my roommate*, a birthday present.
c. I was given a present by Joop, *my roommate*, yesterday.

Possible hypotheses are that appositions are right-adjoined to the anchor, or that they are parenthetical orphans forced into the desired position by some adjacency constraint. However, I will argue that there

⁹ Just to be clear, this chapter does not concern restrictive modifiers (as in *my cousin John*), whose semantic and structural relationship with respect to the modifyee is quite different – and therefore should not be included under the definition of apposition, in my view.

is a more explanatory analysis, which involves structural coordination of an apposition to its anchor. Several facts support this view (these will be illustrated directly below):

- Like conjuncts, appositions can be attached to phrases of any syntactic category.
- Normally, an apposition is functionally equivalent to the anchor with respect to the context. This is similar to the constraint concerning coordination of likes.
- Like conjuncts, appositions can be iterated.
- As in complex coordinate structures, appositions can be arranged recursively.
- Like conjuncts, nominal appositions usually receive the same Case as the anchor in many languages.
- Appositions behave like conjuncts with respect to constraints on movement.
- Coordinators may be used as linkers in appositional constructions.

Canonical appositional constructions involve noun phrases. But this is certainly not the only possibility. In (20a-d) we find anchor-apposition pairs that are prepositional phrases, adjectival phrases, clauses, and verbs, respectively:

- (20) a. Let us meet over there, *in the pub*.
b. She is intelligent, *even bright*.
c. The bullet went astray, (*that is,*) *it missed the target*.
d. Bill moved, (*or rather*) *ran down the hill*.

In (20c/d), *that is* and *or rather* are linkers commonly used in appositional constructions.

As was illustrated in section 2, regular coordination can also be applied at any level of syntactic structure; compare (1), for instance. Despite this remarkable flexibility, not anything goes. The examples in (21) and (22) show that both parts must be functionally equivalent.

- (21) a. Joop was ill-humoured *and in a state of distress* yesterday.
b. # Joop was ill-humoured *and in the courtroom* yesterday.
- (22) a. Joop was ill-humoured, (*that is,*) *in a bad mood*, yesterday.
b. # Joop was ill-humoured, (*that is,*) *in the courtroom*, yesterday.

Notably, there is no strong syntactic requirement that all conjuncts must be of equal category (Williams's 1981 Law of Coordination of Likes), but there must be a functional-semantic correspondence (see Dik 1968, Sag et al. 1985, and Hendriks 2001 for discussion, among others). This is the case for coordination and apposition in a similar fashion.

The phrases in (23) show that appositions can be iterated. What is important is that this is possible in principle, regardless of the issue whether such combinations are frequent or not.

- (23) a. Joop, my roommate, a nice guy, also a linguist, ... [gave me this present.]
b. [He is] smart, really intelligent, bright, even.
c. [They still have not found] dictator X, our enemy, our worst nightmare, ...

Iteration is common for conjunctions and disjunctions, but impossible with the more specialized coordinators; for instance, we have *X or Y or Z...* versus *X but Y (*but Z...)*, or *X for Y (*for Z...)*.

Even a layered recursive arrangement is possible. This is related to the fact that there are several semantic subtypes of appositions, as will be explained in more detail section 4. Appositions can be identificational (as in *my roommate, Joop*), predication (as in *Joop, a nice guy*), or inclusive (as in

some guys, Joop for instance). A complex example showing recursive groupings of the pattern [[A, B], [C, D]] is provided in (24), which can be compared to recursive coordination in (2b).

- (24) [[Insects, those six-legged animals], and in particular [the mosquito, the most annoying of all]], swarm around in big numbers during the summer.

Here, *and in particular* is a linker used for inclusive appositions.

Next, we predict the existence of a pattern in which a nominal apposition receives the same Case as its anchors. Since this cannot be empirically established in English or Dutch (because these languages do not have morphological Case markings on full noun phrases), consider the following equivalent examples from Icelandic (25) and Russian (26).¹⁰ Here, the relevant appositions are italicized.

(25)

- a. Árið 1973 tók Skylab tvö dýr, *köngulærnar Arabellu* og
 year:DEF 1973 took skylab two:ACC animals:ACC spiders:ACC Arabellu:ACC and
Anítu út í geiminn.
 Anítu:ACC out in space:DEF
 ‘In 1973, Skylab took two animals, the spiders Arabella and Anita, into space.’
- b. Þær urðu að búa til mikilvægasta verfæri sitt, *vef*, í lausu lofti.
 they had to make to most.important tool:ACC their:ACC web:ACC in free air
 ‘They had to conduct their major device, a web, in free fall.’
- c. Festingin milli líkamshlutanna, *mittið*, er mjög mjó.
 connection:DEF.NOM between body.parts:DEF waist:DEF.NOM is very narrow
 ‘The connection between the segments, the waist, is very thin.’
- d. Þeir gáfu Anítu, *hinni köngulónni*, þetta líka.
 they gave Anita:DAT other:DAT spider:DAT this too
 ‘They gave it to Anita, the other spider, as well.’

(26)

- a. V 1973 Skulab vzjal dvuh životnyh, *paukov Arabellu i Anitu*,
 in 1973 Skulab took two:ACC animals:GEN spiders:ACC Arabella:ACC and Anita:ACC
 v kosmos
 in space.
 ‘In 1973, Skylab took two animals, the spiders Arabella and Anita, into space.’
- b. Oni dolžny byli sozdatj svoe osnovnoe prisposoblenie, *pautinu*, v svobodnom padenii.
 they must were create their major device:ACC web:ACC in free fall
 ‘They had to conduct their major device, a web, in free fall.’
- c. Svjazj meždu otdelami, *talija*, očenj tonkaya.
 connection:NOM between segments waist:NOM very thin
 ‘The connection between the segments, the waist, is very thin.’

¹⁰ Many thanks to Herman Heringa, and indirectly Gunnar Hrafn Hrafnbjargarson and Evguenia Markovskaya, for providing me with these data.

- d. Oni dali ih Anite, *drugomu pauku*, tože.
 they gave them Anita:DAT other spider:DAT too
 ‘They gave it to Anita, the other spider, as well.’

In each instance, the Case of the apposition is adapted to that of the respective anchor. In (25a/b) and (26a/b) this is accusative; in (25c) and (26c) it is nominative; in (25d) and (26d) it is dative. If appositions were only parenthetical adjuncts, these data would require an independent explanation. However, if appositions fall under the umbrella of coordination, they simply conform to a well-known pattern.¹¹

From this perspective, it is also expected that appositions comply to restrictions on displacement known for conjuncts (in particular, the Coordinate Structure Constraint, which goes back to Ross 1967). Compare the examples in (27) through (31), which show the impossibility of preposing, stranding in the middle field – by moving the first conjunct or anchor –, and extraction (in this order). In each case, an underscore indicates the unmarked position of the moved constituent, which is italicized. The examples in (27) – (29) are in Dutch. First, (27) shows that topicalization of the complete coordinate or appositional construction is perfectly fine; then, (28) and (29) show that topicalization of either the second conjunct/apposition or first conjunct/anchor is impossible.

- (27) a. *Joop en Anna* ben ik _ vandaag niet tegengekomen.
 Joop and Anna am I today not encountered
 ‘Joop and Anna, I haven’t encountered _ today.’
 b. *Joop, mijn buurman*, ben ik _ vandaag niet tegengekomen.
 Joop my neighbor am I today not encountered
 ‘Joop, my neighbor, I haven’t encountered _ today.’
- (28) a. * *En Anna* ben ik Joop _ vandaag niet tegengekomen.
 and Anna am I Joop today not encountered
 ‘And Anna, I haven’t encountered Joop _ today.’
 b. * *Mijn buurman*, ben ik Joop _ vandaag niet tegengekomen.
 my neighbor am I Joop today not encountered
 ‘My neighbor, I haven’t encountered Joop _ today.’
- (29) a. * *Joop* ben ik _ en Anna vandaag niet tegengekomen.
 Joop am I and Anna today not encountered
 ‘Joop, I haven’t encountered _ and Anna today.’
 b. * *Joop* ben ik _, mijn buurman, vandaag niet tegengekomen.
 Joop am I my neighbor today not encountered
 ‘Joop, I haven’t encountered _ my neighbor today.’

The examples in (30) and (31) show that wh-extraction with P-stranding out of a complement PP within an indefinite noun phrase is possible in English, but not if this noun phrase is a second conjunct or apposition.

¹¹ Case distribution is not the only pattern known. It seems that in some instances a default Case shows up on the apposition, depending on the particular language/dialect and the syntactic function of the anchor. Interestingly, similar phenomena have been reported for regular coordination; see especially Johannessen 1998. In appositional constructions, we found examples involving nominative and oblique Case. Currently, Herman Heringa is running a cross-linguistic investigation concerning this issue. Thanks to Henk van Riemsdijk and Alexander Grosu (p.c.) for bringing this to our attention.

- (30) a. Which topic did you study books about _?
 b. Which construction did you discover an interesting aspect of _?
- (31) a. * Which topic did you study articles on coordination and books about _?
 b. * Which construction did you discover *wh*-movement, an interesting aspect of _?

Thus, restrictions on displacement work out similarly for regular conjuncts and appositions.

Finally, (32) shows that the central coordinators *or* and *and*, and even *but* in some cases, can be used as linkers in appositional constructions.¹²

- (32) a. Joop lives in The Netherlands, *or* Holland, as it is often called.
 b. Joop loves to visit capital cities, *and/but* especially Amsterdam.

Comparable examples in Dutch are the following:

- (33) a. Joop is een taalkundige, *en wel* een syntacticus.
 Joop is a linguist and indeed a syntactician
 'Joop is a linguist, namely a syntactician.'
 b. Joop woont in de 'metropool van het Noorden', *ofwel* Groningen.
 Joop lives in the metropole of the North or.indeed Groningen
 'Joop lives in the 'metropole of the North', that is, Groningen.'
 c. Joop houdt van mensapen, *maar* in het bijzonder van chimpansees.
 Joop loves of apes but in the particular of chimpanzees
 'Joop loves apes, but in particular chimpanzees.'

Here, the specifying linkers *en wel* and *ofwel* contain the coordinators *en* and *of*. Similar patterns have been reported for other languages. In Czech, *neboli* 'or/that is' can be used as an appositional linker, and it contains the central coordinator *nebo* 'or' (Heringa 2007).

All of this strongly suggests that appositional constructions involve structural coordination (see also Kraak & Klooster 1968, Quirk et al. 1985, Sturm 1986, Koster 2000). Of course, this type of coordination is semantically different from the types listed in table 1. Thus, we are led to the conclusion that there is yet another semantic type, which can be called specification. Thus, specification constitutes another main type of coordination. Compare the examples in (34):

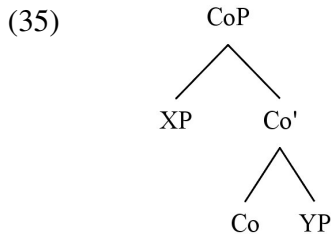
- (34) a. The Netherlands and Belgium (additive coordination)
 b. The Netherlands or Belgium (disjunctive coordination)
 c. not The Netherlands, but Belgium (adversative coordination)
 d. The Netherlands, Holland (specifying coordination)

In (34a-c) the two conjuncts have a different referent. This is not the case in (34d). An apposition provides an alternative description of the anchor, or, depending on the particular subtype, a property or subset of the anchor. In section 4, I will show that the appositional construction involves more than just this: appositional constructions, by definition, are non-restrictive; furthermore, the apposition can be understood as a predicate of the anchor. However, it will become clear that this must be attributed to other factors. For now, it is sufficient to recognize that apposition involves structural coordination, and, consequently, that there is a type of coordination, specification, that is semantically different from the

¹² For attributive appositions, asyndetic construal (\emptyset) is the most common. An example is *Joop, a nice guy*.

generally acknowledged types such as conjunction and disjunction. This enforces the idea that coordination is a syntactic construction with a varying semantics.

What does syntactic coordination look like? I will assume the basic structure in (35). For the present purposes, the functional layer needed to account for distributivity effects (see De Vries 2005) will be ignored.



In this representation, the coordinator is a functional head projecting into a coordination phrase, in which the conjuncts are the specifier and the complement, hence the arguments. See Munn (1993) and Johannessen (1998), among others, for discussion. The CoP creates a structural position for the conjunction. The coordinative head can be instantiated by an additive conjunction (*and*), disjunction (*or*) or some other linker (possibly lexically zero).¹³ Therefore, the semantics of the construction is determined by the lexical choice of the head, the coordinator. Needless to say, this approach neatly corresponds to the insights underlying X-bar theory. Moreover, it accounts for the fact that the coordinator forms a constituent with the second conjunct, which was already convincingly shown in Ross (1967).

In section 3.2 I will argue that apposition is not the only phenomenon that involves specifying coordination. Extraposition is to be analyzed in these terms as well. In section 4, I will return to appositional constructions.

3.2. Extraposition in terms of coordination

3.2.1. Introduction

A typical case of extraposition is illustrated in Dutch in (36a/b). The original position of the relative clause *die een rode hoed droeg* ‘who wore a red hat’ is next to its antecedent *een man* ‘a man’ (36a); in the extraposed order, it surfaces to the right of the participle *gezien* ‘seen’ (36b). This shift to the right is optional.¹⁴ The same can be done with a prepositional phrase such as *met een rode hoed* ‘with a red hat’.

- (36) a. Ik heb een man *die een rode hoed droeg* gezien.
 I have a man who a red hat wore seen
 ‘I saw a man who wore a red hat’
 b. Ik heb een man gezien *die een rode hoed droeg*.

Building on ideas by Koster (2000), I argue in this section that extraposition involves coordination. More specifically, the analysis entails that an extraposed constituent is base-generated within a second

¹³ A discussion of phrasal linkers is beyond the scope of the present chapter.

¹⁴ The obligatory position of complement clauses to the right of the verb can be explained by a VO basis. Nominal phrases are moved into the middle field. See Zwart (1994) and subsequent work for discussion. In this chapter, I will only discuss true extraposition, which is optional.

conjunct attached to the relevant clause at the required structural level, ranging from VP to CP, depending on the position of the anchor. The type of coordination involved is specifying coordination. Differently from Koster's original proposal, it is claimed that the coordination is syntactically balanced, and that there is phonological deletion inside the second conjunct.

In what follows, I will use examples from Dutch mainly. This is convenient, since Dutch has an easily detectable 'right sentence bracket': the final verb, verb cluster or verbal particle. (Recall that only the finite verb in main clauses is moved to the second position.) The discussion is limited to restrictive relative clauses and prepositional phrases at first, but section 3.2.5 broadens the empirical scope.

3.2.2. *Why extraposition is not rightward movement, stranding, or base-adjunction*

Several potential analyses of extraposition have been proposed. Possibly, it involves rightward movement (Reinhart 1980, Baltin 1983, Buring & Hartmann 1995, among others). Alternatively, the extraposed material could be stranded in a right-peripheral position, while the antecedent moves leftward (Kayne 1994).¹⁵ These ideas are roughly sketched in (37). A third approach is that the extraposed material is base-generated right-peripherally, to which I will return shortly.

- (37) a. Ik heb [een man t_i] gezien [die een rode hoed droeg]_i. (rightward movement)
 b. Ik heb [een man]_i gezien [t_i die een rode hoed droeg]. (stranding)

There are strong arguments against these analyses. The most obvious objection to stranding is that extraposition from embedded positions is possible. The reason is that what needs to be moved leftward is not a constituent in this analysis. Even the sentence in (38) would be a problem, let alone examples such as (39):

- (38) Ik heb [de man] gezien *die een rode hoed droeg*.
 I have the man seen who a red hat wore
 'I saw the man who wore a red hat'

- (39) De politieagent heeft [de papieren van de man] gecontroleerd *die een rode hoed droeg*.
 the police.officer has the papers of the man checked who a red hat wore
 'The police officer checked the papers of the man who wore a red hat.'

In (38), there is extraposition from a simple definite noun phrase, which is very common. This would require movement of the determiner plus the noun (stranding the modifier), but these do not form a constituent. The problem is amplified in (39); see the schematic illustration in (40):

- (40) ... V [D [N [P [D [N modifier]]]]]

Here, what has to be moved to the left of the verb is the underlined part. Clearly, this is highly undesirable, given general assumptions about syntactic processes.

Other strong arguments against the stranding theory are the fact that there can be extraposition from subjects and other constituents (see section 3.2.3 below), and the resulting mirror pattern in the case of multiple extraposition; these patterns cannot be explained. Furthermore, stranding in the middle field is impossible; compare (41a)-(41d), for instance:

¹⁵ A related variant is Wilder's (1995) 'copy plus scattered deletion'.

- (41) a. Heb je *de mannen* gezien *die een rode hoed droegen*?
 have you the men seen who a red hat wore
 ‘Have you seen the men who wore red hats?’
 b. Heb je *de mannen die een rode hoed droegen* gezien?
 c. * *Hoeveel mannen* heb je *die een rode hoed droegen* gezien?
 how.many men have you who a red hat wore seen
 d. *Hoeveel mannen* heb je gezien *die een rode hoed droegen*?

If indeed (41a, b and d) can be derived, there is no way to exclude (41c) in the stranding approach.

Let us consider the rightward movement theory instead. Unfortunately, the facts concerning extraposition from embedded positions constitute stark evidence against this approach as well. Consider the difference between the sentences in (42):

- (42) a. Ik heb [een man *uit Denemarken*] ontmoet.
 I have a man from Denmark met
 ‘I met a man from Denmark.’
 b. Ik heb [een man _] ontmoet *uit Denemarken*. (extraposition)
 c. * *Waaruit* heb je [een man _] ontmoet? (wh-movement)
 where.from have you a man met
 ‘From where did you meet a man?’

Since *wh*-extraction of an adjunct PP modifier from NP is unacceptable, as is shown in (42c), it is remarkable that extraposition of a PP from such an island position is fine (42b). This problem is aggravated by the fact that even extraposition from deeply embedded positions is possible in Dutch, as was already shown in (39). Compare also the sentences in (43):

- (43) a. De politieagent heeft de papieren van een man *uit Italië* gecontroleerd.
 the police.officer has the papers of a man from Italy checked
 ‘The police officer checked the papers of a man from Italy’
 b. De politieagent heeft de papieren van een man gecontroleerd *uit Italië*.
 c. * *Uit welk land* heeft de politiemann de papieren van een man gecontroleerd?
 from which country has the policeman the papers of a man checked
 ‘From which country did the police officer check the papers of a man?’

The PP modifier *uit Italië* ‘from Italy’ is embedded in the complex phrase [*de [papieren [van [een [man [uit Italië]]]]]]*] ‘the papers of a man from Italy’ in (43a). Thus, the (supposed) original position of the PP is inside a strong island. As (43c) shows, *wh*-extraction from an embedded noun phrase is completely impossible. Therefore, extraposition out of embedded positions is expected to be equally ungrammatical, contrary to fact. Unless, of course, one is prepared to accept that movement to the left behaves completely differently from movement to the right, which goes against the idea that syntactic relationships are calculated in terms of hierarchy. In the case of movement, what should be relevant is that the landing site c-commands the original position (in a Minimalist framework, this is the consequence of the strict extensional character of a Merge-based derivation).

There is another asymmetry between *wh*-movement and extraposition: the first can be unbounded, whereas extraposition is clause-bound. The latter is known as the Right Roof Constraint (Ross’s 1967 Upward Boundedness Constraint); compare the illustrations in (44) and (45):

- (44) a. Wat zei Jan [dat Anna dacht [dat Joop gedaan had]]?
 what said Jan that Anna thought that Joop done had
 ‘What did Jan say that Anna thought that Joop had done?’
 b. Wat is nu wel duidelijk [dat Joop gedaan heeft]?
 what is now indeed clear that Joop done has
 ‘What is quite clear by now that Joop has done?’
- (45) a. [Dat Joop een misdaad gepleegd heeft *die hem zal berouwen*] is nu
 that Joop a crime committed has which him wil regret is now
 wel duidelijk.
 indeed clear
 ‘That Joop has committed a crime that he will regret is quite clear by now.’
 b. * [Dat Joop een misdaad gepleegd heeft] is nu wel duidelijk *die hem zal berouwen*.
 ‘That Joop has committed a crime is quite clear by now that he will regret.’

In (45a), there is extraposition of the relative clause within the higher subject clause; in (45b), it is extraposed to the right of the matrix, which is sharply unacceptable. Thus, the movement approach to extraposition makes the wrong predictions.

Therefore, let us turn to the possibility of base-generation. This, too, can be done in a number of ways. The most straightforward idea is right-adjunction (see Culicover & Rochement 1990, for instance).¹⁶ This assumption, however, is problematic. First, note that Dutch allows for topicalization of a remnant VP after object scrambling out of it. In (46), the indirect object has been scrambled out of the verb phrase, which itself is preposed, dragging along the direct object:

- (46) [_i een boek gegeven]_j heb ik hem_i niet t_j.
 a book given have I hem not
 lit. ‘Given a book, I have not to him.’

Now consider the following examples:

- (47) a. Ik heb de man gezien die een rode hoed droeg.
 I have the man seen who a red hat wore
 ‘I saw the man who wore a red hat’
 b. [De man gezien die een rode hoed droeg] heb ik niet.
 c. * [Gezien die een rode hoed droeg] heb ik (niet) de man (niet).

In (47a), there is extraposition of a relative clause, which, supposedly, is right-adjoined to the verb phrase. In (47b), the complete phrase containing the antecedent, the participle, and the extraposed clause is topicalized; this is some extended projection of the VP (say, AgrOP). However, (47c) shows that topicalization of the VP without the antecedent is unacceptable. This is entirely unexpected, since remnant VPs may be topicalized, as was shown above. Importantly, the pattern in (47) can be replicated with modifiers other than relative clauses, such as prepositional phrases, result clauses, and

¹⁶ An alternative is proposed by Haider (1997), who assumes that the extraposed constituent is generated deeply embedded within the VP.

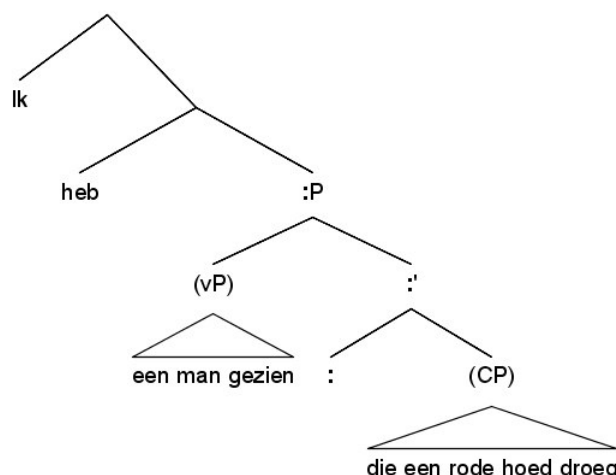
complement clauses of nouns and adjectives. Therefore, a construction-specific rule such as “a relative clause must be preceded by its antecedent” is of no use.¹⁷

The general pattern is that remnant VPs containing extraposed material are inert (see Kaan 1993). Neither of the theories mentioned so far is able to explain this pattern. However, rather than elaborating on the disadvantages of analyses that were already shown to be problematic,¹⁸ I would like to present a promising alternative.

3.2.3. Extraposition as specifying coordination

Koster (2000, and earlier lecture notes) proposed that extraposed constituents are base-generated right-peripherally, but in a way quite different from the adjunction analysis. They can be analyzed as second conjuncts in a so-called colon phrase. These are attached at the relevant level of the main projection line – to be precise, the minimal part of the matrix clause containing the unmarked position of the extraposed material functions as the first conjunct. An example is (48):

- (48) a. Ik heb [:_P [een man gezien] [: : [die een rode hoed droeg]]].
b.



Here, *een man gezien* ‘a man seen’ is an extended projection of the verb such as vP or AgrOP (I will remain agnostic as to the analysis of the middle field in Dutch). The object *een man* is the antecedent of the extraposed relative clause *die een rode hoed droeg* ‘who a red hat wore’. The colon is a functional head that functions as a particular kind of coordinator; its meaning is described roughly as ‘namely’. Clearly then, we can identify the colon phrase as an instance of specifying coordination. In the next section, I will propose a modification of Koster’s analysis, but first, let us see why it is a good idea to subsume extraposition under coordination (see also Rijkhoek 1998, who focuses on result clauses).

First, extraposition from embedded positions is no longer a problem, since there is no movement relationship between the two positions; therefore, no barrier needs to be crossed; see (49), for instance, which corresponds to (43b):

- (49) De politieagent heeft [:_P [[de papieren van een man] gecontroleerd] [: [uit Italië]]].

¹⁷ Preposing of a relative clause alone is also unacceptable: **[Die een rode hoed] droeg heb ik de man _ gezien* ‘who a red hat wore have I the man seen’. This can be attributed to other factors, such as the island status of (complex) noun phrases.

¹⁸ See De Vries (2002: chapter 7) for an extensive overview.

Second, we can now explain Kaan's generalization, which says that (remnant) VPs containing extraposed material are inert, as was shown in (47). Consider (50):

- (50) a. Ik heb [_{VP} [de man gezien] [: [die een rode hoed droeg]]].
 b. [De man gezien die een rode hoed droeg] heb ik niet.

The extraposed order is repeated in (50a). If we topicalize the complete colon phrase, we get (50b), which is fine. What cannot be derived, and correctly so, is (51):

- (51) * [Gezien die een rode hoed droeg] heb ik (niet) de man (niet).

This follows from the fact that the participle plus the relative clause (*gezien die een rode hoed droeg*) is not a constituent in (50a). Also, *de man* cannot be scrambled out of the (extended) verb phrase in (50a) because that would be a violation of the Coordinate Structure Constraint, so an alternative derivation in terms of remnant movement is not available.

Third, it is correctly predicted that extraposition can take place from any constituent of the clause. This is illustrated in (52):

- (52) a. Joop heeft [_{VP} [iemand het cadeau gegeven] [: [die 't echt verdiende]]].
 Joop has someone the present given who it really deserved
 'Joop gave someone the present who really deserved it.'
 b. Er liep [_{VP} [een man op straat] [: [die ik niet kende]]].
 there walked a man on street who I not knew
 'There was a man walking in the street who I didn't know.'
 c. [_{VP} [Iemand heeft me een brief geschreven] [: [die ik niet ken]]].
 someone has me a letter written who I not know
 'Someone wrote me a letter who I don't know.'
 d. Ik ben [_{VP} [ergens geweest] [: [waar ze gratis koekjes uitdelen]]].
 I am somewhere been where they free cookies distribute
 'I have been somewhere where they hand out cookies for free.'
 e. [_{VP} [Alleen die boeken heb ik weggegeven] [: [die ik niet meer wil hebben]]].
 only those books have I away.given which I not anymore want have
 'Only those books I have given away that I don't want anymore.'
 f. [_{VP} [Hoeveel boeken heb je weggegeven] [: [die je al hebt gelezen]]]?
 How.many books have you away.given which you alreadyhave read
 'How many books did you give away which you have already read?'

In (52a), the antecedent of the relative clause is the indirect object, in (52b) it is the (thematic) subject, in (52c) the subject of a ditransitive clause, in (52d) a locational adverbial phrase, and in (52e) and (52f) even a topicalized phrase and a *wh*-phrase (the object). In each case, the first conjunct of the colon phrase is as big a part of the matrix as necessary; this varies from VP to CP.

Fourth, multiple extraposition creates mirror effects. If there is extraposition from both XP_1 and XP_2 , and XP_1 precedes XP_2 , the order of the extraposed constituents after the right sentence bracket is mirrored, namely $EX_2 > EX_1$. Some examples are provided in (53) and (54), where the dependencies are marked with italics and underlining. In (53), there is a comparative phrase related to the subject and a prepositional modifier related to the object; in (54), there are two relative clauses.

- (53) a. Meer jongens hebben *de man* gezien *met de rode hoed* dan meisjes.
 more boys have the man seen with the red hat than girls
 ‘More boys saw the man with the red hat than girls.’
 b. * Meer jongens hebben *de man* gezien dan meisjes *met de rode hoed*.
- (54) a. Uitgerekend die man heeft *het boek* geschreven *dat de Pulitzer-prijs heeft*
 precisely that man has the book written that the Pulitzer Prize has
gewonnen die laatst nog overwoog zijn schrijverscarrière te beëindigen.
 won who lately still considered his writer’s career to end
 ‘That man, of all people, wrote the book that won the Pulitzer Prize who only recently
 considered giving up his writer’s career.’
 b. * Uitgerekend die man heeft *het boek* geschreven die laatst nog overwoog zijn
schrijverscarrière te beëindigen *dat de Pulitzer-prijs heeft gewonnen*.

The obligatory nested configuration is expected in the specifying coordination approach. A schematic analysis is given in (55a); a concrete example is (55b), which corresponds to (53a):

- (55) a. (...) [_{P1} [XP₁ ... [_{P2} [XP₂...] [:₂ EX₂]]] [:₁ EX₁]]
 b. [_{P1} [Meer jongens hebben [_{P2} [*de man* gezien] [:₂ [*met de rode hoed*]]]] [:₁ [dan meisjes]]].

There is no way of deriving the incorrect word order in (53b) or (54b).

Fifth, since specifying coordination is asymmetric (the second conjunct specifies the first), it is predicted to be impossible that extraposition shows up to the left of the associated position. This is illustrated in (56):

- (56) a. Ik heb een man gezien *die een rode hoed droeg*.
 I have a man seen who a red hat wore
 ‘I saw a man who wore a red hat.’
 b. * Ik heb *die een rode hoed draagt* een man gezien.

Notice that this is a problem for theories making use of adjunction (whether base-generated or after movement), since there would be no hierarchical distinction between (56a), where the relative clause would be right-adjoined to the VP (schematically, ...[_{VP} [_{VP} DO V] RC]), and (56b), where it could be left-adjoined to the VP (schematically, ...[_{VP} RC [_{VP} DO V]]).

Sixth, extraposed material is known to be an island for extraction, even if it is not an island in its unmarked position. This is the so-called freezing effect; see the illustrations in (57) and (58):

- (57) a. Waar heb je een artikel over _ geschreven?
 where have you an article about written
 ‘What did you write an article about?’
 b. * Waar heb je een artikel geschreven over _?
- (58) a. Waar is hij altijd dol op _ geweest?
 where is he always fond on been
 ‘What has he always been fond of?’
 b. * Waar is hij altijd dol geweest op _?

This contrast follows from the assumption that extraposed phrases are the second conjunct of a specifying coordination phrase, given the Coordinate Structure Constraint. Thus, the ungrammaticality of (57b) and (58b) can be compared to (59):

(59) * What did you write a book about linguistics and an article on _?

Here, the *wh*-phrase is moved from the second conjunct only, which is unacceptable.

I conclude that the idea that extraposition involves structural coordination is strongly empirically supported. However, in the next subsection I will argue that this is not the end of the story.

3.2.4. Why extraposition involves deletion

In section 2 we saw that conjuncts are not necessarily of the same category, but it is certainly not the case that anything goes: conjuncts must be functionally equivalent. From this perspective, consider again the schematic representation of an extraposed relative clause or prepositional modifier in (60):

(60) Ik heb [_{NP} [een man gezien] [: [{die een rode hoed droeg} / {met een rode hoed}]]].

Here, the first conjunct is a verb phrase, but the second a clause or a prepositional phrase. Clearly, these are not functionally equivalent.

This problem can be resolved. Let us hypothesize that the second conjunct involves more than what can be overtly detected. In (61), the specifying second conjunct repeats the first conjunct, but it also includes the overtly extraposed material in its canonical position; the repeated material is phonologically deleted. In order to distinguish this theory from Koster's original one, I will change the notation of the specifying coordinative head to &: instead of just a colon.

(61) Ik heb [_{&P} [een man gezien] [&: [~~een man~~ die een rode hoed droeg gezien]]].

Both conjuncts are now (extended) verb phrases, hence functionally (and categorially) equivalent. The second conjunct contains more information than the first, so it can be interpreted as a specification. The relative clause is generated adjacent to its antecedent within the second conjunct. The deletion involved can be compared to gapping; this will be discussed below.

The representation in (61) has a number of additional advantages over (60), and in fact over any other analysis of extraposition in terms of base-generation. The basic reason is that (61) incorporates some traits of the rightward movement analysis without taking over its drawbacks. First, the extraposed modifier is generated in its canonical position next to the modifyee (here, *man*). Therefore, the required (restrictive) interpretation is directly represented in the structure. No additional mechanism that links the extraposed constituent to its associated position in the matrix is necessary.

Furthermore, it is now possible to maintain the raising analysis of relative clauses in extraposition contexts. Evidence for this theory is accumulated in Vergnaud (1974), Kayne (1994), Bianchi (1999), De Vries (2002), Bhatt (2002), and others. The basic idea is that the head noun of a (restrictive) relative clause finds its origin within the relative clause; it is then raised to a left-peripheral position. This is shown in (62):

(62) (the) [_imen_i that I saw _i yesterday].

See section 4.3 for more structural details. A full discussion of this theory is beyond the scope of this chapter, however. What is relevant at this point is that it is incompatible with the original coordination approach to extraposition. In (60), the antecedent and the relative clause are generated separately, so

there cannot be raising of any kind. In (61), on the other hand, the head noun *man* is present within the second conjunct, so raising can take place as usual.

Another advantage of the deletion approach is the following. Consider the example in (63a) and the analyses in (63b/c), slightly more detailed than hitherto. Here, (63b) would be Koster's original analysis, and (63c) is the present view:

- (63) a. Ik heb alleen die man beleefd gegroet die een rode hoed droeg.
 I have only that man politely greeted who a red hat wore
 'I politely greeted only that man that wore a red hat.'
- b. [CP *Ik_S* heb [_{:P} [XP [DP *alleen die man*]_{DO} (X) [_{vP} *beleefd* [_{vP} *t_S* *gegroet t_{DO}*]]] [_: *die een...droeg*]]]
- c. [CP *Ik_S* heb [&:P [XP1 [DP *alleen die man*]_{DO} [_{vP} *beleefd* [_{vP} *t_S* *gegroet t_{DO}*]]] [_{&:} [XP2 [DP ~~*alleen die man*~~ *die een rode hoed droeg*]_{DO} (X) [_{vP} ~~*beleefd*~~ [_{vP} ~~*t_S*~~ ~~*gegroet t_{DO}*~~]]]]]]

Again, there is a relative clause related to the object of the matrix clause. This object has been scrambled to some middle field projection XP across an adverb, which I take to be adjoined to the vP for ease of representation. Crucially, the vP contains a trace of the subject as well. In the :P analysis (63b), the subject must be moved from the vP inside the first conjunct to the first sentence position. However, this would constitute a clear violation of the Coordinate Structure Constraint. In the &:P analysis, this problem does not arise, since there is a representation of the thematic subject position inside the second conjunct as well. Therefore, the subject is moved in an across-the-board fashion. As is well-known, ATB movement is not subject to the Coordinate Structure Constraint (Ross 1967), witness (64), for instance:

- (64) What_i did Mary buy t_i and John sell t_i?

Finally, I would like to mention the fact that the scope of an extraposed constituent is determined by the associated position in the matrix. This is stressed in particular by Buring & Hartmann (1995), and confirmed with a systematic overview of Dutch data by De Vries (2002). The hierarchical difference between subjects and objects is clear and uncontested, so let us focus on the more intricate double object construction. Consider the example in (65a), which shows binding of a pronoun inside a relative clause related to the direct object by a quantified indirect object. In (65b) the reverse pattern is sought for: a quantified direct object binds a pronoun inside a relative clause related to the indirect object; this, however, is unacceptable. Thus, (65) confirms the idea that IO asymmetrically c-commands DO. The inverse scope reading in (65b), although imaginable, is unavailable to me.

- (65) a. Ik heb iedereen_i het verhaal *dat hij_i wilde horen* verteld.
 I have everyone the story that he wanted hear told
 'I told everyone the story he wanted to hear.'
- b. # Ik heb de persoon *die het_i wilde horen* elk afzonderlijk verhaal_i verteld.
 I have the person who it wanted hear every single story told
 'I told the person who wanted to hear it each story.'

Interestingly, extraposition of the relative clauses in (65) does not alter the judgments:

- (66) a. Ik heb iedereen_i het verhaal verteld *dat hij_i wilde horen*.
 b. # Ik heb die persoon elk afzonderlijk verhaal_i verteld *die het_i wilde horen*.

The pattern can be confirmed by a Condition C test; see (67) and (68). In (67a) the direct object *Joop zelf* 'Joop himself' does not c-command the coreferent Joop embedded inside the indirect object;

therefore, there is no Condition C violation. In (67b) the R-expression *de headhunter* inside the direct object is c-commanded by the (pronominal) indirect object, which does lead to a violation (on a coreferential interpretation). Again, extraposition in (68) does not alter the judgments.

- (67) a. Ik heb de headhunter *die zijn_i/Joops_i collega natrok* Joop_i (zelf)
 I have the headhunter who his/Joop's colleague investigated Joop himself
 aanbevolen.
 recommended
 'I recommended the headhunter who investigated Joop's colleague Joop himself.'
- b. # Ik heb hem_i een man *die de headhunter_i niet kende* aanbevolen .
 I have him a man who the headhunter not knew recommended
 'I recommended him a man who the headhunter did not know.'
- (68) a. Ik heb de headhunter Joop_i (zelf) aanbevolen *die zijn_i/Joops_i collega natrok*.
 b. # Ik heb hem_i een man aanbevolen *die de headhunter_i niet kende*.

If extraposition from an object involves right-adjunction to the verb phrase, these facts would be problematic. Under a coordination approach, this is not the case. An indirect object is attached at least one Merge step higher than the direct object; therefore, a specifying coordination phrase containing material related to IO is attached higher than one relating to DO; thus the required hierarchical distinction reflected in c-command relations remains intact.

There is, however, a potential problem for the original :P analysis, which bears on the fact that A-bar movements are reconstructed. If an object is *wh*-moved or topicalized, it is still under the scope of the subject, witness (69) for instance:

- (69) a. # Which man_i did Mary say he_i invited _?
 b. Himself_i, John_i likes _ very much.

In (69a), *he* c-commands the trace of *which man*, which leads to a Principle C violation. In (69b), the anaphor is bound by the subject *John* despite the fact that it has been topicalized. In short, A-bar movements do not alter scope relations. If we combine this with the insight that extraposition does neither, we can put up an interesting test: an extraposed relative clause relating to a topicalized object should still be under the scope of the subject. That this is correct is shown by means of quantifier binding in (70):

- (70) Die ene, unieke gelegenheid zal niemand_i zich laten ontgaan *waarbij hij_i de koningin*
 that one unique opportunity will nobody SE let escape whereby he the queen
persoonlijk te spreken krijgt.
 personally to talk gets
 'That once-in-a-lifetime opportunity, nobody will let escape, whereby he will get to speak to the Queen in person.'

The schematic :P analysis is shown in (71):

- (71) [:P [TOP_{DO} Aux S V t_{DO}] [: RC]]

Topicalization finds place within the first conjunct; therefore, the pronoun within the relative clause is outside the scope of the subject quantifier, and cannot be bound, contrary to fact. By contrast, the &:P analysis has no such problems, as is clear from the representation in (72):

(72) [_{&:P} [TOP_{DO} Aux S V t_{DO}] [&: [[TOP+RC]_{DO} ~~Aux S V~~ t_{DO}]]]

Here, the second conjunct contains all relevant material. The relative clause attached to the topicalized object can be reconstructed as usual (compare (69)).

To sum up, there is not only clear evidence for coordination in extraposition constructions, but also for silent repeated material. At this point, it is time for a short digression on the nature of the deletion involved.

The deletion needed in the &:P analysis has three important characteristics. First, the deletion may involve nonconstituents and discontinuous material. Second, deletion of all material that is repeated is obligatory. Third, the deletion is directed forward; moreover, it concerns a second conjunct. All of these characteristics are familiar from the phenomenon known as gapping. Gapping is forward deletion of material in a second conjunct of a coordination phrase. The examples in (73) show that deletion may involve discontinuous strings. Here, stressed constituents are capitalized.

- (73) a. JOOP heeft MIEKE EEN BOEK gegeven en JAAP ~~heeft~~ MONIQUE EEN CD ~~gegeven~~.
 Joop has Mieke a book given and Jaap has Monique a CD given
 ‘Joop gave Mieke a book, and Jaap Monique a CD.’
- b. JOOP heeft HEM een boek gegeven en JAAP ~~heeft~~ HAAR ~~een—boek—gegeven~~.
 Joop has him a book given and Jaap has her a book given
 ‘Joop gave him a book, and Jaap her.’
- c. HIJ heeft Mieke EEN BOEK gegeven en ZIJ ~~heeft Mieke~~ EEN CD ~~gegeven~~.
 he has Mieke a book given and she has Mieke a CD given
 ‘He gave Mieke a book, and she a CD.’
- d. JOOP heeft een boek over SYNTAXIS gelezen en JAAP ~~heeft een—boek over~~
 Joop has a book about syntax read and Jaap has a book about
 FONOLOGIE ~~gelezen~~.
 phonology read
 ‘Joop read a book about syntax, and Jaap about phonology.’

Furthermore, it is clear that remnants *must* provide new information:¹⁹

- (74) Joop heeft Mieke vanochtend een boek gegeven en Jaap/*Joop ~~heeft~~ Monique/*Mieke
 Joop has Mieke this.morning a book given and Jaap/Joop has Monique/Mieke
 gisteren/*vanochtend een CD/*boek ~~gegeven~~.
 yesterday/this.morning a CD/book given
 ‘Joop gave Mieke a book this morning, and Jaap/*Joop Monique/*Mieke a CD/*book
 yesterday/*this morning.’

Thus, the deletion involved in the &:P does not lead to additional stipulations; it simply conforms to the pattern already known to be available for regular gapping constructions.

We now have an additional reason why extraposition conforms to the Right Roof Constraint. Recall that this concerns examples such as (75):

¹⁹ Notice that the verb (or verbs) represents old information, and it is deleted. If this were not the case, all its arguments must be projected according to the Head Condition (Fiengo, 1974; see also G. de Vries 1992 for discussion and references); as a consequence, there would be no deletion at all, which is not what we are looking for. Therefore, it is not possible to introduce a new verb in the second conjunct while deleting arguments that represent old information.

(75) * [That Joop committed a crime _ last year] is quite clear by now *that he will regret*.

A schematic &:P analysis is the following:

(76) * [$\&:P$ [CP_1 [CP_2 C [IP_2 α N β]] IP_1] [$\&:$ [CP_1 [CP_2 \in [IP_2 ~~α N~~ RC β] IP_1]]]]

In (76), there is deletion across a clause boundary. This is impossible in gapping constructions, as well; see (77), for instance:

(77) * Joop said that Mieke bought a book, and Jaap ~~said that~~ Monique ~~bought~~ a CD.

Therefore, from the present perspective the Right Roof Condition on extraposition reduces to a more general condition on deletion in gapping configurations. Of course, it needs to be clarified in turn why forward deletion is sensitive to clause boundaries. This general issue is beyond the scope of this chapter. It is worth mentioning that an analysis in terms of recoverability was proposed by G. de Vries (1992).

3.2.5. *Extrapose α ?*

The &:P analysis, and base-generation analyses more generally, predict that optional extraposition is only possible if the remainder is syntactically well-formed, and hence can be generated to begin with. We do not expect full arguments to be extraposable, since that would leave an illegitimate gap in the matrix. Possible exceptions to this rule of thumb are cases in which the argument position can be filled by an empty category *pro*. Extraposed phrases, then, are usually modifiers or complements. At least eight different construction types fit this pattern:

- relative clauses
- prepositional modifiers of N (adjuncts and complements)
- result clauses
- comparative clauses
- second conjuncts
- clausal complements of N
- prepositional modifiers of A
- clausal complements of A

The previous subsections contain several examples of the first two. Illustrations of the last six are provided in (78):

- (78) a. Joop heeft zo hard gewerkt *dat hij er zowaar moe van was*.
 Joop has so hard worked that he there actually tired of was
 ‘Joop worked so hard that he actually got tired.’
- b. Joop heeft meer artikelen gelezen *dan boeken*.
 Joop has more articles read than books
 ‘Joop has read more articles than books.’
- c. Ik heb Joop gezien *en Jaap*.
 I have Joop seen and Jaap
 ‘I saw Joop and Jaap.’

- d. Joop heeft het gerucht gehoord *dat Mieke zwanger is*.
Joop has the rumour heard that Mieke pregnant is
'Joop heard the rumour that Mieke is pregnant.'
- e. Joop is altijd dol geweest *op appels*.
Joop is always fond been on apples
'Joop has always been fond of apples.'
- f. Joop is altijd bang geweest *dat zijn vrouw hem zou verlaten*.
Joop is always afraid been that his wife him would leave
'Joop has always been afraid that his wife would leave him.'

In each case, the &:P analysis schematically looks as follows:

(79) ... [&:P [XP₁ α YP] [&: [XP₂ [~~α~~ EX] ~~YP~~]]]

At the relevant point in the matrix a specifying coordination phrase &:P is inserted. The remainder of the matrix, XP₁ (consisting of α YP), is put in the first conjunct. The second conjunct is a more specific copy of XP₁, namely some XP₂ that contains an additional phrase or clause EX related to α. Repeated material is phonologically deleted. One more concrete example is (80), which corresponds to (78e):

(80) Joop is altijd [&:P [VP₁ [AP dol] geweest] [&: [VP₂ [AP ~~dol~~ [PP op appels]] geweest]]]

It is always the case that the second conjunct specifies the first. Intuitively this makes sense: in a discourse, one can add information only to something that has already been mentioned. Also the fact that there is forward deletion is pragmatically expected: it makes sense to not pronounce again what has already been pronounced (and has the same function), but not the other way around.

There are also construction types without a 'first part' that may or must involve a right-peripheral positioning, namely adverbial phrases and clauses, secondary predicates, heavy NPs (including free relatives), and prepositional and clausal complements of V. In De Vries (2002), following suggestions by Koster (1999), I assumed that all of these involve extraposition such that EX in the second conjunct replaces a *pro* or weak pronoun in the first. In the present chapter, however, I will show that we must distinguish between several different types (depending, for instance, on whether there is backgrounding or not), and that neither constitutes extraposition proper (as described in this section), although indeed many of them do involve some kind of specifying coordination; see section 5 below.

3.3. Intermediate conclusion

This section introduced the concept of specifying coordination. The abstract coordinator &: projects as a regular X-bar category. Its meaning can be described as a relation of specification, such that the second conjunct provides an alternative description of the first conjunct, or a more specific description by adding information. If specifying coordination is used at the constituent level, it can be used to represent an appositional construction. If &:P is inserted in the spine of the clausal structure, it can be used to represent extraposition, an idea which turned out to have substantial explanatory power. Thus, we obtain a nice generalization over two seemingly unrelated constructions. Needless to say, there is also a major difference between the two: extraposed constituents are interpreted restrictively, whereas appositions are non-restrictive. In the next section, I will argue that non-restrictive construal requires a second type of specifying coordinator.

4. Non-restrictive construal and secondary propositions

4.1. More on appositions

In this section we will have a closer look at appositional constructions. It will become clear that appositions involve coordination on two levels at the same time: constituent coordination, as was argued in section 2, and also implicit coordination of a secondary proposition to the primary proposition, which is semantically at the sentence level. This secondary proposition is a copular clause in which the apposition is a predicate of the anchor. More generally, a secondary message reflects parenthetical (non-restrictive) construal. Syntactically, this is brought about by means of a particular type of specifying coordinator called *Par*, whose properties will be discussed in more detail in the next subsection. Section 4.3 contains a structural proposal for appositions and appositive relative clauses. Section 5 continues with anchored parentheses in general, stretching the ideas to right-dislocation constructions and what will be called interthoughts.

Consider the following two sentences. In (81a), *Joop* is an apposition; in (81b) *Joop* is a regular (disjunctive) conjunct.

- (81) a. Anna invited her neighbor, Joop, for dinner.
b. Anna invited Mary or Joop for dinner.

Both involve structural coordination, but there are essential differences. The apposition *Joop* in (81a) constitutes an alternative description *of* the anchor (*her neighbor*); in (81b) it is an alternative *to* the anchor (*Mary*). In the former *Joop* is constructed non-restrictively; in the latter it is restrictive information. The proposition in (81b) is true if either Mary is invited for dinner or Joop is invited for dinner by the subject (or both). Sentence (81a) is true if Anna invited her neighbor for dinner. That her neighbor can be identified as Joop is another matter. Suppose that Anna invited her neighbor for dinner, but that Joop is not Anna's neighbor. Then (81a) is not simply false, it is an incoherent message, comparable to a presupposition violation. A possible response could be "Well, that's true, but note that her neighbor is not Joop." Thus, it can be concluded that (81b) contains one complex proposition, but that (81a) contains in fact two propositions (see also Berckmans 1994, Dever 2001, Corazza 2005, and Potts 2005 for discussion).

This difference is reflected in the intonation. Regular conjuncts are included under the intonation contour of the matrix. If there is multiple coordination, as in *John, Mary, Anna, and Bill*, the main stress shifts to the last conjunct. By contrast, an apposition normally receives an independent pitch accent. It does not influence the pronunciation of the anchor or other elements in the matrix; it only temporarily interrupts the intonation contour of the matrix.

There are other tests that confirm the non-restrictive character of appositions. For instance, appositions are not implied in VP ellipsis contexts; see (82), for instance:

- (82) Anna admires Joop, her best friend, and Monique does, too.

Here, the second, elliptical clause means that Monique also admires Joop. There is no implication concerning a possible friendship between Monique and Joop.

Also, notice that an appositional construction such as (83a) is equivalent to constructions with a relative clause (83b) or a parenthetical (83c):

- (83) a. Joop loves Anna, his girlfriend.
b. Joop loves Anna, who is his girlfriend.
c. Joop loves Anna – she is his girlfriend.

The clausal character of appositional constructions is confirmed by the fact that sentential adverbs can be used (see also Quirk et al 1985:1314 for English):

- (84) Joop, toen nog een tiener, componeerde zijn eerste symfonie in 1970.
 Joop then still a teenager composed his first symphony in 1970
 ‘Joop, still a teenager at the time, composed his first symphony in 1970.’

Thus, there is clear evidence that appositions provide additional information that does not belong to the primary proposition. There must be an implicit secondary proposition, with an independent truth value. Let me informally define this term:

(85) Definition

A *secondary proposition* is a proposition that is presented or perceived as relevant side-information to a primary proposition.

The intuition that the additional proposition invoked by an apposition is secondary can be reinforced as follows. Consider the sentence in (86), which contains the propositions (i) and (ii):

- (86) Anna invited Joop, her best friend, for dinner.
 (i) Anna invited Joop for dinner.
 (ii) Joop is her best friend.

Scenario A is that (i) is true but (ii) is false. As I stated before, a possible response is “Well, that’s true, but note that Joop is not her best friend.” It would be infelicitous to say: “That’s not true. Joop is not her best friend. (But you are right that she invited him for dinner.)” Reversely, scenario B is that (i) is false and (ii) is true. In that case, an appropriate response is “No, that is incorrect. She did not invite him for dinner. (But indeed, they are best friends.)” By contrast, it would be infelicitous to say “That is correct, they are best friends. (However, note that she did not invite him for dinner.)”

An appositional construction is predication (see especially Doron 1994). More precisely, the secondary proposition involved constitutes an implicit copular clause in which the anchor is the subject, and the apposition the predicate. This intuition is strengthened by the fact that there are striking similarities between regular predicates and appositions. For instance, a nominal predicate allows for a particular i-within-i configuration that is unacceptable in an argument position:

- (87) a. Joop is [his_i own cook]_i.
 b. Joop, (still) [his_i own cook]_i, produced a delicious meal last night.
 c. # [His_i/Joop_i’s own cook]_i produced a delicious meal last night.

More importantly, the two main types of apposition, namely attribution and identification, correspond to the two main types of predication. This is illustrated in (88) and (89).

(88) *attributive predication*

- a. Joop is a would-be pianist. (copular clause)
 b. ... Joop, a would-be pianist, ... (appositional construction)

(89) *identificational/specificational predication*

- a. Joop’s piano teacher is Mr. Brendel. (copular clause)
 b. ... Joop’s piano teacher, Mr. Brendel, ... (appositional construction)

See Heringa 2007 for more discussion on this particular point, and see Heringa & De Vries 2008 for a detailed semantic classification of appositional constructions in Dutch.

If the anchor of an appositional construction is indefinite, a slight complication arises. Consider the following example:

(90) A handsome guy, Joop, entered the room.

It is important to see that there is no predicate inversion here. The secondary proposition is not that Joop is a handsome guy, which would be an instance of attributive predication, but that a particular handsome guy is identified as Joop, which is a specificational predication. If we want to spell out this proposition overtly, we have to take the scope of the quantifier *a* into account, which yields *the handsome guy that entered the room was Joop*.

To sum up, appositional constructions involve a secondary proposition that expresses the predication relationship between the anchor and the apposition. Thus, there is not only coordination on the constituent level, as was argued in section 2, there is also coordination of propositions, which is a more general property of parenthetical material. In the next subsection, it is argued that this is brought about in syntax by a second type of specifying coordinator.

4.2. Parentheses and non-restrictive construal

Appositions, and parentheses more generally, are linearly integrated with the host sentence, but they are non-restrictive, that is, they do not restrictively participate in the primary proposition, and they are not categorially selected. There is much discussion in the literature concerning the relation between parentheses and the host sentence (see Espinal 1991, Burton-Roberts 1999, and especially the introductory chapter in Dehé & Kavalova 2007 for an excellent overview and further references), but the bottom line is that parentheses are used to express side-information. Often, this is phonologically marked, but it can be done in various ways, and sometimes there is not even a clear intonational separation between the parenthesis and the host structure (Dehé 2008). Therefore, a general positive characterization of parentheses in phonological or phonetic terms, which is sometimes referred to as the ‘comma reading’, is untenable. (Despite that, it is clear that change of pitch, speech rate, potential pauses, and so on often play a role; see Altmann 1981, Bolinger 1989, and Pittner 1995, for instance.) Furthermore, since parenthesis encompasses a host of different syntactic constructions (see further below), it is difficult to provide an a priori definition in syntactic terms, as well. Thus, the following semantic definition seems more adequate:

(91) Definition

Parenthesis is a grammatical construction type that involves a message that is presented or perceived as secondary with respect to the host.

Here, the notion *message* is used as a cover term for propositions, modal propositions, questions, meta-linguistic comments, and so on. Furthermore, the term *grammatical construction type* indicates that a parenthesis is related to the host sentence by the grammar, from which it follows that they cannot be linearly separate. In other words, parenthetical material is linearly integrated with the primary proposition by either intervention or adjacency (modulo potential other parentheses related to the same host, obviously). Secondary messages, therefore, relate to sentences directly, with obvious effects on the discourse – but it will be clear that parenthesis is not only a pragmatic phenomenon.

A concrete example is provided in (92). Here, the parenthesis is printed in italics; the primary and secondary message are explicated below the example.

- (92) Waarschijnlijk heeft Joop – *dat is mijn buurman* – de deur groen geverfd.
 probably has Joop DEM is my neighbor the door green painted
 ‘Probably, Joop – he is my neighbor – has painted the door green.’

Primary (modal) proposition: Probably, Joop has painted the door green.

Secondary proposition: He is my neighbor.

The intuition that the parenthesis in (92) constitutes a secondary proposition is corroborated by the fact that it is not included in the scope of the sentence adverb *waarschijnlijk* ‘probably’. What is probable is that Joop has painted the door green; the parenthetical is simply not part of this.

Parentheses are subject to a variety of semantic and syntactic invisibility effects. For instance, they are not included in cases of VP-ellipsis or pronominal reference to the host sentence. The former was shown for appositions in (82) above; the latter is illustrated in (93), which is a possible response to the utterance in (92):

- (93) Oh, maar dat vind ik niet leuk.
 oh but DEM find I not nice
 ‘Oh, but I don’t like that.’

Here, *dat* ‘that’ refers only to the primary proposition in (92), to the exclusion of the secondary one.

Furthermore, finite clausal parentheses normally are main clauses (with the exception of appositive relative clauses; see the next subsection), which have an independent illocutionary force. A relevant example is (94). Recall that main clauses in Dutch have V2, but subordinate clauses an exclusively verb final word order.

- (94) a. Heeft Joop – ik₁ bedoel₂ jouw buurman – de deur groen geverfd?
 has Joop I mean your neighbor the door green painted
 ‘Has Joop – I mean your neighbor – painted the door green?’
 b. * Heeft Joop – (dat) ik jouw buurman *bedoel* – de deur groen geverfd?

As (94) shows, V2 in the parenthetical is obligatory. Similarly, a main clause order can be observed in reporting and comment clauses:

- (95) “De aarde,” zei₁ Joop₂ gisteren, “is niet helemaal rond.”
 the earth said Joop yesterday is not entirely round
 ‘“The earth,” Joop said yesterday, “is not entirely round.”’

Notice that there is subject-verb inversion in this kind of parentheticals (see De Vries 2006b for discussion and references.)

Finally, parenthetical construal is different from subordination in that it blocks syntactic and semantic relationships between elements in the host and elements inside the parenthesis. For instance, there cannot be *wh*-movement from a parenthesis into the host. See (96), which is completely unacceptable:

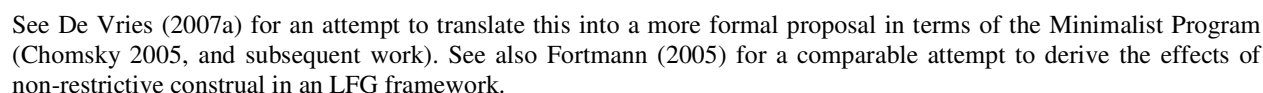
- (96) * What did the police – the commissioner suspected Hank stole _ – search his house?

Generally, elements inside a parenthesis cannot be licensed (or ruled out) by elements from the host. (The reverse is also true, for the simple reason that elements inside the parenthetical are embedded,

To sum up, parentheticals are linearly integrated with the host sentence, but they show a variety of invisibility effects. They are semantically non-restrictive, and involve a secondary message. Syntactically, they are semi-independent (main) clauses. How can these properties be represented in the syntactic structure?

First, let us turn to the structural embedding of parentheticals in the host. Unlike appositions, but like adverbial phrases and clauses, parentheticals do not have an anchor. Furthermore, they are not categorially selected, and their position within the host is relatively free. An example is the comment on use in (97). See also Schelfhout (2006) and Stoltenburg (2003) for a corpus-based investigation of possible positions of parentheses in Dutch and German, respectively.

- undoubtedly, discourse considerations play a role in the decision where to put a parenthesis, but what is relevant for our purposes is that there are no clear syntactic restrictions. Thus, it is likely that parentheses are structurally adjoined to an arbitrary projection of the host. In order to distinguish parentheses from restrictive adjuncts, I propose that they are embedded in a ‘parenthetical phrase’. See the representation in (98), in which the extended parenthetical projection ParP of XP_{par} is adjoined to the projection ZP of the matrix:



Here, the head Par triggers the non-restrictive interpretation of XP_{par} with respect to the host. Also, ParP screens off XP_{par} from potential licensing/c-command relationships by elements in the host (Y for instance).

As there are many types of parenthetical phrases, the internal composition of XP_{par} in (98) varies, with different properties associated with each. Nevertheless, there is a common basis. The representation in (98) reflects what all parentheses have in common, namely their non-restrictive construal with respect to the host, and the correlated invisibility effects.

The head Par can be seen as a non-restrictive specifying coordinator. If there is no anchor, a parenthesis is simply a specification of the discourse. In this respect, it is noteworthy that some parentheticals can be introduced by an overt coordinator, witness (99) for instance. See Blakemore (2005) and Kavalova (2007) for more discussion on *and*-parentheticals.

- (99) a. He asserted – *and* I wonder what you think about it – that the prisoners should be released.
 b. This man stole my bicycle, *or* at least so I think.

Recall that parentheses entail a secondary message. On some level of abstraction, this proposition is coordinated to the discourse. It seems that in (99), the overt coordinator is a spelled-out Par head.

The next section contains a structural proposal of appositions and non-restrictive relative clauses, which are concretely anchored parentheses.

4.3. Appositions and non-restrictive relative clauses: a tentative structural proposal

In section 3.1 it was established that appositions involve coordination at the constituent level. Furthermore, appositions are parentheses, hence non-restrictively constructed. In the previous subsection it was argued that non-restrictive construal is triggered by the head Par. Thus, we arrive at (100), which reinforces the idea that Par is a specifying coordinator:

- (100) [$_{\text{ParP}}$ anchor [Par apposition]]

Notice that we now have two specifying coordinators, namely *&*:, which is used for extraposition, and its non-restrictive counterpart Par, which is used for parenthesis.

However, (100) cannot be the complete analysis. Section 4.1 showed that appositional constructions do not only involve (non-restrictive) constituent coordination, they also involve a predicative secondary proposition. Thus, there must be an implicit copular clause. In order to find out how this can be structurally represented, I will make a comparison with non-restrictive relative clauses.

In De Vries (2006), I argued that appositive relative constructions involve specifying coordination, such that the antecedent is in the first conjunct, and the relative clause is embedded inside the second conjunct. The complete second conjunct is a full noun phrase. Usually, it is a kind of semi-free relative, and hence contains a *restrictive* relative. Thus, the construction as a whole looks like an appositional construction. An example such as *Joop, who is my neighbor* is analyzed roughly as *Joop, i.e., (the/some)one who is my neighbor*. Strong evidence for this view comes from the fact that an additional internal head is possible, although this belongs to a very formal register. See the illustrations in (101):

- (101) a. “De avonden”, welk boek van Reve veel gelezen wordt, is herdrukt.
 “De avonden”, which book of Reve much read is, has been reprinted
 ‘ “De avonden” [the evenings], which book by Reve is read by many people, has been reprinted.’

- b. Hond en kat zijn als water en vuur, welk *feit* reeds lang bekend is.
 dog and cat are like water and fire, which fact already long known is
 ‘Dogs and cats are like water and fire, which fact has been well-known for ages.’

Examples in English are provided in (102), taken from Smits (1988:287/8). See also Cardoso (2008) for illustrations in Old Portuguese, and De Vries (2004) for a discussion of Dutch data. Notice that in (101b) and (102b), the antecedent is the entire first clause.

- (102) a. My dog, which *faithful animal* has guarded me for years, died last week.
 b. It might be a bit crowded at the airport, in which *case* we had better be early.

Crucially, this is impossible in restrictive relative constructions, which is an argument for the raising analysis of relative clauses mentioned before in section 3.2. A more detailed structural representation of *the man who/that is my neighbor* is given in (103):

- (103) [DP D [CP [DP_{rel} NP_i [D_{rel} t_i]]_j C [IP t_j]]]
 the man (who) (that) is my neighbor

The complete structure in (103) is a DP, an extended noun phrase, and D (*the*) is the external determiner, which takes scope over the noun phrase and the restrictive relative clause. The latter is the complement of D. Within the relative CP, the head noun is generated as an argument of the embedded verb. This argument is DP_{rel}, the head of which is the relative pronoun, which functions as an operator. If the complementizer C is spelled out, D_{rel} is lexically empty, and the other way around (in English). Next to raising (that is, operator movement dragging along the NP embedded in DP_{rel}), the internal NP is moved to the left periphery (whether this is DP_{rel}-internally or to a higher layer within CP does not concern us, here). In this position it can be associated with the external determiner. Clearly, there is no room for an additional noun phrase.

In an appositive construction such as *Joop, who is my neighbor*, the situation is different. A structure similar to the one in (103) is coordinated as a second conjunct DP₂ to the antecedent DP₁; schematically, this is shown in (104a), and in some more detail in (104b):

- (104) a. [ParP DP₁ [Par DP₂]]
 b. [ParP DP₁ [Par [DP₂ D₂ [CP [DP_{rel} [NP N]_i [D_{rel} t_i]]_j C [IP t_j]]]]]
 Joop who is my neighbor

D₂ and N are related; usually, they are abstract: a silent equivalent to a pronoun. In that case, what we encounter is an ordinary appositive relative construction. Interestingly, there are no less than seven variants with essentially the same meaning, as is shown in (105). Notice that I made up these minimally different examples for ease of exposition, but all types can be attested cross-linguistically (and diachronically), and I find all seven acceptable in Dutch, with some differences in markedness.²¹

- | | | |
|-------|---|---|
| (105) | <u>English</u> | <u>Dutch</u> |
| a. | Joop, <i>who</i> is my neighbor | Joop, <i>die</i> mijn buurman is |
| b. | Joop, <i>he who</i> is my neighbor | Joop, <i>hij die</i> mijn buurman is |
| c. | Joop, <i>the one who</i> is my neighbor | Joop, <i>degene die</i> mijn buurman is |
| d. | Joop, <i>the man who</i> is my neighbor | Joop, <i>de man die</i> mijn buurman is |

²¹ Especially (105e) is a bit archaic. Notice that appositive relatives containing an internal head are more readily accepted if they are extraposed; also the presence of a pied piped preposition – as in (102) – seems to be of influence.

- | | | |
|----|---|--|
| e. | Joop, <i>the which man</i> is my neighbor | Joop, <i>dewelke man</i> mijn buurman is |
| f. | Joop, <i>which man</i> is my neighbor | Joop, <i>welke man</i> mijn buurman is |
| g. | Joop, my neighbor | Joop, mijn buurman |

In languages that can use a complementizer instead of a relative pronoun in appositive relatives, we also find the patterns [DP, C ...], [DP, pron C ...], and [DP, (D) N C ...] as alternatives for (105a-d).

Rather than analyzing appositive relative clauses as appositions or the other way around, I would like to suggest that all the variants just mentioned are different realizations (spell-outs) of one and the same underlying schema, which can be characterized as a complete restrictive relative construction (a complex noun phrase) that is added as a non-restrictive specifying conjunct to another noun phrase. First consider (106):

- (106) [ParP DP₁ [Par [DP₂ D₂ [CP [DP-rel [NP N]_i [D_{rel} t_i]_j C [IP t_j]]]]]
 Joop (i.e.) (the) (one/man) (who) (that) is my neighbor

If the NP is overt in (106), it acts as an external head within the second conjunct, which is a restrictive relative construction. In the case of an internal head, as in (105e/f), the relative pronoun is a dependent pronoun, so the original order of D_{rel} and NP stays intact; see (107):

- (107) [ParP DP₁ [Par [DP₂ D₂ [CP [DP-rel [D_{rel} [NP N]]]_j C [IP t_j]]]]]
 Joop (i.e.) (the) (which) (man) (that) is my neighbor

It is worth noticing that it can now be explained why an appositive relative clause is a subordinate clause (without V2 in Dutch), unlike regular parentheticals, and despite the fact that it constitutes a secondary proposition. The reason is straightforward: it is not the relative clause itself that is parenthetically constructed; rather, it is *embedded* in a DP that is non-restrictively attached to the anchor.

Finally, consider the appositional construction. In this case, none of the elements in the CP domain is pronounced. Furthermore, the interpretation is always predicative. This means that the verb inside IP must be an abstract copula. (By contrast, the embedded predicate in a regular appositive relative clause can be anything.) This is not surprising: a silent verb can only be interpreted as a copula. In many languages, finite predicative clauses do not (necessarily) contain an overt copula (for an overview, see Stassen 2008). Even in English and Dutch, predication can be expressed covertly, namely if it is secondary. Examples are given in (108):

- (108) a. Mary considers John a fool.
 b. John came home drunk.

What is implied here is that John *is* a fool (according to the subject) and that John *was* drunk (when he came home). Clearly then, we can make use of this in appositional constructions, which, after all, also contain a secondary predication. The resulting analysis is sketched in (109):²²

- (109) [ParP [DP₁ anchor] [Par [DP₂ D [CP N D_{rel} COP apposition]]]]

²² Within the second conjunct, there is a similarity with Kayne's (1994) analysis of reduced relatives and adjectives, which are also predicative. Kayne suggests that *the yellow book* may be derived from a structure that can be paraphrased as 'the book that is yellow'.

Here, COP is the copula *be* (possibly, with the required inflectional features). I should stress that D+N is a pronoun whose interpretation depends on the particular type of apposition. It can be animate or non-animate, for instance, and its quantificational status may vary (specific, non-specific or universal). Furthermore, notice that a predicate noun normally takes over the Case of its (small clause) subject. Thus, in (109), the apposition acquires its Case via the subject, which in turn takes over the Case of the first conjunct.

To be sure, the Case distribution in appositive relative clauses is different. If certain elements of the clausal structure are overt, internal Case becomes available for a potential relative pronoun and an internal head (if present). Thus, the activation of some relevant parts of the embedded clause will block the kind of Case attraction found in appositions. Possibly, this difference is related to a difference in finiteness. However interesting, these issues are beyond the scope of the present chapter, and I will leave a further exploration of the internal structure of the embedded clause in (109) and its semantics for future research.

Before closing this section, I would like to point out another similarity between appositive relative clauses and appositions, namely the possibility of a non-nominal antecedent. Some examples are given in (110) and (111).

- (110) a. John is over there, in the park.
 b. The bullet went astray, (that is,) it missed the target.
- (111) a. The meeting lasted from 9 till 12, which is a long time.
 b. John is leaving tomorrow, which is too bad.

It seems that the first conjunct in such constructions can be any XP. Still, the second conjunct must be a complex DP in each case, because it constitutes a restrictive relative clause construction. This gives [_{ParP} XP [_{Par} DP], which is syntactically unbalanced. The reason that this is possible is that the head of such a DP is a pronoun. And pronouns may refer to concepts, places, times, events, facts, and entities, implying that they can refer to any syntactic category (see also Jackendoff 1977:175). Thus, as long as a certain functional-semantic equivalence is maintained, constructions such as (110) and (111) are acceptable.²³

To summarize, appositions and appositive relative clauses can be analyzed as non-restrictive secondary predicates. They are embedded in a parenthetical phrase, of which the first conjunct is the anchor/antecedent, and the second conjunct a complex DP that is structurally equivalent to a restrictive relative construction. We paid some attention to the internal make-up of this relative construction, and to the possibility of spelling out various combinations of all the structural ingredients. In the next section, we will shift our attention to the anchor, and to the structural position of the parenthetical phrase within the matrix.

²³ Lehmann (1984:277) notes that relative clauses appositive to non-nominal antecedents are less common than those appositive to nominal antecedents. Presumably, the same can be said about appositions. This is in line with the present analysis, since syntactically unbalanced coordination is generally more marked than balanced coordination.

5. Anchored parentheses

5.1. Introduction

We defined parenthesis as a grammatical construction type that involves a secondary message. Let us now explicitly distinguish between those parentheses that are related to an anchor within the matrix clause, and those that are not:

(112) Definition

An *anchored parenthesis* is a parenthesis

- i) that is coordinated to some anchor within the host sentence, *and/or*
- ii) that involves an (implicit) predication, such that some anchor within the host sentence is interpreted as the subject, and the overt parenthetical material as the predicate.

In the case of an apposition or appositive relative clause, there is a concrete anchor to which the parenthesis is attached. For regular parentheticals this is not the case; these are simply adjoined at some position within the matrix (see also section 4.2). Here are some further examples of the latter:

- (113) a. Joop heeft – *heb ik het niet gezegd?* – de deur inderdaad groen geverfd.
Joop has have I it not said the door indeed green painted
'Joop – I told you so – has indeed painted the door green.'
- b. Joop heeft – *en ik vertrouwde hem al niet* – het geld gestolen.
Joop has and I trusted him yet not the money stolen
'Joop – and I didn't trust him anyway – has stolen the money.'
- c. Joop had, *zo zei hij*, het geld alleen even geleend.
Joop had so said he the money only a.while borrowed
'Joop, so he said, had just borrowed the money for a while.'

Parentheses often contain a pronoun coreferring with the primary proposition as a whole or a constituent thereof. For instance, *hem* 'him' in (113b) is coreferent with *Joop* in the matrix, and *zo* 'so' in (113c) refers to the entire matrix. This regular linking device between propositions is also highly frequent in subsequent sentences, and it should not be confused with anchoring, which means that the entire parenthetical phrase is interpreted as a secondary predicate.

What is special about appositional constructions is that the anchor of predication (the subject of the implicit copular clause) coincides with the anchor of coordination (the first conjunct). In the following subsections we will see that this is not a necessary condition for parenthetical anchoring. Right-dislocated phrases such as afterthoughts also involve an implicit predication relation between the anchor and the overt parenthetical material; still, the overt anchor and the afterthought are not coordinated at the constituent level. Furthermore, it will become clear that backgrounding constructions involve anchoring as well. The difference between them is simply that backgrounded information is not new. Thus, we will develop a generalized perspective on parenthetical secondary predication.²⁴

5.2. Afterthoughts

Afterthoughts are right-dislocated phrases of a certain kind. They constitute new information; furthermore, they receive an independent pitch accent, which makes them clearly distinct from

²⁴ See also Van der Wouden (2000) for a discussion of right-peripheral phrases ('appendices') in Dutch.

extraposed phrases. Arguably, they have a lot in common with appositions. Consider the following examples:

- (114) a. Ik heb Joop gezien – *een leuke jongen*.
 I have Joop seen a nice guy
 ‘I saw Joop – a nice guy.’
 b. Ik heb Joop gezien – *gekleed in een cowboypak!*
 I have Joop seen dressed in a cowboy.suit
 ‘I saw Joop – dressed in a cowboy suit!’

In both cases, there is an implicit secondary proposition in which the italicized phrase is understood as a predicate of a constituent in the host clause (here, *Joop*). In (114a), this proposition is equivalent to *Joop is a nice guy*; in (114b), which is ambiguous, it is either *Joop was dressed in a cowboy suit*, or *I was dressed in a cowboy suit*.

Accordingly, afterthoughts are also anchored parentheses according to the definition in (112). However, differently from the situation in appositional constructions, the anchor of an afterthought is structurally separated from it. In (114), the subject *Joop* figures in the middle field, whereas the afterthought surfaces right-peripherally. It seems almost as if afterthoughts are extraposed appositions. If so, the analysis would be roughly as in (115):

- (115) Ik heb [_{&P} [Joop gezien] [_&: [[_{ParP} [~~Joop~~] [Par [*een leuke jongen*]]] ~~gezien~~]]]

Although there are no syntactic arguments to exclude (115) to my knowledge, I prefer a somewhat simpler analysis, which involves right-adjunction of ParP to the matrix clause, as is shown in (116). In this case, the first conjunct in the parenthetical phrase must be a silent pronoun that is coreferent with the overt anchor:

- (116) [_{CP} [_{CP} Ik heb Joop_i gezien] [_{ParP} PRO_i [Par [*een leuke jongen*]]]]]

Here, ParP is adjoined, as is the case for non-anchored parentheses; at the same time, it acts as a bivalent specifying coordinator, as in regular appositional constructions. From a performance perspective, there is reason to prefer (116) over (115). Namely, in (116), the afterthought is added *after* the the derivation of the main sentence (the primary proposition) has been completed, contrary to the situation in (115). Intuitively, this is right: extraposition must be planned, but an afterthought need not be – hence the name.

At this point, let us consider what may constitute an anchor. As was shown around (90) for appositions, the subject of the implied predicative clause includes the scope of the anchor. The same is true for afterthoughts. Thus, in (117), the secondary proposition is equivalent to *the handsome boy that I have seen is Joop*:

- (117) Ik heb een knappe jongen gezien – *Joop*.
 I have a handsome boy seen Joop
 ‘I saw a handsome boy – Joop.’

Interestingly, it is also possible that the anchor is an (abstract) representation of the event expressed by the host. This is illustrated in (118):

- (118) a. Ik heb Joop gezien – *gisteren*.
 I have Joop seen yesterday
 ‘I saw Joop – yesterday.’
 b. Ik heb de paus gezien – *op het Sint-Pietersplein*.
 I have the Pope seen on the Saint Peter’s Square
 ‘I saw the Pope – on Saint Peter’s Square.’
 c. Ik heb de paus gezien – *gisteren! op het Sint-Pietersplein!*
 I have the Pope seen yesterday on the Saint Peter’s Square
 ‘I saw the Pope – yesterday, on Saint Peter’s Square.’

In these examples, the afterthought is a phrase that relates to the event denoted by the primary proposition, or more precisely, the temporal frame and the locational frame of the event, respectively. Accordingly, the implicit predications are roughly *this event was yesterday* in (118a), and *this event was on St. Peter’s Square* in (118b). The sentence in (118c) shows that these possibilities can also be combined. The type of predication is clearly attributive (as in (114) but unlike (117)), so the afterthought is interpreted as a property of the relevant event.

On a final note, it is worth commemorating that the end result of uttering, say, (118a) is that the hearer is informed that the speaker saw the Joop yesterday, which equals the situation after the message “I’ve seen Joop yesterday”, in which all information is constructed restrictively. However, the discourse in (118a) is put together differently by means of a different syntax. The message that the particular event of seeing Joop was yesterday is presented as secondary information surfacing at the right periphery. This may lead to different pragmatic entailments; for instance, an element of emphasis or surprise might play a role.

5.3. Interthoughts

The examples in the previous subsection showed that afterthoughts can be of any lexical category. They are all phrasal, but still, they constitute a full secondary proposition because of the implicit predication. Regular (non-anchored) parentheses also invoke a secondary message. However, since there is no such implicit relationship, these are often clausal (with the exception of interjections and some other types; see sections 6 and 7).

It is important to see that it is not the right-peripheral position of afterthoughts that triggers anchoring, witness the following examples containing right-peripheral parentheticals:²⁵

- (119) a. Joop weigerde mee te doen – *(en) gelijk heeft-ie*.
 Joop refused with to do and right has-he
 ‘Joop refused to participate – (and) right he is.’
 b. “Mieke had het niet moeten doen,” *beweerde Joop*.
 Mieke had it not should do claimed Joop
 ‘“Mieke shouldn’t have done it,” Joop claimed.’

Therefore, anchoring is a factor independent from surface position. Non-anchored parentheses may show up at various positions intervening in the host (see (97) and (113), for instance), and also on the edges of the host, depending on the particular type and the pragmatic import. This raises the question whether it is possible to construct anchored parentheses of the intervening type – that is, non-restrictive

²⁵ Notice that the parenthetical reporting clause in (119b) contains an empty object that is coindexed with the quote (see De Vries 2006b discussion and references). This has nothing to do with anchoring; see the text below (113).

secondary predicates that are neither right-dislocated, nor directly coordinated to the anchor. This is indeed the case; see the examples in (120):

- (120) a. Joop opende – *nog steeds dronken* – de deur.
 Joop opened yet still drunk the door
 ‘Joop opened – still drunk – the door.’
 b. Joop heeft – *vroige maand, nota bene* – zijn paper al ingezonden.
 Joop has last month nota bene his paper already submitted
 ‘Joop already submitted his paper – last month, would you believe?’

In (120a), the secondary predicate relating to *Joop* is presented as an aside; hence, there is a secondary proposition *Joop was still drunk*. In (120b), the time parenthetical is anchored to the time frame of the event expressed by the host sentence (compare (118a)), yielding a secondary proposition *this event was last month, nota bene*. Thus, there is a construction type that we may call ‘interthought’.²⁶

As was shown in (98), a parenthetical phrase can be adjoined to any projection of the matrix. The examples in (120) suggest that this is also the case for anchored ParPs. The structural analysis of (120a) is sketched in (121):

- (121) [CP Joop_s opende_v [XP [ParP PRO_s [Par [AP *nog steeds dronken*]]] [XP [de deur]_o [vP t_s t_v t_o]]]]

Here, XP is some projection in the middle field that contains the definite object. The parenthetical phrase is left-adjoined to XP; the implicit subject PRO is coreferent with *Joop*. The matrix subject and verb are in the first and second position of the sentence, which precede the intervening ParP.

To sum up, we have seen that anchored parentheses can be constructed at the constituent level (appositions), right-peripherally (afterthoughts), and in intervening positions (interthoughts). In the next subsection, it will be shown that the information-structural status of such parentheses can be varied.

5.4. Backgrounding

All parentheses discussed so far involve new information, and all carry a pitch accent. We will now see that each of the three types of anchored parentheses can be backgrounded. Let us start with the right-peripheral type. If an afterthought is backgrounded, the result is the familiar right-dislocation construction; see (122):

- (122) Ik heb ’m gisteren nog gezien, *Joop*.
 I have him yesterday still seen Joop
 ‘I saw him only yesterday, Joop.’

Here, *Joop* must be pronounced with a low, flat intonation, and is intended as a specification of ’m ‘him’. Although ’m is a pronoun, whose referent is therefore known in the discourse, the speaker feels that he or she needs to remind the hearer of the intended referent. The secondary proposition implied in this construction is the specificational predication *He is Joop*. This means that the pronoun is identified as Joop (and not that the name of a particular person is Joop, which would constitute an attributive predication). Furthermore, notice that the pronoun ’m is still anaphoric, not cataphoric, since it is

²⁶ An interthought may happen to surface adjacent to the anchor, in which case it is hard to distinguish from an apposition. A relevant example, to be compared to (120a) is *Joop – nog steeds dronken – opende de deur* ‘Joop, still drunk, opened the door.’

coreferent with a preceding referential expression in the discourse; only this link is facilitated by repeating the R-expression, which is then related to the pronoun by means of a specificational predication.

Interestingly, the dramatic difference between afterthoughts and backgrounding right-dislocation is the result of changing just one parameter, namely the information-structural status of the parenthesis in terms of [+/- new]. If the parenthesis is old information, it automatically follows that the anchor is pronominal, since only in that case the parenthesis can be a specification. Namely, if the anchor itself were already a (familiar) R-expression, there is no way the parenthesis could be a meaningful addition/reminder. It also follows that backgrounding must be anchored: how else could it be a reminder of something?

Like afterthoughts, backgrounded parentheses can be of any syntactic category. This is illustrated in (123), where the pronominal anchor is underlined:

- (123) a. Joop is er vorig jaar ook geweest, *in Parijs*.
 Joop is there last year also been in Paris
 ‘Joop was also there last year, in Paris.’
 b. Ik heb het je toch gezegd, *dat het niet zou lukken?*
 I have it you after.all said that it not would succeed
 ‘I told you so, that it wouldn’t work.’

In (123a), the relevant constituent is a prepositional phrase, in (123b) a subordinate clause. Furthermore, the anchor can be the time frame of the event; see (124), which can be compared to (118a):

- (124) Ik heb de paus ook op tv gezien, *gisteren*.
 I have the Pope also on TV seen yesterday
 ‘I saw the Pope on TV, too, yesterday.’

The regular restrictive position of time adverbials is in the middle field. In (124), however, *gisteren* ‘yesterday’ is backgrounded as a reminder of when the event expressed in the host took place. Thus, there is a secondary proposition stating that the temporal value of this event equals yesterday, even though this information is not new in the discourse.

Backgrounding in the right periphery is the most common, and the most natural. Nevertheless, it is also possible to construct backgrounded appositions and backgrounded intervening parentheses, witness (125) and (126):

- (125) Ik heb hem – *Joop (dus)* – vorige week nog gezien.
 I have him Joop so last week yet seen
 ‘I saw him – Joop, (that is) – only last week.’
 (126) Ik heb hem gisteren – *Joop (dus)* – nog gevraagd om het rapport in te leveren.
 I have him yesterday Joop so yet asked for the report in to hand
 ‘I asked him only yesterday – Joop (, that is) – to hand in the report.’

In both cases the hearer is reminded that *hem* ‘him’ is to be understood as *Joop*. However awkward it may seem, similar constructions can be found with other categories. An further example is (127):

- (127) Ik heb Joop toen (– gisteren –) gevraagd (– gisteren –) of hij me wilde helpen.
 I have Joop then yesterday asked yesterday if he me wanted help
 ‘I then asked Joop – yesterday, that is – if he wanted to help me.’

Here, too, *gisteren* ‘yesterday’ is a backgrounded specification of time, as in (124). The anchor is overtly present by means of a non-specific time adverbial *toen* ‘then’, to which the backgrounded phrase may be coordinated.

I conclude that backgrounded phrases are anchored parentheses that do not provide new information. The structural analysis is exactly the same as that for non-backgrounded phrases. They can be attached to the host as an apposition (hence coordinated at the constituent level to an overt anchor), as an interthought (an adjoined intervening parenthesis containing a PRO substitute of the anchor), or as an afterthought (a right-peripherally adjoined parenthesis containing a PRO substitute of the anchor).

5.5. *Intermediate conclusion*

Let us take stock. All parentheses involve a secondary message. Phrasal parentheses can be anchored, which means that they are understood as the predicate of some anchor in the host. Thus, parenthetical anchoring is analyzed as non-restrictive secondary predication. Like regular parentheses, anchored parentheses may surface in various positions. In particular, these positions are i) right-peripheral, which yields an afterthought; ii) intervening, which yields an interthought; and iii) coordinated to the anchor, which yields an apposition (or appositive relative clause). In the first two cases, the anchor can also be an abstract representation of the event expressed by the host.

A more detailed proposal for appositions was suggested in section 4.3, which also took into account the similarities between appositions and appositive relative clauses. In both cases, the anchor is the first conjunct of a non-restrictive specifying coordination phrase ParP, and the apposition or relative clause is embedded inside the second conjunct, which itself is a complete relative construction, hence a complex DP. In appositional constructions, the anchor of predication coincides with the anchor of coordination. The implicit embedded clause is necessarily copular, and the overt parenthetical material is the internal predicate.

This analysis can be straightforwardly transferred to afterthoughts and interthoughts. The only difference is that such parentheses are not coordinated at the constituent level to the anchor. Instead, they are adjoined at the relevant projection of the matrix, and the overt anchor is represented by means of a PRO substitute as the first conjunct of ParP.

So far, I have argued for three parameters concerning parentheses. The first two concern the possibility of anchoring and the structural position. The third concerns the information status of parentheses: they may involve information that is either new or old in the discourse. I argued that this has consequences for the interpretation and the intonation, but not for the syntactic analysis. Parentheses that constitute old information are backgrounded. These are obligatorily anchored to a pronoun (or some abstract aspect of the event expressed by the matrix). I showed that there are backgrounded appositions, backgrounded interthoughts and backgrounded afterthoughts. The last construction is the most common; it is known as (backgrounding) right-dislocation.

6. Left-dislocation and discourse-anchoring

Dislocation is not only possible on the right, but also on the left. Therefore, let us have a closer look at left-dislocation and some related phenomena in this section. In various ways, these involve the combination of meta-information concerning the discourse with the primary proposition.

6.1. Hanging topics

An interesting example of parenthesis to the left of the sentence is the construction known as hanging topic left-dislocation (HTLD). Two examples of hanging topics in Dutch are the following. In (129), the context is put between brackets. The difference with contrastive topics is discussed in section 6.3.

(128) *Die jongen*, heb je die al eens eerder gezien?
that boy have you DEM already once before seen
'That boy, have you seen him before?'

(129) [A: Heb je nog gezeild in de vakantie? B: Nee. A: Waarom niet?]
have you still sailed in the vacation no why not
[B: Och...] *zeilen*, ik ben er niet zo dol op.
well sailing I am there not so fond of
'[A: Have you been sailing during the vacation? B: No. A: Why not? B: Ah well,] sailing, I am not so fond of it.'

A hanging topic in Dutch is interpreted as a sentence topic (to be precise, an 'aboutness topic' in the sense of Reinhart 1982). In (128), this is *die jongen* 'that boy'; in (129) it is *zeilen* 'sailing'. A hanging topic can be preceded by the phrase *wat betreft* 'as for' (lit. 'what concerns'), which confirms the interpretation as a topic. Notice, however, that the discourse function of hanging topics is subject to cross-linguistic variation; see Prince (1998), Frey (2005), and De Vries (to appear) for a discussion of English, German, and Dutch, respectively.

There are several indications that hanging topics are dislocated, hence parenthetical. First, there is an *in situ* pronominal representative in the sentence; these are underlined in (128) and (129). Second, they precede a complete main clause with a spelled-out first constituent (recall that Dutch has V2). Third, they are intonationally separated from the main clause.

At first sight, HTLD seems to be the mirror pattern of backgrounding right-dislocation (BRD). This, however, is not completely true. As we have seen, BRD may involve all kinds of syntactic categories; by contrast, HTLD is restricted to nominal phrases. Compare (130a) to (130b), for instance:

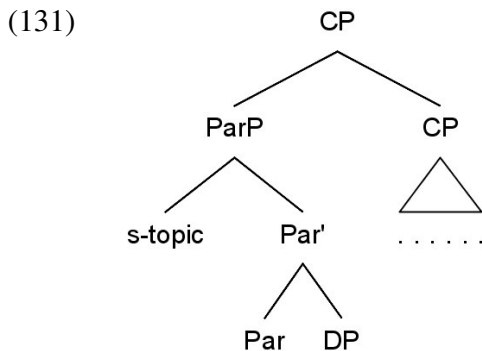
- (130) a. Joop heeft er vanochtend gezeten, *in de tuin*. (BRD)
Joop has there this.morning sat in the garden.
'Joop has been sitting in the garden this morning.'
b. * *In de tuin*, Joop heeft er vanmorgen gezeten. (HTLD)

I believe that this is related to the fact that aboutness topics are always nominal phrases (see also Frascarelli & Hinterhölzl 2007). Thus, backgrounded phrases, unlike hanging topics in Dutch, are not necessarily sentence topics.

What is of interest for the present purposes is the question how hanging topics are related to the host structure. As they are not restrictively constructed with respect to the main clause, they must involve a parenthetical phrase. Their meaning can be paraphrased as follows: concerning the sentence to follow, the aboutness topic is X. In other words, there is an (abstract) discourse category S-TOPIC, and for this sentence, it is specified as X.

I think the resemblance with anchored parentheses discussed in the previous section is too close to be accidental. We have already seen that anchors can be abstract aspects of events. Let us now go one step further, and hypothesize that certain discourse categories relevant for the interpretation of a sentence may also serve as an anchor. A hanging topic, then, involves a non-restrictive specifying coordination phrase [_{ParP} S-TOPIC [_{Par} DP]], in which DP is the overt topical phrase specifying the

sentence topic. Furthermore, this ParP must be left-adjoined to the sentence; see the structure in (131):²⁷



In a way, HTLD has the opposite effect of an afterthought. We do not add information to a completed sentence, we start out saying explicitly what the sentence is about.

Let us call the particular kind of anchoring in HTLD discourse-anchoring. It is a method of combining meta-information with the primary proposition. In the remainder of this subsection and in the next, I will show that there are more constructions of this type.

Van Riemsdijk (1997) distinguishes between HTLD and ‘loose aboutness left-dislocation’, as attested in French and Chinese, for instance (for the latter, see Chafe 1976:50), but not in Germanic. In this construction, the dislocated constituent is *not* pronominally represented in the clause, unlike the situation in HTLD. An example is (132), taken over from Van Riemsdijk (1997:4) [my translation]:

- (132) Oh, tu sais, moi, *la bicyclette*, je n’aime pas me fatiguer.
 oh you know me the bicycle I NEG-like not me tire
 ‘Oh, you know, as for me, concerning bicycles, I don’t like to tire myself.’

Here, the relevant constituent is *la bicyclette* ‘the bicycle’. (Interestingly, the preceding *moi*, ‘me’ seems to be a hanging sentence topic (HTLD); but this is another matter.)

I think the hanging constituent in a loose aboutness construction must be analyzed as an explicitly spelled-out discourse topic. This kind of topic, which must be distinguished from sentence topics, is pragmatically frame-setting, but not necessarily represented in a particular sentence. It may be active during a series of sentences. Let us refer to this discourse category as D-TOPIC.

If the analysis of HTLD in (131) is correct, we can now easily explain the similarities between hanging topic LD and loose aboutness LD. Analogously to the first, the latter may be structurally represented as [_{CP} [_{ParP} D-TOPIC [_{Par} DP]] [_{CP}...]]. The example in (132) shows that other sentence-initial parentheses may precede it. Since the relevant parentheses are analyzed as adjoined phrases, this is not unexpected: a priori, there is no reason to exclude multiple adjuncts.

6.2. Non-restrictive epithets and vocatives

There are also constructions that involve discourse-anchoring that are not inherently left-peripheral. Consider the following examples, which contain a parenthetical epithet:

²⁷ I should note that I proposed a different (simpler) structure in De Vries (2007b), namely one in which the sentence itself is a specification of the topical phrase. I now think that this is not precise enough.

- (133) a. *Sukkel*, ik zei toch dat dat niet kan.
 dope I said indeed that DEM not can
 ‘Idiot, I told you that that was impossible.’
 b. Ga weg, *engerd!*
 go away creep
 ‘Go away, creep!’

In each case, the italicized phrase is an (emotional) qualification of the hearer. What the speaker means is that the hearer is an idiot or a creep in (133a/b), respectively. This message is not the primary proposition, but a secondary one, attached to the main clause. As is the case for hanging topics, there is no concrete anchor in the sentence. Clearly, however, HEARER is an accessible discourse category. Thus, the parentheses in (133) can be straightforwardly analyzed as (non-restrictive) attributive specifying phrases coordinated to a discourse anchor: [ParP HEARER [Par epithet]]. In turn, the parenthetical phrase can be adjoined anywhere in the sentence. In this case, there is no general pragmatic preference for an initial position, which is why epithets of this kind can be found in left-dislocated, right-dislocated, and also intervening positions.

The above paves the way for an analysis of vocatives, as well. Consider the sentences in (134), where *Joop* is a vocative phrase:

- (134) a. *Joop*, heb jij een auto?
 Joop have you a car
 ‘Joop, do you have a car?’
 b. Ik denk, *Joop*, dat dit geen goede beslissing is.
 I think Joop that this no good decision is
 ‘I think, Joop, that this is not a good decision.’
 c. Wat zullen we doen, *Joop*?
 what shall we do Joop
 ‘What shall we do, Joop?’

As we know from appositions, secondary predications can be identificational (specificational). Thus, it seems possible to transfer the proposal for epithets to vocatives, which yield the following parenthetical phrase: [ParP HEARER [Par vocative]]. At first sight, it seems silly to state that the hearer can be identified as, in this case, Joop. After all, the message is addressed to Joop, and, obviously, Joop knows that he is Joop. But it is not self-evident that Joop is paying attention and/or knows for sure that the message is directed towards him. Therefore, the pragmatic import of a vocative can roughly be paraphrased as ‘I am talking to you’. It gives the hearer a clue that the message is directed at him or her, or it simply confirms that this is the case, thereby strengthening the social aspects of the communicative situation.

6.3. A note on contrastive left-dislocation and topicalization

In section 6.1, hanging topics were analyzed as left-adjoined, discourse-anchored phrases. This construction must be distinguished from contrastive left-dislocation (and from clitic left-dislocation in Romance languages and Greek). CLD, it can be argued, is closely related to topicalization.²⁸ Some minimal pairs are provided in (135):

²⁸ Dutch and German CLD is also comparable to English topicalization, but not to English HTLD (cf. Frey 2005, contra Zwart 1998).

- (135) a. Joop, ik ken 'm niet. (HTLD)
 Joop I know him not
 'Joop, I don't know him.'
 b. Joop, die ken ik niet. (CLD)
 Joop DEM know I not
 'Joop, I don't know.'
 c. Joop ken ik niet. (topicalization)
 Joop know I not
 'Joop, I don't know.'

In the HTLD construction (135a), there is an *in situ* pronominal correlate of the hanging topic (here, 'm). In the CLD construction (135b), there is an accompanying pronoun that is obligatorily a distal demonstrative, and obligatorily adjacent to the left-peripheral phrase. In the regular topicalization construction, there is no pronominal correlate at all: the topicalized phrase is clearly a constituent of the sentence.

CLD, like topicalization, but unlike HTLD, may involve any syntactic category; see (136), for instance (compare also (130) above):

- (136) In de tuin (daar) heeft Joop vanmorgen gezeten.
 in the garden there has Joop this.morning sat
 'In the garden is where Joop has been sitting this morning.'

The interpretation of such preposed phrases is variable (see De Vries, to appear, for discussion). In (136), the prepositional phrase is frame-setting, and possibly strongly contrastive, but it is not an aboutness topic.

As is well-documented in the literature, CLD is also different from HTLD in that it shows connectivity effects. This concerns a host of different phenomena: Case matching between the dislocated phrase and the demonstrative (which yields internal Case), reconstruction for binding purposes and idiomatic interpretations, and locality effects that are indicative of A-bar movement. See, among others, Jansen (1981), Van Haaften, Smits & Vat (1983), Van Riemsdijk (1997), Grohmann (2003), Shaer & Frey (2004), Alexiadou (2006), De Vries (2004, 2007b). I will not repeat all the arguments here. What is crucial is that CLD behaves on a par with regular topicalization: in every respect, the leftmost phrase acts as an integrated constituent of the sentence. This suggests that it is not dislocated at all, despite appearances.

In De Vries (2007b), I proposed that the left-dislocated constituent is generated inside the clause, and subsequently moved to the left periphery (see also Van Haaften, Smits & Vat 1983). This solves all connectivity effects at once. Of course, it raises the question where the demonstrative comes from. The surprising answer is that it is this pronoun that is 'dislocated', not the full left-peripheral phrase XP. Namely, it can be attached as an apposition (on the constituent level) to XP. See the schematic representation in (137):

- (137) [_{CP} [_{ParP} XP [_{Par} DEM]]_i V₂ ... t_i ...]

Here, ParP containing XP is A-bar moved like any topicalized phrase, which explains all reconstruction effects, the internal Case, and locality. Like regular appositions, the demonstrative is adjacent to its anchor, and shows a matching Case between XP and the demonstrative. The V3 order is only apparent, since ParP is one constituent.

How meaningful is a pronominal apposition? Is this not a vacuous specification? Normally, it would be, but it is no coincidence, I believe, that the pronoun in a CLD construction is a demonstrative.

A demonstrative does add information, namely deixis and contrast. This is exactly what is needed in CLD. A paraphrase of the idea is ‘XP, namely that person/thing/... (and nothing else)’. Notice that there are more ways of creating a meaningful demonstrative apposition. For instance, there are ‘summary appositions’, as in *your pencils, paperclips, rubber bands, staples: all that*. Furthermore, appositions can be disambiguating. In a particular context, say a family reunion, I could say *Joops nicht, DIE* ‘Joop’s niece, that one’ in Dutch, presupposing that he has more than one niece. Interestingly, this complex phrase in turn can be used in a CLD construction, yielding *Joops nicht, DIE, die heeft wel een hond* ‘Joop’s niece, that one, she does have a dog.’ In this case, I interpret the first *die* as disambiguating, and the second as contrastive with respect to the predicate *have a dog*. Thus, there is support for the idea that it can be meaningful to use a (demonstrative) pronoun as an apposition. This lends credibility to the analysis of CLD in (137), which is a bit counterintuitive at first sight, but which has a strong explanatory power.

7. Parentheses: an overview

In this chapter, I defined parenthesis as a grammatical construction type that entails a secondary message (often a proposition), which is a message that is presented or perceived as relevant side-information to a primary message. There is a major distinction between parentheses that are anchored and those that are not. The latter include interjections, conjunctive adverbs and other hedges, and various kinds of parentheticals, such as reporting and comment clauses, secondary declaratives, and *wh*-parentheticals, each of course with its own characteristics, depending on the internal make-up. Anchored parentheses include appositions, afterthoughts, and backgrounded phrases. These are interpreted as non-restrictive secondary predicates. Any constituent of the host sentence may serve as an anchor. This is also the case for the host itself, an abstract representation of an event expressed by the host (or the temporal or locational frame thereof), or even a discourse category such as TOPIC or HEARER, which leads to a new perspective on hanging topics and certain parenthetical epithets.

The possibility of anchoring can be viewed as a parameter for classifying grammatical construction types. A second parameter is the possibility of backgrounding, which essentially means that the relevant parenthesis does not constitute new information. A third parameter is the structural position of attachment. We may distinguish between four possibilities: a left-peripheral position, a right-peripheral position, an intervening position, or a coordinated position (at the constituent level). Table 6 shows how these parameter values can be systematically combined, leading to a variety of construction types. As is clear from the table, there are four main classes: regular parentheses, anchored parentheses, backgrounded parentheses, and discourse-anchored parentheses.

Table 6. Parentheses: some parameters and terminology.

<i>anchoring</i>	<i>information</i>	<i>position</i>	<i>name of construction</i>	
anchored	new	right-dislocated	afterthought	<u>anchored parenthesis</u>
		intervening	interthought	
		constituent level	apposition, appositive relative	
	old	left-dislocated	<d.n.a.>	
		right-dislocated	backgrounding right-dislocation	<u>backgrounding parenthesis</u>
		intervening	backgrounded parenthesis	
constituent level		backgrounded apposition		
discourse-anchored	old	left-dislocated	<d.n.a.>	
		right-dislocated	<u>discourse-anchored parenthesis</u>	
		intervening		
		left-dislocated		
not anchored	new	constituent level	<u>parenthesis</u> (non-anchored, non-backgrounding)	
		left-dislocated		
		right-dislocated		
	old	...	<d.n.a.>	

As was explained in section 5.4, only anchored phrases can be backgrounded. Furthermore, it turns out that anchored parentheses cannot be left-dislocated, unless they are discourse-anchored. This makes sense, since a constituent cannot be interpreted as a predicate of something that has not yet been introduced. Finally, it seems that discourse-anchored parentheses attached at the constituent level do not exist, which is a consequence of the fact that discourse categories relate to full sentences.

Left- and right-dislocated parentheses must be distinguished from other construction types that target the left or right periphery. Although it is often possible to detect the difference between restrictive and non-restrictive construal by listening to the intonation, there are also syntactic ways to do so, namely by investigating connectivity effects. A schematic overview is provided in table 7, based on sections 3.2, 5.2, 5.4, 6.1, 6.3, and the references there:

Table 7. Some distinguishing properties of left- and right-peripheral phrases.

<i>position</i>	<i>construction</i>	<i>connectivity effects</i>	<i>categories</i>
LD	hanging topic left-dislocation	no	DP
	contrastive left-dislocation	yes	XP
	topicalization	yes	XP
RD	afterthought	no	XP
	backgrounding right-dislocation	no	XP
	extraposition	yes	XP

Clearly then, extraposition is not parenthesis on the right, and topicalization and contrastive left-dislocation are not parenthesis on the left.²⁹

Finally, let us see if we can combine various parentheses in the right and left periphery. The example in (138) shows that a backgrounded phrase and an afterthought may cooccur:

²⁹ Concerning the demonstrative in CLD, see section 6.3. See also Zwart (2001) on backgrounding right-dislocation, and the comments in De Vries (2007b).

- (138) Ja, ik heb 'm gezien, Joop – op school.
 yes I have him seen Joop on school
 'Yes, I saw him, Joop – at school.'

Here, *Joop* is backgrounded, and specifies 'm 'him'. The phrase *op school* 'at school' is stressed and functions as an afterthought. The reverse order (afterthought – backgrounded phrase) sounds unnatural to me. Probably, this is the result of the general information-structural tendency to push new information to the right edge.

Other combinations are also possible. The example in (139) contains (in this order) an interjection, a vocative, and two afterthoughts:

- (139) Ik heb de paus in het echt gezien, hoor, Joop – op het Sint-Pietersplein, met zijn
 I have the Pope in the real seen hear Joop on the St-Peter's Square with his
 kalotje op!
 calotte on
 'I saw the Pope in the flesh, really, John – on Saint Peter's Square, wearing his calotte!'

In the left periphery, too, several items can be combined. A worst case scenario is (140), which combines an interjection, a *wh*-parenthetical, a vocative, and a hanging topic (in this order):

- (140) Tja, wat denk je, Joop, het tentamen syntaxis, heb je dat nu gehaald of niet?
 well what think you Joop the examination syntax have you that now passed or not
 'Well, what do you think, Joop, the syntax examination, have you passed it or not?'

We can also combine HTLD with CLD; see (141). Here, *gisteren* 'yesterday' must be stressed.

- (141) (Wat betreft) die jongen, gisteren, toen heb ik 'm nog gezien.
 as concerns that boy yesterday then have I him still seen
 '(As for) that boy, yesterday I still saw him.'

The order between *gisteren* and (*wat betreft*) *die jongen* cannot be reversed. This is consistent with the view expressed here that CLD is not true dislocation.

8. Conclusion

Coordination is a general syntactic configuration that can be applied at any structural level. The semantics and the phonological shape depend on the particular coordinative head. I provided a near-complete inventory of coordinators, insubordinators, coordinative combinations, and conjunctive adverbs in English and Dutch, along with some tests how to distinguish between these different elements. Crucially, I argued that there is a further main type of coordination, called specifying coordination, with several subtypes. In each case, the second conjunct provides an alternative description, a more specific description, an example, or a property of the first conjunct. Roughly, then, the asymmetrical semantic relationship between the two conjuncts can be described as specification, hence the name. Interestingly, the acknowledgment of this type of coordination extends the overlap in possible meanings with conjunctive adverbs. Explicative adverbs such as *namely* can even be used as linkers in some specifying coordinative constructions.

The appositional construction is the canonical type of specifying coordination. I have shown that this construction behaves on a par with standard constituent coordination in numerous respects. A

second construction that shows characteristics of coordination is extraposition. In this case, the extraposed part is attached as (a part of) a specifying conjunct to the matrix clause at the level of VP up to CP, depending on the correlated structural position in the matrix. I argued for a particular implementation of this theory, which involves structural repetition of the relevant part of the matrix clause in combination with phonological deletion of what is by then old information, similar to the situation in ordinary gapping constructions. This turns out to have many empirical and theoretical advantages, such as the prevention of CSC violations, the possibility of maintaining the independently motivated raising analysis of relative clauses, and a more direct relationship between the syntactic structure and the semantic interpretation.

A central hypothesis in this chapter is that non-restrictive construal can be analyzed as a particular kind of specifying coordination. I argued that every parenthesis involves a secondary message (often a regular proposition, but it can also be a modal proposition, a question, or a meta-linguistic comment). Thus, parenthesis implies coordination of propositions (etc.) at the semantic level. Structurally, a parenthesis is attached to the host as a Parenthetical Phrase, whose head is a non-restrictive specifying coordinator. If the secondary proposition is semi-independent, as in parentheticals, for instance, there is no anchor, and the parenthesis is adjoined anywhere in the host. If there is an anchor, the situation is different. Again, the appositional construction seems to be the most straightforward type. Here, the apposition is coordinated to the anchor. It is also interpreted as a specifying or attributive predicate of the anchor. Therefore, the secondary proposition in an appositive construction is an implicit predicative clause. I pursued the idea that this clause is syntactically represented, and offered a detailed structural proposal that takes into account the similarities with non-restrictive relative clauses.

This approach also sheds new light on dislocation constructions and certain interrupting phrases that I dubbed interthoughts. I illustrated the similarities between these and appositions, and concluded that afterthoughts and interthoughts are adjoined anchored parenthetical phrases of which the first conjunct is a silent pronominal representation of the anchor in the matrix. In general, anchored parentheses are to be analyzed as non-restrictive secondary predicates. Interestingly, what constitutes the anchor is not necessarily an overt constituent of the matrix; it can also be a more abstract aspect of the event, or, in the case of hanging topics and non-restrictive epithets, a certain discourse category.

Clearly then, anchoring is a factor independent of the position and way of structural attachment. Thus, we can set up a typology of parenthetical constructions. In this respect, a third parameter of interest is the information status of parentheses. I argued that backgrounding constructions are syntactically similar to other anchored parentheses, but semantically different in that they constitute old information, and hence function as reminders; this has phonological consequences as well.

The perspective put forward in this paper stresses the similarities between several kinds of parentheses, which are difficult to explain in a construction-specific approach. This is not to deny that there are distinctions, but I believe it should be possible to attribute such differences to variation in the internal make-up of parentheses. What is of interest here, is that core properties of parenthetical construal can be attributed to the way parentheses are related to the host structure. An important key to this end is the concept of specifying coordination. Needless to say, the grammatical apparatus is preferably not to be enriched for construction-specific purposes. Therefore, it is important that the particular proposal based on a detailed analysis of appositions can be generalized to other constructions. I argued that this is indeed the case.

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