

Treball de recerca de programa de doctorat

**“*Wörter stehen da einige. On nominal Split  
Topicalization in non-Standard Viennese  
German*”**

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**Abstract:** Abstract:

This work investigates the syntactic, semantic, and pragmatic properties of nominal Split Topicalization (ST) constructions in Standard and non-Standard German. The topic phrase denotes a property, and the MF phrase either modifies this property or picks out a specific entity. Semantically, the topic phrase will be analysed as a property-denoting expression which restricts the denotation of the verbal predicate, while the MF phrase is composed either via specify or restrict (cf. Chung and Ladusaw, 2003). Syntactically, the base position of the topic phrase is the (incorporating) verb, and the MF phrase is generated independently as the complement of the verb containing an empty pronoun. Since predicates introduce abstract discourse referents, the topic phrase can be resumed via "pro" in the MF phrase.

**Keywords:** Split Topicalization – German – non-canonical word order – topic phrase - Mittelfeld phrase - predicate restriction - argument saturation - abstract reference – pro – Link, Focus, Tail

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*Wörter<sub>i</sub> stehen da einige<sub>i</sub>.*  
**On nominal Split Topicalization in  
non-Standard Viennese German**

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# Chapter 1

## Introduction

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The goal of this work is to examine the syntactic, semantic, and pragmatic properties of nominal Split Topicalization (ST) constructions - also referred to as Partial NP Fronting or Split NPs - in Standard German, and its realization in non-Standard German, exemplified by the Southern variant spoken in Vienna (Austria).

To illustrate, consider the following sentences taken from “*Der Talisman*” (1841), a play by the Viennese author Johann Nestroy:

- (1) **Erbschaft**<sub>*i*</sub> brauch ich **keine**<sub>*i*</sub>, denn ich wünsch, dass er noch a inheritance need I none so I wish that he still a dreihundert Jahr’ lebt. three-hundred years lives  
As for inheritance, I don’t need any, so I wished he would live still three hundred years.<sup>1</sup>
- (2) Und [**lebendige Verwandte**]<sub>*i*</sub> haben Sie gar **keine**<sub>*i*</sub>? and living relatives have you at-all none  
And living relatives, You don’t have any at all?<sup>2</sup>
- (3) **Zimmer**<sub>*i*</sub> gäbets’s da **genug**<sub>*i*</sub>. rooms existed-it there enough  
As for rooms, there’d be enough.<sup>3</sup>

The bold coindexed expressions are part of the nominal ST.<sup>4</sup> Crucially, both the “left” topicalized and the “lower” ST phrase belong to the argument of one single verb.

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<sup>1</sup>Nestroy (1978) [p. 86]

<sup>2</sup>ibid. [p. 12]

<sup>3</sup>ibid. [p. 66]

<sup>4</sup>We will focus on nominal ST, and not aim to explain other ST phenomena, e.g. with topicalised verbal phrases, as in (1) or adverbs, see (2):

- (1) [Ein Auto]<sub>*i*</sub> gekauft hat Anna sich noch keins<sub>*i*</sub>.  
a car bought has Anna 3sg-refl still none  
Anna has not yet bought any car.

They seem to be “torn apart”, hence the term, although morphologically they seem to be independent constituents. Comparing the cited ST examples in (1)-(3) and their un-split counterparts, exemplified in (4)-(6), they seem to differ not in meaning but rather in the prominence of the topicalised expression.

- (4) Ich brauch **keine Erbschaft**.
- (5) Und Sie haben **gar keine lebendigen Verwandten?**
- (6) Da gäbet’s **genug Zimmer**.

We can state the main dilemma posed by STs as follows: An argument of the predicate is realized by two distinct constituents, one in the sentence-initial topic position and the other clause-internally within the *Mittelfeld*<sup>5</sup>. The clause-internal phrase resembles the remnant of elliptical constructions, with one crucial difference: the antecedent is within the same sentence. ST and ellipsis share a similar intonational contour and discursive functions: Compare the ST in (7) with (8), a self-posed question followed by an elliptical answer.

- (7) √Buch ist erst \eins von ihr erschienen.  
book is just one of her published  
As for a book, only one has been published by her.
- (8) Ein √Buch? (Da) Ist erst \eins von ihr erschienen.  
a book there is just one of her published  
A book? Only one has been published by her.

In (8) the self-posed question serves to reassure that the element under discussion element is *Buch*, followed by a topic-less elliptical answer. These two separate clauses seem to appear conflated in the ST (7). During discourse, we are continuously establishing topics, to which we refer to back as the conversation proceeds. Some topics have been mentioned previously and are prominent and obvious. In such cases,

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(2) [Zur Post gebracht] hat Eulalia den Brief [noch nicht].  
to post brought has Eulalia the letter yet not  
Eulalia hasn’t taken the letter to the post office yet.

<sup>5</sup>The German *Mittelfeld* (middle field) comprises the region between the finite verb in verb second position and the clause final verb position. The *Vorfeld* (pre-field) is the position in front of the finite verb, and in root clauses can only contain one single constituent.

elliptical constructions are a means to avoid unnecessary repetition of information. They are unambiguously agreed on by the hearer and speaker and don't need to be established every time an utterance is made. Other topics are less obvious and in order to remove ambiguity related to topic choice, the utterer mentions and establishes the topic in a single utterance, as in STs.

Many claims about the characteristics of ST have been based on research on Standard German. As many claims that have been made so far are not applicable to non-Standard German, especially Viennese German, the necessity arose to develop an analysis that covers not only Standard German cases of ST. The examples given throughout this work emanate from today's Viennese German, a Southern German variety and native language of the author and her informants.

The present work is structured as follows:

In the following, second chapter, we will summarize the syntactic, semantic, and pragmatic properties that have been attributed to STs throughout the literature. Some of these alleged properties will be rejected or modified on the basis of new examples taken from Viennese German.

In the third chapter, we will critically review some accounts of ST that have been presented so far. In terms of syntactic approaches, we will discuss a movement approach, and several base generation approaches. As for the semantics of ST, we will discuss an account in terms of semantic incorporation, on the one hand, and in terms of multiple linked arguments and predicate restriction, on the other hand.

Finally, in the last chapter, we will propose an analysis by adopting and extending previous approaches in order to make them work for non-Standard German.

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# Chapter 2

## Facts

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### 2.1 Overview

In this chapter, we will present the properties that have been attributed to Standard German STs in the literature, and add others which we have observed for the informal spoken register, focusing on the Southern German variant from Vienna. As the left part of the split nominal is located in a topic position we will henceforth refer to it by “the topic phrase”, being neutral with respect to its pragmatic function because - as we will see later - although it denotes the theme of a sentence it is not necessarily a pragmatic topic. As - what is often considered - the lower part of the split nominal is located within the *Mittelfeld*, we will henceforth call it “the MF phrase”. Still, we are aware that this notion is somehow misleading, because there are cases of ST where the topic phrase is also located within the *Mittelfeld*. The main observations can be summed up as follows:

**Gap in the *Mittelfeld*** The MF phrase typically lacks an overt noun, a configuration which brings to mind elliptical constructions. As with ellipsis, we need a coreferring antecedent in order to calculate the content of the missing expression. Some non-Standard German variants allow for the head of the MF phrase to be filled.

**Un/bounded dependency** Island sensitivity is found in Standard German STs, which indicates a bounded relationship between the topic and the MF phrase. Some topic phrases in non-Standard German variants may escape islands, however, indicating an unbounded relationship.

**Argument Structure** Both the topic phrase and the clause-internal phrase correspond to one verbal argument. They agree in case, number, and gender.

**Morphological Autonomy** Though not typical, each phrase may exhibit its own, possibly distinct determiner. The MF phrase exhibits strong inflectional

adjectives.

**Semantic Restrictions** The denotation of the topic phrase must be “more general” than that of the MF phrase, and is non-quantificational. In Standard German the MF phrase is indefinite, but in non-Standard German it may be also definite.

**Discourse-old and Discourse-new** The fronted “topic” phrase conveys typically discourse-old information, and the MF phrase discourse-new information. Typically, the topic phrase is contrastive and bears a rising accent. If the MF phrase is contrastive, it bears a falling accent.

The chapter starts with observations about the structural properties of the topic phrase and of the MF phrase. Then, we will describe the argument structure of STs, and the most important syntactic, semantic, and pragmatic properties. Throughout this work, in the mentioned examples, coindexing indicates that two expressions belong to the same split nominal. Examples taken from Viennese German are transcribed as Standard German in order to facilitate comprehension, and because the actual spelling is not important for the purpose of this work.

## 2.2 The topic phrase

In Standard German ST, the topic phrase bears no determiners, as is the case for bare plurals, (9) and (10), mass nouns (11), or abstract nouns (12). The bare singular (13) is ungrammatical in Standard German but not in Viennese German.

- (9) [Linguisten aus Taiwan]<sub>i</sub> kamen diesmal auch welche<sub>i</sub>.  
 linguists from Taiwan came this-time also some  
 As for linguists from Taiwan, this time some of them came.
- (10) Kopiergerät<sub>i</sub> gibt es hier nur eines<sub>i</sub>.  
 copy-machines exist it here only one  
 As for copy machines, there is only one here.
- (11) Papier<sub>i</sub> hat er rosanes<sub>i</sub>.  
 paper has he pink  
 As for paper, he has only a pink one.
- (12) Interesse<sub>i</sub> hat sie keines<sub>i</sub>.  
 interest has she none

As for interest, she has none in it.

- (13) \*Altes Fahrrad<sub>i</sub> will er keines<sub>i</sub>.  
 old bike wants he none  
 (As for an old bike, he wants none.)

In general, the topic phrase must be non-quantificational, and may only be modified by adjectives. As can be shown in (14), quantifiers and cardinals are excluded from the topic phrase.

- (14) \*[Manche/Viele/Wenige/Drei/Keine Häuser]<sub>i</sub> hat Arthur auch noch kleinere<sub>i</sub>  
 some/many/few/three/no houses has Arthur also still smaller  
 gesehen.  
 seen  
 (As for some/many/few/three/no houses, Arthur also has seen even smaller ones.)

Compare the grammatical examples where the whole noun phrase is topicalised, in (15).

- (15) [Manche/Viele/Wenige/Drei/Keine noch kleinere Häuser]<sub>i</sub> hat Arthur auch  
 some/many/few/three/no still smaller houses has Arthur also  
 noch t<sub>i</sub> gesehen.  
 still seen  
 As for some/many/few/three/no still smaller houses, Arthur has seen some, as well.

However, in Viennese German, one finds also the indefinite article *ein* in the topic phrase as in (16), and a bare singular (17):

- (16) (So) Einen Wagen kann sie sich heuer keinen neuen leisten.  
 (such) a car can she refl-3sg this-year none new afford  
 As for cars, she can't afford a new one this year.
- (17) Wagen kann sie sich heuer keinen leisten.  
 car can she refl-3sg this-year none afford  
 As for cars, she can't afford one this year.

In addition, a cardinal in the topic phrase is not ruled out:

- (18) Zwei Schweinderl hamma ganz junge kriagt.  
two piglets have-we very young got  
As for two pigs, we got very young ones.

We have found another peculiar construction in Viennese German, which could be best described as “ST inversion”: In the dialogue extraction (19), speaker B, a waiter, uses an adjective in the topic position followed by a kind noun in the Mittelfeld.<sup>1</sup>

- (19) a. A: Zwa Achtelen Rot.  
two eighth red  
Two glasses of red wine.  
b. B: Rot hob i an Zweigl, an Kabanee-Sowinoo, von Italien aufe, ...  
red have I a Zweigl a Cabarnet-Sauvignon from Italy up  
As for red (wines), I have (a bottle of) Zweigl, Cabarnet-Sauvignon - straight  
from Italy...

We think that this colloquial constructions deserves for a study in more depth, although we will not do so in this work where we will focus on “real STs”.

### 2.3 The MF phrase

In Standard German, the MF phrase might contain adjectives (20), indefinites (21) (except those that can only be used as pronouns like (22)), and cardinals (23). In general, it excludes expressions that express specificity.

- (20) Bücher liest er nur biologische.  
books reads he only biological  
As for books, he only reads the ones on biology.  
(21) Bücher kann er sich eines/keine/welche/einige/viele ausborgen.  
books can he refl-3sg one/none/some/several/many borrow  
As for books, he can borrow one/none/some/several/many.  
(22) \*Apotheker hat gestern jemand/niemand gekündigt.  
pharmacist has yesterday somebody/nobody recalled  
(As for the pharmacist, one/none gave his notice yesterday.)

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<sup>1</sup>Source: derstandard.at, 6th of January 2006, 19:32; “Mehrsprachig” – A Dramolette by Antonio Fian.

- (23) Bücher will ich mir morgen zwei ausborgen.  
books want I refl-1sg tomorrow two borrow  
As for books, I'll borrow two tomorrow.

In Viennese German and, we believe, in colloquial German in general, we also find that adjectives expressing specificity (24), deictic expressions and demonstratives (25), and even definites (26), are possible in the MF phrase.

- (24) Hamster such ich für meine Kleine einen ganz besonderen.  
hamster search I for my little one very special  
As for hamsters, I am looking for a special one for my little daughter.
- (25) Hamster hab ich nur diesen/den einen da gefüttert.  
hamster have I only this the one there fed  
As for hamsters, I only fed this one.
- (26) Hamster hab ich nur den braunen gefüttert.  
hamster have I only the brown fed  
As for hamsters, I only fed the brown one.

In addition, the MF phrase might contain also an overt noun, which is totally out in Standard German.<sup>2</sup> This will be a challenge for approaches that assume an empty category within the MF phrase, as we will later see. Consider

- (27) Hund hat Bernd einen Dackel.  
dog has Bernd a dachshund  
As for dogs, Bernd has a dachshund.
- (28) Was Hunde angeht, hat Bernd einen Dackel.  
what dogs concern has Bernd a dachshund  
As for dogs, Bernd has a dachshund.

---

<sup>2</sup>Similar constructions can be observed in various languages, see (1) and (2). Both the overtly marked topical expression and the MF phrase can bear a noun.

1. Shuiguo, wo zui xihuan xianjiao. (Chinese)  
fruit, I most like banana  
As for fruit, I like bananas most.
2.  $\overline{VEGETABLE}^{tm2}$ , JOHN LIKE CORN. (ASL)  
vegetable John like corn  
As for vegetables, John likes corn.

For a discussion about American Sign Language and its three different topical markers, cf. Aarons (1994).



In Standard German, (28) would have to be employed. Conversely, colloquial German would rarely make use of this construction. In general, ST and “*was XP angeht*”-sentences differ in the contextual saliency of the topic: The former requires a highly salient topic, but the latter does not and can be uttered just “out of the blue”.

## 2.4 Argument Structure

Another peculiarity of STs is the fact that two phrases - one in the topic, one in the Mittelfeld - belong to the same verb complement and hence realise a single underlying argument. This clearly contradicts the widely assumed analysis of thematic roles according to which every thematic role can only be assigned to one argument (cf.  $\theta$ -Criterion, Chomsky (1981)). As for STs, the topic expression is in a position where theoretically no  $\theta$ -role can be assigned. In chapter 4, we will propose that by chain formation the  $\theta$ -role that is assigned to the MF phrase, is percolated to the topic phrase. Likewise, agreement features can be shared by two chain nodes.

In Standard German, the two ST phrases must agree in case, gender, and number. Colloquial speech may allow for missing number agreement, if a plural topic phrase is followed by a singular MF phrase (29). A singular topic followed by a plural is ungrammatical (30).

- (29) Bücher hat er gerade mal eins veröffentlicht.  
books has he just once one published  
As for books, he published just one.

- (30) \*Buch hat er gerade mal zwei veröffentlicht.  
book has he just once two published  
(As for books, he published just two.)

However, missing case agreement in the topic phrase is unacceptable both in colloquial and in Standard German (31).

- (31) Einer/\*eine noch älteren/\*ältere Schildkröte bin ich noch keiner begegnet.  
a even older turtle am I yet none met  
(As for an even older turtle, I haven't met any until now.)

The obligatoriness of case can be also observed with split PPs. In (32) the preposition is

obligatory in the MF and the topic phrase. It seems, hence, that the topic phrase needs a nearby preposition in order to get assigned case when not morphologically marked.<sup>3</sup>

- (32) \*(Mit) Mädchen hat er mit vielen getanzt  
 with girls has he with many danced  
 As for girls, he has danced with many.

Further, the ST can bear nominative (33), dative (34), and accusative case (35). We do not fully exclude phrases, that are direct verbal complements, but consider their use antiquated; this is also the case in Standard German.<sup>4</sup> In Viennese German, the genitive case is paraphrased by a complex prepositional phrase and would yield (36). Extraction of the genitive complement out of the MF phrase is not grammatical, see (37).

- (33) Nachbarn haben mich keine gesehen. NOM  
 neighbours have me none seen  
 As for neighbours, nobody have seen me.

- (34) Intuitionen vertraue ich nur meinen eigenen. DAT  
 intuitions rely I only my own  
 As for intuitions, I only rely on my own ones.

- (35) Nachbarn habe ich keine gesehen. ACC  
 neighbours have I none seen  
 As for neighbours, I did not see any.

- (36) Von den Nachbarn hab ich von den neuen ihre Äpfel gekostet.  
 from the neighbours have I from the new their apples tasted

---

<sup>3</sup>Recall that in Northern German varieties, but not in Viennese German, preposition stranding is allowed. A stranded (or orphaned) preposition is one which has been separated from its complement (by movement of the complement).

1. Da<sub>i</sub> habe ich viel e<sub>i</sub> von gehört.  
 there have I much of heard  
 I have heard a lot about it.

<sup>4</sup>An example would be *eingedenk sein* (remembering), which requires a genitive complement.

1. Toten sind sie ihrer geliebten eingedenk.  
 dead are they their beloved remembering  
 As for the dead, they remember their beloved ones.

As for our new neighbours, I tasted their apples.

- (37) \*Nachbarn<sub>i</sub> hab ich Äpfel [unserer neuen]<sub>i</sub> gekostet.  
neighbours have I apples our new cost  
As for our new neighbours, I tasted their apples.

Another issue related to the argumental structure of ST is the structural autonomy of both phrases. In German, a strong form must be chosen when the determiner is followed by a lexically empty head. This property is attributed to languages of declension type.<sup>5</sup> In STs, the MF phrase always bears strong morphological forms as exemplified by the obligatory strong ending in (38). When followed by a overtly realized head, the inflection must be weak (39).

- (38) Ein Schwimmbad hat Elfi sich noch keins/ \*kein gebaut.  
a swimming-pool has Elfi refl-3sg still none-Strong none-Weak bought  
As for a swimming-pool, Elfi hasn't built one yet.

- (39) Elfi hat sich noch kein Schwimmbad gebaut.

Note, that elliptical constructions display the same pattern (40). As for Standard German, the topic and MF phrase of ST must occur independently as well-formed NPs. In Viennese German, this seems to be true only true for the MF phrase, because the topic phrase allows for a bare singular as well.

- (40) Elfi hat sich noch keins/\*kein gebaut.

## 2.5 Syntax

### 2.5.1 Island Effects

In this section we will explore whether there are restrictions on the kind of phrase nodes that appear between the topic and the MF phrase.<sup>6</sup> As observable in colloquial

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<sup>5</sup>In English, by contrast, the missing noun must be replaced by “ones“ or - if available - by a strong pronoun form like “mine“ instead of “my“.

<sup>6</sup>Especially in colloquial speech we often find phrases that are inserted and usually express the speaker's attitude towards the proposition. These are parentheticals and are not regarded as part of the main clause, hence do not count as intervening elements. Consider

registers, ST is acceptable with subordinate clauses, where CP intervenes between the topic and the MF phrase.

- (41) [Unbeschädigte Exemplare]<sub>i</sub> glaube ich e<sub>i</sub>, [<sub>CP</sub>dass ich nur noch zwei<sub>i</sub> auf  
undamaged copies believe I that I only still two in  
Vorrat habe].  
stock have  
As for undamaged copies, I think that I have only two left in stock.

In the colloquial example the MF phrase is located within a subordinate phrase introduced by *dass*, the overt head of a CP.

However, ST shows some sensitivity to islands. A structure is called island if no subpart can be extracted out of it (Ross (1967)). Still, it has been noted that there are differences in acceptability when extracting out of islands: Some, like wh-islands are weak, while others, like adjuncts, subject clauses, and complex NPs, are strong. As for STs, extraction out of islands has been regarded ungrammatical in Riemsdijk (1989) and Kuhn (1997) in Northern German varieties. In this section, we will see that this is only partly true for Viennese German.

Let's start with weak islands: As the grammatical examples (42)-(45) show, extraction is possible despite an intervening wh-phrase (in italic font).

- (42) [Unbeschädigte Exemplare]<sub>i</sub> weiss ich, *welches Buchgeschäft* noch  
undamaged copies know I which book-shop  
welche<sub>i</sub> übrig hat.  
still some left-over has  
As for undamaged copies, I know which book-shop has still some left-overs.
- (43) Neue Bücher<sub>i</sub> weiss ich, *wer* noch zwei<sub>i</sub> hat.  
new books know I who still two has  
As for new books, I know who has still two.
- (44) Kunstbücher<sub>i</sub> weiss ich, *wie/wo* man billige<sub>i</sub> bestellen kann.  
art-books know I how/where one cheap order can  
As for books on art, I know that/how/where you can order cheap ones.

---

1. Ein Wörterbuch habe ich - das weiss ich - noch keines gekriegt.  
a dictionary have I that know I still none received  
As for a dictionary, I know, I haven't received one yet.

- (45) Kunstbücher<sub>i</sub> weiss ich, *wie/wo* uns welche<sub>i</sub> gefallen werden.  
 art-books know I how/where us some please will  
 As for books on art, I know that you will like some.

Now, we turn to several strong types of islands. Consider extraction of a topic phrase out of complex NPs in (47), and, for comparison, a Left Dislocation construction (LD) in (46) (“RP” stands for Resumptive Pronoun).

- (46) [Den Studenten]<sub>i</sub>, Stefan kennt [<sub>acc</sub>das Mädchen, das den<sub>i</sub> geheiratet hat].  
 the student Stefan knows the girl who him-RP married has  
 As for the student, Stefan knows the girl who married him.
- (47) \*Rosen<sub>i</sub> kennt Stefan [<sub>acc</sub>das Mädchen, das rote<sub>i</sub> bekommen hat].  
 roses knows Stefan the girl who red got has  
 (As for roses, Stefan knows the girl who got some.)

LDs are insensitive to complex NPs islands, because the extracted item is Discourse-linked (Pesetsky (1987)) and because there is a resumptive pronoun in the main clause.<sup>7</sup> As for ST, acceptability seems to be connected to the referentiality of the Complex Noun Phrase island: (47) is ungrammatical, but (48) is not.

- (48) ?Eine Lösung kenne ich [<sub>acc</sub>keinen/jemanden, der eine bessere<sub>i</sub> hat als ich].  
 a solution know I none/somebody who a better has than I  
 As for a solution, I don’t know of any who has a better one than I.

It seems then, that extraction out of strong islands gets better, if the CNP contains a non-specific indefinite expression (*keinen/jemanden*) instead of a specific definite expression (*das Mädchen*).

Adjunct clauses are also strong islands for ST. For illustration, consider LD in (49) and its ungrammatical ST counterpart in (50):

- (49) [Den Studenten]<sub>i</sub>, [<sub>adj</sub>nachdem Sonja den<sub>i</sub> rausgeschmissen hatte], ging es  
 the student after Sonja him-RP thrown-out had went it  
 ihr viel besser.  
 her much better  
 As for the student, after Sonja had thrown him out, she felt much better.

---

<sup>7</sup>It has been noted that weak islands allow more easily for violation of the island constraint, if the extracted item is a D-linked DP.

- (50) \*Rosen<sub>i</sub>, [<sub>adj</sub>nachdem Sonja rote bekommen hatte], ging es ihr viel besser.  
 roses after Sonja red got had went it her much better  
 (As for roses, after Sonja had got some, she felt much better.)

Extraction out of complements has also been regarded to produce strong island effects. As the example demonstrates, this yields no ungrammaticality with STs:

- (51) [Eine Lösung]<sub>i</sub> hat er [<sub>compl</sub>für das Problem]<sub>j</sub> bis jetzt noch keine<sub>i</sub> t<sub>j</sub>  
 a solution has he for the problem until now yet none  
 gefunden.  
 found  
 As for a solution, he hasn't found any for the problem until now.

As the complement phrase *für das Problem* may intervene between the topic phrase and the MF phrase, STs are shown to be insensitive for this type of island. Still, this behavior can also be attributed to the fact that German easily applies scrambling within the Mittelfeld. Likewise, extraction out of subject complements is grammatical, as (52) shows. The subject of the example is *Briefe von Karin*, and the prepositional phrase has been extracted out of the subject phrase.

- (52) Briefe haben mich von Karin keine erschreckt.  
 letters have me from Karin none frightened  
 As for letters, none of Karin did frightened me.

Comparing the ST example (52) with a simple topicalization example (53), we observe the same sort of extraction:

- (53) ?Von Karin haben mich keine Briefe erschreckt.  
 from Karin have me none letters frightened  
 No letters from Karin have frightened me.

Crucially, the latter example was judged ungrammatical by Fanselow (Fanselow (1988)), and taken as an argument for the contrast between ST, which does not have to respect islands, and moved constituents, which have to respect islands. By contrast, we do not judge (53) ungrammatical, but rather infelicitous in Standard German.

A strong island that causes ungrammaticality, is a subject clause. Unlike LD, see (54), ST seems to be sensitive to this kind of island, see (55).

- (54) [Den Studenten]<sub>*i*</sub>, [<sub>*subj*</sub>dass Arthur den<sub>*i*</sub> liebt], hätte beinahe die  
 the student that Arthur him-RP loves would-have nearly the  
 ganze Familie ruiniert.  
 whole family ruined  
 As for the student, that Arthur loves him, nearly ruined the whole family.
- (55) \*Rosen<sub>*i*</sub>, [<sub>*subj*</sub>dass Arthur nur teure mag], hätte Hans beinahe  
 roses that Arthur only expensive likes would-have Hans nearly  
 ruiniert.  
 ruined  
 (As for roses, that Arthur loves only expensive ones, nearly ruined Hans.)

Note that the ungrammaticality of (55) has also to do with the violated V2 constraint, because the topic phrase is followed by a subject clause instead of the main verb. We suggest that for ST, extraction out of subject clauses which contain CP as the maximal projection (cf. 55) is ungrammatical and a case of island violation, while extraction out of subject phrases with DP as its maximal projection (cf. 52) is not restricted.

### 2.5.2 Parasitic Gaps

As might be expected, parasitic gaps are allowed in ST constructions. A gap is parasitic, if it must be licensed by the occurrence of another empty category in the sentence.<sup>8</sup>

Considering (56), the topic phrase is not only interpreted as the binder of the direct object trace of *heimgeschickt*, but also as the licenser of the direct object and parasitic gap *pg<sub>*i*</sub>* of *anzuschauen*. The marginality of the example suggests, that not all parasitic gaps are easily licensed in STs.

- (56) ?Patienten<sub>*i*</sub> hat der Arzt ohne *pg<sub>*i*</sub>* anzuschauen viele<sub>*i*</sub> wieder *t<sub>*i*</sub>*  
 patients has the doctor without to-examine many again  
 heimgeschickt.  
 sent-home

As for patients, the doctor has sent them home without having them examined.

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<sup>8</sup>Briefly, a gap is parasitic if it cannot exist without the existence of another “real” gap. This phenomenon has been early discussed in Ross (1967), and recently in Culicover (2001). The latter has formulated some generalizations, e.g. that the antecedent of a parasitic gap must be in an A-bar position and an NP, that the “true” gap cannot c-command the parasitic gap, and that the parasitic gap is in a chain with the antecedent of the “true” gap. For an analysis of parasitic gaps in Southern German clause structure, we refer to Lutz (2004).

In (57), the parasitic gap is licensed in an adjunct clause:

- (57) Semmeln<sub>i</sub> soll er, wenn er *pg<sub>i</sub>* findet, doch selbst *t<sub>i</sub>* kaufen.  
bread-rolls should he if he fresh finds surely refl-3sg some buy  
As for bread rolls, if he finds fresh ones, then he should buy some by himself.

We can modify the parasitic gap by an anaphoric phrase like *frische* (fresh), which gets licensed by the anaphoric phrase *some*. This indicates that the topic phrase *Semmeln* can serve as a binder of both the parasitic gap and the object trace.

- (58) Semmeln<sub>i</sub> soll er, wenn er frische *pg<sub>i</sub>* findet, doch selbst welche<sub>i</sub> kaufen.

Similarly, the example in (59) shows that parasitic gaps can also be licensed if they show up in a complex NP, in this case a subject relative clause.

- (59) Semmeln<sub>i</sub> holt [<sub>subj</sub>der Stefan, der zum Frühstück ja immer die meisten  
bread-rolls fetchs the Stefan who to-the breakfast yes always the most  
*pg<sub>i</sub>* verschlingt], gerade welche<sub>i</sub> vom Bäcker).  
devours now some from-the bakery  
As for bread-rolls, Stefan who actually swallows most of them for breakfast is  
getting some from the bakery right now.

Note, that the V2 constraint is not violated, because the main verb of the main clause immediately follows the topic phrase.

### 2.5.3 Binding

Reconstruction effects are typically attributed to movement operations, but, as we will propose in chapter 4, can also be explained in terms of chain formation (cf. Chomsky (1986b)). In order to calculate e.g. the proper antecedent of an anaphor, reconstructing the antecedent into its base position is necessary.<sup>9</sup> ST show reconstruction effects, when

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<sup>9</sup>Movement to A-bar-positions is said to always produce reconstruction effects. Binding principles apply in different ways depending on whether reflexive/reciprocal anaphors, nonreflexive pronouns, or R-expressions (“nonpronouns”) are affected. To say that one constituent X binds another constituent Y (and conversely, that Y is bound by X) is to say that X determines properties (e.g. referential properties) of Y. The C-command condition on binding says that a bound form must be c-commanded by its antecedent.



the topic phrase contains an expression subject to binding principles, whose antecedent is located on its right. Consider first (60), where the referent of the reciprocal expression *einander* in the topic phrase can only be resolved if it takes the following *uns* as its coreferent. A reflexive or reciprocal anaphor must be bound in its local domain. In order to be properly bound, the anaphor must be reconstructed within VP.

- (60) [Bücher von einander<sub>i</sub>]<sub>j</sub> sind uns<sub>i</sub> keine<sub>j</sub> bekannt.  
 books of each-other are us none known  
 As for books of each other, we don't know of any.

If the topic phrase contains a pronominal (i.e. nonreflexive pronoun) as in (61), it must be interpreted as not being coreferential with Lara because it must not be bound in its local domain. Reconstruction of the topic phrase would cause the antecedent Lara to bind the pronoun *ihr*.

- (61) \*[Bücher von ihr<sub>i</sub>]<sub>j</sub> hat Lara<sub>i</sub> keine<sub>j</sub> im Schrank.  
 books of her has Lara none in-the shelf  
 (As for her books, Lara has none on the shelf.)

Likewise, the referential expression Lara has to be free in (62), and cannot be coreferential with the pronouns *sie* or *ihre*.

- (62) [Bücher von Lara<sub>i</sub>]<sub>j</sub> hat \*sie/??ihre<sub>i</sub> Mutter keine<sub>j</sub> im Schrank.  
 books of Lara has she/her mother none in-the shelf  
 (As for books of Lara, she/her mother has none on the shelf.)

#### 2.5.4 Serialization of Adjectives

Riemsdijk (1989) proposes an argument for movement based on multiple adjectives that are serialized. (63) shows the canonical order of multiple adjectives:

- (63) diese drei neuen amerikanischen Autos  
 these three new American cars  
 Demonstr. > Number > Adj. > Proper Noun Adj. > Noun

(64) would be acceptable, because the canonical order of serialized has been adopted, while the example in (65) has been regarded infelicitous.

- (64) Ein amerikanisches Auto kann ich mir kein neues leisten.  
a American car can I refl-1sg none new afford  
As for an American car, I can't afford a new one.
- (65) ?Neues Auto kann ich mir kein amerikanisches leisten.

What matters, we believe, is that the topic phrase describes a set - e.g. of American cars - that is taken up and intersected by another set described by the MF phrase - e.g. of new things. In that sense, (64) and (65) differ in the speaker's instructions of what should be intersected with what. (65) could then have a reading where new cars are intersected with being American. It cannot be regarded ungrammatical, but only pragmatically odd.

## 2.6 Semantics

As we have seen earlier, the topic phrase of ST must be non-quantificational. We will later argue that the topic phrase is semantically incorporated to the verb and that it therefore has to denote a property or kind. The meaning of the MF phrase in Standard German is restricted to quantifiers, properties, and indefinite pronouns like *welche* (some). But, in Viennese German the MF phrase is not restricted to indefinites but may also denote an individual via a definite or a deictic expression.

### 2.6.1 *ein-* and *welch-*

We devote this section to some peculiar observations on the available interpretations of *ein-* and *welch-*. These have to do with the fact that the indefinite singular article *ein-* is ambiguous between an indefinite and a cardinal reading. Disambiguation can be achieved e.g. by stress: If *ein-* bears stress or is modifiable by *nur* (only), it gets only the cardinal reading. Otherwise, it is an indefinite, and gets either a property or kind reading, or an existential reading.

Unlike in Standard German, Viennese German STs may bear the article *ein* in the topic phrase. If this is the case, it can never get the cardinal reading, see (66), and the noun phrase only gets a kind reading. If the article is stressed in the topic phrase, only the taxonomic "sub-kind" reading arises, see (67).

- (66) Nur ein AUTO kann sie sich heuer KEINES leisten.  
 only a car can she refl-3sg this-year none afford  
 Only a car, she cannot afford this year.
- (67) Nur EIN Auto kann sie sich heuer keines leisten, nämlich einen  
 only one car can she refl-3sg this-year none afford namely a  
 Mercedes.  
 Mercedes  
 Only one (kind of) car she cannot afford this year: a Mercedes.

As for the MF phrase, both readings of *ein* are available: As an indefinite in (68), or as a cardinal in (69).

- (68) AUTO kann sie sich heuer SCHON eines leisten.  
 car can she refl-3sg this-year indeed one afford  
 As for a car, she can afford one this year.
- (69) AUTO kann sie sich heuer nur EINES leisten.  
 car can she refl-3sg this-year only one afford  
 As for a car, she can afford only one this year.

Similarly, ambiguity can be observed with the indefinite pronoun *welch-*. It can be used either as a wh-word (“which NP”) or an indefinite pronoun (“some”) depending on the syntactic context in which it occurs. In a ST construction like (70), it gets only the indefinite existential reading:

- (70) Unbeschädigte Exemplare habe ich kaum noch welche.  
 undamaged copies have I hardly still some.  
 As for undamaged copies, I hardly have any left.

In the Mittelfeld of a question (71), it is not possible to use *welch-* as a wh-word, but instead has to be replaced by *irgendwelch-*.

- (71) Hast du irgendwelche/ \*welche unbeschädigten Exemplare?  
 have you any some undamaged copies  
 Do you have any undamaged copies?

In a raised position, like in the question (72), it must be interpreted as a wh-word.<sup>10</sup>

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<sup>10</sup>Note that the wh-word *welch-* poses a question about the quality of an element instead of the mere existence of an element. It hence requires a complementary answer, as opposed to a yes/no-answer.

- (72) Welche unbeschädigten Exemplare hast du?  
which undamaged copies have you  
Which undamaged copies do you have?

With ST (73), *welch-* in the topic phrase is not grammatical, which could be explained in that only an interrogative reading is available in this position.

- (73) \*Welche Exemplare habe ich kaum noch unbeschädigte.  
which copies have I hardly still undamaged.  
As for undamaged copies, I hardly have some left.

### 2.6.2 The choice of predicates

According to Carlson (1977), stage-level predicates (SLP) denote (more or less) temporal states and individual-level predicates (ILP) denote permanent states. Diesing (1992) observes that STs are compatible with a SLP, but not with an ILP. Consider ST with a SLP in (74), and an ILP in (75):

- (74) Wildschweine sind viele draussen im Wald.  
wild-boars are many outside in-the wood  
As for wild boars, there are many outside in the woods.
- (75) ?Wildschweine sind viele gescheit.  
wild-boars are many intelligent  
(As for wild boars, many are intelligent.)

However, we do not regard the example (75) ungrammatical, as Diesing would. Rather, the ILP in (75) triggers a taxonomic reading of *Wildschweine*, which is not the case for the SLP in (74). Now, take the Viennese example (76) with a definite MF phrase, which translates into a generic statement about wild boars.

- (76) Wildschweine sind die meisten gescheit.  
wild-boars are the most intelligent  
As for wild boars, most are intelligent.

What matters, we think, is the intonation contour that must be adopted if a generic reading is forced. This can be seen with MF phrases that appear in a scrambled position before sentential adverbs, which are interpreted generically and must bear a

rising accent. The root accent ( $\checkmark$ ) is typical for contrastive readings, as we will later see.

- (77)  $\checkmark$ WILDschweine sind /VIEle normalerweise \DRAUssen im Wald.  
wild-boars are many normally outside in-the wood  
As for wild boars, usually, there are many outside in the woods.
- (78)  $\checkmark$ WILDschweine sind /VIEle normalerweise \geSCHEIT.  
wild-boars are many normally intelligent  
As for wild boars, usually, many are intelligent.
- (79)  $\checkmark$ WILDschweine sind die /MEIsten normalerweise \geSCHEIT.  
wild-boars are the most normally intelligent  
As for wild boars, usually, most are intelligent.

Still, as this intonational requirement can only be transmitted in oral language, Individual-level predicates in ST might occur only in colloquial non-Standard German.

### 2.6.3 Scope Ambiguity

Scope ambiguities can be observed with ST for the MF phrase, which can take either wide or narrow scope with respect to other quantifiers. The topic phrase, by contrast, is always scopeless.

Consider (80) and (81), two “canonical” sentences with two quantificational expressions, in which the object can receive either narrow or wide scope. We can disambiguate the object toward a narrow scope non-specific reading by accentuating the noun of the object as in (80). Otherwise, the wide scope specific reading can be achieved by stressing the determiner, as in (81).

- (80) [Alle Studenten] müssen [ein BUCH] lesen.  $\forall \exists$   
all students must a book read  
All students must read a book.
- (81) [Alle Studenten] müssen [EIN Buch] lesen.  $\exists \forall$

STs also manifest a wide or narrow scope reading depending on the intonation contour. In (82), the MF phrase *eins* is unstressed and gets narrow scope with respect to the quantifier *alle*. By contrast, it gets wide scope if *eins* is stressed, and this is the reading

we get under the “typical” intonation contour of ST where the focus is contrastive. The intonation of the topic NP phrase must not be altered, and as it denotes a scopeless property, it has no influence on scope assignment.

(82)  $\sqrt{\text{BUCH}}$  müssen  $\backslash$ ALLE Studenten eins lesen.  $\forall \exists$

(83)  $\sqrt{\text{BUCH}}$  müssen  $\sqrt{\text{ALLE}}$  Studenten  $\backslash$ EINS lesen.  $\exists \forall$

Crucially, if the topic phrase contains a stressed singular article as in (84), it cannot have scope over another quantifier, nor is its taxonomic reading available. This indicates that the topic phrase is scopeless.

(84) ??EIN Buch müssen  $\backslash$ ALLE Studenten eins lesen. (?? $\exists \forall$ )

Stressing the noun of the topic phrase as in (85), by contrast, yields an acceptable sentence, where the topic phrase denotes a kind, and where the quantifier *alle* has widest scope.

(85) Ein BUCH müssen  $\backslash$ ALLE Studenten eins lesen.  $\forall \exists$

The general claim that changes in intonation lead to scope inversion (cf. Krifka (1998)) can also be stated for ST, but only for the MF phrase, because the topic phrase takes no scope at all. We observed that under the typical intonation pattern of ST, i.e. a rising “root” pitch accent on the topic phrase and a falling one on the MF phrase, the MF phrase has scope over another quantifier:

(86)  $Q2 > Q1$ :  $[_{Top} \sqrt{XP}_i]$   $Q1 \dots$   $[_{MF} \backslash Q2_i]$

(87)  $Q1 > Q2$ :  $[_{Top} \sqrt{XP}_i]$   $\backslash Q1 \dots$   $[_{MF} Q2_i]$

If the MF phrase has no special accent, and e.g. another constituent gets assigned the rising accent, the scope is inversed: Then, it is the MF phrase that has narrow scope.

#### 2.6.4 Collective and Distributive readings

An issue that is connected to the discussion on scope ambiguity regards distributive and collective readings: Nakanishi (ress) observes a difference between distributive

“1-to-many” and collective “many-to-many” readings in STs. She argues that, while in (88) both a distributive reading (“each of the three girls built a boat”) and a collective reading (“together, three girls built a boat”) are available, STs have only a distributive reading, see (89).

(88) Drei Mädchen haben ein Boot gebaut. (3 boats, 3 girls; 1 boat, 3 girls)  
 three girls have a boat built  
 Three girls built a boat.

(89) Mädchen haben drei ein Boot gebaut. (1 boat, 3 girls)  
 girls have three a boat built  
 As for girls, three built a boat.

We partially agree in that the typical intonation contour of STs triggers a distributive reading, because the MF phrase is contrastive. But, we want to point out that changes in intonation may alter the interpretation. Consider again the ST example (89), but with a slightly change in intonation: In (90), with an intonation contour typically found in STs, the distributive reading arises.

(90) √MÄDCHEN haben \DREI ein Boot gebaut. (3 boats, 3 girls)  
 girls have three a boat built  
 As for girls, three built a boat.

By slightly modifying the intonation, like in (91), where the falling accent is on the boat, the collective reading arises.

(91) √MÄDCHEN haben √DREI ein \BOOT gebaut. (1 boat, 3 girls)

For the purpose of this work, the issue of intonation is too complex to be discussed at length, and we refer to e.g. Büring (1997b,a) for an extensive analysis of how intonation may interact with interpretations.

### 2.6.5 Quantifier Floating: *alle* and *ganz*

At first sight, quantifier floating constructions like those in (92) and (93) resemble STs, because a quantifier is separated or “split” from the expression it quantifies.

- (92) Die Erdbeeren hat er (fast) alle aufgegegessen  
the strawberries has he (nearly) all up-eaten  
He ate (nearly) all the strawberries.
- (93) Die Melone hat er (fast) ganz aufgegegessen.  
the melon has he (nearly) whole up-eaten  
He ate (nearly) the whole melon.

Crucially, they differ from ST in that the topic phrase is a definite expression. Moreover, the quantifier must be universal, i.e. *all-* for plural antecedents (92), or the -rather colloquial- *ganz-* for singular antecedents (93). In Standard German, STs with *alle* and *ganz* are not acceptable, see (94) and (95).

- (94) \*Erdbeeren hat er (fast) alle aufgegegessen.  
(95) \*Melone hat er (fast) ganz aufgegegessen.

One reason is the “universal” character of the quantifiers: They presuppose the existence of a specific set of strawberries or the entity melon, which a bare singular or bare plural can’t provide. However, in Viennese German, ST may occur also with *alle*:

- (96) Süßigkeiten find ich alle gut.  
sweets consider I all good  
As for sweets, I like them all.

It seems, that the use of *alle* is restricted to generic readings and to ILP, as the ungrammaticality of (97) with a SLP, demonstrates.

- (97) \*Süßigkeiten hab ich alle aufgegegessen.  
sweets have I all eaten-up  
(As for sweets, I ate them all.)

## 2.7 Pragmatics and Word Order

Typically, the topic phrase conveys contrastive and discourse-old information, while the MF phrase conveys (possibly) contrastive and discourse-new information. The contrastive topic bears a small fall followed by a rising pitch accent, for which we will use the root symbol “√”. The MF phrase, if contrastive, bears a falling accent (“\”).



This intonation pattern was named the Suspension-Bridge contour in Bolinger (1961). The construction that is expressed by this contour has been subsumed under the term Intonational Topicalization (Jacobs (1997)) and is associated with the phenomenon of scope inversion, cf. Jacobs (1991), Krifka (1998).

Consider (98), where beer is competing with other possible topics and invokes an alternative set of drinks like “Juice, Absinth, Water”, from which the speaker has chosen beer. The MF phrase *keins* is part of the new information and its contrastiveness indicates that there is an alternative set like “none, one, two, Bavarian, dark”.

- (98) [<sub>Old</sub>√BIER] mag ich so früh noch [<sub>New</sub>\KEINS].  
beer want I so early yet none  
As for beer, I don't like any at this early hour.

- (99) √TOURISTEN kommen immer nur \CHINESISCHE her, aber  
tourists come always only Chinese verb-prt but  
√JAPANISCHE eher \SELTEN.  
Japanese rather seldom  
As for tourists, Chinese always come here, but Japanese come rather seldom.

As (99) shows, STs can be associated with an adversative implicature, cf. Bolinger (1961); Rooth (1992); Jacobs (1997). There are also examples of ST where the MF phrase is not contrastive (100), or more than one MF phrase is present (101).

- (100) [<sub>Old</sub>√BIER] \MAG ich eins.  
beer want I one  
As for beer, I'd like one.

- (101) [<sub>Old</sub>√WEIN] hab ich √roten diesmal \KEINEN getrunken.  
wine have I red this-time none drunk  
As for red wine, this time I drank none.

These examples show that the MF phrase is neither necessarily contrastive nor gets always a rising accent. In (100), the contrastive focus is shifted to the verb. In (101) only the last MF phrase *keinen* bears a falling accent, whereas the MF phrase *roten* bears a root accent.

For now, we have only presented examples of ST in main clauses, which in German are characterized by the main verb being in second position. However, as e.g. Frey

(2000) notes, the topic phrase may appear not only clause-externally but also within the Mittelfeld of subordinate clauses, characterized by the main verb being in the last position.<sup>11</sup> As shown in (102), the described word order is only acceptable in colloquial German. The topic phrase appears within the Mittelfeld of the main clause, and the sentence must bear the typical fall-rise contour:

- (102) Er hat ein √AUTO sich noch \NIE ein gescheites leisten können.  
 he has a car refl-3sg yet never a proper afford could  
 He never could afford any proper car.

Frey argues, that for ST in subordinate Verb-last sentences, the topic phrase has to occur in front of a sentential adverb like *leider*:

- (103) ... weil Paul √HEMDEN<sub>i</sub> leider nur \BLAUE<sub>i</sub> gekauft hat.  
 since Paul shirts unfortunately only blue bought has  
 Since, as for shirts, Paul unfortunately only bought blue ones.

If the topic phrase appear after the sentential adverb, the sentence is unacceptable, see (104). The MF phrase cannot occur before the sentential adverb, as the unacceptability of (105) shows.<sup>12</sup>

- (104) \* ... weil Paul leider Hemden<sub>i</sub> nur blaue<sub>i</sub> gekauft hat.  
 (105) \* ... weil Paul Hemden<sub>i</sub> nur blaue<sub>i</sub> leider gekauft hat.

If the MF phrase is scrambled, the adverb can only be interpreted as modifying the verb but not the MF phrase:

- (106) ... weil Paul √HEMDEN √BLAUE leider \GEKAUFT hat.

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<sup>11</sup>Frey argues that generally a topic is not confined to a position in the Vorfeld, but that there is also a topic position within the Mittelfeld.

<sup>12</sup>As for quantifier floating constructions, discussed above, scrambling of the MF phrase is possible:

1. Er hat (offenbar) die Zigaretten (offenbar) alle vier (offenbar) geraucht.  
 he has probably the cigarettes all four smoked  
 Probably, he smoked each of the four cigarettes.

Note, that the intonation changes as well: Only the verb gets the falling accent, whereas the topic and the MF phrase get a rising accent.

There may be also multiple instances of STs in one sentence, as has been pointed out in Fanselow and Cavar (2002):

- (107) Sonaten<sub>i</sub> haben Frauen<sub>j</sub> bislang nur wenige<sub>j</sub> welche<sub>i</sub> geschrieben.  
 sonatas have women up-to-now only few some written  
 As for sonatas, only few women have composed some, up to now.

Note, that the MF phrases cannot be interpreted as being scrambled, see (108).

- (108) \*Sonaten<sub>i</sub> haben Frauen<sub>j</sub> bislang nur wenige<sub>i</sub> welche<sub>j</sub> geschrieben.

## 2.8 Summary

In this chapter we have presented examples for STs in Standard German and non-Standard German, especially Viennese German. Unsurprisingly, Standard German allows for less variety than colloquial German, which offers a bigger choice of possible and acceptable structures. Consequently, we will summarize our main observations. As for syntactic patterns, we repeat here the properties for Standard German and Viennese German:

	Standard German	non-Standard German
topic phrase	Bare Plurals, Mass Nouns, abstracta; no determiners	PLUS: <i>ein-</i> , Bare Singulars, ?cardinals
MF phrase	Adjectives, indefinites, cardinals	PLUS: demonstratives, definites, overt nouns
Agreement	case, number, gender	case, gender; Prepositions
parasitic gaps	marginal	yes
island sensitive	yes	only strong islands

**Table 2.1:** *Properties of ST in Standard vs non-Standard German*

We concur with Dayal (2003), in that a raised NP always loses its specific reading, but may preserve contrast, which is observable also for the topic phrase of ST. The MF phrase, as we have observed for non-Standard German, may be indefinite or definite and consequently specific or non-specific, whereas in Standard German ST it has to be

indefinite and non-specific. To summarize, the following holds for ST:

(109) Standard German: [*topic* [-spec,+contrast] ... [*MF* [-spec][±contrast]].

(110) non-Standard German: [*topic* [-spec,+contrast] ... [*MF* [±spec][±contrast]]

We have seen, that in Viennese German the choice of predicate does not affect the grammaticality of ST, but rather influences on whether the topic phrase gets a kind or taxonomic reading.

Further, we have observed that the topic phrase is always scopeless, while the MF phrase may interact with other quantifiers and receive wide or narrow scope. Intonation plays a major role in scope assignment, which we have summarized as follows:

(111) Q2 > Q1: [*Top* √XP<sub>*i*</sub>] Q1... [*MF* \Q2<sub>*i*</sub>]

(112) Q1 > Q2: [*Top* √XP<sub>*i*</sub>] \Q1... [*MF* Q2<sub>*i*</sub>]

Typically, the topic phrase is contrastive and denotes discourse-old information, while the MF phrase may be non-contrastive or contrastive and denotes discourse-new information. The contrastive topic bears the “root” contour. The MF phrase, when contrastive, bears a falling accent; otherwise it may have a rising or neutral accent.

In the next chapter, we will see how previous accounts have explained the ST facts, and discuss their applicability to the Viennese variant.

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# Chapter 3

## Previous accounts

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In this chapter we will critically review previous accounts of ST. The early syntactic accounts can be divided into ones that treat the topic phrase as having moved (or extracted), and into ones that assume base generation of both constituents. In section 3.1 we will discuss formal syntactic accounts for both types of analysis. In section 3.2, we will look at analyses that focus on the semantic nature of STs.

### 3.1 Syntactic Accounts

The syntactic approaches for ST mainly address the issue of whether the split topic phrase get into its position by movement or base generation. Assuming one or the other of these has different consequences for the kind of relationship there is between the topic and the MF phrase. Movement leaves a gap in the MF phrase, represented as a trace, and is subject to a series of restrictions on the path taken. In section 3.1.1, we will discuss the movement approach proposed by ?, which uses the Government and Binding (GB) framework (Chomsky (1981)). If base generation of both phrases in the Mittelfeld is assumed, this requires some coindexation mechanisms between the topic and the Mittelfeld phrase, and an explanation for why the topic phrase ends up in its surface position. We will see that most accounts that offer a solution by base generation actually assume this to happen within the Mittelfeld, and end up moving the topic phrase to the sentence-initial position.

Within the base generation accounts, we will present two opposing views. On the one hand, “the weaker versions“ propose that both ST constituents are base generated within the Mittelfeld, i.e. as verb complements within VP. In section 3.1.2.1, we will discuss such a proposal by Fanselow (1988, 1990, 1993); Fanselow and Cavar (2002). Kuhn (1998, 1997) offers a similar analysis in Lexical-Functional Grammar (section 3.1.2.3). Geenhoven (1998) departs from a similar syntactical structure, but offers

a mainly semantic analysis in terms of semantic incorporation. We will discuss her account in the section on semantic approaches (section 3.2.1).

On the other hand, the “stronger version“ of base generation by Haider (1990) proposes to generate all topic constituents in SpecCP, the non-base position, and establish a syntactic relation with the functional base position (section 3.1.2.2).<sup>1</sup>

### 3.1.1 ST as the result of Movement

As briefly discussed in e.g. Grewendorf and Sternefeld (1990), movement or Scrambling theories can be distinguished as to whether they assume base generation or movement of the constituents that appear in the scrambled position. Movement is further dividable into NP-movement and wh-movement, where the former implies A-movement and the latter A-bar-movement.<sup>2</sup>

Riemsdijk (1989) is one of the first to discuss STs in detail, and he proposes that the topic phrase has moved to its position leaving a trace in the MF phrase. Consider the syntactic tree illustrating his proposal in figure (3.1 for the example:

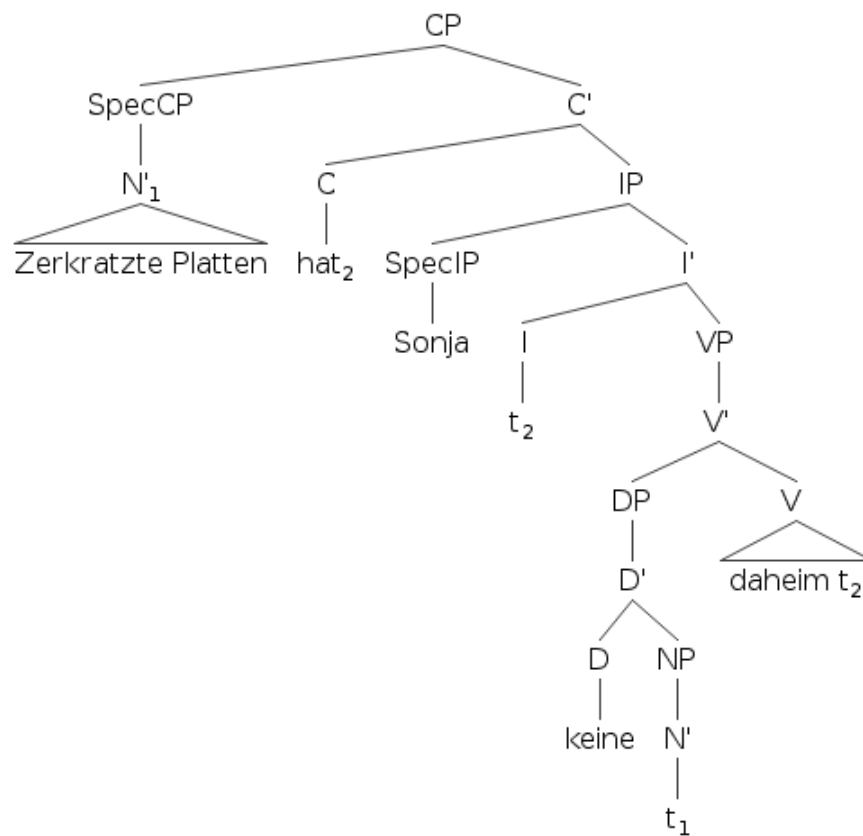
- (113) Zerkratzte Platten hat Sonja keine daheim.  
scratched discs has Sonja none at-home  
As for scratched discs, Sonja has none at home.

Van Riemsdijk’s observations about the phrasal category of the topic phrase lead him to conclude that the Move- $\alpha$  constraint is obsolete and has to be redefined. The Move- $\alpha$  constraint restricts movement to heads and maximal projections, but - as Riemsdijk notes - in ST it is also intermediate projections that appear in the target position. If the topic phrase contains e.g. a noun modified by an adjective, what has moved to the

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<sup>1</sup>As for the HPSG framework, we refer the reader to e.g. Hinrichs and Nakazawa (1994), who introduces a special rule for STs, and Kuthy (2000). In her thesis, Kuthy (2000) proposes an analysis for NP-PP splits focusing on their syntactic and pragmatic properties. For the sake of keeping this work on a limited scale, we will skip the discussion of this framework.

<sup>2</sup>As background for the reader, we point out several generalizations about scrambling that have been made: Scrambling is clause-bound; Scrambling is adjunction to non-arguments like IP, VP, or AP, excluding adjunction to NP, PP, and CP; all maximal projections can be scrambled except IP and VP; and, Scrambling cannot apply to wh-phrases and to focussed phrases. See e.g. Grewendorf and Sternefeld (1990) and Grewendorf (2002).



**Figure 3.1:** *Movement approach, Van Riemsdijk 1989*

topic position is  $N'$ , which is an intermediate projection, see (113).

Another of Van Riemsdijk's arguments is the apparent violation of the  $\theta$ -Criterion, according to which one thematic role cannot be shared by several NPs. If movement is assumed, this conflict disappears. A third argument in favor of a movement analysis is the obligatory headlessness of the "remnant" NP. However, note that examples in colloquial speech show that headlessness is not always obligatory:

- (114) Fleisch isst er nur Faschiertes.  
meat eats he only minced-meat  
As to meat, he only eats minced meat.

Still, Van Riemsdijk considers such examples to be infelicitous and marginal. A final argument for movement involves reconstruction effects with serialized adjectives: Examples like the following would support that the underlying word order of adjectives has to be maintained also after movement (cf our discussion of (65)).

- (115) ?Gefüllte Zuckerl haben wir noch zwei belgische übrig.  
filled candies have we still two Belgian left  
As to filled candies, we have still two Belgian ones left.

- (116) Belgische Zuckerl haben wir noch zwei gefüllte übrig.

A strong counter-argument against Van Riemsdijk's approach is the morphological autonomy of both phrases (cf. previous example (38) and (117) below), i.e. the fact that the "remnant" phrase in the Mittelfeld must convert its weak inflectional form into a strong one when it is not followed by any noun.

- (117) Warmwasser haben wir noch immer keines/\*kein.  
warm-water have we still always none  
As to warm water, we have none yet.

In order to explain the apparent structural autonomy of the MF phrase, he proposes a solution in terms of regeneration and relexicalization processes:

In particular cases, however, the language may permit the regeneration of the missing structure and in some instances even the partial relexicalization



of the regenerated structures. Regeneration will “grow back” on an X’, its maximal projection node XP, and, to the extent that it is an obligatory constituent, the specifier dominated by that XP. [...] Relexicalization is subject to a strict recoverability requirement: only words that are fully determined by the features of the head of the moved phrase may be relexicalized. [p.117]

In other words, an adjective with a weak inflection may recover the missing noun by growing back DP on D’ and consequently SpecDP, as well, where, we suppose, the inflectional structure for a strong ending can be provided.

Another side effect is that the topic phrase also may regenerate: A bare singular in the topic phrase, which is not acceptable for certain German varieties, may relexicalize its missing determiner to yield a proper phrase. The spelling out of the regenerated structure, i.e. relexicalization, may be subject to restrictions, and varies from dialect to dialect. For Van Riemsdijk, these variations do not question the theory of regeneration, because they only concern relexicalization processes. Depending on the availability of relexicalization, he comes up with four main German varieties: Southern German varieties and Swiss German relexicalise determiners (“*Ein Buch hat er noch keins*”); Northern German varieties and archaic English accept relexicalization only in special contexts; “certain” Southern varieties allow for optional relexicalization (hence a zero determiner is allowed as in “*Buch hat er noch keins*”); and Dutch and English lack regeneration and therefore relexicalization.

Although his classification seems straightforward, it requires additional explanations. For example, the strong adjectival ending is obligatory for all German variants, even for those that are classified as lacking relexicalization (cf. “mine” in English). Moreover, Riemsdijk notes that the relexicalized determiner must be semantically “unmarked”, without modifying the features of the head. Thus, he already suggests that the solution for determiner selection might be found not in syntax but in semantics. Indeed, it is the denotation of the topic phrase that is restricted to properties, which in non-Standard German can be expressed in more ways than by bare plurals. In addition, it seemed to us that, as a general rule, if a determiner is present in the topic phrase, the same determiner must be present in the MF phrase. This yields troubles for a movement analysis: Assume that everything within the MF phrase may move to the topic position - except the functional projection of DP, so that D could never be emptied. We can then

explain the obligatoriness of the determiner in the MF phrase, but not the optionality of the determiner in the topic phrase.

Another problem for assuming movement are effects observed in Fanselow (1988, 1993), who shows that there is a contrast between moved constituents that have to respect islands, and STs that do not, like in (118) and (119), resp. (cf. also our discussion of (52) and (53)).

(118) \*[Von Maria]<sub>i</sub> haben mich keine Briefe t<sub>i</sub> erschreckt  
from Maria has me no letter frightened  
(No letter from Mary has frightened me.)

(119) Briefe von Maria haben mich keine<sub>i</sub> erschreckt  
letters from Maria have me none frightened  
As for letters from Mary, they have not frightened me.

In (118), extraction out of the subject phrase *keine Briefe von Maria* is not acceptable, because it is an island. In the ST example, the same island effect should appear, if it has moved. Still, we find Fanselow's example (119) acceptable. No island has been violated.

Another problem for a movement analysis is that it predicts ungrammaticality for split VP constructions, as in (120):

(120) [[Einen Wagen]<sub>i</sub> kaufen]<sub>j</sub> wird er sich heuer [keinen<sub>i</sub> ]<sub>j</sub>.  
a car buy will he refl-3sg this-year none.  
Buying a new car, he won't do that this year.

According to a derivational analysis, this construction would be underivable, because there is no movement process that could split an NP from its head and move it to the front, together with the verb. Alternatively, movement followed by "reinsertion" of the NP into the base position, would also be an illegal step. Still, VP split is a licit construction.

Although Van Riemsdijk aims to offer an analysis for all German variants, his analysis explains only Standard German STs - the choice of his examples corroborate this opinion. Still, we think that his work has offered many insights on the limitations of a projection like NP, and the need to treat determiners "apart" in defining a

higher functional projection DP. To conclude, we have seen the problems with a purely derivational approach, because the topic phrase seems to be less dependent on its alleged trace than one would assume. This has led some authors to favor base generation of both constituents.

### 3.1.2 ST as the result of Base Generation

#### 3.1.2.1 Fanselow

Fanselow (1988) assumes base generation of both constituents within the Mittelfeld, followed by movement of one constituent to the topic position. As a special rule for deriving NP-PP split constructions, he proposes a reanalysis rule that breaks up a complex NP into two sisters NP and PP, in order to allow for the PP to be extracted. We will assume DP structure instead of NP, so that his idea would be as follows:

(121) Original Structure: [<sub>VP</sub> she [<sub>DP</sub> a [<sub>NP</sub> book [<sub>PP</sub> on Fulanito]]] write]

(122) After Reanalysis: [<sub>VP</sub> she [<sub>DP</sub> a [<sub>NP</sub> book]] [<sub>PP</sub> on Fulanito] write]

(123) [Über Fulanito]<sub>i</sub> hat sie noch nie [ein Buch] t<sub>i</sub> geschrieben.  
about Fulanito has she yet never a book written  
She has never written any books on Fulanito.

(124) ??[Über Fulanito]<sub>i</sub> hat sie noch nie [ein Buch] t<sub>i</sub> gesucht.  
about Fulanito has she yet never a book searched  
She has never looked for any books on Fulanito.

Reanalysis within NP-PP splits could explain how (123) can be derived, but, as the unacceptable example (124) shows, it leads to overgeneration. Fanselow argues that it is the verb that dictates whether a PP may be transformed into the sister of the NP argument, i.e. whether the NP may be adjoined to VP, or not.<sup>3</sup> If we apply the re-analysis rule with nominal ST, then we get:

(125) OS: [<sub>VP</sub> sie [<sub>DP</sub> ein [<sub>AP</sub> gutes [<sub>NP</sub> Buch]]] schreiben]

(126) R1: [<sub>VP</sub> sie [<sub>DP</sub> ein [<sub>AP</sub> gutes ] ] [<sub>NP</sub> Buch] schreiben]

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<sup>3</sup>Likewise, in a semantic analysis of measurement phrases in STs, Nakanishi (ress) proposes that the topic phrase is an adjunct adjoined to the verbal predicate, as opposed to non-split measurement phrases, which would combine with nominal predicates.

(127) R2: [<sub>VP</sub> sie [<sub>DP</sub> ein ] [<sub>AP</sub> gutes [<sub>NP</sub> Buch]] schreiben]

From the underlying structure of example (125), we would obtain after reanalysis either (126) or (127): The former yields *Buch* as the topic phrase, and *ein gutes* in the Mittelfeld. The latter yields *gutes Buch* in the topic phrase and *eines* (with strong inflection, possibly as the result of “regenerating” the empty NP/AP complement) in the Mittelfeld. What is less clear to us is if reanalysis produces any kind of empty categories for the phrases that have been broken up and adjoined to another position. In Fanselow (1993), where he focuses solely on ST and its referential status, *pro* is introduced. One NP - our MF phrase - is analyzed as a referential term-denoting expression bearing a  $\theta$ -role. The other NP - our topic phrase - is a non-referential property-denoting expression and coindexed with a *pro*. In order to satisfy principle C<sup>4</sup>, which prohibits referential expressions from being A-bound, the non-referential NP has to move to the sentence-initial position. The proper binding of *pro* is hence the trigger for reordering and moving phrases to the clause-external position:

(128) DS: ich [<sub>+Ref</sub> viele] *pro* [<sub>-Ref</sub> Hasen] gesehen habe.

(129) SS: Hasen<sub>i</sub> habe ich viele pro<sub>i</sub> t<sub>i</sub> gesehen.  
           rabbits have I many seen  
           As for rabbits, I have seen many.

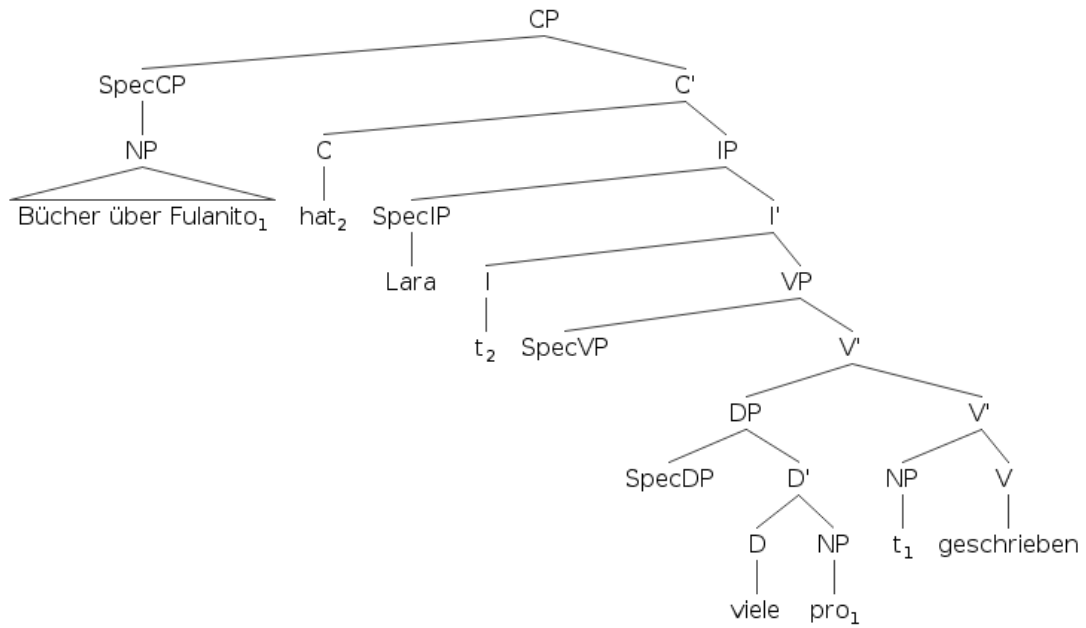
We understand that after reanalysis and movement ST should then look like the syntactic tree in (3.2) for the following example:

(130) Bücher über Fulanito hat Lara viele geschrieben.  
        books about Fulanito has Lara many written  
        As for books on Fulanito, Lara has written many.

The  $\theta$ -Criterion is not violated because, according to Fanselow, non-referential NPs need not be assigned a  $\theta$ -role. Still, the need for case agreement for other than the nominative and accusative case can not be explained satisfactorily, as Kuhn (1998) notes. The coindexation of the NP and *pro* is not sufficient to guarantee case assignment, because coindexation is possible also under differing case. Fanselow (1990) maintains that, as

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<sup>4</sup>The C-command condition on binding says that a bound form must be c-commanded by its antecedent. Conversely, it excludes that referential expressions be A-bound.



**Figure 3.2:** *Reanalysis approach (Fanselow (1988, 1993))*

ST only occurs within languages that exhibit Case agreement within NP, the abstract agreement features within NP are represented via an empty pronominal NP-head *pro*, which gets A-bar-bound by the split lexical NP element. This would explain how case gets assigned from the topic phrase to *pro* and consequently to the MF phrase. In sum, this means that the topic phrase *Bücher über Fulanito* in (130) is non-referential and bears no thematic role but does bear case, and that its trace  $t_1$  gets assigned a thematic role. The MF phrase *viele* is referential and bears a thematic role but no case.

What we find problematic for his analysis is that fronting of the topic phrase is motivated by proper binding of *pro*, because its binder has to be non-referential. If the MF phrase is non-referential, as in the following example, *pro* would already get bound properly. Hence, there would be no need for the topic phrase to move.

- (131) Kunstwerke sucht er wertvolle.  
 artworks seeks he valuable  
 As for artwork, he is looking for precious ones.

In another, more recent article by Fanselow and Cavar (2002), they maintain the idea that in ST base generation is followed by movement, but argue within another framework. They propose a cross-linguistic analysis of split phenomena based on the

“copy & deletion” approach to movement by Chomsky (1995). Movement and copying are followed by deletion processes, which, so their claim, might affect both copies. The steps to yield a ST, are then the following:

- (132) hat er keine Bücher gelesen
- a. COPY AND MOVE: *keine Bücher* hat er keine Bücher gelesen
  - b. PARTIAL DELETION IN UPPER COPY: (*keine*) Bücher hat er keine Bücher gelesen
  - c. COMPLEMENTARY DELETION IN LOWER COPY: (keine) Bücher hat er keine (*Bücher*) gelesen

The motivation for splitting up a NP, i.e. for applying different deletion mechanisms, they find within pragmatics: A ST is grammatical only if a single XP must fulfill two different positional requirements defined by pragmatic constraints on order. In other words, ST happens if part of the nominal belongs to the topic, and the other part belongs to the focus. Their approach is said to explain for the morphological autonomy of both split nominals, and to correctly predict grammaticality of VP topicalization, by combining two processes: Base generation and pronominal binding, followed by movement of the topic phrase. The problem we see for this analysis is that partial deletion overgenerates ungrammatical structures like:

- (133) \*Keine hat er Bücher gelesen.

### 3.1.2.2 Haider

A contrasting view is found in Haider (1990), who rejects the general view that constituent order is the result of movement rules. Instead, he argues for free word order as a base-structure phenomenon, i.e. the Deep Structure already provides all the various word orderings. Haider (1990) proposes giving up the idea that topicalization is the result of a movement process, basing his argumentation not only on simple topicalization patterns but also VP split and STs. Instead of a derivational account, he proposes a representational analysis and points out the parallelism with Left Dislocation (LD). Haider assumes that both the topicalized and the LD-ed maximal projections are base generated in a non-base position within Spec CP. The crucial difference between the

constructions has to do with their relation with the functional base position: “For topicalization it is an antecedent – gap relation, for LD it is an antecedent – pronominal relation” (Haider (1990)[:103]). In LD constructions like (134), the strong resumptive pronoun *das* acts as a “pronominal predicate” because it is coindexed with an antecedent predicate. Without a predicate, the pronoun is interpreted deictically (135), and either points towards a linguistically salient antecedent (which could be a preceding VP), or towards a salient referent within the speaking situation (e.g. an action occurring in the real world):

- (134) [Ihr Blumen geschenkt]<sub>AC<sub>i</sub></sub>, das<sub>pro<sub>i</sub></sub> hat er noch nie.  
her flowers given that has he yet never some  
He has never given her flowers for a present.
- (135) Das hat er noch nie.  
that has he yet never some  
He has never done that.
- (136) [Ihr Blumen geschenkt]<sub>AC<sub>i</sub></sub> hat er noch nie e<sub>gap<sub>i</sub></sub>.  
her flowers given has he yet never some  
He has never given her any flowers.

In contrast to LD, the topicalized VP in (136) is analyzed as an autonomous predicate, coindexed with a gap. According to Haider, the “only well-formedness requirements for the verbal projection [...] are a syntactic one and a functional-semantic one. It must be a maximal projection and it must provide a  $\theta$ -role for the subject in the middle field” [p.104]. In split VP constructions the same would happen as in other topicalization structures. The topicalized verbal projection is base generated. He sees evidence in certain properties of the topic phrase, which would not be explained assuming its base position within VP. For example, extraposed clauses, which may be adjoined to a topicalised VP in (137) and to a ST in (139), are not acceptable if they would be inserted into their base position in (138) and (140), resp.

- (137) [Hunde füttern, die Hunger haben], würde wohl jeder.  
dogs feed who hunger have would though each  
Everyone would feed dogs that are hungry.
- (138) \*... dass wohl jeder [Hunde füttern, die Hunger haben,] würde.
- (139) [Hunde, die Hunger haben,] würde wohl jeder welche füttern.  
dogs who hunger have would though each some feed

Everyone would feed dogs that are hungry.

(140) \*... dass wohl jeder welche [Hunde, die Hunger haben,] füttern würde.

The fact that reconstruction of topicalised VPs and topic phrases of ST yields ungrammatical sentences is taken by Haider as a strong argument against movement. Haider points out that the difference between the ST example (139) and the ungrammatical counterpart (140) can be explained by thematic role assignment: In both examples the head noun *Hunde* does not receive a  $\theta$ -role. If a noun cannot receive a  $\theta$ -role, it cannot be an argument, but only a predicate. If the predicate *Hunde* is located in SpecCP, it can restrict the denotation of the element *welche*, which does receive a  $\theta$ -role. In an argument position like in (140), *Hunde* must be assigned a thematic role, but it competes with the argument *welche*.

Another of Haider's observations about topicalised VPs concerns their scope properties. Typically, scope assignment entails reconstruction, which may yield ambiguous sentences. His example for such reconstruction effects is given in (141), in which two readings are available.

(141) dass ein Lehrer jedem Schüler gefallen möchte.  
that a teacher each student please wants  
that a teacher wants to please every student  
a.  $\forall$  Schüler  $\exists$  Lehrer  
b.  $\exists$  Lehrer  $\forall$  Schüler

This is not the case for topicalized VPs, however: In (142), no reconstruction can be assumed, as we get only one, wide scope, reading. Hence, no derivation by movement can be assumed.

(142) Jedem Schüler gefallen möchte ein/??EIN Lehrer.  
a.  $\forall$  Schüler  $\exists$  Lehrer

Although Haider's argumentation is applicable to VP splits, it does not to NP splits, as (143) shows. Changes in intonation make one of both readings available. If scope ambiguities arise from distinct deep structures, then this fact would speak against the claim that movement is not involved. However, possibly it is not the topic phrase whose



scope changes, but rather the constituents that appear within the Mittelfeld, i.e. *jedem* and *einer*.

(143) Lehrer möchte JEDEM/jedem Schüler einer/EINER gefallen.

- a.  $\forall$  JEDEM Schüler  $\exists$  einer
- b.  $\exists$  EINER  $\forall$  jedem Schüler

To sum up, Haider proposes that the syntax already provides all the available surface patterns, and supports his argumentation with topicalization structures. His proposal explains why split VPs and VP topicalization must be base generated. However, it remains unclear to us which kind of relationship is involved in topicalization structures, and to what extent it differs from a trace.

### 3.1.2.3 Kuhn

Kuhn (1998) presents an Lexical-Functional Grammar (LFG) analysis for ST of NPs, for which argument doubling is a form of what he calls “f-structure unification”. Before we start with his analysis, we want to summarize some notions of the LFG framework. LFG proposes two independent components within syntax, the constituent structure (c-structure) and the functional structure (f-structure). C-structures have the form of context-free phrase structure trees, while f-structures are sets of pairs of attributes and values. Such attributes may be features, such as tense and gender, or functions, such as subject and object. Basically, LFG differs from the Chomskyan tradition in that grammatical functions are not derived from phrase structure configurations, but are represented at the parallel level of functional structure.

Categorial selection (c-selection) refers to the relation between a lexical head and an argument of a head. For instance, the main verb (i.e. the head of the VP) c-selects its internal arguments (i.e. direct objects), but not its external argument (i.e. subjects, cf. Williams (1981)). Other choices are of semantic nature (s-selectional), and are related to thematic roles, semantic types, and discourse-relevant properties. In LFG, c-selection is done at the level of functional structure (f-structure), and s-selection at the level of semantics (s-structure).

As for STs, LFG enables the division of labour at different levels: Whereas f-structure

allows e.g. for argument doubling, s-structure constrains the semantic type of the elements involved. According to Kuhn, this division of labour is crucial for understanding STs, and the fact that a grammatical function can be represented by more than one phrase, each in a different position. The two phrases can coexist and share a grammatical function, but whereas at f-structure the “remnant“ constituent is taken as the internal argument of the verb, at s-structure the fronted constituent is interpreted as a semantic “link“. The only restriction is that they be compatible in their semantic type, i.e. in LFG terms, in their PRED values. In the step of f-structural unification, these phrases are then fused into one argument slot. Before this unification, every single phrase is morphologically autonomous and locally selects for its own determiner. After unification at f-structure, agreement and unbounded dependency relations between the autonomous phrases are forced.

But, if compatibility in semantic type means that the topic and the MF phrase must have the same type, then non-Standard German is problematic. As we have seen, only the topic phrase must denote a property; no such restrictions exist for the MF phrase.

Also, Kuhn points out the parallels between STs and elliptical NPs. In both cases they take the property denoted by the topic NP as their antecedent. Elliptical NPs are anaphoric elements that require an antecedent of the semantic type of property. ST constructions contain both the antecedent and the anaphoric element: The topic indefinite NP functions as the antecedent, and the MF phrase functions as an anaphoric element, similar to elliptical NPs. In both construction types, the latter picks up the property from the topic NP as its antecedent. Kuhn describes the anaphorical relationship as follows:

In the semantic analysis of ST, I assume that the MF phrase behaves like an elliptical NP in that it picks up anaphorically the property introduced by the topic NP. [...] at functional (f-)structure, both NPs are mapped to the same grammatical function [...], contributing to the same argument slot in the underlying representation of the main predicate; whereas locally at constituent (c-)structure, each of the NPs has to independently satisfy constraints on determiner selection etc. Kuhn (1997):3

Similarly, Ntelitheos (2003) considers the similarities between nominal ellipsis and discontinuous DPs, and, arguing within a Minimalist framework, claims that NP ellipsis

or NP deletion must be preceded by NP topicalization. If we apply this observation to STs, this would mean that they are special cases of ellipsis, where no deletion of the topicalised NP takes place. One reason why the topicalised phrase in STs is not elided, we believe, is the contrastive nature of the topic and its competing with other topics, so that it must be present in order to avoid ambiguity. As for the lower “remnant“ part of STs, it can never be elided because it is part of the focus and provides new information. In fact, Kuhn argues that STs are characterized by their very particular information structure: The property of a certain argument is made the sentential topic (s-topic, as defined in Büring (1997b)), followed by further information about the argument as the focus as defined in the theory of alternative semantics in Rooth (1992).

The problems with Kuhn’s account, we think, is that it assumes ungrammaticality of several constructions that we would consider acceptable in Viennese German, and even in colloquial German. Kuhn regards e.g. the singular count nouns in topic position unacceptable. Next, he rejects examples, in which the MF phrase bears an overt nominal head, and instead attributes them to “a performance strategy dealing with duplication effects” (ibid., fn.6). And, he considers extraction out of wh-clauses ungrammatical, which we do not (cf. examples (43)-(45)). Finally, his algorithm seems to work only if both the topic and the MF phrase have the same semantic type, that of a property, which for non-Standard German is not always true.

### **3.1.3 Conclusions**

In this section we have presented syntactic accounts that treat the topic phrase as either moved (Riemsdijk (1989)), or base generated. The proposals are summarized in table (3.1). Movement leaves a gap in the MF phrase, represented as a trace, and is subject to a series of restrictions on the path taken. Base generation of both phrases requires coindexation mechanisms between the topic and the Mittelfeld phrase. The “weaker versions” propose that both ST constituents are base generated within the Mittelfeld, i.e. as verb complements within VP (Fanselow (1988, 1990, 1993); Fanselow and Cavar (2002)). The “stronger version” of base generation by Haider (1990) proposes to generate all topic constituents in SpecCP, with the possibility of coindexation with an empty category in the Mittelfeld (section 3.1.2.2).

We will shortly resume the differences between the presented theories and our own

Author	Proposal	Problems
Van Riemsdijk	Movement; N/N'/NP moves out of MF DP leaving trace; Regeneration, Theta criterion.	overt nouns in MF phrase, islands, non-serialized adjectives, optional article in topic, VP splits.
Fanselow	BG within MF with <i>pro</i> , reanalysis;	overt nouns in MF phrase, non-referential MF phrases, reanalysis overgenerates.
Haider	BG of topic phrase, no reconstruction effects	Proposal mainly for topicalization, LD, and verbal ST; needs refinement for nominal ST.
Kuhn	topic phrase is property-denoting semantic link; MF phrase is anaphoric internal argument; f-structure vs s-structure (LFG).	overt nouns in MF phrase, non-property MF phrases, bare singular in topic phrase, islands.

**Table 3.1:** *Previous syntactic accounts*

analysis, which we will present in chapter 4.

Unlike in the derivational account of Van Riemsdijk, we will claim that the MF phrase is not the “remnant” of the topic phrase but functions as an independently generated argument of the verb. Likewise, we consider the topic phrase not as being moved from the MF phrase but rather - if moved at all - from an adjoining position to the verb.

The syntactic approach of Fanselow resembles most what we will propose later: According to him, both the topic and the MF phrase are base generated within the Mittelfeld. While the MF phrase is referential and contains a *pro*, the topic phrase is non-referential and must move to a position where it can properly c-command and bind *pro*. Instead, we argue that the topic phrase is not non-referential but rather denotes an abstract property discourse referent, which is resumed by *pro*, and that the MF phrase denotes either a concrete individual or an abstract property discourse referent. As for case assignment, Fanselow claims that case gets assigned to the topic phrase and consequently to *pro* and consequently to the MF phrase. Instead, we suggest that case is assigned to the topic phrase and by coindexation to the anaphoric MF phrase - and consequently to *pro*. The differences, still, are subtle.

Haider’s representational account for topicalization constructions reflects most likely, we think, how “non-canonical” sentences might be processed in natural language. Movement and traces are given up in favor of non-base positions and gaps in functional

base positions. While Haider claims for LD that the resumptive pronoun acts as a pronominal predicate coindexed with an AC predicate, we will argue for ST that *pro* acts as a pronominal predicate coindexed with the predicate denoted by the topic phrase.

Haider points out that nouns must be predicates if they cannot be assigned a thematic role. As for the topic phrase of ST, this might explain why non-ST examples with topicalized singular nouns like (144) are not felicitous: While in the ST example (??) the MF phrase can be assigned the thematic role of AGENT, in (??) no such role can be assigned to the topic phrase.

(144) \*Lehrer möchte jedem Schüler gefallen.  
teacher wants every student please  
(As for a teacher, he wants to please every student.)

(145) Lehrer möchte jedem Schüler einer gefallen.  
teacher wants every student one please  
As for a teacher, he wants to please every student.

In an LFG approach, Kuhn parallels elliptical constructions with ST and argues that locally each NP of STs has to satisfy morphological autonomy, and globally both NPs contribute to the same argument of the main verb. As a consequence, both NPs have to have the same PRED value. We will claim, instead, that the property of denoting a predicate must be the same for the topic phrase and *pro*, but not the MF phrase.

### 3.2 Semantic Accounts

In this section, we will discuss accounts that deal mainly with the semantics of ST. The challenge for finding a proper semantic composition algorithm consists in that STs seem to provide the verbal predicate with one argument made out of multiple expressions.

We present two approaches that aim to resolve this apparent conflict: Geenhoven (1998) treats both the topic phrase and the MF phrase as necessarily indefinites that are semantically incorporated by the verb, a view that is related to the one found in Diesing (1992). By contrast, Chung and Ladusaw (2003) consider only the topic phrase as necessarily property-denoting, a view that is supported by Viennese German data, and they suggest a semantic composition algorithm in terms of “Restriction and Saturation”.

Although they offer no complete analysis for STs in German, they sketch an analysis similar to the one of multiply linked arguments in Chamorro: The topic phrase of German STs should be composed with the verbal predicate by “Restriction” without saturating it.

### 3.2.1 Semantic Incorporation

Basically, under the account of Geenhoven (1998) a verb is said to be able to combine with nouns of different semantic types. If the verb combines with a property-denoting noun, the verb semantically incorporates the property, which results in the verbal predicate being modified by the nominal predicate. Van Geenhoven’s work deals with semantic noun incorporation (SI) in West Greenlandic and its semantic counterparts in Germanic languages. She notes that bare plurals in English and ST in German can be analyzed using SI. We will discuss her claims about STs and whether they apply to Viennese German.

Her first major claim states that both halves of the ST construction are narrow scope indefinites and hence denote properties. Second, both ST parts are generated as independent constituents of VP and interpreted via semantic incorporation. As they both denote properties these are “absorbed” by the verb as restrictions on the targeted argument.

$$(146) \quad \lambda P \lambda Q \lambda x \exists y [\text{verb}'(y)(x) \wedge Q(y) \wedge P(y)]$$

As a consequence, no discourse referent is introduced by the incorporated noun itself, but indirectly by the verb, which introduces a variable. The reason for one of the indefinites to move to the sentence initial topic position, Van Geenhoven notes, is that only one NP can receive (weak) case from the verb. Krifka (1998) adopts this analysis and brings evidence from VP splits, in which the incorporated noun is topicalized with the verb. This, according to Krifka, shows that they form one constituent:

- (147) [Romane gelesen] hat Hans viele.  
      novels read has Hans many  
      Hans has read many novels.

The advantage of Van Geenhoven’s analysis, we note, is that it can explain

straightforwardly the occurrence of STs with overt nouns in the Mittelfeld (“*Hamster will ich einen Zwerghamster*”), if they are interpreted as property-denoting. Still, her proposal is based on assumptions that are not consistent with our data. First, the MF phrase is not always indefinite, at least not in colloquial German. Consider again

- (148) Hamster hab ich nur den braunen gefüttert.  
hamster have I only the brown fed  
As for hamsters, I only fed the brown one.
- (149) Hamster hab ich nur diesen einen da gefüttert.  
hamster have I only this one there fed  
As for hamsters, I only have fed the one over there.
- (150) Hamster such ich ganz spezielle.  
hamsters search I very special  
As for hamsters, I am looking for very special ones.

Hence, it seems that the indefiniteness restriction (i.e. the need to denote a property) has to apply to the fronted ST, but not necessarily to the MF phrase. The latter can be a definite, a demonstrative, or a specific expression. These are generally assumed to be entity-denoting expressions, and as far as we know, are never subject to semantic incorporation. Second, if both expressions had the same status as constituents of the verb, how could we account for the ungrammaticality in (151)?

- (151) \*Braune/zwei hab ich Hamster gefüttert.  
brown/two have I hamsters fed  
(As for brown/two ones, I fed hamsters.)

An analysis from which this fact followed would be preferable in order to prevent an adjective or a cardinal to be topicalised.

Next, she argues that the ST indefinites cannot outscope negation and corroborates her claim with the example in (152), which she regards ungrammatical. Instead, we claim, (152) is not ungrammatical, but requires an interpretation under which only the verb is negated, but not the indefinite MF phrase. This yields an interpretation, for which there are some spiders that Lisa did not see.

- (152) Schwarze √Spinnen hat Lisa im Keller \einige nicht gesehen.  
black spiders has Lisa in-the cellar several not seen

As for black spiders, there were several ones that Lisa did not see in the cellar.  
 $\exists \text{ Spinnen}(x) \neg \text{sehen}(\text{lisa}, x)$

For a semantic incorporation account, this would not yield the desired result, because in the example negation has scope over the verb, but not over the semantically incorporated arguments. Consider now (153): In this case, negation has scope over both the indefinite *einige* and the verb: The conflict, it seems to us, arises because *einige* presupposes the existence of some spiders, whereas negation denies their existence. If we add an adversative small clause, the sentence gets grammatical under an interpretation where only *einige* gets negated.<sup>5</sup>

(153) Schwarze Spinnen hat Lisa im Keller nicht einige gesehen \*(sondern  
black spiders has Lisa in-the cellar not several seen but  
tausende).  
thousands

As for black spiders, there are not several ones that Lisa did see in the cellar  
\*(but thousands).  $*\neg \exists \text{ Spinnen}(x), \text{sehen}(\text{lisa}, x)$

Again, semantic incorporation could not explain the grammaticality, because property-denoting phrases do not manifest these kinds of scope ambiguities.

Another problem for Van Geenhoven's analysis regards scope of cardinal determiners and negation. Consider

(154) Mails hab ich drei nicht einmal abschicken können.  
mails have I three not once sent can

As for mails, there were three that I could not even send.

As the translation indicates, the negation has to be interpreted as having narrow scope with respect to "three mails", which implies that "three" cannot be interpreted as a semantically incorporated object.

We point out, that Van Geenhoven included only direct objects in her analysis of STs, which might suggest that semantic incorporation could be problematic for other cases.

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<sup>5</sup>Note, that a grammatical sentence with the intended reading of (153), i.e. "there are no black spiders, such that Lisa saw them", would have to be expressed by another expression: German would require *keine* (none) instead of *nicht einige*.



Still, as they exist, the issue of case assignment arises: If only the MF phrase gets case from the verb, and the topic phrase has to move out, how can we account for the fact that both parts bear case? The major problem for this account, however, is the basic assumption that both the topic and the MF phrase of STs are indefinites and get semantically incorporated. The next proposal we discuss will offer an analysis in which this is not necessarily the case.

### 3.2.2 Restrict and Saturate

In this section we discuss the account of Chung and Ladusaw (2003) (henceforth C&L), whose aim is to explain the semantic composition of indefinites via the composition rules “Restrict” and “Specify”. Combining an indefinite with a verbal predicate via the rule Restrict leaves the predicate unsaturated, whereas Specify saturates an argument. Consequently, multiple linked arguments can be composed satisfactorily, like those found in object incorporation structures in Chamorro, and - as they briefly propose - in German STs. Very simplified, here are the basic ingredients and rules for their analysis:

**Specify** Function Application:

$$\text{FA } (\lambda y \lambda x [\text{verb}'(y)(x)], a) = \lambda x [\text{verb}'(a)(x)]$$

Specify in C&L refers primarily to the mode in which the value of a choice function is the input to function application.

**(Predicate) Restriction** composes a predicate directly with a property-type expression to yield a new predicate without changing the degree of saturation of the predicate. The property argument is interpreted as a restrictive modifier of the predicate.

$$\text{Restrict } (\lambda y \lambda x [\text{verb}'(y)(x)], \text{property}') = \lambda y \lambda x [\text{verb}'(y)(x) \wedge \text{property}'(y)]$$

**Existential Closure** Another saturating mode of composition. The semantic incompleteness of the predicate can be remedied by introducing an existential quantifier over one of its arguments. EC must apply after Restrict:

$$\text{EC } (\text{Restrict } (\lambda y \lambda x [\text{verb}'(y)(x)], \text{property}', j) = \exists y [\text{verb}'(y)(j) \wedge \text{property}'(y)]$$

**Multiple Linking** links an argument with more than one expression. All expressions composed with the targeted argument, except the last, must be composed via

Restrict and hence must be semantically incomplete.

Throughout their analysis, C&L adopt Davidsonian event semantics (cf. Davidson (1967) and Parsons (1990)). They use the term “event level” to refer to the stage in which the composition reaches the event argument associated with the predicate. At this stage the predicate must have achieved completeness, i.e. saturation of all its arguments must have taken place - except for the event argument. Syntactically, this event level is taken to be at the point where a VP becomes the complement to an inflectional head, as proposed in Diesing (1992), which we will take to be at IP.

The composition procedures are applied in a strict order: Existential closure is not possible if another expression would saturate the argument (e.g. in incorporation structures with an extra object of type  $e$ ). However, if there is no further composition that would lead to saturation, existential closure must be applied.

What is of special interest to us is the analysis of a multiply linked argument: C&L predict that it is possible for an argument to be restricted by one expression, e.g. an incorporated object, and saturated by another, the “extra object”. The incorporated object is then semantically incomplete because it denotes a property, and is syntactically NP rather than DP, C&L assume. For example, in Chamorro, the extra object is a DP within an adjoined position, and not “the” complement of the verb.<sup>6</sup> By contrast, the incorporated property-denoting arguments appear as the syntactic complement of the verb. For illustration, consider the following example, which would be the translation of a sentence with classificatory noun incorporation (CNI, cf. Mithun (1984)) and a multiply linked argument in Chamorro:

(155) Hildegard has-pet the dog. (Hildegard has the dog as pet)

(156)  $[_{VP}$  Hildegard  $[_{V'}$   $[_V$  has pet $_i$ ]  $[_{NP}$   $[_{NP}$   $t_i$ ] $[_{DP}$  the dog]]]]

a.  $\lambda y \lambda x \text{ Gen}_e (\text{have}'(y)(x)(e)) (\text{pet}') - \text{Specify or FA}$

b.  $\lambda y \lambda x \text{ Gen}_e (\text{have}'(y)(x)(e) \wedge \text{pet}'(y)) (\text{dog}) - \text{Restrict}$

c.  $\lambda x \text{ Gen}_e (\text{have}'(\text{dog})(x)(e) \wedge \text{pet}'(\text{dog})) (\text{hildegard}) - \text{Specify or FA}$

d.  $\text{Gen}_e (\text{have}'(\text{dog})(\text{hildegard})(e) \wedge \text{pet}'(\text{dog}))$

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<sup>6</sup>Chung and Ladusaw find evidence in Chamorro for the claim that the extra object shows properties that are not compatible with being the verbal complement, e.g. that it cannot move like regular arguments (p.89ff).

In the syntactic structure of (156), the NP has been incorporated into the verb and left a trace  $t_i$ , and the extra object “the dog” is adjoined to the NP. For the semantic composition, C&L would assume predicate restriction by  $\text{pet}'$ , which yields no saturation of the argument  $y$ . Only by Functional Application of the individual dog to the predicate, the object argument  $y$  is saturated and the Lambda operator can be contracted and eliminated.

In C&L’s analysis it is the verbal predicate that demands composition of its argument via Restrict. This contrasts from e.g. Van Geenhoven’s account of semantic incorporation, in which it is the verb that accommodates its semantic type so as to be able to incorporate a property argument. Instead, C&L propose to leave the predicate type unchanged but to impose the requirement that the argument must be composed via the nonsaturating mode Restrict. Although both solutions yield the desired result, they differ crucially in their “basic ingredients”: In one case, the verbal predicate adapts itself to the argument’s type. In the other case, the argument functions as a restrictive modifier of the verbal predicate.

C&L point out that composition via Restrict affects scope properties. Internal arguments of existential verbs are known to be scopeless, i.e. they must take narrowest scope with respect to other operators (Heim (1987)). McNally (1992) attributes this behavior to the existential verb’s wanting its internal argument to be a property, typically indefinite or weak DPs. By extending McNally’s account, C&L regard the scopelessness to be a direct consequence of obligatory composition via Restrict - which forces the argument of the existential verb to denote a property.

Suppose we applied the multiple linking analysis to STs - as suggested by C&L: The topic phrase of STs might then correspond to the incorporated expression, and the MF phrase to the extra object. This would mean that for German ST the incorporated argument may also occur in a sentence-external position, whereas the extra object is sentence-internal.

Given these assumptions, we see C&L’s claims on Restriction and scopelessness borne out. Consider the topic phrase in examples with the negative indefinite *kein-*: The translation of the example shows that the topic phrase must be interpreted as having narrow scope with respect to negation.

- (157) Mails check ich keine.  
      mails check I none

There is no such event, in which I check mails (Not: There are no mails, which I check. Not: There are mails, which I don't check.)

C&L reject a movement-based analysis, and propose that the indefinite topic phrase must be composed via Restrict and interpreted as a narrow-scope indefinite, whereas the clause-internal phrase needs not be. The latter can be a wide-scope indefinite or even a universal quantifier.<sup>7</sup> In order to achieve semantic completeness, the MF phrase may saturate the predicate, or else, existential closure must take place. Although STs give some reason to believe that multiple linking is not limited to incorporation but can occur in other constructions as well, C&L admit at the same time that is still not clear

[w]hat syntactic structure will ensure that the targeted argument is restricted by the meaning of the topic DP before it is (possibly) saturated by the meaning of the clause-internal DP? (p.129)

In other words, incorporation of the (topic) property meaning should take place before semantic composition with the rest of the sentence.

C&L are on the right track, we think, when they note the parallels between multiple linking in Chamorro and German. Like Van Geenhoven, who offers an analysis in terms of semantic incorporation, they propose composition of the topic phrase via predicate restriction. Both the topic and MF phrase are base generated within one single verbal complement, of which the latter is adjoined to DP and too deeply embedded as to be eligible for movement.

### **3.2.3 Conclusions**

We have presented semantic analyses from Van Geenhoven (1998) and Chung and Ladusaw (2003), which are summarized in table (3.2). In the former both the topic phrase and the MF phrase are analysed as necessarily indefinites that are semantically

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<sup>7</sup>Constructions with the universal quantifier have been described for Swiss German in Spaelti (1995). Further, see the above discussion of Van Geenhoven's account, and our examples in which the Mittelfeld DP is not interpretable as a narrow-scope indefinite.

incorporated by the verb. By contrast, Chung and Ladusaw (2003) considers only the topic phrase as necessarily property-denoting, a view that is supported by Viennese German data. They suggest a semantic composition algorithm in terms of “Restriction and Saturation”: The topic phrase of German STs should be composed with the verbal predicate by “Restriction” without saturating it.

Author	Proposal	Problems
Van Geenhoven	SI of indefinite topic and MF phrase; case forces movement of indefinite; verb is restricted by two predicates	MF phrase not always indefinite; overgeneration (“inverse” ST); indefinite Singulars in topic phrase (incorporated kinds?)
Chung and Ladusaw	Multiple Linking; Restriction by incorporated NP and (possibly) Saturation by extra DP object;	MF phrase not extra object; order of composition

**Table 3.2:** *Previous semantic accounts*

From Van Geenhoven we will adopt her claim that the topic phrase is semantically incorporated and denotes a narrow scope indefinite; for the MF phrase we will propose another analysis, because it does not necessarily denote a property. The account of C&L, by contrast, allows us to analyse the topic phrase and the MF phrase as linked arguments, and to compose the latter as denoting either a property or an individual. Although we will apply the semantic algorithm proposed by C&L, we will propose a different syntax for ST: Instead of treating the MF phrase as adjoined to the topic phrase, we will adjoin it directly to the verb, because it behaves like an independent verbal argument. The advantage of applying Restrict to the topic phrase is that the semantic type of the verb is unchanged. This enables us to saturate the verb’s argument through the MF phrase.

### 3.3 Parallels to Left Dislocation

We will here pursue an idea from Chomsky (1977), who derives topicalization from LD by the deletion of the relative pronoun in the SpecCP position, and develop an analysis for German ST. In other words, ST and LD could be regarded as two sides of a coin

that mainly differ in the definiteness of the fronted element.<sup>8</sup>

- (158) [Das Buch]<sub>i</sub>, ich hab das<sub>i</sub> gelesen. LD: [XP<sub>+def</sub>]<sub>i</sub> ... [...YP<sub>i</sub>...]  
the book I have this read  
The book, I read it.
- (159) Bücher<sub>i</sub> hab ich viele<sub>i</sub> gelesen. ST: [XP<sub>-def</sub>]<sub>i</sub> ... [...YP<sub>i</sub>...]  
books I have many read  
As for books, I read many.

The definiteness of the fronted element has consequences for how this element may be resumed within the Mittelfeld. LD and ST contrast then with simple topicalization, where no pronoun or anything else appears inside the root clause. Consider (160) and (161), examples for Hanging Topic LD and Contrastive LD, viz.

- (160) [Den König]<sub>i</sub>, ich hab den<sub>i</sub> im Fernsehen t<sub>i</sub> gesehen.  
the king, I have him-DEM in-the TV seen  
The king, I have seen him on TV.
- (161) [Den König]<sub>i</sub>, den<sub>i</sub> hab ich im Fernsehen t<sub>i</sub> gesehen.  
the king, him-DEM have I in-the TV seen  
The king, I have seen him on TV.

The differences between these two LD types, we think, derive from pragmatics and concern the more or less contrastive status of the resumptive pronoun: Briefly, in (161), the pronoun is contrastive, while in (160) it is not.<sup>9</sup> We assume following Zwart (1998) in that C bears features that deal with the kind of proposition, i.e. whether

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<sup>8</sup>The construction found in Brabant Dutch (Hoof (1997)) in (1) shares properties both of ST and LD constructions:

- (1) **Koeien, die** heeft-ie **een helehoop** in de achterste wei.  
cows those has-she a lot in the furthest meadow  
Cows, she has a lot of them in the furthest field. (Brabant Dutch)

<sup>9</sup>Another LD type we will not pursue but mention for completeness is found in e.g. Spanish, the so-called Clitic LD:

- (1) **A tu hermana**, no **le** han dado el visado.  
to your sister, not her-CL have given the visa  
Your sister, they haven't given her the visa.

the sentence is a question, a (subordinate) relative clause, or a sentence where some element has been made salient. Zwart discusses discourse linking and feature checking within LD constructions in Dutch. He proposes that the d-word is attracted by a D(iscourse)-feature in C, and moves to SpecCP in order to satisfy the feature's checking. He argues that the d-word

[...] moves to the specifier position of CP, triggered by a feature [D] on C which expresses the discourse relatedness of the sentence. The fronted constituent itself is analyzed as a satellite, base-generated in a position adjoined to the root node of the sentence. (p.388)

On the one hand, discourse considerations require a CP to be headed by a C with a [+D] feature. On the other hand, language-specific syntax triggers movement of d-words with [+D]. The satellite (i.e. the LD-ed element) is not crucial to discourse linking but solely depends on the intention of the speaker to produce a discourse-related sentence: "The satellite appears to be just a mediator between the sentence and the discourse context" (ibid., p.388). In other words, the Satellite functions as a Link, as defined in Vallduví (1990), whose theory we will discuss later.

If we treat ST as related to LD, the topic phrase of ST would get base generated in a sister node of CP, followed by some covert element in the specifier of the main CP that licenses a discourse relatedness feature in C. The MF phrase is base generated as a DP within VP, and is coindexed with the topic phrase. Compare the examples for LD (162) and for ST (164), and the structures given in (163) and (165), viz.

(162) Das Auto, das kann er sich heuer nicht mehr leisten.  
the car that can he 3sg-refl this-year not more afford  
The car, that he can't afford no more this year.

(163) LD: [ $CP$   $XP_i$ ] [ $CP$  [ $SpecCP$   $YP_i$ ] ... [ $VP$   $t_i$  Verb]]

(164) Auto kann er sich heuer keins mehr leisten.  
car can he 3sg-refl this-year none more afford  
As for cars, he no more can't afford any this year.

(165) ST: [ $CP$   $XP_i$ ] [ $CP$  [ $SpecCP$   $\emptyset$ ] ... [ $VP$   $YP_i$  Verb]]

In order to account for a structure of ST as in (165), one could parallel ST with LD in which the resumptive pronoun is *da*:

(166) Auto, da kann er sich heuer keins mehr leisten.

(167) ST:  $[_{CP} XP_i] [_{CP} [_{SpecCP} da ] \dots [_{VP} YP_i Verb]]$

Note, that *da* in (166) is not coindexed with any of the phrases, but is a spatio-temporal pronoun that occurs within nominal and extended verbal projections: *die Person da* (“the person relevant in a specific situation”), *ich komm da nicht mit* (“I won’t go there/then’). Pragmatically, it functions to mark the discourse relatedness of the preceding word. Hence, the only difference would be that the element in SpecCP is covert in ST and overt in LD. By assuming the same underlying structure, we could treat LD sentences like (166) with the pronoun *da* and (162) with the strong pronoun *das* on the same line as ST (164).

In the next chapter, we will explain why we will not adopt such an approach and why we will prefer a single CP structure for ST.

Finally, we will sum up the major differences between ST and LD. In the sense of e.g. Ariel (1988) (cf. Kluender (1998)), the relation between an antecedent and an anaphoric expression is characterised as follows: Pronouns are used if the distance between the antecedent and the anaphor is short, which we will take to happen with LD, and the referent is highly accessible in working memory. Anaphoric demonstratives (“these”) are used at intermediate distances, and we will assume this to be the case for ST. Names and definite descriptions are used at long distances and with their referent being less accessible in working memory. By anticipating the analysis of ST of the next chapter, we propose to summarize the differences between LD and ST as in table (??). Clearly, this list is not exhaustive but rather a suggestion for future research.

<b>LD</b>		<b>ST</b>		
<i>LD-ed</i>	<i>pro-DP</i>	<i>topic</i>	<i>pro-NP</i>	<i>MF</i>
definite	R-pronoun	indefinite	covert	in/definite
scope: wide	wide	scope	scopeless	wide/narrow
denotes: individual	individual	property	property	individual/property
DR: concrete	concrete	abstract	abstract	concrete/abstract

**Table 3.3:** *LD vs ST*



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# Chapter 4

## The proposal

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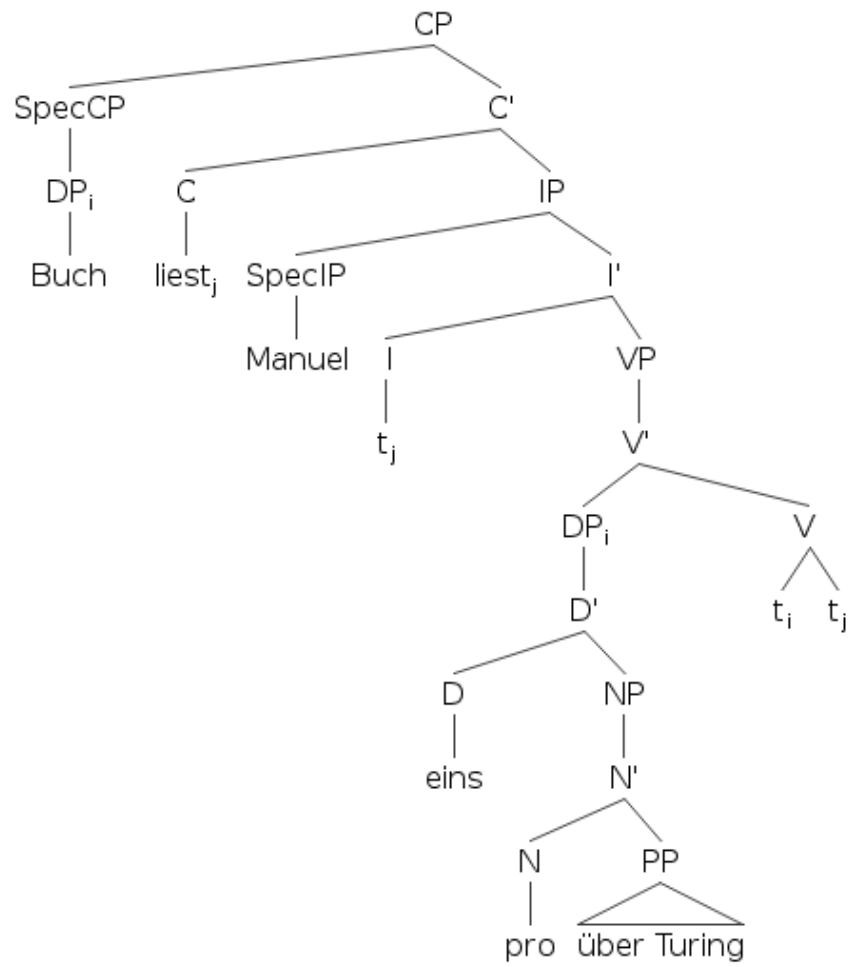
In this chapter we will present our own approach for the analysis of ST. Briefly, we think that ST can be best described as combining three distinct phenomena listed in table (4.1) and illustrated on the example (168) in the tree in figure (4.1).

- (168) Buch<sub>i</sub> liest<sub>j</sub> Manuel [eins *pro* über Turing]<sub>i</sub> [t<sub>i</sub> t<sub>j</sub>]  
 book reads Manuel one about Turing  
 As for books, Manuel reads one on Turing.

Relationship		Description
Movement relation: phrase – trace	Topic	<i>Topic phrase</i> in non-base position; <i>trace</i> in base position, semantically incorporated by verb
Syntactic relation: phrase – MF phrase	Topic	<i>Topic phrase</i> and coindexed <i>MF phrase</i> as one verbal argument
Semantic relation: phrase – <i>pro</i>	Topic	<i>Topic phrase</i> refers to abstract property-denoting DR; <i>pro</i> within MF phrase corefers to antecedent DR

**Table 4.1:** *Three relationships within ST*

In section (4.1) we will describe how these relations are represented in the syntactic structure. For the semantic analysis in section (4.2) we will adopt the framework proposed by Chung and Ladusaw and treat the topic phrase and the MF phrase as instances of multiply linked arguments. The topic phrase is combined as restricting the verbal predicate and the MF phrase as either restricting or saturating the verbal predicate. We will present examples for semantic composition in which the MF phrase denotes a property, a quantifier, and an individual, where the latter is an option only in Viennese German. Finally, in section (4.3), we will describe several patterns of information structure for ST and how they are associated with different intonational contours. We will see that the syntactic structure of ST can be mapped to more than one information structure.



**Figure 4.1:** Proposal for the syntactic structure of *ST*

## 4.1 Syntax

### 4.1.1 Syntactic Distribution

We will give here an overview over the syntactic patterns that are available for Standard and Viennese German ST. Before, we want to explain why we will use DP rather than NP for all nominal expressions in the sentence, including the topic and the MF phrase. As seen in the literature on STs, there are approaches which classify the topic element as DPs, NPs, or N-bar phrases, and the clause-internal element as either DP or NP containing a “gap”. We will take as a basis the DP Hypothesis, according to which every noun must be extended by a functional determiner. The DP Hypothesis proposed in Szabolcsi (1983) and defended in Abney (1987), states that every NP has as its topmost category a DP, the category of determiners which includes articles and quantifiers. The determiner typically takes the NP as its complement – typically, because it has been argued that some quantifiers take a whole DP as their complements, cf. Chomsky (1986a); Abney (1987); Ouhalla (1990). This means that even determinerless nominal arguments and pronouns are of the syntactic category DP.<sup>1</sup>

For our analysis of German ST, we assume then that a lexical nominal head needs to be embedded within a functional head D in order to get inflection. This makes sense as in German e.g. morphological case is suffixedly marked even with determinerless plurals. Our choice of treating all nouns the same with respect to their categorial status enables us to state constraints that have to do with the meaning of an expression. By assuming a uniform syntactic projection DP for all arguments of a sentence, we may restrict e.g. the topic phrase in its denotation rather than its syntactic category. For ST, we have seen that the topic phrase can host bare plurals, bare singulars, and singular nouns bearing the simple indefinite article *ein-*. What these have in common is that they are case marked and that they must denote a property to refer to. For the former we need a functional projection DP, for the latter we need semantic types.

Summing up the patterns that are licit in Standard German ST, we come up with (only) the following syntactic structure:

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<sup>1</sup>Postal (1966) early suggested that pronouns are actually determiners followed by a -possibly null-noun.

(169) (Rote) Rosen habe ich viele (schöne) bekommen.  
 red roses have I many beautiful got  
 As for (red) roses, I got many (beautiful ones).

(170) [<sub>top</sub> [<sub>DP<sub>i</sub></sub> (AP) NP] ... [<sub>MF</sub> [<sub>DP<sub>i</sub></sub> D (AP) *pro*] t<sub>i</sub> ]

Viennese German allows for an indefinite determiner in the topic phrase (172), and a NP in the MF phrase (174).

(171) Eine (rote) Rose habe ich eine schöne bekommen.  
 a (red) rose have I a beautiful got  
 As for a (red) rose, I got a beautiful one.

(172) [<sub>top</sub> [<sub>DP<sub>i</sub></sub> D (AP) NP] ... [<sub>MF</sub> [<sub>DP<sub>i</sub></sub> D (AP) *pro*] t<sub>i</sub> ]

(173) Blumen habe ich rote Rosen bekommen.  
 flowers have I red roses got  
 As for flowers, I got red roses.

(174) [<sub>top</sub> [<sub>DP<sub>i</sub></sub> NP] ... [<sub>MF</sub> [<sub>DP<sub>i</sub></sub> D (AP) NP] t<sub>i</sub> ]

Always ruled out are examples of “inverse” ST in which the NP is not in the topic phrase but in the MF phrase (176).<sup>2</sup>

(175) \*(Eine) Rote habe ich eine Rose bekommen.

(176) \* [<sub>top</sub> [<sub>DP<sub>i</sub></sub> (D) AP] ... [<sub>MF</sub> [<sub>DP<sub>i</sub></sub> D NP] t<sub>i</sub> ]

As a consequence of the topic phrase denoting a property, quantifiers are not compatible with the topic phrase: While qualitative adjectives as in (177) are acceptable, (178) is not. In (177) , the bare noun computer denotes a property which is modified by the property of being brand-new, which yields a property-denoting topic phrase. In (178), however, computer is quantified over via *viele*, which does not result in a property topic phrase and cannot be anaphorically taken up by the MF phrase.

(177) Nagelneuen Computer<sub>i</sub> will sie sich heuer schon einen<sub>i</sub> leisten.  
 brand-new computer wants she 3sg-refl this-year indeed a afford  
 As for a brand-new computer, she'd like to buy one this year.

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<sup>2</sup>We will for now ignore the rare and colloquial case of “inverse ST” , cf. example (19).

- (178) \*[Viele Computer]<sub>i</sub> will sie sich heuer welche<sub>i</sub> leisten.  
many computer wants she refl this-year some afford  
(As for many computers, she'd like to buy some this year.)

We have yet no formal solution for the ungrammaticality, but suggest that the solution might be found in the semantic “oddness” of wanting to restrict a quantified property in the topic phrase by a property in the MF phrase. Further, the quantified DP seems to saturate the verbal argument such that further composition with the MF phrase is blocked.

As the reader will have observed, we treat cardinals and quantifiers like other determiners that head a DP and take NP as their complement..<sup>3</sup> This simplification, however, becomes problematic for examples in which cardinals appear in the topic phrase. As we have noted earlier, cardinals that appear “undoubled” and only in the topic phrase are not totally ruled out in Viennese German. But if the cardinal is doubled in the MF phrase, according to our intuitions, the sentence becomes better, see (180).

- (179) Ein Moped habe ich früher \*(ein) schwarzes gehabt.  
a scooter have I formerly a black had  
As for a scooter, I used to have a black one.

- (180) Zwei Schweine haben wir (zwei) ganz junge bekommen.  
two pigs have we two very young got  
As for two pigs, we got two very young ones.

One answer might be that such examples differ from other ST in that the MF phrase introduces explicative rather than focal information, and that the MF phrase is a parenthetical. Another answer might be that cardinals can - in certain contexts - be interpreted like adjectives rather than quantifiers.

#### **4.1.2 A representational analysis for ST**

In German, simple topicalization constructions have been argued to have the topic in the first position of the main clause, in the specifier of CP, followed by the finite verb

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<sup>3</sup>But in the literature other functional projections besides DP have been proposed: e.g. AgrP (cf. Cinque (1990)), or QP (cf. Abney (1987)).

that undergoes movement from  $I^o$  to  $C^o$ . From a derivational view, the topic position is target of movement and not a site where elements are base generated. However, as suggested in a representational approach by Haider, the topicalized element can also be regarded as being base generated in a non-base position and coindexed with a gap in its functional base position.

We adapt now for ST a similar structure, in which the topic phrase is situated in SpecCP and coindexed with a trace (or gap) in the Mittelfeld and in which the MF phrase is base generated as the verbal complement where it gets assigned its  $\theta$ -role and case. The topic phrase, by contrast, is in an A-bar position where it gets neither  $\theta$ -role nor case. We assume that the topic phrase is semantically incorporated to the verb with which it forms a complex verb in VP, before it moves to SpecCP. The fact that a verbal predicate may be restricted by a predicate-denoting expression without being saturated will be necessary for the semantic composition: Only then can the verb be composed and saturated with the MF phrase. The MF phrase is the complement of this complex verb. Consequently, the verb assigns the same case and thematic role to both the topic phrase and the MF phrase.

According to an approach suggested in Frey (2004) for a base generation analysis of German LD, the relationship between the topic phrase and the MF phrase might be characterized by the formation of an A-bar chain, defined by Cecchetto and Chierchia (1999) as follows:

- (181) A CHAIN  $\langle \alpha_1, \dots, \alpha_n \rangle$  is a sequence of nodes sharing the same  $\theta$  role such that any  $i$ ,  $1 \leq i < n$ ,  $\alpha_i$  c-commands and is coindexed with  $\alpha_{i+1}$ .

Coindexation mechanisms ensure linking the topic phrase and the MF phrase to the same argument. The fact that one  $\theta$ -role is transferrable across chains nodes, enables us to explain how two constituents can share one argument. As a consequence, reconstruction effects with binding and scope can be explained by coindexation and sharing of case and thematic roles via chain nodes (cf. Barss (1986)). Chain formation requires the topic phrase in SpecCP to c-command the head of the chain of the MF phrase, as is the case with antecedent and (self-referring) anaphors.

For the syntactic structure of STs we will propose the following where the topic phrase corresponds to  $XP_i$  and is coindexed with its trace  $t_i$ , and The MF phrase corresponds

to YP.  $pro]_i$  and is coindexed with the topic phrase. :

(182)  $[_{CP} [_{SpecCP} XP_i] V_j \dots [_{VP} YP \mathit{pro}]_i t_i t_j]$

We will later discuss the role of *pro* within the MF phrase: Briefly, *pro* refers to the property, an abstract discourse referent, denoted by the antecedent topic phrase.

If we assume one CP instead of two (one adjoined to the other), as was suggested in analogy to LD in the previous chapter, we explain in a straightforward way why the LD-ed element may be left out without affecting the grammaticality of the phrase, see (183), and why the ST topic cannot, see (184).

(183) ([Der König]<sub>i</sub>,)  $der_i$  steht da vorne.  
the king he stands there front  
The king, he is standing at the front.

(184) \*(Filmstars)<sub>i</sub> stehen da vorne welche  $t_i$ .  
movie-stars stand there front some  
As for movie stars, they are standing on the front.

Whereas in ST, the main verb has to be on the second position (184), in LD the main verb may not follow the LD-ed element (185).

(185) \*[Der König]<sub>i</sub> steht  $der_i$  da vorne.  
the king stands he there front  
(The king, he is standing at the front.)

Further, and unlike the analysis described in chapter 3, the proposed structure does not require the assumption of covert elements in CP (cf. *da* constructions).

### 4.1.3 Referentiality and Islands

As we have seen in the examples on islands, the topic phrase cannot move to the beginning of the sentence from any position. While extraction out of wh-islands is acceptable in colloquial German, strong islands typically produce ungrammaticality. Still, we have seen that some strong islands are better than others: Consider again the examples (47) and (48) (p.13), repeated as (186) and (187).

- (186) \*Rosen<sub>i</sub> kennt Stefan das Mädchen, das [rote *pro*]<sub>i</sub> t<sub>i</sub> bekommen hat.  
roses knows Stefan the girl who red got has
- (187) ?Eine Lösung kenne ich keinen/jemanden, der [eine bessere *pro*]<sub>i</sub> t<sub>i</sub> hat als  
a solution know I none/somebody who a better has than  
ich.  
I  
As for a solution, I don't know of any who has a better one than me.

The difference in grammaticality lies, we suggest, within the referential status of the head of the relative clause: While in (186) *das Mädchen* refers to a specific individual, in (187) the indefinite refers to none (*keinen*) or a non-specific (*jemanden*) discourse referent. This difference seems to have influence on whether the topic phrase can be extracted or not.<sup>4</sup>

We will take Chung's notion of pragmatic controlled coreference to explain the cases of ST which we called instances of Classificatory Noun Incorporation, see (188): Coindexation of the topic phrase with the classificatory noun is then licensed by the pragmatic knowledge of the IS-A relationship between white orchids and flowers.

- (188) Blumen<sub>i</sub> mag er nur [weisse Orchideen]<sub>i</sub>.  
flowers likes he only white orchids  
As for flowers, he only likes white orchids

Although strong islands and ST become slightly better, according to our intuitions, if the island contains no referential expressions, they are still very marginal. (189) is

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<sup>4</sup>Evidence that referential status influences movement relations and anaphoric binding can be found in Chung (1992). In her analysis of Chamorro, she distinguishes two types of movement dependencies that may arise between a moved element and its trace. Basically, her idea is that "long movement sets up a binding relation between an A-bar antecedent and its trace, and the perception that the trace's ability to enter into this relation is ultimately determined by intrinsic properties of the antecedent (its 'referentiality')" (ibid., p.27). As a consequence, one finds two types of relationships, one in which the antecedent is referential, and another in which it is non-referential. In the latter of these two cases, the movement of adjuncts and non-referential arguments is bounded successive-cyclically. This means, that movement occurs in a succession of short steps, each leaving a trace behind that must be properly governed by its antecedent. This type of dependency is necessarily involved with non-referential antecedents like e.g.: "who", "what", "noone". IN the former, the movement of referential arguments is "long" movement. Chung reasons on the basis of Chamorro that antecedent-government is not enforced and thus unboundedly long with referential antecedents like e.g.: definite DPs, "which", "all/each/many/much/some".



such an example of extraction out of adjunct island with the non-referential expressions *niemand*, (190) is an example for extraction out of subject clauses (190). This suggests that it is not only referentiality that makes these examples bad.

- (189) ??Rosen<sub>i</sub>, nachdem niemand [rote *pro*]<sub>i</sub> t<sub>i</sub> verschenkt hatte, ging ich  
 roses after nobody red as-present-given had went I  
 enttäuscht nach Hause.  
 disappointed to house  
 As for roses, as nobody gave red ones away, I went home frustrated.)

- (190) ??Rosen<sub>i</sub>, dass niemand [die *pro*]<sub>i</sub> t<sub>i</sub> mag, hätte ich mir nicht  
 roses that nobody the likes would-have I myself not  
 gedacht.  
 thought  
 As for roses, that nobody likes them, I'd not imagine.

We propose another reason for the observed marginality: As can be seen for adjunct (191) and subject (192) clauses, the topic phrase must be assumed in a position outside the main CP because SpecCP is already occupied by the adjunct and subject clause. This position blocks the topic phrase from being the antecedent for the MF phrase.

- (191) \*<sub>[CP<sub>3</sub> Rosen [CP<sub>2</sub> [SpecCP [CP<sub>1</sub> nachdem Sonja rote<sub>i</sub> bekommen hatte]] [C<sub>1</sub> ging]  
 [IP es ihr viel besser]</sub>  
 (192) \*<sub>[CP<sub>3</sub> Rosen [CP<sub>2</sub> [SpecCP<sub>2</sub> [CP<sub>2</sub> dass Arthur nur teure<sub>i</sub> mag]] [C hätte] [IP Hans  
 beinahe ruiniert]</sub>

By contrast, and as the structure for (187) in (193) shows, for ST with relative clauses the topic phrase is located within the main CP in SpecCP:

- (193) [<sub>CP [SpecCP [DP Eine Lösung]] [C kenne] [IP ich keinen [<sub>CP der eine bessere<sub>i</sub> hat  
 als ich]]]</sub></sub>

It seems thus that the topic phrase cannot be extracted out of more than one CP.

In order to resolve cataphoric expressions, the notion of pragmatic control helps to understand why binding is allowed even if an anaphor is not properly c-commanded. Consider again these examples, repeated from (60)-(62): (194) contains the reciprocal expression *einander* which is subject to binding principle A and properly bound. As

for chain formation, we understand that binding can take place also if the reverse is true, namely if the antecedent *uns* is bound by the preceding *einander*.

- (194) [Bücher von einander<sub>i</sub>]<sub>j</sub> sind uns<sub>i</sub> [keine *pro*]<sub>j</sub> t<sub>j</sub> bekannt.  
 books of each-other are us none known  
 As for books of each other, we don't know of any.

Likewise, binding of pronouns and referential expressions, as in (195) and (196) respectively, require coindexation and c-command by the “higher” head of the chain of the “lower” one. Crucially, binding principles cannot account for why *ihre* can be interpreted as being coreferential with Lara in (196).

- (195) \*[Bücher von ihr<sub>i</sub>]<sub>j</sub> hat Lara<sub>i</sub> [keine *pro*]<sub>j</sub> t<sub>j</sub> im Schrank.  
 books of her has Lara none in-the shelf  
 (As for her books, Lara has none on the shelf.)
- (196) [Bücher von Lara<sub>i</sub>]<sub>j</sub> hat \*sie/??ihre<sub>i</sub> Mutter [keine *pro*]<sub>j</sub> t<sub>j</sub> im Schrank.  
 books of Lara has she/her mother none in-the shelf  
 (As for books of Lara, she/her mother has none on the shelf.)

One possible answer might be that the possessive is “too deeply” embedded to be c-commanded. Another answer can be given in terms of pragmatic-controlled coreference: This licenses anaphors, if it is possible to calculate the referent of the pronoun, which seems to be the case in example (196).

#### 4.1.4 Abstract Reference and *pro*

We will explain why we think *pro* is necessary in the MF phrase and how it is related to the topic phrase. If STs have a *pro* in the NP of the MF phrase, then the cases of ST in which this NP is occupied by an overt noun (CNI), could be explained: “Normal” STs differ from CNIs only in the way the NP of the MF phrase is filled. Another advantage is that we can establish a semantic relationship between the topic phrase and *pro*. While the syntactic relationship between the topic and MF phrase ensures that both are assigned to the same argument, the semantic relationship between the referent denoted by the topic phrase and *pro* ensures that they corefer.

We will argue that *pro* refers to a property denoted by the topic phrase, and that

this property is referential in that it refers to an abstract discourse referent. As a consequence, the MF phrase may either introduce a concrete individual for which the property must hold (only in Viennese German), or modify the property, or quantify over the property.

Let us consider the following two question-answer pairs, one in which the answer is LD (198) and ST (200).

(197) Have you ever seen the king?

(198) [Den König]<sub>i</sub>, den<sub>i</sub> hab ich nur im Fernsehen gesehen.  
the king him have I only in-the TV seen  
The King, I have only seen on TV.

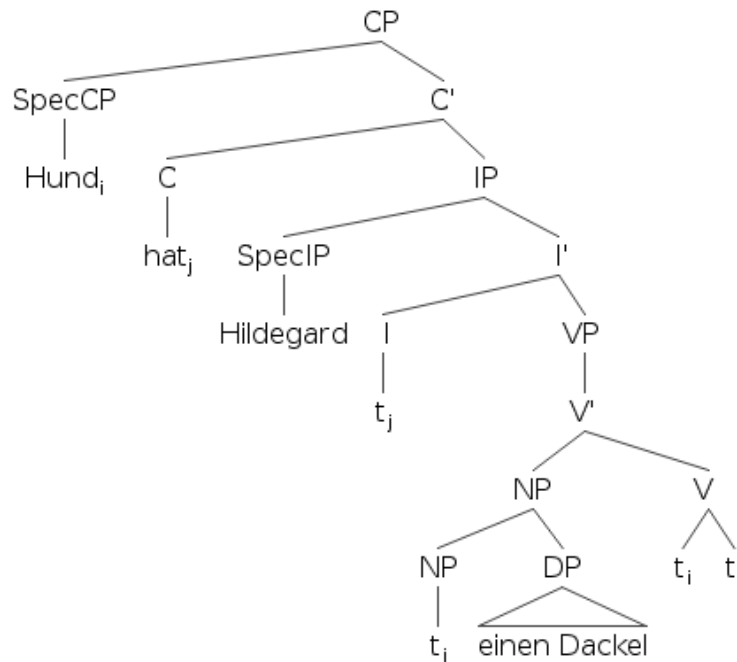
(199) Have you ever seen famous people?

(200) Filmstars<sub>i</sub> hab ich neulich [einige bekannte]<sub>i</sub> auf den Ramblas gesehen.  
movie-stars have I recently several famous on the Ramblas seen  
As for movie stars, I have seen several famous ones on the Ramblas.

The LD-ed element *den König* in (198) and the split topic phrase *Filmstars* in (200) refer to a discourse-old element for which a file card already exists. Still, there is a crucial difference concerning the type of referent. While in (198) the king is concrete, the movie stars in (200) refer to a property or class rather than specific individuals.

As we will later see, a “Link” (in the sense of Vallduví (1990)) points to a file card, which refers to a referent that has been introduced in prior discourse, and for which some information may be added or updated: While in LD, this referent is concrete, in ST the referent is abstract. For this abstract referent, the MF phrase creates either an instance by introducing a concrete discourse referent, or it modifies the property by intersection with another property.

We will call the discourse referent of a fronted kind or property its “abstract property referent”, and the referent of the LD-ed element its “concrete individual referent”. While the abstract DR is represented via *pro-NP* in ST constructions, the concrete DR is represented via *pro-DP* in LD constructions.



**Figure 4.2:** *Incorporated and Extra object as Multiple Linked arguments (Chung and Ladusaw (2003)), adapted to German ST*

#### 4.1.5 MF phrase is no “extra” object

We will now turn to the syntactic structure of multiple linked arguments as proposed for Chamorro by Chung and Ladusaw (2003), and explain why we will not adopt it for German STs. C&L propose that the property denoting argument is the “real” verb complement, whereas the other argument is an extra object and adjoined to the DP or NP of the complement. If we map this structure to German STs, and to the CNI example below we get the tree shown in (4.2):

- (201) Hund hat Hildegard einen Dackel.  
 dog has Hildegard a dachshund  
 As for dogs, Hildegard has a dachshund .

One argument for adjunction of the extra object, according to C&L, is that it is inaccessible to movement. However, in German and as the example with the scrambled MF phrase shows, this phrase is eligible for scrambling within the Mittelfeld. A constituent is regarded in a scrambled position, if it appears before a sentential adverb, like *tatsächlich*.

- (202) Mantel hat Hildegard [ihren nassen pro]<sub>j</sub> tatsächlich im Kasten t<sub>j</sub>  
coat has Hildegard her wet indeed in-the cupboard  
aufgehängt.  
hung-up  
As for her coat, Hildegard really hung up her wet one in the cupboard.

The same is true for ST with overt nouns in the MF phrase:

- (203) Mantel hat Hildegard [ihren Trenchcoat]<sub>j</sub> tatsächlich im Kasten t<sub>j</sub>  
coat has Hildegard her trench-coat indeed in-the cupboard  
aufgehängt.  
hung-up  
As for her coat, Hildegard really hung up her trench-coat in the cupboard.

The example suggests that the MF phrase in German ST is indeed an independent complement of the verb. The second indication for being an extra object is its inability to be shared by several conjoined verbs. This is indeed the case for German ST:

- (204) \*Autos repariert Hildegard ihre eigenen selbst und frisiert.  
cars repairs Hildegard her owns self and tunes  
As for her cars, Hildegard repairs and tunes them on her own.

The MF phrase cannot be shared by more than one verb in the previous example, but it can so in (205) where the MF phrase is not adjoined but a proper verbal argument of both verbs.

- (205) Buch möchte ich das über Turing lesen und eins über Einstein schreiben.  
book want I the about Turing read and one about Einstein write  
As for books, I want to read the one on Turing and write one on Einstein.

We therefore propose that the anaphoric MF phrase is the complement of the verb, as shown in tree (4.1).

## 4.2 Semantics

### 4.2.1 The property-denoting topic phrase

As suggested by Van Geenhoven (1998), we propose that the topic phrase is semantically incorporated to the verb. Likewise, following the account of Chung and Ladusaw (2003), we can say that the topic phrase restricts the verbal predicate without saturating the verbal argument. By contrast, the MF phrase cannot be considered obligatorily incorporated, because it can denote other than a property.

Basically, noun incorporation is used to describe constructions in which a verb and one of its arguments form a tight unit. According to Van Geenhoven, all narrowest scope indefinites are semantically incorporated, i.e. they must scope with the predicate and therefore cannot have wide scope relative to another quantifier. We have seen in the discussion on scope assignment, that the topic phrase is scopeless with respect to other quantifiers. Consider again (84) repeated here as (206): The topic phrase contains a stressed singular article which should force an existential wide-scope reading. Still, this reading is not available and the example therefore is not acceptable.

(206) ??EIN Buch müssen \ALLE Studenten eins lesen. (?? $\exists$   $\forall$ )

In order to account for bare singulars (207) and indefinite singulars (208) in the topic phrase, we must assume that in German incorporated nouns are not necessarily bare plurals (209), but can also be bare singulars and indefinite singulars.

(207) Känguru haben wir heute eines im Zoo gesehen.  
kangaroo have we today one in-the zoo seen  
As for kangaroos, we have seen one at the zoo today.

(208) Ein Känguru haben wir heute eines im Zoo gesehen.

(209) Kängurus haben wir heute welche im Zoo gesehen.

### 4.2.2 The individual- or property- or quantifier-denoting MF phrase

The MF phrase is via *pro* coindexed with the “abstract” property discourse referent introduced by the incorporated topic phrase. In ST, we find “light” anaphoric MF

phrases that merely repeat the antecedent property, and “strong” anaphors, which add descriptive content to the denotation of the antecedent. In other words, the property may be not only resumed but even intersected with another property, or applied to a specific individual. The property of the topic phrase can then be taken up by the MF phrase in different ways. The table in (4.2) lists the available readings depending on the type of MF phrase.

MF Reading	Examples
Existential	Buch habe ich eines/ Bücher habe ich welche. As for books, I have one/some.
Cardinal	Buch habe ich EINES/ Bücher habe ich drei. As for books, I have ONE/three.
Quantifier	Bücher habe ich viele/wenige/keine. As for books, I have many/few/none.
Property	Bücher habe ich ungarische. As for books, I have Hungarian ones.
Individual	Buch habe ich das neueste von ihm/ Bücher habe ich das da. As for books, I have his newest one/this one.
Kind	Hund habe ich einen Dackel As for dogs, I have a dachshund .

**Table 4.2:** *Readings of the anaphoric MF phrase*

Following e.g. Partee (1987) and Van Geenhoven (1998), we can classify the different types of MF phrases into three semantic types: Quantifying MF phrases comprise existential and quantificational determiners, and, as we will assume for now, cardinals. Property-denoting MF phrases are adjectives, and - in non-Standard German - classificatory nouns. Finally, individual-denoting MF phrases, which are only an option in colloquial German, are realized by definites and demonstratives. Thus, while the semantic type of the topic phrase needs to be that of a property, the MF phrase needs not. Briefly, we suggest the following composition for ST in which the topic phrase is necessarily incorporated and the MF phrase is interpreted as either a quantifier, a property, or an individual:

(210) Semantic incorporation of property-denoting topic phrase.

(211) Topic phrase coindexed with anaphoric MF phrase, where:

- a. MF phrase denotes quantifier.
- b. MF phrase denotes property.

- c. MF phrase denotes individual.

### 4.2.3 Semantic Composition

We come back now to the semantic composition algorithm proposed by Chung and Ladusaw (2003), which we presented in the previous chapter. According to their analysis, two instances of one and the same verbal argument can be connected by multiple linking as long as one of the arguments is composed by predicate Restriction. For German ST this means that the property-denoting topic phrase has to be composed via Restriction, while the MF phrase can be composed via Restriction, if it denotes a property, or via Specify, if it denotes an individual or a quantifier. Since Restrict has to apply before Specify, the topic phrase must be interpreted and composed in its base position. An advantage of applying C&L's algorithm to ST is that we don't have to treat examples with overt nouns in the Mittelfeld (like in the cases of CNI) as deviant cases of STs. What matters is only the semantic type of the MF phrase. If it denotes a property, we have to apply Restrict. If it denotes an individual, we have to apply Function Application. For quantifiers, we apply - assuming quantifier raising at the syntactic level - Specify by variable binding through the quantifier.

To sum up, for the semantic composition of ST, we propose the following:

- First, compose the semantically incorporated noun via Restrict without saturating the verb's argument, then continue with composition of the anaphoric MF via Specify or Restrict.

To illustrate, we will apply the composition proposed on four examples of ST: One example that contains a property-denoting expression in the MF phrase, one with a quantifier, one with a classificatory noun, and one with an individual-denoting expression. Recall that the latter two constructions exist only in Viennese German.

If the MF phrase bears a property-denoting expression, then no saturation is achieved because it has to be composed via predicate restriction. Then, the argument must be existentially closed (EC), otherwise composition will not be complete. Consider the example in (212):



(212) Türen<sub>i</sub> kauft<sub>j</sub> Josep [rosane *pro*]<sub>i</sub> t<sub>i</sub> t<sub>j</sub>.  
 doors buys Josep pink

As for doors, Josep is buying pink ones.

- a.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)] (türen') – RESTRICT
- b.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)  $\wedge$  türen'(y)] (josep) – FA
- c.  $\lambda y \lambda e$  [kaufen'(josep)(y)(e)  $\wedge$  türen'(y)] (rosa') – RESTRICT
- d.  $\lambda e \exists y$  [kaufen'(josep)(y)(e)  $\wedge$  türen'(y)  $\wedge$  rosa'(y)] – EC
- e.  $\exists e \exists y$  [kaufen'(josep)(y)(e)  $\wedge$  türen'(y)  $\wedge$  rosa'(y)] – EC
- f. There is an event, in which there are some y, such that Josep buys y, and y are doors, and y are pink.

As for the composition of (213), an example for CNI, we proceed as with property-denoting MF phrases (212) and apply Restrict to the topic and to the MF phrase. This means that we take dachshund as kind-denoting, and that kinds are “special” instances of properties that refer to a set of entities with a given property. Hence, we compose kinds as properties via Restriction rather than e.g. FA which would yield a reading where one entity has a given property.

(213) Hund<sub>i</sub> kauft<sub>j</sub> Josep [einen Dackel]<sub>i</sub> t<sub>i</sub> t<sub>j</sub>.  
 dog buys Josep a dachshund

As for dogs, Josep is buying a dachshund .

- a.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)] (hund') – RESTRICT
- b.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)  $\wedge$  hund'(y)] (josep) – FA
- c.  $\lambda y \lambda e$  [kaufen'(josep)(y)(e)  $\wedge$  hund'(y)] (dachshund ') – RESTRICT
- d.  $\lambda e \exists y$  [kaufen'(josep)(y)(e)  $\wedge$  hund'(y)  $\wedge$  dachshund '(y)] – EC
- e.  $\exists e \exists y$  [kaufen'(josep)(y)(e)  $\wedge$  hund'(y)  $\wedge$  dachshund '(y)] – EC
- f. There is an event, in which there is some y, such that Josep buys y, and y is a dog, and y is a dachshund .

In example (214) the MF phrase contains the quantifier *viele*. For quantifier raising (cf. Heim (1982)), the coindexation of the trace and the topic phrase are crucial for interpreting the variable in the nuclear scope. The syntactic structure with the quantifier raised, with *pro*<sub>i</sub> as part of the restrictive clause, as shown in 215.

- (214) Türen<sub>i</sub> kauft<sub>j</sub> Josep [viele *pro*]<sub>i</sub> t<sub>i</sub> t<sub>j</sub>.  
 doors buys Josep many

As for doors, Josep is buying many.

- (215) Viele:<sub>x</sub> [pro(x)] [kaufen(j,x) and Türen(x)]

a.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)] (türen') – RESTRICT

b.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)  $\wedge$  türen'(y)] (z<sub>2</sub>) – FA

c.  $\lambda x \lambda e$  [kaufen'(x)(z<sub>2</sub>)(e)  $\wedge$  türen'(z<sub>2</sub>)] (josep) – FA

d.  $\lambda e$  [kaufen'(josep)(z<sub>2</sub>)(e)  $\wedge$  türen'(z<sub>2</sub>)] – EC

e. VIELE'(z<sub>2</sub>) [türen'(z<sub>2</sub>)] [ $\exists e$  [kaufen'(josep)(z<sub>2</sub>)(e)] – FA

f. There are many doors, and there is an event, in which Josep buys them.

Finally, the MF phrase can also bear a definite deictic expression which saturates the verbal argument. In what follows, we propose that the definite expression *die braunen* introduces a variable which is coindexed with a specific discourse referent.

- (216) Türen kauft Josep die braunen.  
 doors buys Josep the browns

As for doors, Josep buys the brown ones.

a.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)] (türen') – RESTRICT

b.  $\lambda y \lambda x \lambda e$  [kaufen'(x)(y)(e)  $\wedge$  türen'(y)] (josep) – FA

c.  $\lambda y \lambda e$  [kaufen'(josep)(y)(e)  $\wedge$  türen'(y)] (z<sub>3</sub>) – FA

d.  $\lambda e$  [kaufen'(josep)(z<sub>3</sub>)(e)  $\wedge$  türen'(z<sub>3</sub>)] – EC

e.  $\exists e$  [kaufen'(josep)(z<sub>3</sub>)(e)  $\wedge$  türen'(z<sub>3</sub>)]

f. There is an event, in which Josep buys z<sub>3</sub> and z<sub>3</sub> are the brown ones.

### 4.3 Pragmatics

In this section we will look at the kind of information packaging instructions, in the sense of Vallduví (1990), that can be associated with ST. We will bring examples other than the classical ST in which the topic phrase is not a contrastive topic. Finally, we will describe how these patterns can be related to specific information structures.

### 4.3.1 Link, Focus, and Tail

To begin with, we will discuss ST examples according to a set of information packaging instructions defined in Vallduví (1990). The theory presented in Vallduví (1990) accounts for how speakers structure information according to the hearer's information state. According to Vallduví, Information Packaging is “a small set of instructions with which the hearer is instructed by the speaker to retrieve the information carried by the sentence and enter it into her/his knowledge-store“ (p.18). The informational articulation of a sentence tells the addressee which instructions to follow. Usually, language encodes these instructions syntactically or prosodically. Each primitive can be assigned to a specific instruction and combinations of various instruction types are possible. The Focus is the new information and appears in all sentences. Links and tails provide information about the ground, where links correspond to topics and are typically marked by L+H\* pitch accent in English. Links identify what discourse referent the focal information goes with. Tails indicates a “non-default” mode of update and how the information is entered.<sup>5</sup> These primitives can be combined and yield the following instruction types:

- *All-Focus*: Update or add information
- *Link-Focus-Tail*: Go to file card *fc*, update information, and replace record of *fc*.
- *Link-Focus*: Go to file card *fc*, and update information of *fc*.
- *Focus-Tail*: Update information on active file card *fc*, and replace record of *fc*

In what follows, we use bold font for the Focus and small caps for the Link. Although we will mark falling/rising/root accents, we will not use this information for a later evaluation on intonation contours. Pitch accents is a far too complicated matter to be dealt here in an accurate way. We will limit ourselves to drawing conclusion on the prominence of the pitch but not any subtle curves.

As for “typical” STs with a contrastive reading of both the topic and the MF phrase, they provide a *Link-Focus-Tail* instruction. In example (218) the hearer is instructed to go to the existing file card of beer, to retrieve the existing information “is out” and

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<sup>5</sup>For similar locational theories of information packaging, cf. Reinhart (1981) and Erteschik-Shir (1997).

substitute it with the new information “one bottle left”. The topic phrase is the Link and the MF phrase is the Focus.

(217) How much of each of drink is left?

(218) Wieso?  $\sqrt{\text{BIER}}$  muss noch \e**ine Flasche** da sein.  
why beer must yet one bottle here be  
Why? As for beer, there still should be one bottle left.

The typical intonation contour of STs has been often described as consisting of a root contour ( $\sqrt{\quad}$ ), for the contrastive topic, and a falling accent ( $\backslash$ ) for the contrastive MF phrase. We can associate the root accent of the topic phrase as contrastive and as denoting the Link that points to a file card whose referent has been introduced in prior discourse. For ST with the intonation contour of (220) to be a felicitous answer, we have to pose e.g. an ambiguous yes/no question like (219). The question has introduced roses and chocolate into the discourse, and the answer picks out one of these items, which are at this point discourse-old. The rest of the sentence is also old, except for the MF phrase *rote* and for the assertion of the fact that you got roses.

(219) Hast Du Rosen oder Schokolade geschenkt bekommen?  
have you roses or chocolate as-present got  
Did you get roses or chocolate as a present? (CP=true/false?)

(220) Ja,  $\sqrt{\text{ROSEN}}$  habe ich \r**ote** geschenkt bekommen.  
yes roses have I red as-present got  
Yes, as for roses, I got red ones as a present.

A question in the form of (221) for the same answer (220) is not appropriate, because the MF phrase is part of the focus and the question would require only the topic phrase to be in focus. (222) is also out, because the “root” accent of the topic phrase is associated with contrast and there are no items that *Rosen* could be contrasted with. For similar reasons, an all-focus question like (223) is inappropriate.

(221) \*Was hast Du geschenkt bekommen?  
what have you as-present got  
What did you get as a present? (DP?)

(222) ??Welche Rosen hast Du geschenkt bekommen?  
which roses have you as-present got

Which (kind of) roses did you get as a present? (D'?)

- (223) \*Was ist passiert?  
what is happened  
What happened? (IP?)

Prince (1998) attributes a discursive function of simplifying or disambiguating topics to so-called simplifying LDs. For ST, this seems to hold as well for topic phrases that bear a root accent. Pragmatically, STs with contrastive topics are appropriate if more than one topic is available, so that in order to clarify discourse processing, the speaker mentions the relevant expression before uttering the new information about this item. Simplifying discourse is useful if there could be doubts on what we are talking about.

Still, STs can also bear other than the classical intonation contour: (225) is an example for an *All-Focus* sentence which instructs the hearer to create a file card for the abstract referent of beer and to enter the information “they delivered”. At that point, beer has not yet been introduced to the ground and is part of the Focus. Likewise, the rest of the sentence denotes new information.

- (224) What happened?
- (225) /\Bier ham sie welches geliefert.  
beer have they some delivered  
Beer, they delivered.

The next example (227) is a *Link-Focus* sentence and instructs the hearer to go to the existing file card of beer and to enter the information “I haven’t had for a while”. In other words, “beer” is the Link that points to a file card and under which the focal information goes.

- (226) Do you want some beer?
- (227) Warum nicht? √BIER hab ich schon \lange keins gehabt.  
why not beer have I yet longly none had  
Why not? A beer, I haven’t had any for a while.

Consider another question-answer pairs: The question in (228) motivates an answer in the form of (229). The main verb is in focus. While the topic phrase gets again assigned the root accent and functions as a Link, the MF phrase does not get any special accent.

(228) Do you have any magazines or books about Babos?

(229) √BÜCHER \hab ich welche. Zeitschriften weiss ich nicht.  
books have I some magazines know I not  
As for books, I do have some. As for magazines, I don't know.

The answer in (229) asserts that, as for books, the speaker has some, being neutral with respect to magazines. By contrast, in the previous answer (241), the same assertion but with a different intonation implies that the speaker has only books and nothing else.

Consider now STs with a *Focus-Tail* instruction. They appear in contexts in which the topic phrase has not been mentioned before. The answer (231) is felicitous for a yes/no question: Although the magazine was not mentioned in the question, it stands in contrast with books and other objects that could offer information about Babos.

(230) Do you have a book on Babos?

(231) Nein, aber /\Zeitschrift hab ich (\*/\)eine.  
no but magazine have I one  
No, but I have a magazine.

The topic phrase actually denotes contrastive focus, which has been subsumed also under the term of identificational focus. It indicates a relation of a proposition to a contextually given set of alternatives (cf. Kiss (1998); Schwabe (2004)). In our example the set of alternatives contains magazines. On the one hand, magazine is old information in that it refers to the same class of items as the mentioned books. On the other hand, by treating magazine as new information and by assuming that every sentence can only have one focussed phrase, we can explain why the MF phrase gets no special accent and denotes old information.

The Focus-Tail example (233) instructs the hearer to go to the active file card, which is not beer but John, and to retrieve the information “wants x” and substitute it by “wants beer”.

(232) What about John?

(233) /\Bier will er jetzt eins.  
beer wants he now one  
A beer, he wants now.

Assume the active file card refers to John, and the hearer is instructed to substitute information of a specific entry. This implies that we might create a new file card referring to the substituted information. In this sense, the ST example (235) is an example for Focus-Tail: The hearer has previously entered erroneous information on his own file card, namely to bring along two bottles of kefir. Now he is instructed to correct this entry by substituting kefir with beer.

(234) Haven't you told me to bring two bottles of Kefir?

(235) Nein, /'Bier hättest Du zwei Flaschen \MITBRINGEN sollen.  
no beer would-have you two bottles bring-along shall  
No, it was beer, you should have brought along two bottles of.

Beer is the new focal information, while two bottles refers to the old entry which should be updated. Note that the sign /' marks a rising accent followed by a tiny fall, and resembles an “inversed” root accent. Like the root accent it indicates that the marked item is contrastive. The difference between the root and inversed accent, we believe, is that while the former is associated with old information, the latter is associated with new information.

The “listing” type of ST can also be regarded as a Focus-Tail: For an answer as in (237), the question would be e.g. (236) and obviously requires a complementary - as opposed to yes/no - answer about multiple wh-phrases. While the new information is denoted by the topic phrase and the MF phrase, the Tail might be “things you got for present”.

(236) What did you get and how much? (DP, D?)

(237) /Rosen habe ich \zwei geschenkt bekommen, /Bücher \vier, und  
roses have I two as-present got, books four and  
/Kuchen \einen.  
cake one  
I got: two roses, four books, and one cake.

The knowledge domain of the speaker consists of a list of presents and some information about each gift: “Rose=2, books=4, cake=1”. The list items on the left syntactically correspond to the topic phrase, while the values on the right correspond to the MF phrase. Note that the topic phrase does not bear the root accent, which is typical for

contrastiveness, but has a normal rising accent (/). Still, for the last sentence of a sequence of listing ST sentences, the root accent might be used for the topic phrase.

Finally, we want to give a ST example which is a question. We come back to the example in (2), repeated as (239), which can be used as a yes/no question.

(238) My aunts and uncles are all dead.

(239) Und  $\sqrt{\text{LEBENDIGE}}$  Verwandte haben Sie  $\sqrt{\text{gar}}$  keine?  
and living relatives have You at-all none  
And living relatives, You don't have any at all?

The topic phrase of the question is linked to the previous utterance by means of the superset of relatives. The topic phrase could be hence regarded the Link and the MF phrase as the Focus part. Within the topic phrase, *lebendige* stands in contrast to the mentioned dead relatives.

### 4.3.2 Semantically “light” MF phrases

STs might contain a MF phrase that is semantically light in that it adds no significant content to the sentence but rather, it seems, functions like a resumptive pronoun and helps the hearer to organize information more easily. For example, in (241) the MF phrase *welche* must be unstressed and cannot be considered as conveying additional new information that has not already been provided by the rest of the sentence.

(240) Do you have magazines or books about Babos?

(241) /\Bücher hab ich (welche). Zeitschriften nicht.  
books have I some magazines not  
Books, I have some. As for magazines, I don't have any.

In (241) the topic phrase bears a fall-rise accent and denotes the old information. The intonation implies that the speaker has only books and nothing else, as opposed to the non-exclusive meaning in (241).



### 4.3.3 Conclusions

We have seen, although the topic phrase denotes the theme of the sentence, it is not necessarily the topic and ST constructions are not necessarily associated with one particular information structure. Still, contrastive topic phrases with a root accent are always Links. Other types of ST are All-Focus, Link-Focus, Link-Focus-Tail, or Focus-Tail sentences. Their distribution gives reasons for the following conclusion: For ST, the topic phrase can be either Focus or Link, and the MF phrase can be either Focus or Tail. To sum up, we will distinguish two groups of ST: One group refers to ST with a new topic phrase, while the other group refers to ST with an old topic phrase.

#### I. Focus topic phrase

- Focus topic phrase – Focus MF phrase
  - /\**Bier** ham sie welches geliefert. (cf. 225)
  - /**Rosen** habe ich \**zwei** geschenkt bekommen, /**Bücher** \**vier**, und /**Kuchen** \**einen**. (cf. 237)
- Focus topic phrase – “Light” MF phrase
  - /\**Bier** will er jetzt eins. (cf. 233)
  - Nein, aber /\**Zeitschrift** hab ich (\*/\)eine. (cf. 231)
- Focus topic phrase – Tail MF phrase
  - Nein, /'**Bier** hättest Du zwei Flaschen \**MITBRINGEN** sollen. (cf. 235)

#### II. Ground topic phrase

- Link topic phrase – Focus MF phrase
  - Wieso? √**BIER** muss noch \**eine Flasche** da sein. (cf. 218)
  - Ja, √**ROSEN** habe ich \**rote** geschenkt bekommen. (cf. 220)
  - Warum nicht? √**BIER** hab ich schon \**lange** keins gehabt. (cf. 227)
- Link topic phrase – “Light” MF phrase
  - √**BÜCHER** \**hab** ich welche. Zeitschriften weiss ich nicht. (cf. 229)

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## Chapter 5

# Summary

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In this work, we have described and analysed the ST phenomenon in Standard German and Viennese German, a non-Standard Southern German variety.

As for the pragmatics of ST, the term “topic” phrase is not appropriate because, although the fronted phrase always denotes the theme of the sentence, it is not necessarily the topic. ST constructions is a means to “separate“ a given property (theme) from what is said about this property (rheme). We have seen that ST can be used for several discursive purposes: They can be All-Focus, Link-Focus, Link-Focus-Tail, or Focus-Tail sentences (in the sense of Vallduví (1990)). While the topic phrase can be either the Focus or the Link, the MF phrase can be either the Focus or the Tail. While the Focus part gets the primary “louder” stress, the Link gets the secondary stress and a contrastive root accent.

For the semantic analysis, we proposed that the topic phrase is a property-denoting expression which restricts the denotation of the verbal predicate (semantic incorporation, in the sense of Van Geenhoven (1998)). Therefore, the topic phrase may not bear a determiner that adds a definite/specific/quantificational meaning. Typically, only the weak indefinite article or null article have these properties. Strong determiners are excluded and may appear only in the MF phrase. The MF phrase depends on the topic phrase in that it must refer to the introduced property, either by modifying it or by picking out an entity. The MF phrase denotes then either a (sub-)property or a specific entity for which the property holds. So, while the topic phrase has to be semantically composed via predicate restriction, the MF phrase may be composed via specify or restrict (cf. Chung and Ladusaw (2003)).

Examples in Viennese German, in which the MF phrase does not denote a property, are problematic for approaches in which the topic and MF phrase must denote the same semantic type (cf. Fanselow, Van Geenhoven, Kuhn). Further, Viennese German also allows indefinites and bare nouns in the topic phrase. As for semantic incorporation,

we understand that only bare plurals and NPs might be incorporated. However, if we want to maintain our claim that the topic phrase of ST denotes a property, then it is not the syntactic category of the topic phrase that matters but its denotation. Likewise, not only property-denoting expressions but also kind-denoting expressions might be available for composition via predicate restriction and be candidates for semantic incorporation.

As for the syntactic analysis of ST, a movement approach (cf. Riemsdijk (1989)) faces problems with overt nouns in the MF phrase. So, rather than assuming that the topic phrase moves out of the MF phrase, we proposed that the base position of the topic phrase is the incorporating verb, and that the MF phrase is generated independently as the complement of the verb. This explains why the topic phrase must denote a property, and why the MF phrase in Viennese German needs not. Further, it explains why both phrases are morphologically independent and why the topic phrase can bear an indefinite article. Typically, the MF phrase is a noun-less DP bearing *pro*; Still, in Viennese German the MF phrase can have an overt noun that refers to a kind and to a sub-property of the topic property. In such “classificatory” STs there is no place for *pro* within the MF phrase.

To sum up, the property denoted by the topic phrase must have the same semantic type as *pro* within the MF phrase: They corefer to the same abstract discourse referent. By contrast, the topic phrase and the MF phrase share the same argument. They can differ in their semantic type but not in their argument status. In order to distinguish between the semantic and the syntactic relationship, we proposed coindexation of the topic NP with *pro*, on the one hand, and coindexation of the topic phrase (DP) with the whole MF phrase, on the other hand. While *pro* and the topic phrase in principle are not required to have the same case, the MF and topic phrase have to. Likewise, while *pro* and the topic phrase have to be of the same semantic type, the MF and topic phrase do not. Van Geenhoven argues that incorporated nouns introduce discourse referents: As for ST, this seems to be a crucial necessity in order for the topic phrase to be resumed via *pro*.

In general, ST seems to be rarely used in colloquial speech, contrary to e.g. LD constructions. In LD constructions, a definite and concrete individual is topicalised and its denotation resumed (and never restricted) via a resumptive pronoun. ST

constructions resemble “special” instances of ellipsis in that the MF phrase refers to a discourse referent that has been introduced previously. The line to draw between elliptical construction and the MF phrase of ST seems then to be quite fuzzy: Is the MF phrase a sentence-internal “tiny” ellipsis within a narrow inter-sentential domain, or, is an ellipsis a “big” anaphor within a broad cross-sentential domain? Along this work, other questions arised as well, for example, whether there exist overtly realized *pro*-NPs (at least in German); and, whether the DP Hypothesis can be corroborated in that the singular NP is the “raw” lexical form which at the time of insertion must be either inflected (case, number) by a DP or else be incorporated by a verb.

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