

Split NPs¹

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1. Introduction

Discontinuous phrases have received much attention in the literature. German is interesting in that it allows the “lower” part of a noun phrase to be left dislocated. Compare (1a) to (1b):

- (1) a. *Ich habe keine Bücher gelesen.*
I have no books read
‘I have read no books.’
- b. *Bücher habe ich keine gelesen.*
books have I none read.
‘As for books, I have read none.’

To establish some terminology, I refer to this construction as “split NP”, to the left nominal as “split-off”, and to the right one as “source”.² Importantly, the “higher” part of the DP, the source, cannot be moved, (2a), and both nominals seem to be syntactically related in that a split-off cannot co-occur with a “complete” source, (2b).

- (2) a. * *Keine habe ich Bücher gelesen.*
none have I books read
- b. * *Bücher habe ich keine Romane gelesen.*
books have I no novels read

Despite appearances, I will argue below that the split-off does not move out of the source. Rather, I propose that split NPs involve the separate base-generation of a predicative split-off and an argumental source in a local domain, the VP. The source moves for case and the split-off undergoes subsequent movement to the left periphery. The semantic value of a proposed null noun in the source is calculated on the basis of the split-off under c-command. In order to constrain the derivations, I will formulate conditions on syntactic licensing and semantic identification.

The chapter is organized as follows: first I discuss three basic types of accounts illustrating some well-known properties of this construction. We will see that there is evidence

¹ This chapter (4) is based on Roehrs (2006: Chapter 4, Part II, Section 6; 2007), which is modified and extended here. It is part of a larger book project provisionally entitled “Explorations of the German Noun Phrase”.

² Some other names for this construction are “split topicalization” (van Riemsdijk 1989) or “split-topic” (Diesing 1992). I will be using “split NP” despite the fact that I fully adopt the DP-hypothesis (Abney 1987). Also, since the construction is relatively homogenous, I will provide only some translations where the split-off is usually introduced by *As for* ..., ...

for both separate base-generation and movement. After briefly critiquing some previous accounts, I show that these paradoxical features follow from my hybrid approach involving both base-generation and movement. The discussion is then extended to sources embedded in complex nominals and some further restrictions are briefly addressed. The conclusion summarizes the main findings of this chapter. Finally, in the appendix, I discuss in somewhat more detail a fourth type of proposal involving distributed deletion (Fanselow & Ćavar 2002).

2. Previous Proposals and Illustrative Data

Ever since the seminal work of Fanselow (1988) and van Riemsdijk (1989), it is well known that split NPs, that is, discontinuous DPs, have paradoxical properties in German. In what follows, I will divide the proposals of this construction into three basic types: movement out of the in situ noun phrase, base-generation of two independent noun phrases, and a combination of the two approaches (for early generative proposals, see the literature mentioned in Fanselow 1988: 109 footnote 5). I provide the basic proposals and concentrate on some of the data, which I give with their original judgments (for arguments against the individual approaches, see the alternative analyses discussed).³ In the course of the discussion, we will arrive at an apparent paradox: on the one hand, the source and the split-off seem to stand in a movement relation; on the other, they seem to involve two separate base-generations.

2.1. Movement out of the Noun Phrase

The following two subtypes of proposals argue that split NPs are the result of movement out of the source.

2.1.1. Movement out of NP

Van Riemsdijk (1989: 106) takes southern varieties of German as a point of departure. Here we find an “overlap” with regard to the indefinite determiner:

- (3) *Einen Wagen hat er sich noch **keinen** leisten können.*
a car has he refl yet none afford could
‘As for cars, he has not been able to afford one yet.’

Assuming that noun phrases are NPs, van Riemsdijk argues that N’ moves to Spec,CP. Since N’ is a non-maximal projection in a phrasal position, NP has to be regenerated and a second determiner is introduced. The determiner can be overt or covert, depending on the dialect considered. Consider the two derivational steps for (3):

- (4) a. $[N' \text{ Wagen}]_i$ hat er sich noch $[NP \text{ keinen } t_i]$ leisten können
b. $[NP \text{ Einen} / \emptyset [N' \text{ Wagen}]]_i$ hat er sich noch $[NP \text{ keinen } t_i]$ leisten können

³ In section 4.1 and Appendix I, I argue against a fourth type of analysis. Although I will accept Fanselow & Ćavar’s (2002) empirical generalization, I will argue against their technical instantiation, which involves distributed deletion.

Van Riemsdijk (1989: 118) further claims that *ein* ‘a’ is the unmarked nominal determiner. Thus, it follows that only *ein* can be introduced (p. 108). There is more evidence for movement of the split-off.

Van Riemsdijk (1989: 122) observes that the linear order of the adjectives in the split NP corresponds to the one without a split. Compare the sequences of adjectives in the unsplit examples in (5) to those in the split ones in (6):

- (5) a. *ein neues amerikanisches Auto*
a new American car
‘a new American car’
- b. * *ein amerikanisches neues Auto*
a American new car
- (6) a. ***Ein amerikanisches Auto kann ich mir kein neues leisten.***
an American car can I refl no new afford
- b. * ***Ein neues Auto kann ich mir kein amerikanisches leisten.***
an new car can I refl no American afford

He shows the same for complements:

- (7) a. *eine Verurteilung dieses Tatbestandes durch den Präsidenten*
a condemnation of this state of affairs by the president
‘a condemnation of this state of affairs by the president’
- b. * *eine Verurteilung durch den Präsidenten dieses Tatbestandes*
a condemnation by the president of this state of affairs
- (8) a. ***Eine Verurteilung dieses Tatbestandes wäre mir eine durch den***
a condemnation of this state of affairs would-have me one by the
Präsidenten lieber gewesen.
president dearer been
‘I would have preferred a condemnation of this state of affairs by the president.’
- b. * ***Eine Verurteilung durch den Präsidenten wäre mir eine dieses***
a condemnation by the president would-have me one of this
Tatbestandes lieber gewesen.
state of affairs dearer been

By relating the (a)-examples to each other and contrasting them to the (b)-examples, we observe that only superficially adjacent elements can move to form the split-off (but see also section 4.2.1).

Finally, van Riemsdijk (1989: 113) shows that split NPs are subject to island constraints:

- (9) a. *Eine Lösung* sagt er hat er *eine bessere* als ich.
 a solution says he has he a better (one) than I
- b. * *Eine Lösung* kenne ich keinen, der *eine bessere* hat als ich.
 a solution know I noone who a better (one) has than I

The example in (9a) establishes the fact that the split-off can undergo long-distance topicalization. The ungrammaticality in (9b) follows if the relative clause is an island, which is well documented with other movement phenomena (e.g., *wh*-movement).

2.1.2. Movement out of DP

Adopting the DP-hypothesis, Bhatt (1990: 249-250) argues that NPs and DegPs containing adjectives may move out of the source:

- (10) a. *Autos* hat er nur *diese schnellen amerikanischen* gemocht.
 cars has he only these fast American liked
- b. [_{NP} Autos]_i hat er nur [_{DP} diese [_{DegP} schnellen [_{DegP} amerikanischen [_{NP} t_i]]]] gemocht.
- (11) a. *Amerikanische Autos* hat er nur *diese schnellen* gemocht.
 American cars has he only these fast liked
- b. [_{DegP} Amerikanische [_{NP} Autos]]_i hat er nur [_{DP} diese [_{DegP} schnellen [_{DegP} t_i]]] gemocht.

Next, I illustrate data that seem to suggest that the source and the split-off are base-generated separately.

2.2. Two Base-generated Noun Phrases

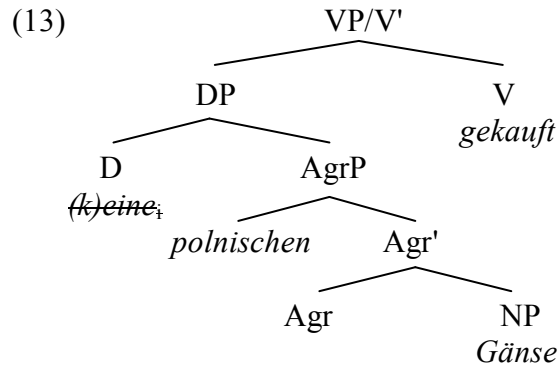
The following two subtypes of proposals argue that split NPs are formed from two noun phrases that do not stand in a movement relation with each other.

2.2.1. Base-generation of Two Noun Phrases in VP

Fanselow (1988: 99) notices that a verb can also be part of the topicalized element. Compare (12a) to (12b):

- (12) a. *Sie hat keine polnischen Gänse gekauft.*
 she has no Polish geese bought
 ‘She has bought no Polish geese.’
- b. [*Polnische Gänse gekauft*] hat sie *keine*.
 Polish geese bought has she none

If movement analyses are correct, then in (12b), the verb and part of the noun phrase must have moved as a constituent. For constituency to hold, one would have to assume that the determiner moves out of the verbal constituent before the remnant VP fronts:



However, while *ein* can, under certain conditions, move out of the VP by itself, it cannot strand the split-off in situ (capitalization indicates stress):

- (14) a. *Er hat gestern EIN frisches Brot gekauft.*
 he has yesterday one fresh bread bought
 ‘He bought one fresh bread yesterday.’
- b. *Er hat EIN(E)S gestern (*frisches Brot) gekauft.*
 he has one yesterday fresh bread bought
- c. *EIN(E)S hat er gestern (*frisches Brot) gekauft.*
 one has he yesterday fresh bread bought

This raises the question of why the split-off has to move (cf. Haider 1990: 99, 102; Haider 1993: 228; van Riemsdijk 1989: 121). While an answer to this question is available (see section 4.3.1), the problem of movement of a non-constituent remains if both the determiner and an adjective form part of the source, as in (15b):

- (15) a. *Er hat gestern nur EIN frisches deutsches Brot gekauft.*
 he has yesterday only one fresh German bread bought
 ‘He bought only one fresh German bread yesterday.’
- b. *[Deutsches Brot gekauft] hat er gestern nur EIN frisches.*
 German bread bought has he yesterday only one fresh

In other words, referring back to the tree diagram in (13), it is clear that a determiner and an adjective do not form a constituent to the exclusion of the lower part of the DP. As such, they cannot vacate the VP before the latter undergoes movement to Spec,CP. Observing that both (12b) and (15b) are grammatical, we conclude that the split-off cannot have moved out of the source. As a solution, Fanselow (1988: 103-6) proposes to base-generate two noun phrases in the VP: the source in the Specifier position of VP and the split-off as part of a verbal complex (also Krifka 1998: 101). Moving the NP or the verbal complex V, we derive (16a) and (17a) as (16b) and (17b), respectively:

- (16) a. [*Polnische Gänse*] hat sie *keine* gekauft.
 Polish geese has she none bought
- b. [NP polnische Gänse]_i hat sie [VP [NP keine pro] [V t_i gekauft]]
- (17) a. [*Polnische Gänse gekauft*] hat sie *keine*.
 Polish geese bought has she none
- b. [V [NP polnische Gänse] gekauft]_k hat sie [VP [NP keine pro] t_k]

Treating the two noun phrases as independent also accounts for the endings on the adjectives. Although both noun phrases agree in case, number, and gender (but see also section 5), the inflection on the adjective is different when the latter is split off:

- (18) a. *Ich habe keine bunten Blumen gekauft.*
 I have no(STRONG) multi-colored(WEAK) flowers bought
 ‘I have bought no multi-colored flowers.’
- b. *Bunte Blumen habe ich keine gekauft.*
 multi-colored(STRONG) flowers have I no(STRONG) bought

A strong ending on an unpreceded adjective is exactly what we expect if the two noun phrases are independent of each other. Moreover, this inflectional distribution even extends across the same category, such that several instances of adjectives or determiners may have different kinds of endings in the same sentence (cf. Haider 1993: 215 for similar data; (20) is inspired by Tappe 1989, see below). This is illustrated for adjectives in (19b) and determiners in (20):

- (19) a. *Ich habe keine großen bunten Blumen gekauft.*
 I have no(STRONG) big(WEAK) multi-colored(WEAK) flowers bought
 ‘I have bought no big multi-colored flowers.’
- b. *Bunte Blumen habe ich keine großen gekauft.*
 multi-colored(STRONG) flowers have I no(STRONG) big(WEAK) bought
- (20) *So 'n Auto kann ich mir keins leisten.*
 such a car can I refl none(STRONG) afford

2.2.2. Base-generation of One Noun Phrases in VP and the Other in Spec,CP

Haider (1990) argues that one noun phrase is generated in the VP and the other in Spec,CP. One argument in favor of this proposal is that when *welches* ‘some’ is involved, the split-off is ungrammatical in its apparent base-position, (21a), but grammatical in Spec,CP, (21b):

- (21) a. *Es gibt {ein / *welch(es)} Brot*
 there is a / some bread
 ‘There is a/some bread.’

- b. *Brot gibt es {ein(e)s / welches}.*
bread is there one / some

If we were to assume movement of the split-off out of the source, then (21a) and (21b) would essentially be the same since both would have (a copy of) the head noun following *welches*. However, the contrast follows straightforwardly if the split-off in (21b) is base-generated in Spec,CP without prior movement out of DP. Note that besides the noun, pre-nominal elements like adjectives cannot follow *welches* either, (22a). In contrast, post-nominal elements are possible, (22b-c):

- (22) a. * *Briefe haben wir nur welche kurze(n) gelesen.*
letters have we only some short read
- b. *Briefe haben wir nur welche von ihm gelesen.*
letters have we only some from him read
- c. *Briefe haben wir nur welche, die kurz waren, gelesen.*
letters have we only some that short were read

Below, I propose that the source contains a null noun. For the cases illustrated here, let us suggest that like certain other pronouns, *welches* can only select a null noun.⁴ While this selectional restriction rules out the presence of adjectives, which are part of AgrP, it allows post-nominal elements to occur, which are either in the complement position of the head noun or adjoined to NP.

2.3. A Combination of Base-generation and Movement out of the Noun Phrase

Adopting the DP-hypothesis, Tappe (1989: 173-4) argues that one DP is merged in Spec,CP and another in a lower position. The DP in Spec,CP has no NP complement and the NP of the lower DP is argued to move into the higher complement position inside Spec,CP. The crucial datum he observes is derived in (23b):

- (23) a. *So*(’nen) Wagen kann ich mir keinen leisten*
such a car can I refl none afford
- b. $[_{DP} \text{so}’\text{nen } [_{NP} \text{Wagen }]_i] \text{ kann ich mir } [_{DP} \text{keinen } t_i] \text{ leisten}$

Before summarizing the paradoxical facts from above, I will provide an example which illustrates the paradox between movement and base-generation *within* one and the same piece of data.

⁴ That this is most likely a selectional restriction can be gleaned from the fact that interrogative *welches* ‘which’ does allow an overt noun. This is exemplified with an echo question in (i):

- (i) a. *Es gibt welches Brot?*
there is which bread
‘There is which bread?’
- b. *Brot gibt es welches?*
bread is there which

2.4. *A Paradox in and of itself*

Van Riemsdijk (1989: 115) discusses reconstruction effects in split NPs. Consider the following example:

- (24) ***Bücher von einander_i sind uns_i keine bekannt.***
 books by one another are to us none known

Concretely, for the anaphor *einander* ‘one another’ to be bound, the topicalized element must be in a c-commanded position with regard to its antecedent *uns* ‘us’. This constellation only holds if the topicalized element is below the antecedent, presumably its base position in the VP (for other reconstruction effects, see van Riemsdijk’s paper). Recall that split NPs with *welch* ‘some’ have no grammatical basis in the lower position. Now, if we combine the reconstruction data above with *welch* and if the resulting example is grammatical, then we arrive at a paradox within one and the same datum. The following example, taken from Fanselow (1988: 103), presents a relevant instance:⁵

- (25) a. *Die Männer_i würden niemals (*welche) Bücher über einander_i schreiben.*
 the men would never some books about one another write
 ‘The men would never write (some) books about one another.’
 b. ***Bücher über einander_i würden die Männer_i niemals welche schreiben.***
 books about one another would the men never some write

In (25b), the noun phrase containing the reciprocal must undergo reconstruction. However, as can be seen in (25a), this is not possible when *welche* is present.

2.5. *Summary of the Paradoxical Data*

Considering that regeneration to a full phrase inside Spec,CP is a very (and perhaps too powerful) process and that the DP-Hypothesis is now widely accepted, I reinterpret van Riemsdijk’s data involving two indefinite determiners as an argument for separate base-generation. The first column in table 1 summarizes the properties indicating a movement analysis, the second column shows the properties indicating separate base-generation:

⁵ As pointed out by Željko Bošković (p.c.), this paradox only holds if reconstruction to a position between the antecedent *die Männer* ‘the men’ and *welche* can be excluded (also, if reconstruction of this sort were possible, then this would raise the independent question of whether the split-off is base-generated in this site). To rule out certain ungrammatical cases, I argue below that both the split-off and the source must be base-generated in VP. Furthermore, note that the split-off cannot contain a null co-indexed pronoun (e.g., [*pro_i/PRO_i* Bücher von einander_i]). Presumably, this would make the split-off definite, which is not possible (see below; for more general discussion on PRO in the noun phrase, see also Abney 1987: 89-91).

Table 1: Summary of the Different Properties of Split NPs

Movement	Separate Base-generation
sequence of adjectives	two determiners
sequence of complements/modifiers	non-constituents
Binding	unexpected weak/strong endings
islands	<i>welch</i>

The next section summarizes the type of data that linguists do not agree on.

3. The Most Controversial Data

Three sets of data seem to be most controversial with regard to the relevant grammaticality judgments: the split-off part of the noun phrase can also occur in the Middlefield rather than just in Spec,CP; the source noun phrase can also be definite rather than just indefinite; and split NPs can also be in the inherent cases dative and genitive rather than just accusative and nominative.

3.1. Split NPs in the Middlefield

Grewendorf (1989: 27; 1991: 304) claims that the noun phrase does not have to appear in Spec,CP (see also Oppenrieder 1991: 66). In fact, Fanselow & Ćavar (2002: 67) provide an example with a multiply-split NP. Consider (26a) and (26b), respectively:⁶

- (26) a. *weil (Kleider) er (Kleider) immer dreckige anhat*
because (clothes) he (clothes) always dirty wears
- b. *Bücher hat er damals interessante in den Osten keine mitnehmen dürfen.*
books was he then interesting into the East none bring allowed-to

⁶ In a multiply-split NP, the topicalized element can also involve a verb, (ia). While not perfect, (ia) is much better than (ib-c), where the two predicate nominals have been switched:

- (i) a. *?(?) [Bücher gekauft] habe ich interessante eigentlich keine.*
books bought have I interesting actually none
- b. * *Interessante habe ich Bücher eigentlich keine gekauft.*
interesting have I books actually none bought
- c. ** *[Interessante gekauft] habe ich Bücher eigentlich keine.*
interesting bought have I books actually none

Furthermore, one might expect that the element stranded in the Middlefield also shows reconstruction effects. However, perhaps due to the complexity of the data, I do not find a strong/reliable contrast between (iib) and (iic), where the latter should exhibit a Condition C effect:

- (ii) a. *Ich habe dem Peter_i keine [für ihn_i interessanten] Bücher mitgebracht.*
I have the Peter-DAT no for him interesting books brought
‘I have brought Peter no books interesting to him.’
- b. ? *Bücher habe ich [für ihn_i interessante] dem Peter_i keine mitgebracht.*
books have I for him interesting the Peter-DAT none brought
- c. ?? *Bücher habe ich [für Peter_i interessante] dem Schlawiner_i / ihm_i keine mitgebracht.*
books have I for Peter interesting the rascal-DAT / him-DAT none brought

(For some discussion of anaphoric epithets such as *Schlawiner* ‘rascal’, see Lasnik 1976.)

3.2. Indefiniteness of the Source

Van Riemsdijk (1989: 108), Grewendorf (1989: 30), and Haider (1990: 99) observe that the source is always indefinite. Although perhaps not entirely perfect, I believe that split NPs with a definite source are better than *wh*-extraction out of a definite noun phrase (cf. also Bhatt 1990: 250, Fehlisch 1986: 109):

- (27) a. *Ich habe immer nur die interessanten Bücher gelesen.*
I have always only the interesting books read
'I have always read only the interesting books.'
- b. (?) *Bücher habe ich immer nur die interessanten gelesen.*
books have I immer only the interesting read
- (28) a. *Ich habe die Bücher über die Evolution gelesen.*
I have the books about the evolution read
'I have read the books about the evolution.'
- b. *Worüber hast du {Ø / *die} Bücher gelesen?*
about what have you Ø / the books read

Tappe (1989: 176) provides a similar contrast with possessors:

- (29) a. ? *Geld habe ich in Spanien nur Pauls ausgegeben.*
money have I in Spain only Paul's spent
- b. * *Über wen wurde Pauls Beschwerde abgelehnt?*
about whom was Paul's complaint turned-down

Kniffka (1996: 65, 126) provides both grammatical and ungrammatical examples with definite sources.

3.3. Dative and Genitive

Some authors claim that split NPs are only grammatical in the nominative and accusative (Fanselow 1988: 102; Tappe 1989: 163). However, I find examples such as the following acceptable (cf. also Bhatt 1990: 245 footnote 13, 248). This is contrasted with extraction out of inherent-case marked noun phrases (Tappe 1989: 163). Compare (30a-b) and (30c):

- (30) a. *Also Brot ähnelt das nun wirklich keinem!*
really bread resembles that now really none-DAT
- b. *Lehrern hat er keinen geholfen.*
teachers has he none-DAT helped

- c. * *Von Paul haben wir den Berichten nicht geglaubt.*
 of Paul have we the-DAT reports not believed

Kniffka (1996: 33, 82) provides both constructed and attested examples where the relevant elements are in the oblique cases.

In this subsection, I have pointed out that there are three sets of data where we find no agreement in the literature. I will return to some of these points below.

4. A New Proposal

In this section, I briefly discuss and critique a fourth type of analysis. Following that, I provide my own hybrid proposal, which involves both separate base-generation and movement. Finally, I discuss cases where the source is embedded in a larger DP.

4.1. Movement but not out of the Source

Fanselow & Ćavar (2002) show that while islands such as (31b) are observed (datum from Grewendorf 2002), others do not exhibit the relevant effect. The latter type is illustrated by these authors with a subject island, (32b):

- (31) a. *Ich weiß nicht, wer aufrichtige Politiker kennt.*
 I know not who sincere politicians knows
 ‘I don’t know who knows sincere politicians.’
 b.* *Politiker weiß ich nicht, wer aufrichtige kennt.*
 politicians know I not who sincere knows
- (32) a.* *An Maria haben mich keine Briefe erschreckt.*
 to Mary have me no letters frightened
 b. *Briefe an Maria haben mich keine erschreckt.*
 letters to Mary have me no frightened

Similarly, they show that dative indirect objects can be split up and as seen in section 3, there is no definiteness effect, at least for some speakers. In order to account for this and the other paradoxical properties, Fanselow and Ćavar (2002) hypothesize that split NPs involve movement but crucially *not* out of the DP to be split up. As a technical implementation, they argue for a fourth type of account adopting the copy-and-delete approach to movement (Chomsky 1995). Moving the entire DP, they propose that deletion may affect *both* copies. Glossing over some of the details here, they suggest that the determiner is deleted in the higher copy and the head noun in the lower one. This derives (33a) as in (33b):

- (33) a. *Wagen hat er sich noch k-einen leisten können.*
 car has he refl yet n-one afford could

- b. {~~einen~~ Wagen} hat er sich noch k- {einen ~~Wagen~~} leisten können

At first glance, this analysis of distributed deletion seems to receive strong confirmation from the fact that the deletion of the higher copy of the determiner may, under certain conditions, be suspended, deriving (34a) as in (34b):

- (34) a. **Einen Wagen** hat er sich noch k-**einen** leisten können.
 a car has he refl yet n-one afford could

- b. {einen Wagen} hat er sich noch k- {einen ~~Wagen~~} leisten können

However, upon closer inspection, it turns out that both determiners do not have to be the same, (35a). In fact, when the determiner in the source is definite, the one in the split-off cannot be definite, (35b):

- (35) a. **Einen Wagen** hat er sich nur **diesen** leisten können.
 a car has he refl only this afford could
- b.* {**Diesen / Den**} **Wagen** hat er sich nur **diesen** leisten können.
 this / the car has he refl only this afford could

Now, if Fanselow and Ćavar's copy-and-delete analysis were correct, we would expect the grammaticality judgments in (35) to be the reverse. I believe that this strongly argues against their proposal (in section 4.3.3, we will see that there is some indication that *ein* in (35a) is probably not due to some "late" insertion process either). In view of this and some other issues (see Appendix I), I will opt for a different technical implementation.

Using these authors' basic insight and basing the following account on earlier work by Fanselow, I propose that there is a division of labor between the syntax and the semantics. In particular, I will suggest that split NPs involve the separate base-generation of an argumental DP and a predicative part in the same local domain, the VP. The argumental part contains an empty noun (e_N). Both the argumental part and the predicate nominal undergo movement to the left. Arguing that the overt nominal in Spec,CP and e_N are predicates of the same type ($\langle e, t \rangle$), the "free" overt predicate in Spec,CP is closed off by interpreting it in the e_N of the argumental DP filling e_N with semantic content at the same time.

4.2. Movement but Separate Base-generation

As already briefly discussed in section 2.2.1, Fanselow (1988: 103-4) proposed that split NPs involve two noun phrases where one contains *pro* and both nominals are co-indexed:

- (36) [_{VP} [_{NP} keine pro_i] [_V [_{NP} polnische Gänse_i] gekauft]]
 none Polish geese bought

Fleshing out this proposal, Grewendorf (1989: 27-8) suggests that the "restructured" noun phrase in (36) is a result of reanalysis under adjacency where the second part of the split NP has become part of the verbal complex. Moreover, Grewendorf (1991: 304) argues that *pro* in the source

must be identified by a strong ending (cf. Fanselow 1988: 101). However, we will see that adjacency does not have to hold and that a strong inflection is not a necessary condition on the licensing of split NPs. Rather than reanalysis and *pro*, I will propose that the source contains a null noun that needs to be syntactically licensed (i.e., c-commanded by the split-off) and semantically identified (i.e., reconstructed into by the split-off).

4.2.1. No Adjacency

If the two nominals in (36) were the result of reanalysis, then we would expect adjacency to hold. However, adjacency neither holds inside the noun phrase to be split up nor between the noun phrase and the following verb. In particular, the demonstrative reinforcer *da* ‘there’ in the source may intervene between the head noun, on the one hand, and the *von*-phrase and the verb to be moved, on the other (for the discussion of demonstrative reinforcers, see, e.g., Brugè 1996, Bernstein 1997, Roehrs to appear):

- (37) a. *Ich habe nur die Bilder da von Maria angesehen.*
 I have only the pictures there from Mary looked at
 ‘I have looked at only those pictures from Mary.’
- b. *[Bilder_i (*da) von Maria_j angesehen_k] habe ich nur die t_i da t_j t_k.*
 pictures (there) from Mary looked at have I only the there

Note that, if adjacency inside the noun phrase to be split up were a relevant factor, we would expect the reinforcer to be part of the split-off (and not the source). I conclude that reanalysis is not involved here. Something similar can also be shown for intervening genitive noun phrases and, with more complex examples, for preposition phrases. In these cases, the nominal split-off is not adjacent to the topicalized verb.

As is well-known, genitive complements cannot be right-dislocated. Contrast (38a) with (38b). If so, then the topicalized element in (38c), the split-off and the verb, are not adjacent:

- (38) a. *Wir haben schon viele Bilder des Präsidenten gesehen.*
 we have already many pictures of the president seen
 ‘We have already seen many pictures of the president.’
- b. *Wir haben schon viele Bilder gesehen (*des Präsidenten).*
 wir have already many pictures seen of the president
- c. ?(?) *[Bilder_i gesehen_k] haben wir schon viele t_i des Präsidenten t_k.*
 pictures seen have we already many of the president

Unlike genitives, prepositional phrases can appear in the *Nachfeld*. Compare (39a) to (39b). Without another element present, the example in (39c) is ambiguous, which is indicated by parentheses on the two potential analyses:

- (39) a. *Er hat eine echt große Wut auf sie gekriegt.*
 he has a really big rage against her gotten
 ‘He came to feel a really great rage against her.’

- b. *Er hat eine echt große Wut gekriegt auf sie.*
 he has a really big rage gotten against her
- c. *[Wut_i gekriegt_k] hat er eine echt große t_i (t_k) auf sie (t_k).*
 rage gotten has he a really big against her

However, adding another verb allows us to disambiguate the relevant cases, (40c-d). Interestingly, (40d), which involves adjacency of the split-off and the verb in the base-position, seems to be somewhat worse than (40c), which does not:

- (40) a. *Er soll eine echt große Wut auf sie gekriegt haben.*
 he is said a really big rage against her gotten to have
 ‘He is said to have felt a really great rage against her.’
- b. *Er soll eine echt große Wut gekriegt haben auf sie.*
 he is said a really big rage gotten to have against her
- c. ? *[Wut_i gekriegt_k] soll er eine echt große t_i auf sie t_k haben.*
 rage gotten is said he a really big against her to have
- d. ?? *[Wut_i gekriegt_k] soll er eine echt große t_i t_k haben auf sie.*
 rage gotten is said he a really big to have against her

While this contrast is unexpected under reanalysis, the general grammaticality of (40c) shows again that adjacency cannot play an important role when topicalizing the split-off and the verb.

4.2.2. A Strong Ending is not a Necessary Condition

At first glance, one may claim that a strong inflection is necessary to license *pro* in the source. This can be seen from the alternation on *ein*-words, which exhibit a strong ending on *ein* ‘a/one’ under certain conditions. Compare the non-split (41a) and the split example (41b):⁷

- (41) a. *Ich habe ein(*es) Brot.*
 I have a(WEAK/*STRONG) bread
 ‘I have a (loaf of) bread.’
- b. *Brot habe ich ein*(es) pro.*
 bread have I one(STRONG/*WEAK).

Similarly, *lila*-type adjectives have an optional (strong) ending when the noun is overt but an obligatory ending when not:

- (42) a. *Ich habe lila(ne) Bücher.*
 I have purple books
 ‘I have purple books.’

⁷ The numeral *EIN* ‘one’, possessives like *mein* ‘my’, and the negative article *kein* ‘no’ all behave like the indefinite article *ein* (see **Chapter 2**, also Roehrs 2009).

- b. *Bücher habe ich lila*(ne) pro.*
books have I purple

However, a weak inflection immediately preceding *pro* and indeclinable elements in general do not lead to ungrammaticality:

- (43) a. *Kleid habe ich immer nur dieses rote pro getragen.*
dress have I always only these(STRONG) red(WEAK) worn
- b. *Hemden habe ich immer nur Peters pro getragen.*
shirts have I always only Peter's worn
- c. (?) *Holz haben wir immer nur Dresdener pro verarbeitet.*
wood have we always only Dresden(INDECL) used

Here are some other indeclinable licensing elements: numerals like *zehn* 'ten' and modifiers like *genug* 'enough' and *ein paar* 'a couple'. In view of this state of affairs, a strong ending cannot be a necessary condition on the licensing of the null element.⁸ The true generalization that seems to emerge with regard to inflection is the following:

- (44) *Generalization about Inflection in Split NPs*
If an element in the source is declinable, then the inflection is obligatory.

I will not pursue this line of investigation further here (for some remarks, see Roehrs 2006, 2009). Let us simply conclude by stating that a strong inflection is not a necessary condition on the licensing of split NPs and, consequently, *pro* is not involved. Rather, I assume with Grimshaw (1991) that all noun phrases have a noun as the head of their extended projection. For the cases under discussion, I propose that this is the null noun e_N (for extensive discussion, see Panagiotidis 2002a,b; 2003a,b). Now, if the source DP contains a null noun, then we expect certain syntactic and semantic restrictions to hold.

4.3. Order Preservation and Semantic Reconstruction

In keeping with much recent work, I assume that "syntax does what it does" but that it is constrained by certain output conditions, that is, by conditions on linearizability and interpretability. In particular, I argue that Order Preservation and closing off of "free" predicates are required to rule out certain cases that arise in the present discussion of split NPs.

⁸ As discussed in **Chapter 1**, unprecedented adjectives in the genitive masculine and neuter are exceptional in that they have a weak ending. When stranded in a split NP, we notice that, while not entirely perfect, this weak ending is better than a (constructed) strong one:

- (i) *Weins habe ich mich nur {?guten/*gutes} erinnert.*
wine have I refl only good(WEAK/STRONG) remembered

This contrast might constitute a direct indication that a strong ending is not a sufficient condition on the licensing of split NPs.

4.3.1. Order Preservation

Focussing mainly on the Scandinavian languages, Fox & Pesetsky (2005) develop a system that accounts for Holmberg's Generalization and certain notable exceptions to it. Put simply, they assume that there are two Spell-out domains, VP and CP, and that the ordering of elements determined in one of these domains cannot be "revised" in the other. While I cannot fully discuss their proposal here, the crucial part of their analysis can be illustrated by the following Swedish data where, despite the fact that the verb has moved, the indirect object blocks the movement of the direct object, (45a). They suggest that this sentence is ungrammatical because the ordering statement established in the VP contradicts the one in the CP. Simplifying somewhat, this is stated in (45b) (the Swedish data are from pages 19, 21 of their article):

- (45) a. * *Jag gav den_i inte [_{VP} Elsa t_i].* (Swedish)
I gave it not Elsa
- b. *Ordering Statements*
VP: IO < DO
CP: DO < IO

In contrast, when the indirect object moves across the direct object, as in (46a), the relevant ordering statements in the VP and CP are the same and lead to a good derivation, (46b):

- (46) a. *Vem_k gav du den_i inte [_{VP} t_k t_i].*
who gave you it not
'Who did you not give it to?'
- b. *Ordering Statements*
VP: IO < DO
CP: IO < DO

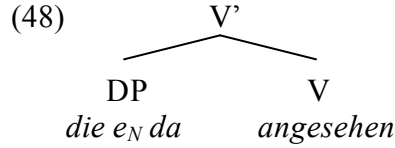
In what follows, I will claim that German also exhibits a phenomenon that involves Order Preservation. However, German is different from the Scandinavian languages in a number of ways: among others, German does not obey Holmberg's Generalization and it exhibits a certain faithfulness to the underlying order of certain elements, at least for one type of split (see Appendix I).⁹

Consider the derivation of one of the key examples:

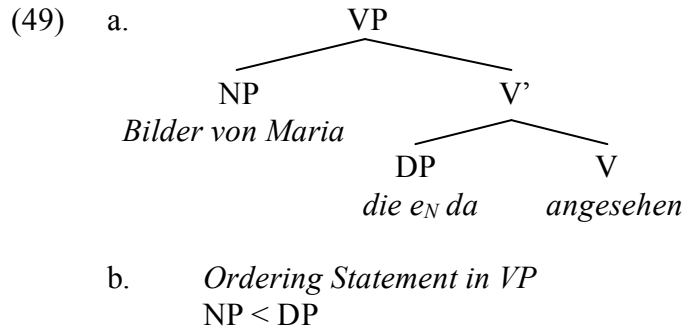
- (47) [*Bilder von Maria angesehen*] habe ich nur *die da*.
pictures from Mary looked at have I only the there

With the discussion of section 4.2.2 in mind, I assume that the source contains the null noun e_N and that it is independently assembled. Following that, the verb merges with the source, c(ategory)-selecting D:

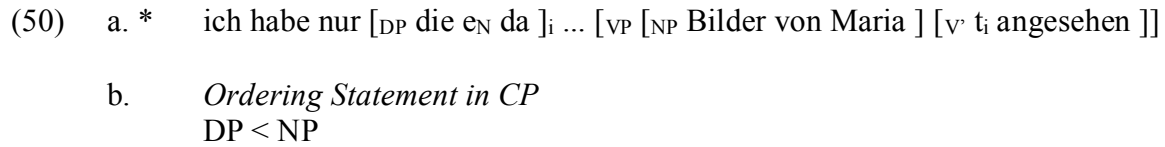
⁹ For these and other differences, see Müller (2001). As one consequence of these differences, I will not consider the interaction between the verb and the objects with regard to linearizability.



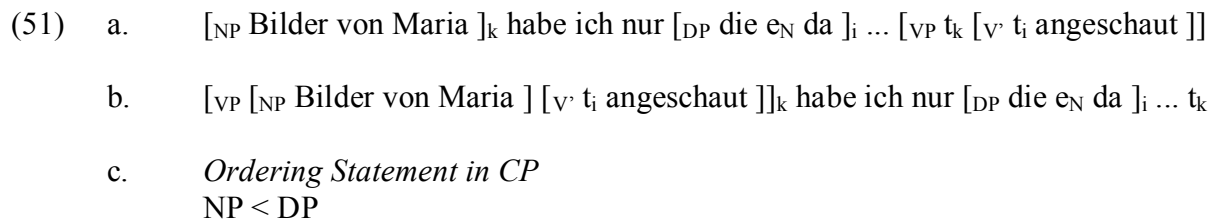
Next, I propose that the predicative part, call it NP, is separately assembled and then merged in Spec,VP, (49a).¹⁰ Now, adopting Fox & Pesetsky (2005)'s proposal, I will assume that Spell-out applies at this point in the derivation and the ordering statement "NP < DP" is made, (49b):



Continuing the derivation, the DP moves out of the VP to get case.¹¹ If the predicative part stays in-situ, (50a), then the ordering statement "DP < NP" is eventually made, (50b):



If the derivation stops here, then it is "filtered out" at PF due to two contradictory ordering statements: NP < DP in the VP vs. DP < NP in the CP. This poses problems for linearizability and the derivation goes bad in PF. However, syntax also has the option of moving NP or VP, which contains NP. Consider (51a) and (51b), respectively:



¹⁰ Merging the split-off in Spec,VP and the source below that (rather than the other way around) has some virtues. For instance, with the source DP moving out for case, this structure avoids Fanselow's (1988) problem of moving a complex head to Spec,CP, which is a phrasal position (cf. (17b)).

¹¹ In the literature, there is a long tradition with regard to case movement of objects in scrambling languages (for Dutch, see Zwart's extensive work and, more recently, Ruys 2008: 558-9). Alternatively, we could assume that the DP part moves for focus as in Fanselow & Ćavar (2002). Whatever turns out to be correct, I illustrate the VP as a head-final structure throughout.

Let us assume that the relevant elements move to check some feature.¹² Importantly, these general derivational options will not lead to contradictory ordering statements at PF and, consequently, these two derivations succeed. Proceeding with simpler examples, let us quickly review why some cases are ungrammatical:

- (52) a. *Ich habe eigentlich nicht viele Bücher gelesen.*
 I have actually not many books read
 ‘I have actually read not many books.’
- b. * *[Viele e_N] habe ich eigentlich nicht Bücher gelesen.*
 many have I actually not books read
- c. * *[Viele e_N gelesen] habe ich eigentlich nicht Bücher.*
 many read have I actually not books
- d. * *[Bücher viele e_N gelesen] habe ich eigentlich nicht.*
 books many read have I actually not
- e. * *[Bücher viele e_N] habe ich eigentlich nicht gelesen.*
 books many have I actually not read
- f. * *Gelesen habe ich eigentlich nicht Bücher viele e_N.*
 read have I actually not books many

Assuming, as we have all along, that there is no reordering inside VP, the ungrammatical examples in (52b-f) are explained as follows: the example in (52b) is out due to contradictory ordering statements (cf. (50a) above). Now, while (52c) is out for the same reason, (52d-f) but also (52c) are out as the DP cannot check case and the derivation will eventually crash.

Having considered some syntactic conditions (for other syntactic considerations, see Roehrs 2009: 160-2), let us next turn to the question of how the semantic value of the empty noun in the source is determined.

4.3.2. Semantic Reconstruction

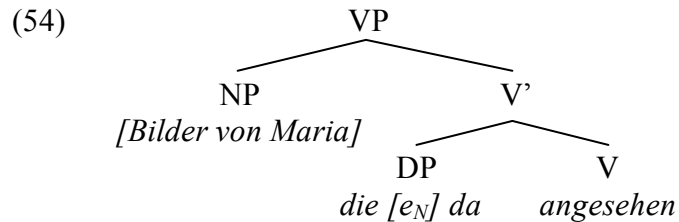
We know from examples like (53), that the split-off in derived position does not necessarily c-command the source:

- (53) *[Bücher gelesen] habe ich eigentlich nicht viele e_N.*
 books read have I actually not many

Interestingly, the null noun e_N is c-commanded by the split-off in its underived position.¹³

¹² For instance, we could follow Fanselow & Ćavar (2002) in that the split-off checks a topic/second focus feature. With the requirement that the split-off c-commands the source (see next subsection), we must assume that unlike Fanselow & Ćavar (2002), there is no minimality issue involving the source and the split-off when they move to check their respective features. Note that whatever the actual trigger for movement turns out to be, Order Preservation will guarantee that the split-off will precede the source.

¹³ I thank Susi Wurmbrand for encouraging me to look in this direction.



However, rather than a purely syntactic account, I suggest an analysis that is partially semantic in nature. Let us consider each of the bracketed elements in (54) in turn, starting with the upper element.

Haider (1990: 108), Tappe (1989: 167), and Fanselow (1988: 105-6) argue that NP is a (complex) nominal predicate (rather than a second argumental DP). This has a number of advantages: first, there is no Theta-Criterion violation as the verb assigns its theta role only once in the course of the derivation, namely to the argumental source DP.

Second, it is well-known that singular countable nouns must be preceded by a determiner in German, (55a-b). If this is so, then the grammatical bare noun in (55c) must involve a predicate (cf. Haider 1990: 108 footnote 8):

- (55) a. *Ich habe *(ein) Hemd.*
 I have a shirt
 'I have a shirt.'
- b. **(Ein) Hemd habe ich nicht.*
 a shirt have I not
 'I don't have a shirt.'
- c. ***Hemd** habe ich **keins**.*
 shirt have I none

Third, only indefinite determiners may occur in predicate contexts, (56a). If the split-off is a predicate, then this immediately explains why only indefinite determiners can occur in the split-off, repeating (35a-b) here as (56b-c):

- (56) a. *Ich halte ihn für {einen / *den} guten Lehrer.*
 I consider him (for) a / the good teacher
 'I consider him a good teacher.'
- b. ***Einen Wagen** hat er sich nur **diesen** leisten können.*
 a car has he refl only this afford could
- c.* *{**Diesen** / **Den**} **Wagen** hat er sich nur **diesen** leisten können.*
 this / the car has he refl only this afford could

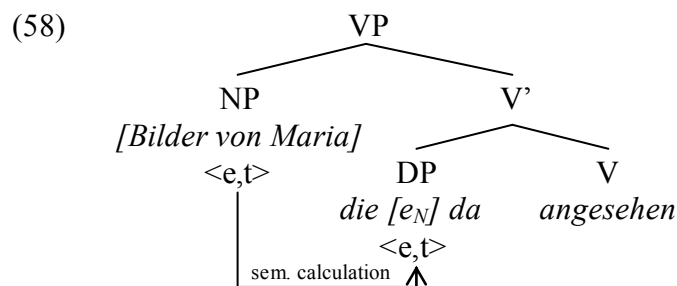
Turning to the source nominal, it is important to point out that, with the exception of the determiner in the source, everything can in principle be part of the split-off (for some interesting restrictions, see section 5). I follow Heim and Kratzer (1998) in that the determiner is of type

$\langle\langle e, t \rangle, e \rangle$ and that the determiner combines with an element of type $\langle e, t \rangle$ by Functional Application. In view of the fact that determiners can directly combine with (null) nouns, I propose that the null noun e_N in the source is an empty predicate (of type $\langle e, t \rangle$) (cf. Fanselow 1988: 106, Panagiotidis 2003a: 425). Following much discussion in the literature on null elements, I will make the natural assumption that empty elements have to be semantically specified in some way:

(57) *Semantic Identification of e_N in DP*

- (i) e_N is an empty predicate of type $\langle e, t \rangle$.
- (ii) Empty elements must be “filled” with content to be interpretable at LF.

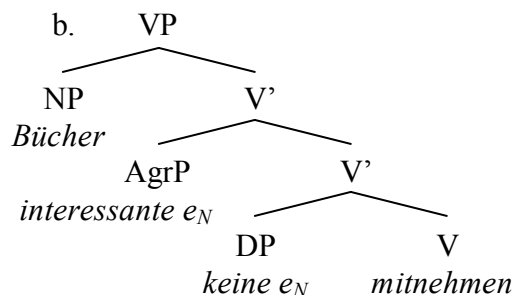
If these considerations are on the right track, then we can observe that the predicative NP and the null predicative e_N in the source DP are of the same semantic type ($\langle e, t \rangle$). Furthermore, we can state that there is an empty predicate that needs content and that there is an overt predicate that is “free”, that is, must be closed off. These two separate requirements complement each other perfectly. I propose, then, that the “filling” of the empty predicate noun with content can occur by an element of the same semantic type (but not necessarily the same syntactic category). More precisely, I propose that the calculation of e_N proceeds on the basis of the nominal predicate, which c-commands the source in the VP:



I refer to this process as “semantic reconstruction”.

Interestingly, this calculation can proceed in a stepwise fashion. To see this, consider multiple splits. I assume that the example in (59a) has the underlying structure in (59b):

- (59) a. **Bücher** hat er damals **interessante** in den Osten **keine** mitnehmen dürfen.
 books was he then interesting into the East none bring allowed-to



As in the simple split, the DP part is merged with the verb first. Next, let us assume that there are two predicate nominals involved, where each is located in its own Specifier. In particular, the nominal with the overt noun projects an NP and the one with an adjective an AgrP that contains a (second) null noun. Observe that each null noun is c-commanded by another nominal element in the base-position. The semantic value of the two null nouns is calculated in a stepwise fashion: first, NP is semantically reconstructed into AgrP and then AgrP into DP.

In order to derive the surface order in (59a), the DP moves for case, AgrP Scrambles to the Middlefield and the NP moves to Spec,DP. These movements result in non-contradictory linearization statements. If this is on the right track, then cases like (60) are out due to contradictory ordering statements with regard to NP and AgrP:

- (60) * *Interessante habe ich Bücher eigentlich keine gekauft.*
 interesting have I books actually none bought

Above we noted that c-command always holds in the underived (but not derived) position. In this constellation, all elements are in a very local domain, the VP. In what follows, we will see that not only the predicate split-off must be in a local domain with the source at some point in the derivation but that the null noun of the source must be close to the predicate split-off as well.

4.3.3. Some Extensions: Same Syntactic “Address”

In section 3.3, we saw that split NPs can, perhaps with some dialectal variation, be formed on nominals with inherent case. Consider the split of the simple genitive DP in (61a) and contrast it to the more complex cases in (61b-c), where the source is embedded in a larger DP:

- (61) a. *Weins habe ich mich eines guten erinnert.*
 wine have I self a good-GEN remembered.
 b. * *Mannes habe ich immer nur die Autos eines jungen repariert.*
 man have I always only the cars a young-GEN repaired
 c. * *Jungen Mannes habe ich immer nur die Autos eines repariert.*
 young man have I always only the cars a-GEN repaired

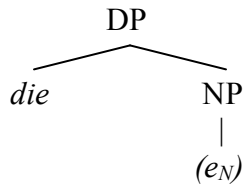
These complex cases are severely ill-formed. The same can be shown for the dative:

- (62) a. *Also Brot ähnelt das nun wirklich keinem!*
 really bread resembles that now really none-DAT
 b. * *Männern habe ich immer nur die Autos von jungen repariert.*
 men have I always only the cars of young-DAT repaired
 c. * *Flecken habe ich immer nur die Autos mit vielen repariert.*
 spots have I always only the cars with many-DAT repaired
 d. * *Roten Punkten habe ich immer nur die Bluse mit zwei getragen.*
 red dots have I always only the blouse with two-DAT worn

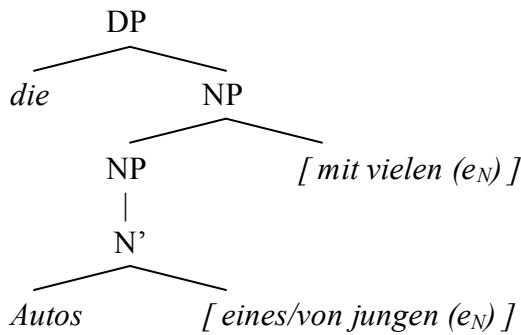
The question arises as to how to rule out the split NPs formed with embedded sources. In order to account for this, I propose that the predicative part must be semantically reconstructed into the closest empty noun. Below, we will define “closest” in terms of same local “address” in the VP.

Above, simple discontinuous DPs were analyzed to have a source as in (63a). Turning to the complex DPs, we observe first that independent of the syntactic relation between the matrix DP and the embedded nominal, all examples, whether they involve complementation or adjunction, are ungrammatical. Consider the examples in (61b), (62b), and (62c) and their respective structures in (63b) below (I will mark the “origin” of the split-off with a null noun in parentheses):

(63) a. *Simple DP*



b. *Complex DP – Complementation and Adjunction*



Note that what these complex DPs have in common is that, in contrast to the simple DPs just discussed, they all have a matrix head noun that is overt or, more precisely, semantically not empty (*Autos* ‘cars’ in (63b)).¹⁴ Assuming that all “free” predicates have to be closed off at LF, I propose that the predicate part must reconstruct (in the sense above) into the matrix DP, that is, into the closest head noun. Note now that with each noun projecting its own phrase, only the matrix noun is, via its extended projection, in direct “contact” with the verb. The same holds for the predicate nominal. In other words, both the matrix DP and the split-off NP are part of the

¹⁴ Null nouns can occur in complex noun phrases under ellipsis, (ia). Importantly, the examples in the main text are also ungrammatical when the matrix noun is elided. Compare (62b) to (ib):

- (i) a. *Ich habe die Autos von alten Leuten repariert und du die e_N von jungen e_N.*
 I have the cars from old people repaired and you those from young
 ‘I repaired the cars of old people and you those of young ones.’
 b. * *Männern habe ich immer nur die e_N von jungen repariert.*
 men have I always only the of young-DAT repaired

Note, however, that this null element is not semantically empty as it must be understood as the elided material. In that sense, it is different from the null noun that is part of an indefinite pronoun (see below). For expository purposes, I will simply stick to the discussion of unelided nouns in the matrix DP.

same verb phrase at some point. As such, they have the same positional “address” underlyingly (for discussion, see especially McGinnis 2004 but also Fanselow & Ćavar 2002: 78, footnote 10). If “closest” is defined this way and if we assume that only elements with the same address can enter into semantic reconstruction, then reconstruction can only occur into the null noun of a matrix DP but not into the null noun embedded in a larger DP. If the matrix noun in the latter case is not empty, then the predicate part can not be closed off, leading to ungrammaticality. The idea of the same positional address has some other interesting applications.

To start off, if the requirement to have the same address is needed to rule out certain ungrammatical cases as just discussed, then the mechanism assigning these addresses provides an argument that the split-off must have been in the VP and undergone subsequent movement to the left. Conversely, if the split-off is base-generated in Spec,CP, then this should lead to problems. Consider the following examples, repeating (2b) here as (64b):

- (64) a.(*) ***Bücher** habe ich **keine** e_N gelesen.*
 books have I no read
- b. * ***Bücher** habe ich **keine Romane** gelesen.*
 books have I no novels read

In both examples, the split-off was not merged inside VP by assumption and hence does not have the same positional address as the source DP. With the above discussion in mind, this means that, although (64a) is grammatical, this particular derivation is ruled out since *Bücher* ‘books’ cannot function as the relevant semantic filler. Consequently, the null noun remains unfilled and the open predicate *Bücher* cannot be closed off. This leads to a bad derivation. Something similar holds for (64b), where the source is “complete”. Consider this in more detail.

Recall that open, semantically unsaturated elements must be closed off. With the predicative split-off an open expression, I hypothesize that there are three potential ways to license it in a sentence: as discussed above, (i) the split-off could form the semantic value for the calculation of e_N and get licensed, as it were, in “proxy”. Furthermore, (ii) the split-off could be predicated of another (referential) noun phrase or (iii) the split-off, itself, could be the argument of another functor, for instance, a determiner. Crucially, however, there seem to be no null elements or other “free” (referential) noun phrases or functors available in (64b). I suggest that this leads to ungrammaticality since the split-off predicate cannot be closed off.

This discussion naturally extends to a case discussed by Fanselow & Ćavar (2002). While a PP-complement cannot be split from the source, (65a), it can be topicalized when the head noun is split off as well, (65b):

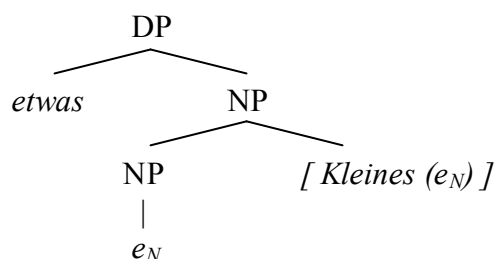
- (65) a. * ***An Maria** haben mich **keine Briefe** erschreckt.*
 to Mary have me no letters frightened
- b. ***Briefe an Maria** haben mich **keine** erschreckt.*
 letters to Mary have me no frightened

This type of example follows from the above discussion: unlike (65a), the example in (65b) involves a null noun that the split-off can reconstruct into.

If this discussion is on the right track, then we have a prediction: if complex DPs with a non-empty (i.e., overt) matrix noun cannot be reconstructed into, as discussed above, then complex DPs with a semantically empty matrix noun should be grammatical (cf. footnote 14). This is borne out for split indefinite pronoun constructions, (66a-b), where both Leu (2005) and Roehrs (2008) argue in detail that these constructions, when not split, involve two nominals each headed by an empty noun. Simplifying somewhat, the source in (66b) is illustrated in (66c):

- (66) a. *Tolles habe ich mir gestern eigentlich nichts gekauft.*
 nice have I (for) me yesterday actually nothing bought
- b. *Süßes habe ich gestern nur etwas Kleines gegessen.*
 sweet have I yesterday only something small eaten

c. *Indefinite Pronoun Construction*



Recalling the above discussion, the split-off can only reconstruct into the closest, that is, matrix noun. Unlike the case above, this noun is empty in (66c) and, consequently, can be reconstructed into.¹⁵ Note also that unlike regular adjectives, (67a), quantifiers/numerals, (67b), and indefinite articles, (67c), cannot be part of this construction:

- (67) a. *etwas Amerikanisches*
 something American
 ‘something American’
- b. * *etwas {einiges / ein(e)s}*
 something some / one
- c. * *etwas ein Amerikanisches*
 something an American

Most likely, these are syntactic and/or semantic restrictions. Now, consistent with (67c), split NPs formed on the indefinite pronoun construction cannot involve an indefinite determiner in the split-off. Compare (68a) to (68b):

¹⁵ If this is tenable, then we derive an(other) argument for the presence of a null noun in the matrix nominal of (certain) indefinite pronoun constructions.

- (68) a. (***Ein***) ***amerikanisches*** *hat er sich* {nur ***eins*** / noch ***keins***} *leisten können*.
 an American has he REFL only one / yet none afford could
 ‘As for American ones, he has not been able to afford one yet.’
- b. (****Ein***) ***Amerikanisches*** *hat er sich* {etwas / noch ***nichts***} *leisten können*.
 an American has he REFL something / yet nothing afford could

If this is indeed a syntactic and/or semantic restriction, then in order to rule out the presence of the indefinite determiner in (68b), *ein* must be present in narrow syntax. If so, the addition of *ein* cannot be a “late” (i.e., PF) phenomenon.

Finally, consider a case where two noun phrases have been split up in one and the same sentence. The related elements are marked in the same typographic way (the datum is taken from Fanselow & Ćavar 2002: 67):

- (69) ***Sonaten*** *haben* *Frauen* *bislang* nur *wenige* ***welche*** *geschrieben*.
 sonatas have women up to now only few some written

The proposal of the same local address prevents *Sonaten* ‘sonatas’ from being associated with *wenige* ‘few’ and *Frauen* ‘women’ with *welche* ‘some’. In a similar vein, Gary Milsark (p.c.) raises the question of why a pronoun cannot be in the source given that pronouns are determiners (Postal 1966) and that the source contains a null noun:

- (70) a. *Ich habe* {*die* / *sie*} *gekauft*.
 I have the(se) / them bought
 ‘I have bought these/them.’
- b. ***Bücher*** *habe ich* {*die* / ****sie***} *gekauft*.
 Books have I the(se) / them bought

Let us assume that unlike *die* ‘the(se)’, *sie* ‘they’ does not allow a predicate with the same local address to semantically reconstruct into its empty noun. In this sense, *sie* is different from non-interrogative *welches* discussed in section 2.2.2.

4.3.4. Accounting for the Paradoxical Properties

In section 2.5 above, I provided a partial summary of the properties of the split NP construction. Providing a more complete picture now, some of these characteristics implicated a movement analysis (first column of table 2 below) while others indicated base-generation (third column). The present proposal solves this apparent paradox by way of a hybrid analysis involving both separate base-generations and subsequent movement, which needs to be licensed by syntactic and semantic conditions. I will now briefly illustrate how the individual properties can be captured in the current system.

I propose that the movement characteristics follow from movement of the split-off and the calculation of e_N . The island effects follow directly from movement. The sequence of the adjectives and complements/modifiers as well as the Binding facts are accounted for if we assume that e_N is semantically calculated on the basis of the material of the split-off. In other

words, the split-off is interpreted in e_N and selectional restrictions and Binding can be “checked” after semantic reconstruction.

The base-generation properties follow from the presence of two noun phrases in the same local domain, the VP. While the predicative nominal derives the fact that only indefinite determiners can appear in the split-off, the argumental DP containing e_N accounts for the fact that the non-interrogative use of *welch* ‘some’ cannot take an overt NP. The apparent cases of movement of non-constituents, the fact that adjectives in the split-off can have a strong inflection (although a weak one in the source), and the absence of certain island effects also follow from the construction of two independent nominals. Thus, syntactic and semantic processes (construction of two separate noun phrases and calculation of e_N) derive all the relevant properties in this hybrid proposal. Consider the following summary:

Table 2: Summary of the Properties of Split NPs and their Account

movement	commentary	base-generation	commentary
sequence of adjectives	after semantic calculation of e_N	two determiners	two separate nominals
sequence of complements/modifiers	after semantic calculation of e_N	non-constituents	two separate nominals
Binding	after semantic calculation of e_N	unexpected weak / strong endings	two separate nominals
islands (relative clause)	movement of split-off	islands (subject)	two separate nominals
		<i>welch</i>	two separate nominals

More generally, one may wonder why split NPs of this type are a relatively rare phenomenon. Panagiotidis (2002a,b; 2003a,b) argues that languages differ with regard to which empty nouns they make lexically available. For instance, while English has *one* (and e_N in some rare cases) at its disposal, German has only e_N . To speculate, then, one could suggest that other languages do not have this e_N and the lack of this construction in these languages would follow from this lexical gap. If fact, if ellipsis also involves a null noun, then we can capture Fanselow & Ćavar’s (2002) correlation, according to which the presence of ellipsis in a language coincides with the possibility of split NPs in that language.

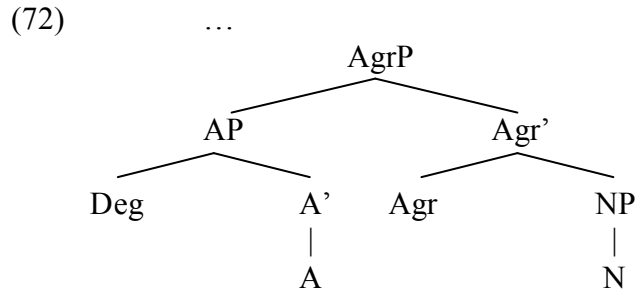
5. Some Other Restrictions on Split NPs

There some interesting restrictions on the formation of the source and the split-off. Starting with the former, Haider (1992: 320) points out that degree words such as *sehr* ‘very’ cannot be stranded:

- (71) a. *drei sehr kostbare Vasen*
three very precious vases
‘three very precious vases’
- b. *Vasen besitzt er nur drei sehr kostbare.*
vases owns he only three very precious

- c. * *Kostbare Vasen besitzt er nur drei sehr.*
 precious vases owns he only three very

It is by now a standard assumption that degree words are in the extended projection of adjectives (e.g., Corver 1997). For current purposes, I will simply assume that they are in the Specifier of the relevant adjective phrase. The latter is in the Specifier of AgrP:



If so, then (71c) is ruled out as the adjective and noun do not form a constituent to the exclusion of the degree word. In other words, recourse to syntactic structure allows us to account for these cases.

Furthermore, M. Müller (1986: 37) and Fanselow (1988), among many others, notice some cases where the split-off does not agree with the source in morphological number. In particular, a singular noun split-off is, with some dialectal variation, compatible with a singular source but not at all with a plural one, (73a). In contrast, a plural noun split-off is basically compatible with both a singular and a plural source, (73b) (see Fanselow & Ćavar 2002 for a more detailed discussion of these judgments):

- (73) a. *Hemd habe ich {%keines / *keine} getragen.*
 shirt(NEUT) have I none(NEUT/PL) worn
- b. *Hemden habe ich {keine / ?keines} getragen.*
 shirts(PL) have I none(PL/NEUT) worn

While I cannot discuss all the intricacies of these patterns here, the restriction with regard to the plural source in (73a) seems worth investigating further. Note that number mismatches involving predicates are well-known from regular predicative contexts:

- (74) a. *Dieser Mann ist Arzt / *Ärzte.*
 this man is doctor / doctors
 'This man is a doctor.'
- b. *Diese Männer sind Arzt / Ärzte.*
 these men are doctor / doctors
 'These men are doctors.'

Note, however, that unlike above, here a singular predicate noun is compatible with both a singular and plural DP. In other words, in cases involving semantic reconstruction, a singular

predicate is only compatible with a singular source DP but in cases involving regular predication, a plural predicate is only compatible with a plural subject DP. With separate base-generation of the predicate part and the source/subject DP, these mismatches are not entirely unexpected. However, we must find a way to explain the reverse distributions of the predicate nominals in the two cases.

It is clear that one case involves reconstruction into a null noun and the other does not. While I will have to leave the actual details open for now, it seems plausible to assume that certain features survive until after reconstruction. I believe that it is these features that explain this restriction (for the discussion of the restriction in regular predicative contexts, see **Chapter 6**). Fanselow & Cavar (2002) handle these cases by some repair strategies (for some brief discussion, see Appendix I).

Turning to the split-off, as noted by Bhatt (1990: 251), numerals and quantifiers cannot be part of the topicalized element:¹⁶

- (75) a. *diese {drei / wenigen} Hemden*
 these three / few shirts
 ‘these three/few shirts’
- b.* *{Drei / Wenige} Hemden hat er immer nur diese da getragen.*
 three / few shirts has he always only these there worn

I assume that this is a semantic issue, which presumably finds an account in a more refined reconstruction proposal.

6. Conclusion

This chapter discussed split NPs. After briefly discussing and critiquing some previous proposals and highlighting some paradoxical data, I illustrated my own hybrid proposal, where both the split-off and the source are merged in different positions of the same VP. This derived the facts which seemed to call for separate base-generations. Furthermore, establishing syntactic and semantic conditions, the movement facts were argued to follow from movement of the split-off and from calculating the semantic value of e_N in the source on the basis of the split-off. The latter process was labeled semantic reconstruction. Finally, the discussion was extended to some more complex cases and some other restrictions were briefly addressed.

¹⁶ The example improves if the numeral and the quantifier receive heavy, contrastive stress. This seems to be different for sequences of – what looks like – two quantifiers, where stress cannot save the split of the two relevant elements:

- (i) a. *einige wenige Leute*
 some few people
 b. ? *Leute habe ich nur einige wenige gesehen.*
 people have I just some few seen
 c. * *Wenige Leute habe ich nur einige gesehen.*
 few people have I just some seen

The same holds for *alle beide(n) Arbeiten* ‘(all) both works’ and similar combinations.

Appendix I: Revisiting Fanselow & Ćavar (2002)

It is not easy to compare Fanselow & Ćavar's (2002) account, which involves elements of Optimality Theory, with the present proposal. While I cannot go into too much detail here, let me point out what I believe to be some other potential shortcomings of their account. (Note that some of these issues might only be apparent as Fanselow & Ćavar 2002 do not spell out all of their assumptions, at least not in this paper.)

In order to account for some adjectival inflections that are “unexpected” on their analysis (cf. (18) above), Fanselow & Ćavar (2002: 94) state the following surface condition: “The phonetic string dominated by a DP node must meet the lexical and morphological wellformedness conditions for DPs” (their (81)). Now, besides the fact that this surface condition simply presents a generalization (and not a deeper explanation), the construction of phrase structure seems to be replicated by this condition. One may object here that the authors basically give up traditional phrase structure construction anyways (e.g., they allow the base-generation of ungrammatical strings that are later repaired by certain pronunciations, p. 97). However, they do not provide a fully spelled-out alternative. In fact, with repair strategies at work, Fanselow & Ćavar (2002: 98) themselves admit that their account does not correlate split NPs with the existence of nominals with null (elided) nouns.

Furthermore, in their analysis involving distributed deletion, Fanselow & Ćavar (2002) propose that DP's undergo two instances of movement: one to check a focus feature and a second to check a topic/second focus feature. They formulate a condition that regulates the pied-piping of the entire DP: “If a head H attracts the feature f, then ...[_{DP} ...f...] can be pied-piped only if f is not c-commanded by the nominal “head” of the DP.” (p. 91) With two instances of movement, this means that only pre-nominal element (and the noun itself) can pied-pipe the entire DP. While they admit that this is just a generalization, its cross-linguistic status is far from clear. For instance, consider relative clauses such as *the book the title of which I cannot remember* in English, where the nominal head does c-command the pied-piping element (i.e., *which*).

Moreover, in a different context, Bošković (2005: 13-15) points out that distributed deletion faces a more general problem: the relevant pronunciations must be constrained such that all and only the grammatical instances are derived. This issue is particularly relevant in split NPs, where some distributions are optional, (76), but others are not, (77) and (78):

- (76) a. ***Bücher über Chomsky** habe ich **keine** gelesen.*
books about Chomsky have I none read
- b. ***Bücher** habe ich **keine über Chomsky** gelesen.*
books have I none about Chomsky read
- (77) a. ***Interessante Bücher** habe ich **keine** gelesen.*
interesting books have I none read
- b. * ***Interessante** habe ich **keine Bücher** gelesen.*
interesting have I no books read

- (78) a. * *Bücher da habe ich die gelesen.*
 books there have I these read
- b. *Bücher habe ich die da gelesen.*
 books have I these there read

A related point can be made with topicalized VPs that contain a nominal split-off (cf. (12b) above). While these constructions are mentioned by the authors (p. 75), they are not discussed in any detail. As far as I can see, there seem to be several issues here: with the VP in the higher position, it must have moved through the lower focus position as well. It is not entirely clear to me where the features that cause the individual movements and respective pronunciations are located and how pied-piping works in this instance.

Finally, Fanselow & Ćavar (2002) also discuss – what they call – “Pull-splits”, where a phrase simply seems to be pulled apart. According to them, this is only possible in German with simple *wh*-extraction:

- (79) a. *Wieviel Bücher hat er gelesen?*
 how many books has he read
 ‘How many books has he read?’
- b. *Wieviel hat er Bücher gelesen?*
 how many has he books read

In order to account for the split NPs discussed in this paper and the Pull-splits just mentioned, Fanselow & Ćavar (2002) employ two mechanisms: minimality/A-over-A condition and the Parallel Movement Constraint (Müller 2001, which is close in nature to Order Preservation). The current paper argues for simple base-generation vs. separate base-generation with the option of reordering inside the VP. The latter accounts for Pull-splits and is only possible when a *wh*-feature is involved. As already mentioned above, Fanselow & Ćavar (2002) allow the base-generation of ungrammatical strings more generally.¹⁷

More generally, I am not claiming here that there are no (perhaps technical) solutions to these issues. However, before we can fully appreciate the merits of Fanselow & Ćavar’s proposal, the actual conditions on the pronunciation of elements and the construction of phrase structure need to be further spelled out. As should be clear from the preceding discussion, while the current proposal remains neutral about some of these potential problems, others follow from the assumptions about semantic reconstruction into null nouns.

¹⁷ Fanselow & Ćavar (2002: 98) also examine split PPs. They notice that a second preposition must be present in the split-off, (ia). While I have not investigated split PPs in any detail yet, I came across a potentially very important restriction, (ib):

- (i) a. **(In) Schlössern habe ich noch in keinen gewohnt.*
 in castles have I yet in none lived
- b. **(Für) Frauen halte ich sie für sehr hübsche.*
 for women consider I them for very beautiful.

If the distribution in (ib) is more generally out, then small clause structures do not allow the splitting of NPs or PPs.

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Chapter 5: Genitive/Possessives ??
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