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Resumptive prolepsis. A study in indirect A'-dependencies

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A study in indirect A'-dependencies

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Resumptive Prolepsis

A study in indirect A'-dependencies

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to my parents

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Abbreviations

1	first person
2	second person
3	third person
ACC	accusative
C	complementizer
DAT	dative
DEM	demonstrative
DIM	diminutive
EVID	evidential
GEN	genitive
MSC	masculine
NOM	nominative
NTR	neuter
PL	plural
PRF	perfect
PRP	dummy preposition
PRT	particle
PST	past
SG	singular
STR	strong (adjectival inflection)
SUBJ	subjunctive
WK	weak (adjectival inflection)

HEA	Head External Analysis
HRA	Head Raising Analysis
MA	Matching Analysis

=	cliticized

Introduction

The paradigmatic case of an A'-dependency involves a dislocated constituent in an operator position and a gap that it is related to:

(1) **What** did John do __?

Such dependencies are often interpreted in terms of movement. The constituent undergoing the fronting operation is base-generated in the position where it is thematically interpreted and displaced in the course of the derivation. This displacement operation establishes an A'-dependency between the fronted constituent and the position where it originates from. Such A'-dependencies are direct in the sense that antecedent and gap are members of the same chain.

The topic of this dissertation are indirect A'-dependencies. Indirect A'-dependencies link syntactic objects that are not part of the same chain yet behave as if they were. A well-known case of an indirect A'-dependency are relative clauses:

(2) the book **which** John read __

There is a direct A'-dependency involving the relative pronoun *which* and the gap it is linked to. However, there is clear evidence that the external head of the relative is also in some way linked to the gap. Reconstruction effects show that it must be interpreted relative-clause internally, in the position of the gap. In the following example, the bound variable inside the external head is bound by the QP inside the relative clause:

(3) the picture of **his**$_i$ girlfriend which **every man**$_i$ likes __ best

Reconstruction is an important property of dependencies involving dislocation, especially of A'-dependencies. This implies for the case at hand that the external head participates in an A'-dependency. Obviously, this A'-dependency is not direct but rather indirect, mediated by the relative pronoun.

While A'-dependencies normally relate an antecedent to a gap, there are also A'-dependencies where a resumptive pronoun appears in the extraction site. This is illustrated in the following example from Zurich German long-distance relativization:

(4) **s Bild**, wo t gsäit häsch, dass de Peter **s** wett verchauffe
the picture C you said have.2SG that the Peter it wants sell
'the picture that you said Peter wants to sell'

Here, the external head of the relative clause is thematically related to the pronoun *s* 'it'. Reconstruction effects show that the external head must be interpreted inside the relative clause. In the following sentence, an anaphor contained in the external head is bound by an R-expression inside the complement clause:

(5) s Bild vo **siich**$_i$, wo t gsäit häsch,
the picture of self C you said have.2SG
dass de **Peter**$_i$ s wett verchauffe
that the Peter it wants sell
'the picture of himself$_i$ that you said Peter$_i$ wants to sell'

This shows that A'-dependencies terminating in resumptive pronouns instead of gaps share one of the crucial properties of A'-dependencies involving gaps: reconstruction.

Next to indirect A'-dependencies in relative clauses, which have already received a lot of attention in the literature (even though they have never explicitly been referred to as such), this dissertation describes and analyzes a hitherto unstudied indirect A'-dependency. Both Standard German and Dutch have a construction that is semantically very similar to long-distance relativization yet features a coreferring pronoun instead of a gap. Additionally, the relative pronoun is governed by a preposition that is incompatible with the thematic position it is related to:

(6) der **Maler**, **von dem** ich glaube, dass Petra **ihn** mag
the painter of who I believe that Petra him likes
'the painter who I think Petra likes'

The relative operator phrase cannot be directly related to the coreferring pronoun due to the category mismatch. Crucially, the external head is not only thematically related to the coreferring pronoun, there is evidence that it participates in an A'-dependency. Reconstruction effects show that it has to be interpreted in the complement clause, in the position of the coreferring pronoun. In the following example, an anaphor inside the external head is bound by an R-expression inside the complement clause:

(7) das Spiegelbild von **sich**$_i$, von dem ich glaube,
the reflection of self of which I believe
dass **Peter**$_i$ es an der Wand sah
that Peter it on the wall saw
'the reflection of himself$_i$ that I think Peter$_i$ saw on the wall'

This sentence can be argued to involve a doubly indirect dependency: The external head has to be related to the coreferring pronoun via the relative pronoun. Additionally, the dependency between the relative operator and the coreferring pronoun must also be indirect. I will refer to this construction as the *proleptic construction* or as *resumptive prolepsis*.

The major goal of this dissertation is to provide more insight into indirect dependencies by a close examination of German, Dutch and Zurich German data. The central question that needs to be addressed is the following: Given the reconstruction effects, how exactly can it be achieved that the external head of a relative clause is interpreted in a position it is not related to by a direct movement operation? The two major areas that this affects are the nature of reconstruction and (where the A'-dependency does not terminate in a gap) and

the nature of resumption. Consequently, a large part of this thesis is devoted to them.

The thesis is structured as follows. In chapter one, I will provide the relevant background about the syntax of relative clauses and about reconstruction. Chapter two discusses German relative clauses and argues that what makes the indirect A'-dependency possible is an ellipsis operation that links the external head with its relative clause-internal counterpart. Chapter three addresses the proleptic construction introduced in (7) above. I will argue in favor of a doubly indirect A'-dependency. Next to the ellipsis operation that links the external head with the relative pronoun there is another ellipsis operation that links the relative operator phrase with a representation of it inside the complement clause. In chapter four, I discuss the syntax of resumptive pronouns in Zurich German relative clauses. I argue that local and long-distance relativization require very different analyses. While local relativization is described in terms of an indirect A'-dependency that (sometimes) terminates in resumptive pronouns, long-distance relativization is reanalyzed in terms of a doubly indirect A'-dependency parallel to the proleptic construction in (7). The concluding chapter summarizes the theoretical results and points out avenues for future research.

1 The syntax of relative clauses

This chapter provides the relevant background necessary to understand recent developments in the analysis of restrictive postnominal relative clauses. I will not discuss non-restrictive/appositive relative clauses, free relatives and more exotic types such as correlatives or circumnominal relatives because they play no role in this thesis. See de Vries (2002 chapter 2) for an exhaustive typological overview.

In the first subsection, I will introduce the competing proposals that have been advanced in the last thirty years. Then I will discuss some of the advantages and difficulties of the various analyses. In section three, I will present the reconstruction effects (in English) that have shaped the discussion in the recent literature. Section four describes how reconstruction is implemented in the various proposals. In section five, I will evaluate the three different analyses with respect to the reconstruction effects presented in section three. Section six concludes the chapter.

1.1 The competing proposals

In this section, I discuss the competing proposals that have been suggested for the syntax of relative clauses: the Head External Analysis (HEA), the Head Raising Analysis (HRA), and the Matching Analysis (MA).[1] My presentation will be limited to the facts directly relevant for this thesis. More detailed information can be found in Bianchi (1999, 2002a/b), Alexiadou et al. (2000), de Vries (2002 chapter 3–4), and Grosu (2002).

1.1.1 The Head External Analysis (HEA)

The HEA is very prominent in the literature. It was the standard analysis until the mid-nineties; its origins are therefore difficult to trace. It is advocated by Quine (1960), Chomsky (1977) and many others. The standard implementation of the HEA (for English) is characterized by the following properties: relative clauses are CPs adjoined to the head noun NP. An external determiner selects this NP. Inside the relative clause, there is A'-movement of a relative pronoun or an empty operator. The operator is linked to the head-NP via predication, semantically interpreted as intersective modification:[2]

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[1] There are more logical possibilities: Head raising is basically independent of complementation, even though recent instantiations of the HRA have all adopted this option. See Alexiadou et al. (2000: 3f.) for an overview.

[2] The notation used in this thesis for movement dependencies and coreference relations requires some comments. Contrary to common practice, I will use underlines instead of „t" to indicate the trace position, basically for reasons of visibility. This will be particularly handy when resumptive pronouns come into play. An underline indicates more clearly than „t" that movement leaves a gap. Furthermore, I systematically differentiate between movement dependencies and coreference relations. For the former, I use numbers, for the latter I use letters. This differentiation may seem unnecessary, but it will turn out to be very helpful when

(8) the [book]$_i$ [$_{CP}$ [Op$_i$/which$_i$]$_1$ John likes __$_1$]

The assumption that the relative operator is only linked to the head NP and that the external determiner is therefore structurally higher than the relative clause is nowadays taken for granted by proponents of the HEA (see Bianchi 2002b: 235ff. for a sketch of the historical development).[3] One of the most straightforward arguments in favor of that position comes from scope. The external determiner clearly has scope over both the head NP and the relative clause as in the following example with its semantic interpretation (cf. Alexiadou et al. 2000: 5):

(9) a) every girl that Mary saw

b) $\forall x$ [girl (x) $\wedge$ Mary saw (x)]

More evidence for this relation between external determiner and relative clause comes from the indefiniteness of the trace (see 1.2.2.3) and scope reconstruction (1.3.1).

Very important for the subsequent discussion of reconstruction effects is the fact that the external head, i.e. the NP, is not directly represented inside the relative clause.

1.1.2 The Head Raising Analysis (HRA)

The HRA goes back to Brame (1968), Schachter (1973), and Vergnaud (1974). More recently, it has been revived by Åfarli (1994), Kayne (1994), Bianchi (1999, 2000a/b), Bhatt (2002), and Aoun & Li (2003) among others.

In the HRA, an external determiner selects a CP.[4] The crucial property of the HRA is that the head NP originates inside the relative clause CP and is A'-moved to an operator position within the relative clause to become adjacent to the external determiner. Within the last 12 years there have been various implementations of the HRA. In what follows, I will very briefly sketch some of the issues that have been important in the discussion around this development since Kayne (1994). Earlier discussions will be ignored because they are no longer relevant.

In Kayne's (1994) proposal, *that*- and *wh*-relatives are treated differently. In *that*-relatives, only an NP is raised to Spec, CP whereas in *wh*-relatives, the head NP is generated as the complement of the relative operator and moved together with it

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I discuss fine-grained differences between the Head Raising Analysis and the Matching Analysis in 1.5. When introducing reconstruction effects with material contained inside the external head, I will not use any coindexation so as not to prejudge the analysis. I will simply enclose the external head in brackets and indicate the position it is related to with an underline. This notation is meant to be neutral between a direct movement relationship as under the Head Raising Analysis and an indirect relationship as under the Matching Analysis.

[3] Not all approaches assume an adjunction structure. Aoun & Li (2003: 122), for instance, assume a version of the HEA which they refer to as the „Matching Analysis" where there is no adjunction structure, but complementation between D and the CP instead, as in the HRA.

[4] This also correctly captures the scope of D over the NP. Furthermore, it guarantees that the definiteness feature of the external D is not represented inside the relative clause; if it were, it would make scope reconstruction impossible in case it is definite, cf. 1.3.1 and footnote 5. More evidence in favor of the external D can be found in Bianchi (1999: 41ff.) and Alexiadou et al. (2000: 8ff.).

to Spec, CP. Thereafter, the head NP moves to the Spec of the relative operator to get the right word order.

(10) a) the [$_{CP}$ [$_{NP}$ book]$_1$ that John likes __$_1$]

b) the [$_{CP}$ [$_{DP}$ [book]$_2$ [$_{D'}$ which __$_2$]]$_1$ John likes __$_1$]

To capture the agreement between the external determiner and the head NP, Kayne (1994: 88, 154, note 9) further assumes LF-incorporation of N into D. See 1.2.3.3 for discussion of the case problem.

In a reply to Kayne's proposal, Borsley (1997) pointed out a number of weaknesses of the HRA in general including some that were peculiar to Kayne's implementation. The first objection concerns the structural asymmetry between *that*- and *wh*-relatives. In *that*-relatives, only an NP moves whereas in *wh*-relatives, a full DP undergoes A'-movement. Especially the derivation of *that*-relatives is problematic in Borsley's view: it is quite unlikely that there is only movement of an NP. NPs are predicates, but the constituent moved in relative clauses clearly has the properties of an argument, which are normally considered DPs (cf. e.g. Longobardi 1994). Borsley illustrates this with Subjacency, Parasitic Gap-licensing, Control and coindexation with a personal pronoun. I only illustrate the last one (from Borsley 1997: 632f.):

(11) the man$_{1/i}$ that __$_{1/i}$ thought he$_i$ saw an UFO

Anther objection concerns constituency: On Kayne's analysis, the relative clause forms a constituent together with the head NP, to the exclusion of the external determiner. However, coordination and extraposition show that the relative clause forms a constituent to the exclusion of the head NP (plus the external determiner); this holds for both *that*- and *wh*-relatives:

(12) a) the picture [which Bill liked] and [which Mary hated]

b) the picture [that Bill liked] and [that Mary hated]

(13) a) I met a girl __$_1$ yesterday [who I used to date in high school]$_1$

b) I met a girl __$_1$ yesterday [that I used to date in high school]$_1$

In reaction to Borsley's criticism, Bianchi (1999, 2000b) proposed a revised analysis of relative clauses that addresses some of the objections. For the problem with *that*-relatives, Bianchi (1999: 170ff., 2000b: 124ff.) proposes that there is an empty relative pronoun that takes the head NP as its complement. Once the DP has reached Spec, CP, the empty D incorporates into the external D to be licensed. The complex head is subsequently unified and spelled out as one determiner:[5]

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[5] Importantly, incorporation is subject to a compatibility requirement: the two determiners must have the same features. This is straightforward for phi-features, but not at all for case because in many cases, the relative pronoun is assigned a case different from the external D. This aspect of her analysis is very problematic and will be discussed in detail in 1.2.3.3. She further explicitly assumes that the empty D is underspecified for definiteness. If the relative D could be definite, Bianchi could no longer capture scope reconstruction effects since a definite pronoun always takes wide scope in its clause, cf. 1.3.1.

(14) **D$_2$**+the [$_{CP}$ [$_{DP}$ __$_2$ book]$_1$ that John likes __$_1$]

To capture the constituency problem, Bianchi (1990: 190–197, 2000a: 130) proposes that in *wh*-relatives the head noun does not move to the Spec of the relative pronoun; rather she posits a Split-CP along Rizzi's (1997) lines and assumes that the relative DP first moves to a lower Spec in the left periphery from where the head noun subextracts and moves to Spec, CP so that it is in a local configuration with the external D and can establish an agreement relation:

(15) the [$_{CP}$ [book$_2$] [$_{C'}$ C° [$_{XP}$ [$_{DP}$ which __$_2$]$_1$ X° [John likes __$_1$]]]]

On this analysis, the relative clause is a constituent. The coordination problem is solved by assuming Across-The-Board extraction of the head NP:

(16) the [picture]$_2$ [[which __$_2$] Bill liked] and [[which __$_2$] Mary hated]

For coordination of two *that*-relatives, Bianchi (2000b: 133) adopts Kayne's (1994: 59) null operator analysis of Across-The-Board gaps; the external D takes a conjunct of two CPs as its complement; the Spec of the first CP is occupied by the head of the relative, the second one by a null operator:

(17) [the [$_{\&P}$ [$_{CP1}$ **[$_{DP}$ picture]$_{1/i}$** [that Bill liked __$_1$] [$_{\&P}$ and [$_{CP2}$ **Op$_{2/i}$** [that Mary hated __$_2$]]]]]]

The extraposition problem disappears in principle for *wh*-relatives: since the head noun has moved out, the relative CP has now the right constituency and could move to some higher projection.[6] Bianchi (1999, 2000b) does not adopt this possibility though, because right adjunction is impossible in her Antisymmetry framework. She leaves the issue basically unresolved. In addition, the problem still persists for *that*-relatives: the CP still does not form a constituent that excludes the external head.[7]

Bhatt (2002) slightly modifies Bianchi's proposal in that he extends her derivation of *wh*-relatives to *that*-relatives: the head NP moves out of the specifier of the operator phrase to a higher specifier position. Furthermore, he reverses the order of X° and C°, X° being a nominal head above the CP:

(18) the [$_{XP}$ [book$_2$] [$_{X'}$ X°[$_{CP}$ [$_{DP}$ Op/which __$_2$]$_1$ C° [John likes __$_1$]]]]

The reversed order is necessary to account for languages that can have a relative complementizer next to a relative pronoun. As pointed out in de Vries (2002: 155) and Bhatt (2002: 80f.), in those languages, the relative pronoun always precedes the complementizer. On Bianchi's account, however, the reverse is predicted since the relative pronoun occupies a Spec position below C°.

Bhatt's modification also removes the unnecessary difference between *that*- and *wh*-relatives and also handles the constituency problems for both: the relative CP

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6 See Zwart (2000: 370ff.) for additional evidence from Dutch.

7 Aoun & Li (2003: 83) adopt Bianchi's derivation for *that*-relatives, but assume a version of the HEA for *wh*-relatives, cf. 1.5.6.

is a constituent that excludes the head noun so that it can be ATB extracted for coordination and can be extraposed (Bhatt is not committed to Antisymmetry).[8]

De Vries (2002: 116ff.) proposes an analysis for relative clauses that is somewhere in between Kayne's (1994) original approach and Bianchi's. Like Bhatt, he argues that both types of relative clauses should be given the same analysis. He basically adopts Kayne's analysis for *wh*-relatives, but additionally assumes that the head noun undergoes cover feature movement to the external D to license the case-agreement:

(19) FF_2 + the $[_{CP}\ [_{DP}\ book_2\ [_{D'}$ Op/which $___2]]_1$ John likes $___1]$

He presents a number of arguments in favor of his approach most of which I will discuss in 1.2.3.2 so that I will only briefly mention them here: first, it avoids the dubious head X°, for which there is little independent evidence; second, it makes sure that the external D and head noun actually agree in case whereas Bianchi's proposal predicts that the head NP should bear the case it is assigned relative clause-internally, clearly an undesirable result. The same problems obtains with incorporation of the relative D into the external D in her analysis of that-relatives, see also footnote 5. Thirdly, it avoids the countercyclic move Bianchi has to make to bring the head NP close to the external D: this step can only take place after D has selected CP. Subsequent phrasal movement of the head NP to Spec, CP violates cyclicity. De Vries' approach involves feature movement, which is also countercyclic, but since feature movement as such is still taken to be necessary anyway, this is arguably less problematic.

Importantly, de Vries' modification does not solve the constituency problem Kayne faced. The coordination problem in (12) is not addressed as far as I can see, and extraposition is handled completely differently, as some kind of coordination, cf. de Vries (2002: chapter 7).

All proponents of the HRA assume an analysis along the lines of Bhatt (2002), Bianchi (1999, 2000), or de Vries (2002). All versions have their advantages and disadvantages, so that it is hard to evaluate which one is superior. Even though the HRA has become almost the standard analysis of relative clauses in recent years, it still faces a number of difficulties that other analyses of relative clauses avoid as I will discuss in 1.2.

Probably the most crucial aspect of the HRA for the subsequent discussion in this thesis is that there is a straightforward relative clause-internal representation of the external head. As will be discussed in 1.3, reconstruction effects can be captured very easily under these assumptions.

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[8] It is not completely undisputed that *that*-relatives and *wh*-relatives should be given the same analysis. Aoun & Li (2003), for instance, assume different derivations. See 1.5.6 for discussion.

1.1.3 The Matching Analysis (MA)[9]

The MA was first proposed in Lees (1960, 1961) and Chomsky (1965). It has recently been revived and extended by Munn (1994),[10] Sauerland (1998, 2003), Cresti (2000), and Citko (2001) It is somewhere in between the two other analyses: relative clauses are adjoined to the head NP as in the HEA. At the same time, there is also a representation of the external head inside the relative clause, the internal head. The internal head is generated as the complement of the relative operator (which may be zero) in an argument position; the entire relative DP undergoes movement to Spec, CP. Subsequently, the internal head NP is deleted under identity with the external head. Importantly, external head and internal head are not part of a movement chain as in the raising analysis. Rather, they are related via ellipsis (PF-deletion is marked by outline).

(20) the [**book**]$_i$ [$_{CP}$ [Op/which b o o k$_i$]$_1$ John likes __$_1$]

As will be discussed in detail below, what distinguishes the MA from the HRA is the ellipsis part. Crucially, in certain instances, there does not have to be perfect identity between the external head and the internal head.[11] Since the external head and the internal head are not related by movement, both must in principle be interpreted. We will see in 1.4.4 below that this property requires certain extra assumptions for interpretation. At the same time, it will also prove advantageous for certain reconstruction facts as discussed in 1.5.

1.2 Discussion of the various approaches

1.2.1 Introduction

In this section, I will discuss the advantages and drawbacks of the three analyses. Reconstruction effects, which will play the most prominent role for the evaluation, are postponed to sections 1.3 through 1.5.

Until Kayne's (1994) monograph on Antisymmetry, the standard analysis of relative clauses was almost exclusively the HEA as described in 1.1.1. Since then, the HRA has become quite widespread and is perhaps the predominant analysis of relative clauses today. The success of the HRA has mainly two sources: first, the Antisymmetry framework was adopted by many so that the traditional analysis of relative clauses simply could no longer be maintained: right-adjunction became impossible. Secondly, as I will describe in some detail in section 1.4, reconstruction effects can be modeled straightforwardly with a HRA

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9 The term is used inconsistently in the literature. Some also use it to refer to the Head External Analysis (Carlson 1977), Aoun & Li (2003). I adopt Bhatt's (2002) terminology because it is the only one that differentiates between the HEA and the MA.

10 Munn does not explicitly refer to his analysis as a MA, but the way he implements it is at least directly compatible with a MA.

11 That is, as we shall see below, an R-expression can be related to a personal pronoun with the same phi-features. Other mismatches as e.g. in the following example with a pars pro toto relation are ruled out by the lack of semantic parallelism:

i) *the car that John likes the engine

whereas they have always been mysterious under the HEA. Since there is a direct movement relationship under the HRA, reconstruction can be handled as in *wh*-movement. Under the HEA, reconstruction somehow has to be mediated via the relative operator. This became downright impossible after the introduction of the Copy Theory of Movement in Minimalism where reconstruction is modeled as the interpretation of the lower link of a movement chain.

In other words, the success of the HRA is to some extent based on theory-internal concerns rather than empirical facts. However, as I will discuss in section 1.4, the reconstruction effects are an argument for the HRA, especially because they are basically unresolved under the HEA. Apart from those, I do not think that there are any decisive arguments in favor of the HRA, perhaps except for the head-internal relatives to be discussed below. Most of the remaining arguments for the HRA can be explained differently. Worse, even though some of the obvious problems pointed out in Borsley (1997) have been fixed in recent years, as described in 1.1.2, there remain a number of aspects where the HRA either fails or has to make very inelegant assumptions.

The MA can be considered a compromise between the HRA and the HEA because it adopts the constituency and derivation of the HEA, but employs a full relative clause-internal representation of the external head instead of just an operator. In a sense, it unites the advantages of both analyses, as we will see. In fact, I will argue that the MA is also superior to the HRA with respect to reconstruction effects, a fact that will be particularly clear when the German data in chapter 2 are taken into consideration. As a consequence, I will submit that the MA represents the best analysis of relative clauses, probably also for English.

With the exception of Citko (2001), this thesis is probably the first contribution that makes this claim. Recent contributions such as Sauerland (1998), Bhatt (2002), and Aoun & Li (2003) argue instead that both the HRA and the MA (or HEA) are needed, even within a single language. I will argue instead, that the MA is basically sufficient; the situation in German to be discussed in chapter 2 will be quite clear, the English facts are slightly less straightforward.

I will first discuss a number of phenomena that are often argued to represent evidence in favor of the HRA. It will turn out, however, that most of these arguments also follow under the HEA or MA. Thereafter, I will discuss a number of problematic aspects of the HRA that are still not solved satisfactorily and cast doubts on its validity. In the last subsection, I will discuss phenomena that remain problematic for all analyses of relative clauses.

1.2.2 Arguments in favor of the HRA

This section briefly summarizes and critically evaluates arguments found in Bianchi (1999: 49ff., 61–69), Bhatt (2002: 46ff.), de Vries (2002: 76ff.).

1.2.2.1 Head-internal relatives

Bianchi (1999: 61ff.) and de Vries (2002: 77, 135ff.) argue that relative clauses where the head of NP surfaces in the argument position inside the relative clause

are a strong argument in favor of raising. The following example is from Ancash Quechua:

(21) [Nuna **bestya-ta** ranti-shqa-n] alli bestya-m ka-rqo-n.
man horse-ACC buy-PRF-3 good house-EVID be-PST-3
'The horse that the man bought was a good horse.'

Under the HEA, such relatives indeed require a structure very different from externally headed relatives. Under the HRA, however, internally headed relatives can basically be given the same analysis; the only extra assumption that is necessary is that the head does not move overtly in these languages but at LF. To the extent that the syntax of these constructions is properly understood, these facts do indeed represent evidence for the HRA.

1.2.2.2 The pivot function

De Vries (2002: 77f.) argues that the HRA is best suited to express the double function of the head noun: It is semantically part of both the relative clause and the matrix clause. The HRA that relates the two functions via movement is indeed a very direct way of expressing this. He further argues that it does not require any special devices to achieve this link whereas the HEA and the MA do. It is correct that the latter indeed involve some mechanism of coindexation (through predicate abstraction) as in the HEA or an explicit ellipsis operation that links the two; however I don't think that the HRA can do without additional mechanisms either. It is still necessary to link the head noun to the external determiner. For this to be possible, the head NP first has to move across the relative pronoun, a movement step that is not innocuous as discussed below. Furthermore, another mechanism is needed to establish an agreement relationship between the NP and the external D; normally, this relationship is established when they are merged, but in the HRA some special device is needed, either reference to government as in Bianchi's approach or feature movement as in de Vries' approach, see the discussion in 1.2.3.2 below. I conclude therefore, that this cannot be a decisive argument in favor of the HRA. All approaches require special mechanisms to capture the pivot function of the head NP.

1.2.2.3 Indefiniteness of the trace

An argument often cited in the literature (cf. Bianchi 1999: 43, Bhatt 2002: 70f.) comes from definiteness effects: relative clauses based on the existential *there*-construction are compatible with external heads that normally could not appear in the position of the trace:

(22) a) **Every book** that there was __ on the table

b) *There was **every book** on the table.

On the HRA, this is expected because the external determiner does not originate inside the relative clause. However, the HEA can handle these data as well once one assumes – as is standard by now (cf. 1.1.1) – that the relative clause is attached to the NP and that the relative operator is coindexed with the head NP,

not the DP. Bianchi (1999: 43) and Alexiadou et al. (2000: 10) both admit this. I conclude therefore that all that these examples show is that only an NP is related to the relative operator and therefore the trace, and not a DP.

1.2.2.4 Subcategorization

Bhatt (2002: 48) discusses an example from Larson (1985) which shows that certain relative clauses containing a trace in adjunct position are only grammatical if the external head is a bare NP adverb:

(23) a) the way [Op_1 that you talk $___1$]

b) *the manner/fashion [Op_1 that you talk $___1$]

(24) a) You talk that way.

b) *You talk that manner/fashion

The relatives pattern with the simple sentences, suggesting that certain information about the head NP is required inside the relative clause. This follows straightforwardly under the HRA since the head NP originates in it whereas the HEA has to assume some feature transmission mechanism that makes the relevant information available inside the relative clause. However, I don't think that this is such a strong argument: through predicate abstraction, the relative pronoun will be coindexed with the head NP, which already guarantees some feature transmission. In the case at hand, relativization takes place from a non-individual-denoting position, and it is clear that this will determine the possible types of external heads under coindexation. I therefore conclude that this argument is also not decisive.

1.2.2.5 Summary

I have briefly discussed a number of phenomena that have been argued to favor the HRA. They all show that the external head is closely linked to the trace position. It is certainly the case that they can be handled quite straightforwardly under the HRA because the HRA offers the simplest way of making the link, namely direct movement. However, probably except for the head-internal relatives, they are also amenable to the HEA because predicate abstraction leads to coindexation between the relative pronoun and the external head so that information of the external head is available inside the relative clause.[12]

1.2.3 Problems for the HRA

In this section, I will discuss a number of technical aspects of the raising analysis that remain very unsatisfactory because special assumptions must be made to make the analysis work. They are all in a way related to the way the internal head is eventually connected to the external D.

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[12] Some of the arguments adduced in favor of the HRA involve evidence for complementation, but that is strictly speaking orthogonal to my concerns. See Zwart (2000: 352) and Aoun & Li (2003: 102) for discussion.

1.2.3.1 Relative pronouns cannot take an NP complement

Aoun & Li (2003: 118ff.) discuss a problem for the HRA concerning the selectional properties of relative pronouns. The HRA and the MA have to assume that a relative pronoun can select a complement it normally cannot. Consider the following example:

(25) the man who came yesterday

Under the HRA, the external head *man* originates inside the relative clause as a complement of the relative pronoun *who* (the following derivation follows Bianchi, cf. 1.1.2):

(26) the man$_2$ [$_{CP}$ [who $___2$]$_1$ $___1$ came yesterday]

This means that *who* must be reinterpreted as a D element, not as a full DP like its counterpart in *wh*-movement. On the other hand, relative pronouns such as *which* must be prevented from taking an animate complement such as *boy* because the resulting relative would be ungrammatical:

(27) *the boy$_2$ [$_{CP}$ [which $___2$]$_1$ I like $___1$].

Again, one has to assume that the relative pronoun *which* differs in its selectional properties from its *wh*-counterpart.

Admittedly, this problem is arguably not so serious once one accepts that the relative pronoun is simply different from the *wh*-pronoun.[13] Under the HRA and the MA, relative *who* will then simply select an animate complement and relative *which* an inanimate one. Therefore, the problem does not seem insurmountable technically. Aoun & Li (2003) assume instead that whenever there is an overt relative operator we are dealing with the HEA, see 1.5.6.[14]

1.2.3.2 Trigger for the movement of the NP

The first movement step in the derivation of relative clauses under the HRA is undisputed: there is A'-movement to an operator position. It is the subsequent step that is problematic: all current versions of the HRA assume that the head NP

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[13] In fact, under the HEA, relative *which* and *wh-which* have always differed in that only the latter can take an NP complement.

[14] A more serious problem is perhaps constituted by adverbial relatives (cf. Aoun & Li 2003: 121ff):

i) the reason why he did not come

If there has to be a relative clause-internal representation of the external head, one would have to base-generate [why reason] (or [how manner] in the case of manner relatives) under the HRA and the MA. This seems implausible but perhaps not completely impossible. At least in reason and manner relatives there would be a way of implementing it. Since the possible head nouns are quite restricted (basically *reason/manner* and their synonyms), this could be handled via selection. In the case of locative and temporal relatives where the choice of head nouns is much wider, this does not work. Alternatively, one could bite the bullet and assume that in all cases, the relative adverb is just a D-element which selects an NP with certain (semantic) features. Whether such a move is ultimately required depends on the reconstruction facts. If there is no reconstruction in adverbial relatives, the HEA would be the only derivation that derives this result (under the assumption that the HEA cannot capture reconstruction, cf. 1.4.2). See footnote 73 for more discussion of this issue.

undergoes further movement across the relative pronoun, either to the Spec of the relative pronoun (de Vries 2002) or to the Spec of a higher head (Bianchi 1999, 2000, only for *wh*-relatives, Bhatt 2002 for *wh*- and *that*-relatives). I repeat the relevant structures (a) is Bianchi's version, b) from Bhatt and c) from de Vries):

(28) a) the $[_{CP}$ [book]$_2$ $[_{C'}$ C° $[_{XP}$ $[_{DP}$ which $___2]_1$ X° [John likes $___1]]]]$

b) the $[_{XP}$ [book]$_2$ $[_{X'}$ X° $[_{CP}$ $[_{DP}$ Op/which $___2]_1$ C° [John likes $___1]]]]$

c) FF_2 + the $[_{CP}$ $[_{DP}$ book$_2$ $[_{D'}$ Op/which $___2]]_1$ John likes $___1]$

The approaches motivate this movement step very differently. Bianchi (2000b: 128ff.)/Bhatt (2002: 81) argue that the external determiner and the head NP have to be syntactically related because they agree in case and phi-features. The movement step is therefore triggered by that requirement. However, while easily stated in prose, it cannot be implemented so easily. Bianchi (2000b: 128) assumes that D has an N-feature that is to be understood as a selectional feature. Such features have to be checked in the minimal domain of the selecting head D. In ordinary DPs, these features are checked at Merge in a sisterhood relation. In relative clauses, the head NP has to move to a position that is close enough for it to be governed by the external D. Moving to the closest Spec under the external D will be sufficient because that Spec does not count as a barrier in the Antisymmetry framework (cf. Bianchi 2000b: 128 for the details).

De Vries (2002: 115) correctly points out that the movement step to Spec, CP/XP is countercyclic. It will take place after the CP is merged with D, and since it does not lead to an extension of the tree, it violates cyclicity. The problem can be avoided if the order of X and C is reversed and it is assumed that X triggers movement to its Spec (as probably in Bhatt 2002: 81). The external D will be merged thereafter and cyclicity is not violated. This assumption indeed removes the cyclicity problem, but at the expense of postulating a head whose sole function is to avoid that particular problem. There is little evidence for such a head outside the domain of relative clauses so that the merits of postulating it seem quite limited.[15]

De Vries (2002: 123) motivates the movement of the NP to the Spec of the relative pronoun differently. He merges the relative pronoun together with the NP. Normally, D and NP agree in phi-features; in de Vries' system, this can be done in basically three ways: overt movement of N to D, covert movement of the formal features of N to D, or movement of NP to Spec, DP. In a language like English or Dutch, feature movement applies by default; the other two options are in principle possible but normally do not surface because they are less economical (de Vries 2002: 121). In relative clauses, however, things are somewhat different. For reasons that will become clear below, the relative pronoun is merged with an

[15] Zwart (2000: 377ff.), basing himself on Dutch and Dutch dialects, makes a similar argument: subextraction of the head NP is necessary to get the right constituency for set intersection between the head noun and the relative clause. He does offer some evidence for the extra functional projection that is involved in this movement step so that his approach seems slightly less arbitrary.

NP that does agree with it in case. Still, there has to be checking of both case and phi-features on both heads. N-to-D movement is ruled out because de Vries assumes that it requires identity of features (de Vries 2002: 120, theorem Vh). The only option that is left is movement to the specifier of D. This will check the phi-features but will leave the case feature unchecked:

(29) $[_{DP}\ [_{NP}\ N\ _{\{a\ case,\ \sout{phi}\}}]_1\ [_{D'}\ D\ _{\{b\ case,\ \sout{phi}\}}\ __1]]$

This is the less economical derivation, but since the more economical alternative, N-to-D raising, is not an option, phrasal movement to Spec, DP is possible. Normally, this derivation crashes because the case feature of N remains unchecked. In relative clauses, however, there is an extra possibility: in de Vries' approach, the formal features of N incorporate into the external D to check their case:

(30) FF_2 + the $[_{CP}\ [_{DP}\ book_2\ [_{D'}\ Op/which\ __2]]_1$ John likes $__1]$

The external D can check its feature against a functional head like AgrO so that eventually all case- and phi-features will be checked. This derivation does indeed avoid most of Bianchi's problems, but at the expense of having to allow a type of checking between D and N that is only found in relative clauses. In other words, even though de Vries simply allows NP-movement to check features in his system, this option is only required for relative clauses and therefore has a construction-specific flavor.

1.2.3.3 Case

A problem that was intensely discussed right after the revival of the HRA in Kayne (1994) concerns the case of the raised NP, cf. Borsley (1997), Alexiadou et al. (2000: 19), Bianchi (2000). Since the head NP originates inside the relative clause, one expects it to bear the case compatible with its grammatical relation inside the relative clause. Instead, however, the case is determined by the external D, as in the following Polish example (Bianchi 2000: 129; Citko 2001: 133):

(31) Widziałem [tego $[_{CP}\ [_{DP}\ [_{NP}$ pana$]_2$ $[_{DP}$ który$__2]]_1$
saw.1SG the.**ACC** man.**ACC** who.**NOM**
[$__1$ zbił ci szybę]]].
broke your glass
'I saw the man who broke your glass'

Bhatt (2002: 71), who only discusses English, assumes that this is not a problem (because there is no visible case on N), but for a language with overt case morphology, it is clear that the HRA makes the wrong prediction. Bianchi (2000b: 129f.) pretty much stipulates that morphological case on N is determined after syntax: N receives the same case as the D that governs it. Normally, this does not make a difference because the article usually ends up governing its complement. In relative clauses, however, the head NP is eventually governed by the external D, not the relative pronoun; the case feature of the external D is copied onto N in the morphological component. This guarantees that D and the head noun agree.

For *that*-relatives, where there is incorporation of the relative D into the external D, cf. (14), Bianchi has to assume that the case feature of the relative D can be checked and erased before it is incorporated into the external D.

While one can derive the desired result with the PF-theory of case, such assumptions are not particularly explanatory because they are, it seems, only needed to save the HRA.

Furthermore, as Citko (2001: 134) points out, once erasure of features is possible, Bianchi makes the wrong prediction for matching effects in free relatives. If the case feature of a relative pronoun can be deleted after checking and if case features can also be assigned under government by the external determiner, it should be possible to ignore the matching criterion in free relatives and simply use a form of the relative pronoun that is compatible with the governing verb. However, the following example shows that this is not correct.

(32) *Widziałem [$_{CP}$ kogokolwiek$_1$ __$_1$ zbiłl ci szybę.
saw.1SG whoever.**ACC** t$_{nom}$ broke your glass
'I saw whoever broke your glass.'

Bianchi (2000: 130, note 12) replies that this is because in free relatives the external determiner only selects a CP, not a CP plus an NP as in relatives. In other words, the morphological theory of case assignment must be made sensitive to agreement relationships that are established in syntax. However, since government is independent of a checking relation, it is unclear how feature copying can actually be prevented. At any rate, even if Bianchi's approach should eventually work for all the data, it is not independently motivated and therefore very problematic.[16] All the steps that are necessary to save the HRA require unfounded stipulations, at least for languages with case morphology. The HEA and MA do not have this problem.

De Vries' (2002: 123) solution to the case problem has already been discussed in the previous subsection and was shown to be technically less stipulative than Bianchi's. Still, since he has to make special assumptions about checking of features within the DP that are only relevant for relative clauses, his account remains descriptive.

Clearly, neither the HEA nor the MA have this problem. The external head bears the case it is assigned by the matrix verb and the relative pronoun bears the case it is assigned inside the relative clause. The case problem therefore certainly remains one of the strongest arguments against the HRA.

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[16] Bianchi (2000a: 58) also uses case attraction phenomena to argue in favor of her late case assignment theory under government. Case attraction as e.g. in the classical languages involves a change in case of the relative pronoun: it takes over the case of the external D and no longer bears the case it is assigned relative clause-internally. Bianchi (2000a: 68ff.) argues that this follows because the relative pronoun is also governed by the external determiner so that the case features can be copied onto it in the morphological component. While technically feasible, the same could be claimed under the HEA (or the MA): in these approaches the relative pronoun is coindexed with the head NP so that some kind of feature sharing is easy to model.

1.2.3.4 Violation of locality constraints

Another issue that is hardly ever touched upon (but see Heck 2005 and the discussion on German in chapter 2) is the fact that the HRA violates well-established constraints on movement: almost every implementation of the HRA violates the Condition on Extraction Domains (CED, Huang 1982): a phrase that has undergone movement becomes opaque for extraction:

(33) *Who$_2$ do you think [$_{CP}$ t'$_2$ that [$_{DP}$ pictures of __$_2$]$_1$ were painted __$_1$]?

The subject DP is first moved to the subject position. Subsequent extraction of *who* violates the CED. But this is exactly what happens in the HRA, at least under Bianchi's and Bhatt's implementation: the head noun is extracted from the A'-moved DP in Spec, CP:

(34) the [$_{XP}$ [book$_2$] [$_{X'}$ X° [$_{CP}$ [$_{DP}$ Op/which __$_2$]$_1$ C° [John likes __$_1$]]]]

Things are somewhat different under de Vries' approach as the movement of the head noun to the spec of the relative pronoun takes place before movement to Spec, CP. But feature movement from the head noun to the external D still represents a violation of the CED:

(35) FF$_2$ + the [$_{CP}$ [$_{DP}$ book$_2$ [$_{D'}$ Op/which __$_2$]]$_1$ John likes __$_1$]

To my knowledge, there is no satisfactory explanation of this.[17, 18]

Another problem concerns possessors. As noted by Bhatt (2002: 81ff.), assuming extraction of the head noun out of the possessor phrase in Spec, CP, implies that one has to postulate a movement step that is very unorthodox, involving extractions of unboundedly deeply embedded possessors. Consider the following example and the corresponding raising structure:

(36) the student whose brother's band Jonah likes

the [[$_{NP}$ **student**]$_2$ [$_{CP}$ [[[which [$_{NP}$ **student**]$_2$]'s brother]'s band]$_1$ C° [Jonah likes __$_1$]]]

Since it is well-known that English prohibits possessor raising, the HRA is unlikely to be at work here, even if de Vries' implementation is adopted. In a sense, this conclusion endangers the whole HRA derivation because the possessor case can be subsumed under the CED so that one could use all these arguments against the HRA.

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[17] Bianchi (1999: 54ff.) discusses an asymmetry related to this fact: Extraction from material contained inside the external head is unproblematic in Italian, whereas extraction from material contained elsewhere in the relative clause leads to ungrammaticality. It seems, therefore, that the relative CP does not count as a barrier in the first case, but does in the second. The asymmetry follows naturally under the HEA or the MA because the external head is not included in the relative clause and therefore transparent. Bianchi offers two tentative proposals, both of which turn out to have undesired consequences. They either lead to overgeneration or require almost construction-specific definitions so that it seems fair to regard the issue as still unresolved.

[18] The problem remains even in the light of Chomsky (2005) where it is argued that CED effects do not occur if the phrase from which extraction takes place has been merged as a complement since if a non-derived subject is relativized, there will be extraction from a non-complement position.

A last problem concerns languages that prohibit preposition stranding. If the relative pronoun pied-pipes a preposition, the head noun will eventually move out of the PP. In a language like Dutch, which disallows (certain kinds of) preposition stranding, this implies that a well-established constraint does not hold for relatives (cf. Heck 2005):

(37) a) de **man**$_2$ [met wie __$_2$]$_1$ ik __$_1$ gesproken heb
the man with whom I spoken have
'the man I spoke with'

b) *[**Welke man**]$_1$ heb je [mee/met __$_1$] gesproken?
which man have you with talked
'Which man did you speak with?'

Strictly speaking this is not exactly preposition stranding because D is also stranded in addition to the preposition. Still, PPs of the type used above are generally islands for extraction so that the relative clause derivation is doubly problematic: it violates the CED and the PP-island.

Bhatt (2002: 76, note 20) suggests that the insensitivity to locality constraints might be due to the fact that what is raised is an NP and not a DP. However, NPs are predicates and therefore not referential. It is generally assumed that non-referential elements are less mobile than referential DPs, cf. Cinque (1990), Rizzi (1990). For instance, predicates cannot escape weak islands whereas referential DPs can (the first sentence is from Postal 1998):

(38) a) *What$_1$ did he ask you whether I nicknamed my cat __$_1$?

b) [Which cat]$_1$ did he ask you whether I bought __$_1$?

Bhatt's argument therefore backfires; it rather predicts that the movement step in question should be impossible. It seems fair to conclude that this problem for the HRA cannot easily be solved. Both the MA and the HEA do not have this problem.

1.2.3.5 Summary

This subsection has shown that the basic derivation of the HRA is still highly problematic. In some cases (such as the case problem) there are proposals in the literature that provide descriptive solutions, but these solutions often require assumptions that are peculiar to the HRA so that they do not achieve any explanatory force. Since neither the HEA nor the MA suffer from these shortcomings, the validity of the HRA must be questioned.

1.2.4 Coordination

Probably the biggest challenge for any analysis of relative clauses comes from coordination phenomena such as multiply headed relatives (so-called hydras) and relatives with split antecedents. The two types are illustrated in the following examples (Alexiadou et al. 2000: 13f.):

(39) a) the man and the woman [who were arrested]

b) John saw *a man* and Mary saw *a woman* [who were wanted by the police].

There is a paradox: plural agreement suggests that the relative clause modifies the plural conjunction of two singular DPs, which would amount to DP adjunction. At the same time, both Ds have scope over the relative clause, which implies NP adjunction. This implies that an HEA (and a MA) face serious problems already. How the HRA would solve this is quite unclear. Raising a discontinuous head in reverse Across-The-Board-fashion seems a little far-fetched. The only vaguely reasonable analysis (Suñer 2001, as cited in Bianchi 2002: 241) involves two relative clauses each modifying one of the head nouns and subsequent deletion of the first one:

(40) the man [who was/were arrested] and the woman [who were arrested]

While this gets the semantics and the constituency right, it is far from clear how to get the plural agreement on the verb (and on the relative pronoun in languages that show such differences). It seems, then, that one cannot really draw any conclusions from these phenomena because they are equally problematic for all three analyses.[19, 20]

1.3 Reconstruction data

In this subsection, I will present the relevant reconstruction data that have been discussed in recent years. I will first discuss idiom interpretation, scope and variable binding, and the construal of superlative adjectives, which are straightforward; then Principles A and B, and finally Principle C effects, which have turned out to be the most intricate ones and will figure prominently in this thesis. I then discuss correlations between Principle C effects and variable binding/scope/idiom interpretation. The last two sections are devoted to cases where there must not be any reconstruction or where there are conflicting requirements on interpretation.

I will loosely speak of reconstruction in this section without intending to imply a particular technical implementation. The precise mechanism that I assume, the

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[19] Interestingly, Heck (2005: 12, ex. 45) argues that one can get reconstruction with hydras. Unfortunately, most of the examples he gives are somewhat poorly constructed and sound unfelicitous for independent reasons. I have not been able to come up with really convincing naturally sounding examples.

[20] Henk van Riemsdijk (p.c.) has reminded me that the Split Head issue is much more widespread. Apart from Control which does not necessarily involve movement, Split Antecedent phenomena are also found in comparatives which often receive a similar treatment as relatives:

i) More men$_i$ kissed more women$_j$ at that party than $__{}_{i+j}$ had ever engaged in such lewd behavior before.

It seems fair to conclude from this that examples like the one in the text are part of a more general problem rather than particular analyses of relative clauses.

interpretation of the lower copy of a movement chain, will be described in detail in 1.4.[21]

1.3.1 Idiom interpretation, variable binding and scope

Since the data have been extensively discussed in the literature and since their theoretical importance is beyond doubt, I will give only two examples each (see e.g. Sauerland 1998, Bianchi 1999, Bhatt 2002, Aoun & Li 2003 etc., Schachter 1973 for more data). The first pair illustrates reconstruction for idiom interpretation (the underline indicates the reconstruction site):[22]

(41) a) the [**careful track**] that she is **keeping** __ of her expenses

b) I was offended by the [**lip service**] that was **paid** to civil liberties at the trial.

For the idiom (or rather: the collocation) to be properly interpreted, the head noun of the relative clause has to be reconstructed into the relative clause to form a unit with the verb.[23, 24]

The following pair illustrates reconstruction for variable binding (see also e.g. Bhatt 2002: 52, Aoun & Li 2003: 113, ex. 52, etc.)

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[21] I do not discuss NPI effects because, as pointed out in Sternefeld (2000: 16f.), factors other than the LF-configuration seem relevant, especially the surface configuration so that NPIs in dislocated constituents often lead to ungrammaticality.

[22] I have enclosed in brackets only the head NP and not the DP which implies that only the NP is reconstructed. I have already presented some evidence in favor of this: First, the external D has scope over the constituent NP + relative clause (see 1.1.1) Second, a definite external determiner is not incompatible with a gap in the *there*-construction, cf. 1.2.2.3. The scope reconstruction facts to be discussed in this section provide further evidence for this.

[23] See 1.3.6 for cases where the idiomatic NP must not be reconstructed.

[24] As discussed in de Vries (2002: 78ff.), the term "idiom" is somewhat problematic in this context because real opaque idioms such as *kick the bucket* cannot be used in relativization (and also resist other types of A'-movement such as topicalization). Even though it is sometimes possible to construct relative clauses based on the idiomatic chunk, full sentences turn out to be unacceptable:

i) *The bucket that she kicked was horrible.

According to de Vries this follows from the double role which the head noun plays in relativization: it is related both to the matrix clause as well as a relative clause-internal position and cannot receive conflicting interpretations. In opaque idioms, the components, especially the NP, lose their literal meaning. If that NP gets an idiomatic interpretation inside the relative clause as in i) it cannot be used literally as the subject of *be horrible*. Exceptions hat have been cited in the literature are usually the result of word play. More generally, the border between opaque idioms and the collocations that can be split in relative clauses is anything but sharp. Rather, there is a sliding scale from completely opaque ones to rather simple collocations like *make headway*. The more transparent they are the more they are amenable to A'-operations. In this thesis, I will tend to use only use the simple collocations even though some intermediate and creative types are sometimes also acceptable in relativization. For reasons of simplicity, I will continue to speak of "idioms" even though "collocations" would be more appropriate.

Certain idiomatic expressions like *make headway* are actually amount relatives and could therefore be subsumed under scope reconstruction. Others like those in the text and many more to be discussed, however, are ordinary restrictive relatives.

(42) a) the [picture of **his$_i$** girlfriend] that **every man$_i$** likes __ best

b) The [picture of **his$_i$** mother] that **every soldier$_i$** kept __ wrapped in a sock was not much use to him.

For variable binding to be possible, the head noun has to be interpreted in the scope of the universal, i.e. it has to undergo reconstruction.

As for scope, I will illustrate both distributive and amount readings. Distributive readings obtain when a quantifier is reconstructed into the scope of a universal quantifier:

(43) a) the [**two patients**] that **every doctor** will examine __ tomorrow
2 > ∀; ∀ > 2

b) the [**band**] which **every student** likes __ best
∃ > ∀; ∃ > ∀

Under the distributive reading, there will be two different patients that every doctor examines or a different band for every student. A wide-scope reading of the external head is also possible. Under such a reading, all doctors examine the same two patients or the same band pleases every student.[25]

Amount readings obtain when an amount quantifier is reconstructed below another scope-bearing element such as a modal (Sauerland 1998: 68):

(44) a) No linguist would read the [**many books**] Gina will **need** __ for vet school.
many > need;
need > many

b) Mary shouldn't even have the [**few drinks**] that she **can** take __.
few > can
can > few

Under the amount reading, only the number of books/drinks counts, not particular ones. In the (44)a, it is likely that no linguist knows all the books Gina needs for vet school, but he probably knows that there are many; his objection is directed against the number, but not necessarily against specific books. In (44)b, the most natural interpretation is that Mary should drink as little as possible, i.e. not even the small amount one knows that she can take. In both pairs the wide scope reading of the external head is possible as well even though the amount reading is much more salient. A wide-scope reading in (44)a would imply that there is a set of specific books that no linguist would want to read. In (44)b, a wide scope reading would imply reference to specific drinks, but this is highly unlikely in this context. The wide scope reading of amount quantifiers is often referred to as referential (Cinque 1990, Cresti 1995, Heycock 1995 etc.).

Amount readings occur more generally even in the absence of another scopal element. Since there is abstraction over a degree, there must be reconstruction (cf. e.g. Bhatt 2002: 50f.):

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[25] The wide-scope reading does not necessarily follow from non-reconstruction; instead, it might also follow from QR of the indefinite inside the relative. I will not be committed to a specific analysis because this is orthogonal to my concerns.

(45) a) The [**very few books**] that there were __ on his shelves were all mysteries.

b) It would take us the rest of our lives to drink the [**champagne**] we spilled __ yesterday.

In both cases, only the amount matters, not specific objects. These three phenomena are systematic and straightforward instances of reconstruction in English.

Scope reconstruction is further evidence that what is reconstructed is only the head NP, but not the external determiner (cf. also footnote 22). If the external determiner were reconstructed, one would expect relative clauses headed by definite determiners to lack distributive readings and amount readings – just like the following simple sentences:

(46) a) **Every doctor** will examine **the two patients** tomorrow. 2 > ∀; *∀ > 2

b) We spilled **the champagne** yesterday. ✓referential; *amount

For reasons that will become clear later on, it is also interesting to look at the reconstruction behavior of material inside the relative operator. Idiom cases are difficult to construct and I have not been able to find a convincing example. Examples with variable binding are straightforward:

(47) the photographer [whose pictures of **his$_i$** wife]$_1$ **every man$_i$** adores __$_1$

Scope reconstruction is also possible. The following pair gives an example with a distributive reading and one with an amount reading (in both cases, wide-scope readings are also possible):

(48) a) a man [**a picture of whom**]$_1$ **every woman** would like __$_1$
∃ > ∀; **∀ > ∃**

b) an author [**many** books of whom]$_1$ one **needs** __$_1$ for med school
many > need; need > many

Disregarding the idiom case, material contained inside the relative operator seems to reconstruct just as systematically as material contained inside the external head. So far, the pattern is very straightforward.

1.3.2 The construal of superlative adjectives

Bhatt (2002: 56–63) introduces a new reconstruction effect, the interpretation of adjectival modifiers. The following English sentence is ambiguous between a high and a low construal of the adjective:

(49) the **first** book that John said that Tolstoy had written

On the high reading, the adjective applies to *say*, i.e. this is the first statement by John about Tolstoy's writings, the order in which the books were actually written is irrelevant. On the low reading, the adjective applies to *written*, i.e. what is meant is the first book that Tolstoy wrote, the order of saying is irrelevant. This reading can be paraphrased with *the first book Tolstoy wrote – according to John*.

Bhatt argues that the readings come about via reconstruction of the adjective into the respective clause.[26] He corroborates this with the following observations: first, the types of adjectives used here license negative polarity items (NPIs). They require their licenser to be in a local relation with it at LF, basically being within the same clause. Crucially, the interpretation of the adjective can be frozen by putting the NPI in a particular part of the construction. NPIs in the matrix clause lead to a high interpretation of adjectives, NPIs in the subordinate clause to a low interpretation:

(50) a) the **first** book that John said that Tolstoy had **ever** *written*
➔ low reading

b) the **first** book that John **ever** *said* that Tolstoy had written
➔ high reading

The different readings correlate with different positions of the adjective at LF.[27]

1.3.3 Principles A and B

Reconstruction for anaphor binding as in the following example is often used as an argument in favor of reconstruction in English relative clauses:

(51) the [picture of **himself$_i$**] **John$_i$** likes __ best

However, anaphors in picture NPs behave exceptionally in English. It has been argued (Pollard & Sag 1992: 263ff., Reinhard & Reuland 1993: 681ff.) that they are systematically exempt from Condition A and that their antecedent is determined by discourse considerations such as logophoricity. As a consequence, one finds examples where picture NP reflexives can be bound across intervening definite, quantificational, and expletive subjects in English (cf. Kiss 2001 for discussion, ex. 6a, b/11 a, b; Pollard & Sag 1992: 267, ex. 23a):

(52) a) **Bill$_i$** remembered that the Times had printed a picture of **himself$_i$**.

b) **Bill$_i$** thought that nothing could make a picture of **himself$_i$** in the Times acceptable to Sandy.

c) **The men$_i$** knew that there were pictures of **each other$_i$** on sale.

One might object that these cases involve c-command whereas the putative reconstruction case in (51) does not. However, logophoric anaphora generally do not require such structural configurations as the following example shows (Reinhard & Reuland 1993: 682, ex. 46b, Pollard & Sag 1992: 296, adapted from ex. 121f.):

(53) a) **Her$_i$** pleasant smile gives most pictures of **herself$_i$** an air of confidence.

b) This is the picture of **herself$_i$** that was most to **Mary's$_i$** taste.

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[26] Actually, things are more complex; *-est*-movement is also involved, see Bhatt (2002) and Hulsey & Sauerland (2002) for the details, and Heycock (2003) for a different view.

[27] As shown in Bhatt (2002: 61) the adjective can also apply to the verb of an intermediate clause, thereby providing evidence for successive cyclicity.

Reinhard & Reuland (1993) argue that anaphors in this context are exempt from the Binding Theory because the Ns that they depend on do not have an external argument. Therefore, those nouns do not count as predicates in their sense, the predicate being the domain for reflexivity, i.e. reflexives are only necessary if their antecedent is a co-argument. Consequently, the reflexive can be bound by much more distant antecedents.

Anaphora inside picture NPs are no longer free when there is an explicit subject of N:

(54) **John**$_i$ likes Mary's picture of **him**$_i$/***himself**$_i$.

The N *picture* contains the external argument *Mary* and therefore counts as a predicate. Since the domain of reflexivity is the NP/DP, the reflexive has to be bound within it.

Consequently, whenever there is no external argument, reconstruction for Condition A should be taken with a grain of salt, at least in English. Since an independent mechanism is needed to interpret logophoric reflexives, reconstruction is not necessary to account for the binding possibilities in relative clauses. Whatever accounts for logophoric use can handle these cases as well. Some (e.g. Bhatt 2002: 49f.) therefore disregard anaphor binding in their discussion of reconstruction.

However, there is still a large body of literature that employs these tests for English (cf. Aoun & Li 2003, Fox & Nissenbaum 2004); in most cases, this is done without argument. Fox & Nissenbaum (2004: 481), however, explicitly address the problem (in a somewhat different context): logophoricity is crucially based on salience, which pretty much correlates with subjecthood or particular semantic roles (such as experiencer). Objects, however, due to their low salience, are much less likely to antecede logophoric reflexives. In somewhat simplified terms, they argue that syntactic reconstruction must still be involved if the reflexive is bound by an antecedent with low salience. I will not take a position here and will still present some data from anaphor binding since they might be relevant after all.

Whatever will turn out to be the correct solution for English, Condition A can still be considered a valuable test for reconstruction because in many languages, picture-NP anaphors *are* subject to Condition A, as stressed e.g. in Bianchi (1999: 116) for Italian. While logophors do not require c-command as shown above, reflexives do. This is why the following sentence with the antecedent embedded within the subject is impossible in Italian:

(55) *La [descrizione di **se stesso**$_i$] che **sua**$_i$ moglie ha letto __
the description of herself which his wife has read
nel rapporto della polizia è molto accurata.
in.the report of.the police is very accurate
(lit.) 'The description of himself$_i$ that his$_i$ wife read in the police's report is very accurate.'

Once the antecedent c-commands the trace, binding becomes possible:

(56) La [descrizione di **se stesso**$_i$] che **Gianni**$_i$ ha letto __
the description of herself which John has read
nel rapporto della polizia è molto accurata.
in.the report of.the police is very accurate
'The description of himself$_i$ that John$_i$ read in the police's report is very accurate.'

So in order to test anaphor binding, one first has to make sure that the reflexives of the language in question do not allow for logophoric use. Then, there is potentially a further case one has to avoid when testing anaphor binding (as discussed in Bianchi 1999: 199 and Bhatt 2002: 50): normally, reflexives and pronouns are in free variation within picture NPs in English when there is no external argument of the noun. This is shown by the following examples (see also Reinhard & Reuland 1993: 661):

(57) a) **John**$_i$ likes this picture of **him**$_i$**/himself**$_i$.

b) **John**$_i$ heard a story about **him**$_i$**/himself**$_i$.

c) **John**$_i$ likes good opinions of **him**$_i$**/himself**$_i$.

d) **John**$_i$ heard a rumor about **him**$_i$**/himself**$_i$.

The licensing of anaphors in this context was discussed above; Reuland & Reinhard (1993: 678, 685) account for the possibility of having a pronoun instead of a reflexive again with their notion of predicate: since the nouns do not have an external argument, they are not saturated predicates and therefore Condition B does not apply: their version of Condition B only rules out pronouns when both the antecedent and the pronoun are co-arguments:

(58) I like [**Mary's** picture of ***her**$_i$/**herself**$_i$].

However, there is one type of picture NP without overt external argument where reflexives and pronouns are no longer in free variation (Reinhard & Reuland 1993: 685):

(59) a) **John**$_i$ took [a picture of ***him**$_i$**/himself**$_i$].

b) **John**$_i$ painted [a picture of ***him**$_i$**/himself**$_i$].

c) **John**$_i$ told [a story about ***him**$_i$**/himself**$_i$].

d) **John**$_i$ has [a favorable opinion of ***him**$_i$**/himself**$_i$].

e) **John**$_i$ spread [a rumor about ***him**$_i$**/himself**$_i$].

In these examples, the agent of the nominal predicate is identical to the agent of the verbal predicate. It is frequently assumed that these picture NPs contain an implicit external argument that is coreferential with the agent and the pronoun/reflexive. There are various ways of implementing this; I will use Chomsky's (1986) account where a PRO is postulated in these cases. The structures of the examples in (59) therefore look as follows:

(60) a) John$_i$ took [a **PRO**$_i$ picture of ***him**$_i$**/himself**$_i$].

b) John$_i$ painted [a **PRO$_i$** picture of ***him$_i$/himself$_i$**].

c) John$_i$ told [a **PRO$_i$** story about ***him$_i$/himself$_i$**].

d) John$_i$ has [a **PRO$_i$** favorable opinion of ***him$_i$/himself$_i$**].

e) John$_i$ spread [a **PRO$_i$** rumor about ***him$_i$/himself$_i$**].

Since there is an external argument, the nouns count as predicates. Because two arguments are coindexed, only a reflexive is possible. The pronoun is ruled out by Condition B. Since binding takes place within the NP, such picture NPs inside the external head of relatives do not require reconstruction for the reflexive to be bound by the subject.

(61) *the [**PRO$_i$** picture of **himself$_i$**] that **John$_i$** took __

Strictly speaking then, such cases do not provide evidence that there is reconstruction for anaphor binding. However, I think it is wrong to discard these cases altogether (as does e.g. Bhatt 2002). Even though anaphor binding as such takes place within the NP, reconstruction still seems to be necessary: the PRO inside the external head has to be controlled. This is only possible if it is interpreted in the c-command domain of the agent of the verb inside the relative clause, which implies that the external head has to be reconstructed. In a sense, these cases are best assimilated to the idiom cases in 1.3.1: they are mostly collocations and require some proximity to the verb.

But to avoid this complication, I will follow Bianchi (1999: 118f.) and use picture nouns where a coreferential PRO can be ruled out. This is certainly the case if the reflexive realizes the only conceivable theta-role of the predicate as in the following example:

(62) Il poeta descrive il [riflesso di **se stesso$_i$**]
the poet described the reflection of himself
che **Narciso$_i$** vide __ nella fonte.
which Narcissus saw in.the fountain
'The poet describes the reflection of himself$_i$ that Narcissus$_i$ saw in the fountain.'

The only role such predicates have is an optional possessor argument. A further external argument that might be a PRO is impossible. Many nouns, however, do in principle allow the projection of more than one argument, not only event nominals such as *destruction*, but also nouns like *rumor* where the external argument would be the one who spreads the rumor. For these types, one has to make sure that a potential implicit PRO (in many cases it is not clear whether a PRO would really be projected) would be disjunct from the anaphor. The following example is of this type (Bianchi 1999: 118f.):

(63) i [petegolezzi su di **se$_i$**] per cui **Gianni$_i$** se è offeso __
the gossips about of self at which John self is offended
'the gossips about himself$_i$ at which John$_i$ took offense'

It is highly unlikely in this context that Gianni spread the gossip himself. Therefore, even if there were an implicit PRO (which would raise difficulties for

the licensing of the anaphor inside the external head), it would certainly be disjunct from Gianni so that anaphor binding is only possible via reconstruction.[28]

As for Principle B, the only cases where one gets an effect, i.e. where a pronoun is impossible, are the cases with an implicit PRO that were mentioned above. Consequently, an example such as the following does not say anything about reconstruction because the binding violation occurs inside the NP (cf. e.g. Bhatt 2002: 50):

(64) *the [**PRO**$_i$ picture of **him**$_i$] that **John**$_i$ took __

Reconstruction is probably still necessary for the PRO to be controlled.

To sum up, anaphor binding in English is a problematic diagnostic for reconstruction because logophoric interpretation is often, perhaps even always, possible. In languages like Italian (or German, cf. 2.1.1), reflexives do not allow for logophoric use and therefore represent important evidence for reconstruction.

1.3.4 Principle C

1.3.4.1 Introduction

Principle C effects have figured prominently in the discussion of relative clauses in recent years. As we will see presently, this has to do the fact that relative clauses differ from *wh*-movement with regard to Condition C effects. That is somewhat unexpected because reconstruction for other phenomena such as anaphor binding, variable binding, scope and idiom interpretation was just as systematic with relativization as with *wh*-movement. I will first discuss the core case and then a number of more fine-grained aspects of Condition C effects.

1.3.4.2 The core case

The central observation is that there do not seem to be Condition C effects with R-expressions contained inside the external head of relative clauses. Coindexation with a pronoun that c-commands the putative reconstruction site is grammatical. In the recent literature, one finds examples like the following (taken from Munn 1994: 402, Sauerland 1998, and Safir 1999):

(65) a) the [picture of **Bill**$_i$] that **he**$_i$ likes __

b) The [relative of **John**$_i$] that **he**$_i$ likes __ lives far away.

c) The [picture of **John**$_i$] which **he**$_i$ saw __ in the paper is very flattering.

d) The [pictures of **Marsden**$_i$] which **he**$_i$ displays __ prominently are generally the attractive ones.

e) I have a [report on **Bob's**$_i$ division] **he**$_i$ won't like __.

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[28] I will come back to implicit PROs in the discussion of binding in German in 2.1.

f) In [pictures of **Al$_i$**] which **he$_i$** lent us __, he$_i$ is shaking hands with the president.

These facts are pretty much undisputed; still, many speakers find these sentences only natural if the subject pronoun is slightly stressed.[29] This correlates with the observation made in Bianchi (1999: 112–115; 2004: 81) that Principle C effects in Italian relatives are more clearly absent with a strong (overt) pronoun, but are still detectable with the empty *pro*-subject:[30]

(66) Questo sono i [pettegolezzi su **Gianni$_i$**]
these are the gossips about John
che ***pro$_i$/?lui$_i$** ha sentito __.
which pro/he has heard
'This is the gossip about John$_i$ that he$_i$ heard.'

The nature of the contrast is somewhat unclear. To some extent, as argued in Bianchi (2004: 81), the effect might have to do with the fact that an antecedent inside the external head might not be salient enough to be referred to by a weak/zero pronoun.

1.3.4.3 Contrast with *wh*-movement

The facts from relativization contrast strikingly with *wh*-movement or topicalization where reconstruction for Principle C is the default (Munn 1994; Sauerland 1998, 2003; Citko 2001):

(67) a) *[Which picture of **Bill$_i$**]$_1$ does **he$_i$** like __$_1$?

b) *[Which relative of **John$_i$**]$_1$ does **he$_i$** like __$_1$?

c) *[Which picture of **John$_i$**]$_1$ did **he$_i$** see __$_1$ in the paper?

d) *[Which picture of **Marsden$_i$**]$_1$ does **he$_i$** display __$_1$ prominently?

e) *[Which report on **Bob's$_i$** division]$_1$ will **he$_i$** not like __$_1$?

f) *[Which pictures of **Al$_i$**]$_1$ did **he$_i$** lend us __$_1$?

At this point, one important qualification is in order. The fact that there is a major difference in reconstruction for Principle C between relative clauses and other A'-constructions is more or less generally agreed upon (cf. Safir 1999; Citko 2001; Sauerland 2003; Bianchi 2004). However, it has been frequently claimed that reconstruction effects for Principle C with *wh*-movement and topicalization do not always occur, even with material contained in arguments (see below), cf. Heycock (1995), Kuno (1997), Postal (1997), Fox (1999), Safir (1999), Fischer (2002, 2004). Safir (1999: 609, ex. 61) provides a representative list of the types of examples found in the discussion. Here are some of them:

(68) a) [Which biography of **Picasso$_i$**]$_1$ do you think **he$_i$** wants to read __$_1$?

---

[29] In addition, focus particles like *himself* or in other languages some form of 'self' (e.g. German *selbst*) modifying the pronoun facilitate coreference.

b) [Which witness's attack on **Lee$_i$**]$_1$ did **he$_i$** try to get __$_1$ expunged from the trial records?

c) [Whose criticism of **Lee$_i$**]$_1$ did **he$_i$** choose to ignore __$_1$?

d) [Whose criticism of **Lee's$_i$** physical fitness]$_1$ did **he$_i$** use __$_1$ when he applied to NASA for space training?

e) [Whose allegation that **Lee$_i$** was less than truthful]$_1$ did **he$_i$** refute __$_1$ vehemently?

f) [Most articles about **Mary$_i$**]$_1$ I am sure **she$_i$** __$_1$ hates.

g) [That **Ed$_i$** was under surveillance]$_1$ **he$_i$** never realized __$_1$.

h) [That **John$_i$** had seen the movie]$_1$ **he$_i$** never admitted __$_1$.

i) [Which picture of **John$_i$**]$_1$ does **he$_i$** like best __$_1$?

There seem to be both conflicting judgments (most people I consulted only found e–g somewhere near acceptability) as well as cases where there is indeed no reconstruction. The principles that govern some of the effects may have to do with discourse properties such as perspective etc. (see Kuno 1997). In line with the literature I will continue to assume that there is a systematic difference between *wh*-movement and relativization with respect to Condition C effects. The deviant *wh*-movement cases will then require a special explanation, which is desirable anyway with discourse effects.[31] Next to these types, there is one type of exception that seems to be structural, namely, when an R-expression is part of a phrase headed by an amount quantifier that takes wide scope. These cases are discussed in 1.3.5.2.

1.3.4.4 No argument-adjunct asymmetries with external heads

Importantly, the R-expressions in the relative clauses discussed above were all (contained in) arguments of the head noun. This fact is important because it has been claimed for *wh*-movement that only R-expressions that are (contained in) arguments cause Condition C effects under reconstruction whereas there are no such effects with R-expressions inside adjuncts (cf. van Riemsdijk & Williams 1981; Freidin 1986; Lebeaux 1990; Fox 1999; etc.) The following by now famous pair is supposed to show the contrast between arguments and adjuncts:

(69) a) *[Which claim that Mary had offended **John$_i$**]$_1$ did **he$_i$** repeat __$_1$?

b) [Which claim that offended **John$_i$**]$_1$ did **he$_i$** repeat __$_1$?

This contrast is usually accounted for by assuming that adjuncts such as the relative clause in (69)b can be merged late after *wh*-movement has taken place so

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[30] Nataša Milićević (p.c.) has pointed out to me that the same asymmetry is found in Serbo-Croatian.

[31] I should point out that Henderson (2005) interpretes the empirical situation the opposite way. According to him, Condition C effects are more or less equally weak in both relativization and *wh*-movement and therefore do not represent a relevant diagnostic for reconstruction. Their absence is to be explained by the properties of Principle C rather than a particular analysis of relative clauses.

that they have never occupied a position in the c-command domain of the coreferential subject pronoun. With complements as in (69)a, this is not possible: arguments are selected and if the respective features on the selecting heads are not checked immediately the derivation crashes. Consequently, they have to be merged cyclically. Adjuncts are not selected and therefore, it is argued, countercyclic merger is possible.

The issue has become contested in recent years (see e.g. Heycock 1995; Lasnik 1998; Fischer 2002, 2004: 202ff.). First, (69)a is a strange question in the first place, and this holds for many examples with complement clauses selected by nouns. Second, delimiting arguments from adjuncts is not a trivial matter (see Fischer 2004: 183ff., 221f.). While relative clauses are quite uncontroversial adjuncts, the status of noun complement clauses is disputed (see Stowell 1981). Furthermore, even among PP-modifiers there are conflicting statements in the literature. The clearest contrast is probably provided by event nominals which more clearly select (optional) arguments (and the same is probably true of sentential complements of event nominals). Safir (1999: 589, note 1) gives the following example:

(70) a) *[Which investigation of **Nixon$_i$**]$_1$ did **he$_i$** resent __$_1$?

b) [Which investigation near **Nixon's$_i$** house]$_1$ did **he$_i$** resent __$_1$?

The contrast indeed seems to be quite clear. In many other sources, however, PPs that would normally be classified as arguments – as in *picture of John* – are taken to be adjuncts (e.g. in Heycock 1995). It seems that at least for some speakers, PP-complements of nouns that are not as clearly relational as event nominals can be analyzed as adjuncts. This might explain the variation that is found with respect to Principle C, cf. (68). Still, the tendency remains that coreference is much easier with straightforward adjuncts like relative clauses or locative PPs than with complements of *picture*.

A more fundamental argument against the argument-adjunct approach is presented by Fischer (2004: 202ff., 221f.). She claims that the argument/adjunct distinction is the wrong cut. There is one type of example that is indeed very problematic: adjuncts that are not dependent on another constituent apparently cannot be merged late (Fischer 2004: 203):

(71) *In **Ben's$_i$** office, **he$_i$** lay on the desk.

In Ben's office is certainly an adjunct and nothing so far rules out merging that constituent in some higher position outside the c-command domain of *he*. Obviously, cyclic merger is necessary to derive the ungrammaticality – but why? The only reason I can think of is that the locative adjunct has to be merged lower to be properly interpreted. It is related to the event and therefore has to occupy a vP-related position at LF. Its surface position, however, is in the left periphery, where it cannot be interpreted as an event modifier.

Another aspect Fischer (2004: 206f.) mentions is the depth of embedding. This does indeed seem to play a certain role because many of the examples that are surprisingly good for some speakers even though the R-expression is contained

in an argument involve embedding, see again the data in (68). This is arguably more of a parsing effect rather than a grammatical one and since many of the examples are still rejected by many speakers, I remain skeptical about the validity of this factor.

The last and (for her) the most crucial observation is that adding a disjunct possessor to the dislocated noun seems to alleviate Condition C effects (Fischer 2004: 207). Since she only discusses German I will give the English equivalents with her judgments:

(72) a) [Mary's punishment for **Peter's$_i$** being late]$_1$, **he$_i$** accepted __$_1$.

b) *[The punishment for **Peter's$_i$** being late]$_1$, **he$_i$** accepted __$_1$.

The contrast does not seem all that clear in English, which might have to do with the different status of topicalization. I will briefly come back to the issue in the discussion of the German data in 2.2.6.3.

Despite all these complications, I will assume that the argument/adjunct distinction does play an important role in the context of Condition C. The basic contrast as in (70) is clear. Next to the straightforward cases, there is a large number of cases where the vagueness of the argument/adjunct distinction, the depth of embedding and aspects like perspective and logophoricity obfuscate the basic contrast. In this thesis, I will therefore always attempt to use contexts that avoid any of these additional factors.[32]

1.3.4.5 Semi-idiomatic cases

The early literature (Schachter 1973) assumed that there is reconstruction for Principle C and used the following examples to prove the point:

(73) a) *The [opinion of **John$_i$**] that **he$_i$** has __ is unfavorable.

b) *The [portrait of **John$_i$**] that **he$_i$** painted __ is extremely unflattering.

However, as discussed in 1.3.3, these are exactly the expressions where one might posit an implicit PRO so that reconstruction is unnecessary to derive the ungrammaticality (see also Bhatt 2002: 50):

(74) *the [**PRO$_i$** portrait of **John$_i$**] that **he$_i$** painted __

Again, as discussed in 1.3.3, this is strictly speaking not correct because reconstruction is still necessary to control the PRO. But then, the Condition C effect will be due to the PRO, and not due to the coreferential subject pronoun.

As soon as these expressions are slightly altered to avoid a coreferential implicit PRO, Condition C effects are no longer observed as in the following example, cf. Safir (1999: 597, note 11):

(75) The [opinion of **John$_i$**] that **he$_i$** thinks Mary has __ is unfavorable.

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[32] More cases of late merger are discussed in 1.3.5.2. The precise derivation and LF-representations will be dealt with in 1.4.1.

Even if there were an implicit PRO, it would certainly be disjunct from *John* because it would be controlled by *Mary*, not by *John*.

1.3.4.6 Asymmetry between the external head and the relative operator

An interesting asymmetry obtains with R-expressions inside the external head and those inside the relative operator phrase: in the latter, there is reconstruction for Principle C (Safir 1999 via Sauerland 2000: 355):

(76) a) *I respect any writer [whose depiction of **John$_i$**]$_1$ **he$_i$**'ll object to __$_1$.

b) I respect [any depiction of **John$_i$**] **he$_i$**'ll object to __.

Interestingly, with R-expressions inside the relative operator, one finds an argument-adjunct asymmetry: in the following example, there is no Condition C effect even though the trace is c-commanded by the coreferential pronoun (Safir 1999: 600, ex. 30a):

(77) The guys [whose pictures in **Sam's$_i$** office]$_1$ I am sure **he$_i$** is most proud of __$_1$ are the guys from his home town.

The contrast with (76)a is best explained by the assumption that the adjunct has been merged late so that *Sam* does not occupy a position c-commanded by *he* at any point of the derivation.

1.3.4.7 Strong Crossover effects and possessive relativization

For reasons that will become clear later on, it is also important to discuss Strong Crossover effects and in this context more generally the structure of the relative operator. Whenever a relative pronoun moves across a coreferential pronoun we get a (Secondary) Strong Crossover effect:

(78) a) *the man$_i$ **who$_{1/i}$ he$_i$** likes __$_1$

b) *the man$_i$ [**whose$_i$** father]$_1$ **he$_i$** likes __$_1$

Strong Crossover effects are often subsumed under Condition C effects so that these data can be interpreted as evidence for reconstruction. While it seems clear that material contained inside the relative operator phrase is reconstructed, it is interesting to test how exactly the relative operator is linked to the external head with respect to reconstruction. This is particularly interesting with *whose* in the following example, cf. Cresti (2000: 153, ex. 1b):

(79) the [friend of **Bob$_i$**]$_j$ [whose$_j$ sister]$_1$ **he$_i$** loves __$_1$

Whose is coreferential with the entire external head *friend of Bob* so that in a sense it also contains the R-expression *Bob* which makes it available inside the relative clause so that a Condition C effect is expected. But no such effect is observed, and it seems that the same mechanism that prevents Principle C effects in relatives is also at work here.

1.3.4.8 R-expressions vs. quantifiers

Another interesting aspect concerns the behavior of quantifiers: as opposed to R-expressions, they lead to Principle C effects when contained inside the external head (Safir 1999: 611, ex. 66a, 612, ex. 68a):

(80) a) *[Pictures of **anyone$_i$**] which **he$_i$** displays __ prominently are likely to be attractive ones.

b) *[**Anyone's$_i$** pictures] which **he$_i$** displays __ prominently are likely to be attractive ones.

Importantly, the position of the trace is crucial: if the reconstructed position c-commands the coreferential pronoun, the example is fine, showing that the ungrammaticality in (80) is indeed due to reconstruction (Safir 1999: 611, ex. 66a/b):[33]

(81) a) *[Pictures of **anyone$_i$**] [which **he$_i$** displays __ prominently] are likely to be attractive ones.

b) [Pictures of **anyone$_i$**] [which __ put **him$_i$** in a good light] are likely to be attractive ones.

Furthermore, with quantifiers, the argument-adjunct asymmetry reemerges: the following example is grammatical even though the trace position is c-commanded by the coreferential pronoun (Safir 1999: 612, ex. 67a):

(82) [Pictures on **anyone$_i$**'s shelf] [which **he$_i$** displays __ prominently] are likely to be attractive ones.

The following pair makes the same point for quantifiers inside the relative operator phrase (Safir 1999: 602, ex. 39a, 40a):

(83) a) *I respect [any writer] [whose depiction of **everyone$_i$**]$_1$ **he$_i$** will object to __$_1$.

b) ?Can you think of [a single politician] [whose picture **in any civil servant's$_i$** office]$_1$ **he$_i$** is truly proud of __$_1$?

These facts imply that whatever process is responsible for the absence of Condition C effects in relatives with R-expressions fails to apply when quantifiers are involved.

1.3.5 Correlations

The pattern of Condition C effects surprisingly changes once reconstruction is forced for some other reasons, such as variable binding (84), idiom interpretation

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[33] Safir's data are very complex and unacceptable for some – I think because scoping of the quantifier out of the DP is not readily available to everyone. The corresponding base sentences are supposed to show the same contrast (Safir 1999: 601, ex. 34a/c):

i) *He$_i$ tries to forget some review of every poet's$_i$ book.

ii) ? Some review of every poet's$_i$ book is bound to upset him$_i$.

(85) and scope (86)[34] (Munn 1994: 402, ex. 15c; Heycock 1995; Romero 1998: 90ff.; Fox 1999: 168ff.; the examples are from Sauerland 2003: 213ff.):

(84) *The [letters by **John**$_i$ to *her*$_j$] that **he**$_i$ told *every girl*$_j$ to burn __ were published.

(85) a) *the [picture of **Bill**$_i$] that **he**$_i$ took __

b) *The [headway on **Mary's**$_i$ project] that **she**$_i$ had made __ pleased the boss.

(86) a) *The [*many* books for **Gina's**$_i$ vet school] that **she**$_i$ *needs* __ will be expensive.

b) *I visited all [the relatives of **Mary's**$_i$] that **she**$_i$ said there are __ left.

Whatever mechanism prevents Condition C effects in normal relative clauses must be absent here. With the exception of the variable binding cases, which I think are uncontroversial,[35] I believe that there are problems with most of the data cited in the literature so that the evidence for the correlation is actually less compelling than usually assumed.

1.3.5.1 The idiom cases

The first problem concerns the idiom data. Examples like (85)a are of the semi-idiomatic type and most likely contain an implicit PRO as already discussed in 1.3.3. Reconstruction is necessary to control the PRO and Condition C effects are therefore expected. The mechanism that normally prevents Condition C effects apparently cannot apply here.

The example (85)b, however, does not show what it is supposed to show: in my view, *headway on Mary's project* is no felicitous external head because it cannot form a constituent in this context:

In the expression *headway on Mary's project* the PP *on Mary's project* is not dependent on *headway*, but rather on the entire expression *make headway* (or just the verb). Such a dependence would yield the wrong semantics: *on Mary's project* does not restrict *headway*. This becomes clear if a non-idiomatic context is used:

(87) Among the positive developments it cites the **headway on** the issues of participation of developing countries in the WTO system and implementation of Uruguay round commitments.
www.hinduonnet.com/businessline/2001/05/24/stories/01242001.htm

Here, *on the issues of participation of developing countries in the WTO system* is dependent on *headway* and restricts it.

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[34] The scope examples have an amount interpretation and therefore require reconstruction, cf. 1.3.1.

[35] In 1.4.1, I will discuss cases where Condition C effects can be alleviated if an intermediate landing site is available above the coreferential pronoun but below the QP.

One can also test this syntactically: if the PP in (85)b were a complement of *headway*, one would expect it to be inextractable when *headway* is headed by a definite determiner because definite DPs normally disallow extraction of their complements. But this prediction is not borne out: *wh*-moving the allegedly dependent PP is unproblematic:

(88) **On which tasks** did Peter make the most significant headway?

Conversely, in cases where *headway* is used non-idiomatically and can take complements, it bars extraction of complements:

(89) ***On which tasks** did Peter praise the significant headway?

Consequently, if an external head as in (85)b is possible, the constituency must be different, it cannot simply be the NP *headway* with a PP depending on it. *Headway* and *on his project* would have to form a larger constituent, perhaps similar to some projection of VP as with double objects. However, restrictive relatives cannot modify non-NPs, cf. de Vries (2002: 185). It seems safe to conclude that (85)b is therefore out for independent reasons. This seems to be refuted by Sauerland's (2003: 214, ex. 24b) claim that the sentence becomes good if the R-expression is replaced by a pronoun:

(90) The [headway on **her**$_i$ project] that **Mary**$_i$ had made __ pleased the boss.

However, I have found several speakers who find this sentence still degraded, arguably for the above-mentioned reasons. The much more acceptable way of saying this is by leaving the PP inside the relative clause:

(91) The [headway] that **Mary**$_i$ had made __ on **her**$_i$ project pleased the boss.

I tentatively conclude that data as in (85)b must be taken with a lot of care and should not be considered decisive arguments that the Condition C pattern changes if reconstruction is forced by other means. The situation in German to be discussed in chapter 2 will turn out to argue even more clearly against the constituency that is claimed for these cases.

1.3.5.2 The scope cases

A similar objection can be raised against many of the cases discussed in the context of scope reconstruction, more precisely amount readings. I will discuss these facts in quite some detail because they will turn out to be important later on. I mentioned at the end of the section on Principle C effects that there is one case where the absence of reconstruction for Principle C in *wh*-movement is somewhat clearer, at least in English. This case involves the ambiguity of amount quantifiers like *how many*, discussed e.g. in Heycock (1995), Romero (1998), and Fox (1999). Such phrases show systematic ambiguities when they interact with scopal elements (e.g. modals or propositional attitude verbs). Consider the following sentence from Fox (1999: 165, ex. 15):

(92) [How **many** people]$_1$ did Mary **decide** to hire __$_1$?

This sentence is ambiguous between a wide-scope reading of the quantifier, which is also referred to as referential, and a narrow-scope reading, which is the amount reading. Under the wide-scope reading, such a sentence is felicitous if there is a set of seven specific people that Mary has decided to hire (e.g. people that impressed her during the interview). Under the amount or narrow-scope reading, only the sheer number counts, for instance, when Mary simply knows that she needs 50 people and decides on this amount before the interviews have taken place. If the *how many*-phrase contains an R-expression coreferential with the subject, the referential/wide-scope reading is expected to *bleed* Principle C whereas the amount reading, which corresponds to the reconstructed reading, *feeds* Condition C. The latter case is the one I am interested in here. Since the difference between the two readings is subtle in the example above, it is helpful to use a context where only one of the readings is possible. The context normally used are verbs of creation (*invent, come up with, build, publish*), which when used in the appropriate tense only allow a narrow-scope reading. The following pair makes the contrast quite clear (Fox 1999: 166):

(93) a) [How **many** houses]$_1$ does John **think** you should build $___1$?
think > many; *many > think

b) [How **many** houses]$_1$ does John **think** that you should demolish $___1$?
think > many; many > think

A verb of creation in the non-past tense only allows an amount reading whereas a verb such as *demolish* allows both readings. Other contexts that force an amount reading are *there*-sentences and amount relatives. A referential reading, on the other hand, can be triggered by extracting a *how many* phrase from a weak island.

The prediction is that with an amount reading, an R-expression inside the *how-many* phrase will lead to a Principle C effect, c-commanded by a pronoun in the dependent clause at LF, but not with a referential reading. It is somewhat difficult to find clear examples because some verbs of creation (*invent, come up with*) probably have an implicit PRO in the Spec of their complement (cf. Fox 1999: 167, note 24, but Heycock 1995: 558, note 15 for a different view; see also footnote 49) so that Condition C effects result form independent factors. One type of contrast that avoids this complication and is often cited in the literature (cf. Fox 1999: 167) is the following:

(94) a) *[How *many* houses in **John's$_i$** city]$_1$ does **he$_i$** *think* you should build $___1$?
think > many; *many > think

b) [How *many* houses in **John's$_i$** city]$_1$ does **he$_i$** *think* you should demolish $___1$?
*think > many; many > think

(94)a only allows an amount reading because of the verb of creation. This forces reconstruction and leads to a Condition C effect. (94)b, on the other hand, allows both a referential and an amount interpretation of the amount quantifier. But since only the wide-scope interpretation avoids a Condition C effect, this is the only possible interpretation in this case.

Relatives seem to pattern the same:

(95) a) *the [*many* houses in **John's$_i$** city] that **he$_i$** *think*s you should build __
think > many; *many > think

b) *the [*many* houses in **John's$_i$** city] that **he$_i$** *think*s you should demolish __
*think > many; many > think

The question is whether this actually shows what it is supposed to show. In both cases, the PP containing the R-expression is clearly an adjunct. In (95)b, it is argued, the PP can be merged late whereas in (95)a), this is impossible because of reconstruction, i.e. the adjunct must be interpreted where the head noun is interpreted to yield a coherent interpretation (cf. Heycock 1995: 561; Fox 1999: 190, note 55).[36] However, I believe there are independent reasons for the ungrammaticality of the a-examples: as discussed above with respect to (85)b, there is something wrong with the constituency of the external head. The external head together with its modifier has the wrong constituency for its interpretation: one cannot build something that is already located in space by a modifier (which is the interpretation one gets if the modifier is dependent on *house*). Rather one can build something, and this happens in some location. The PP is therefore not syntactically dependent on *house*. In (95)b, there is no such problem because the houses exist already, and their denotation is restricted by the PP-modifier. Fox (1999: 168, ex. 22b) claims that a pronoun would be fine inside the adjunct, which would refute the argument just made:

(96) [How *many* houses in **his$_i$** city]$_1$ does **John$_i$** *think* you should build __$_1$?

However, several people I have consulted do not share this judgment. Even though the sentence is not downright ungrammatical, it does remain strange. The same holds for the corresponding relative clause:

(97) ??the [*many* houses in **his$_i$** city] that **John$_i$** *think*s you should build __

All speakers prefer to put the PP-modifier in the embedded clause, both in *wh*-movement and in relative clauses:

(98) a) [How *many* houses]$_1$ does **John** *think* you should build __$_1$ in **his** city?

b)??the [*many* houses] that **John$_i$** *think*s you should build __ in **his$_i$** city

As we will see below (299), the corresponding German example is quite unacceptable as well. I believe therefore, that (94)a and (95)a are out for independent reasons.

I think that the same problem explains the ungrammaticality of (86)a: again, something is wrong with the constituency. The string *need something for something* as such is structurally ambiguous; *for something* can be dependent on the first noun and restrict it or can be independent (the two interpretations are differentiated by different stress patterns; the independent interpretation seems only possible with an indefinite article). Depending on the context, both construals are felicitous. Consider the following sentence:

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[36] I will discuss the workings of reconstruction in these examples in more detail in 1.4.1.

(99) I still need a present for Mary.

Depending on what is focused, the speaker either needs a present, and this present is for Mary so that the PP is independent or the speaker needs a present of a particular type, namely one that is characterized by being for Mary. The latter construal is, however, not particularly natural in the current context. Consider the following base sentence to the relative in (86)a:

(100) Gina still needs many books for her vet school.

The most natural construal of this sentence is that Gina needs many books and she needs them for her vet school. The other construal with the PP dependent on *books* is unlikely here. But this is exactly the constituency for the external head in (86)a to be well-formed. Evidence for this comes from the fact that the sentence does not improve markedly if the R-expression is replaced by a pronoun:

(101) ??the [*many* books for **her**$_i$ vet school] that **she**$_i$ *needs* __

The only really natural way of expressing such a content would be to leave the modifier inside the relative clause:

(102) the [*many* books] that **she**$_i$ *needs* __ for **her**$_i$ vet school

A context that avoids these constituency problems are existential sentences, (Fox 1999: 168, ex. 24a/b):

(103) a) *[How *many* people from **Diana's**$_i$ neighborhood]$_1$ does **she**$_i$ think there are __$_1$ at the party?

b) [How *many* people from **Diana's**$_i$ neighborhood]$_1$ does **she**$_i$ think __$_1$ are at the party?

(103)a), which only has an amount reading, leads to a condition C effect, whereas (103)b), which also allows a wide-scope reading, has no such consequence. The question is whether the corresponding relatives behave the same. According to Sauerland (2003: 215) they do, cf. (86)d, but Safir (1999: 613, note 22) questions the correlation and claims for the *there*-case that the following example is fine:

(104) the [number of pictures of **Diana**$_i$] that **she**$_i$ thought there were __ in the envelope

Safir does not address the other correlations, unfortunately, so that the point remains moot. So we still do not have clear evidence. Probably the best example I have been able to find is the following (Romero 1998: 94, ex. 40a):

(105) *[How *much* of **John's**$_i$ Merlot]$_1$ do you think **he**$_i$ drank __$_1$ last night?

Here, the *of*-PP is certainly dependent on *much* so that there is no constituency problem. *How much* only allows an amount reading and therefore involves reconstruction, which leads to a Condition C effect. However, this example cannot be translated into a relative clause very easily because of *much*. One has to resort to the expression *many bottles*, which seems to have the desired

properties (there is no explicit statement in the literature about relatives, unfortunately):

(106) *the [*many* bottles of **Peter's$_i$** Merlot] that **he$_i$** drank __ in just one evening

1.3.5.3 Correlation with construal of superlative adjectives

Correlations between the interpretation of adjectival modifiers and Principle C have not been tested for English to my knowledge (but see Heck 2005: 5, ex. 33, and the discussion in (306) below), although the expectation is, of course, that the low reading triggers a Condition C effect and the high reading does not. To the extent I have been able to test this, the facts seem to go in the right direction, but the results should be considered provisional. I use an NPI to trigger a specific reading:

(107) a) the [*first* book about **John$_i$**] that I *ever said* **he$_i$** liked __ ➔ high reading

b) *the [*first* book about **John$_i$**] that I said **he$_i$** *ever liked* __ ➔ low reading

Under the low construal, coreference between *John* and *he* seems more difficult than under the high reading.

1.3.5.4 Summary

So what can be concluded from this section? The evidence that the Condition C pattern changes in relatives if reconstruction is forced by other means is not too strong, certainly weaker than claimed in the literature. Only the cases with variable binding are analytically watertight; more empirical work would be needed to find out whether the correlations really obtain. For the time being, I will assume that reconstruction for variable binding and scope does lead to Principle C effects, at least in English. As we will see in 2.2.7, the German facts are different.

1.3.6 Obligatory non-reconstruction of the external head

So far, we have seen a lot of evidence in favor of reconstruction in relatives. There are cases, however, that suggest that at least in limited circumstances, reconstruction must be blocked. It is uncontroversial that the head noun can form an idiom with the matrix verb, cf. McCawley (1981):

(108) John **pulled the** [**strings**] that __ got Bill the job.

For idiom interpretation to be possible, the idiom must not reconstruct.

One can also construct similar examples with anaphor binding: since the binder is located in the matrix clause, the external head must not be reconstructed into the relative clause because the anaphor contained inside the external head would

be too far away from its binder. Here are a number of naturally occurring examples:[37]

(109) a) It's got to be a person **who**$_i$ likes that part of **himself**$_i$ that __ touches people that way. TW: Why do you love playing Wes Anderson's characters?
www.thewavemag.com/pagegen.php?pagename=article&articleid=25147

b) Gloria: **He's**$_i$ just got a confident air about **himself**$_i$ that I think __ matches Leo's.
allmychildren.about.com/cs/recaps/a/bl20040312d.htm

c) **He**$_i$ didn't tell me details about **himself**$_i$ that I needed to know __ to make informed choices about the relationship.
www.cedarfire.com/newsletter.shtml

d) ... I lent a sympathetic ear, but quickly realized that **he**$_i$ was prone to revealing intimate details about **himself**$_i$ that I would prefer to never, ever hear __.
www.workingfortheman.com/bossdivorce.html

e) He claims that now **he**$_i$ likes all those disheartening things about **himself**$_i$ that as a young man he thought __ were so repulsive:. his prosaic name, his red,
dx.doi.org/10.1111/0036-0341.00007

f) So far the Search for the real Howard, **who**$_i$ likes to intimate things about **himself**$_i$ that __ are not quite what they seem, has revealed the following: Contrary to …
nypdconfidential.com/newsday/1999/991122.html

In a language like English, such examples are perhaps of limited force because, as discussed in 1.3.3, anaphors can be used logophorically so that one could conclude that picture NPs are exempt from the Binding Theory. Consequently, the anaphors in the examples above might be licensed even if they are reconstructed into the relative clause. However, in languages where such anaphors *are* subject to Condition A, examples like those above do represent evidence against reconstruction. The idiom case also remains relevant for English. The following subsection discusses a related issue.[38]

1.3.7 Conflicting requirements

One can also find examples with conflicting reconstruction requirements. In the following example, the anaphor seems to be bound in the matrix clause and at the same time has to be reconstructed for idiom interpretation:

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[37] All examples from the internet that appear in this thesis have been corrected with respect to orthography.

[38] Citko (2001: 134f.) discusses a similar case with external heads containing NPIs that must not be reconstructed in order not to violate the Immediate Scope Constraint (Linebarger 1987: 338).

(110) I will never forget Somi, his sunken eyes, and the way he crawled into my arms as **he**$_i$ showed me the picture of **himself**$_i$ that one of my fellow students **took** __.
www.textbooksforafrica.org/19438.html?*session*id*key*=*session*id*val*

One might again assume that reconstruction of the external head causes no problems for anaphor binding because the anaphor can be interpreted logophorically. However, it is questionable whether logophoric use would be possible in such a case: *take a picture* is the kind of semi-idiomatic expression where one would posit an implicit PRO (cf. 1.3.3); in that case, the N *picture* counts as a predicate so that the reflexive contained in it is no longer exempt from the Binding Theory and would have to be bound by that PRO, which it isn't (it is the subject of the relative clause that controls the PRO). Reconstruction would therefore possibly predict the sentence to be ungrammatical, see Reinhard & Reuland (1993: 686, note 29) for discussion. Such examples therefore indicate that the external head has to be interpreted in two different places. In languages where anaphors cannot be used logophorically this fact is even clearer.[39]

Setting the problem of anaphors aside, there are more straightforward examples (first mentioned for German in Heck 2005: 14, ex. 54): One can construct examples where idiom formation requires a matrix-clause internal representation, but where the idiomatic chunk also contains material that has to be reconstructed such as for variable binding:[40]

(111) I always try to **take** [**pictures** of **his**$_i$ wife] that **every man**$_i$ likes __.

Such examples clearly show that the reconstruction behavior in relatives is generally more complex than in *wh*-movement or topicalization where reconstruction (almost) always takes place.

1.3.8 Overview

Let me briefly summarize the findings. Reconstruction in English relatives displays an interesting pattern. With material contained inside the relative operator phrase, reconstruction is as systematic as in *wh*-movement: there are straightforward reconstruction effects for variable binding, scope reconstruction, Condition A and Condition C. With material contained inside the external head, however, things are somewhat different: while there is reconstruction for idioms, variable binding, scope and Principle A, there is no reconstruction for Principle C in the simple case. Interestingly, Condition C effects re-emerge once reconstruction is forced for other reasons (such as variable binding). Another peculiarity of English relatives is that there are configurations where the external head must not be reconstructed at all or where it has two be interpreted in two

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[39] Actually, the case at hand is particularly difficult because if there is an implicit PRO, it must only be represented inside the relative clause, but not inside the external head. Otherwise, the PRO would block binding by the binder in the matrix clause.

[40] Henk van Riemsdijk (p.c.) has pointed out to me a somewhat different case, where an NP receives an idiomatic interpretation both in the matrix clause and relative clause-internally:
i) John never pulled the strings that his mother told him should be pulled.

different positions. There is thus something special about the external head of relative clauses that any analysis of relative clauses has to explain. For obvious reasons, the intricate Condition C pattern will turn out to be decisive in the evaluation of the different analyses.

(112)

	phenomenon		*relativization*		*wh-movement*
			external head	relative operator	
	idiom formation (41)		+	–	+
	variable binding (42), (47)		+	+	+
	scope reconstruction (43)–(45), (48)		+	+	+
	low construal of adjectives (49)		+	n.a.	n.a.
Principle C	if argument (65), (67), (76)a, (81), (83)a,	R-expression	–	+	+
		quantifier	+	+	+
	if adjunct (70)b, (77), (82), (83)b	R-expression	–	–	–
		quantifier	–	–	–
	semi-idiomatic cases (73)		+	n.a.	+
	SCO and SSCO (78)		n.a.	+	+
	correlation with variable binding (84)		+	+	+
	correlation with scope reconstruction (106)		+	+	+
	correlation with low construal of adjectives (107)		+	n.a.	n.a
	non-reconstruction of external head (108), (109)		+	n.a.	n.a.
	conflicting requirements (111)		+	n.a.	?[41]

1.4 The implementation of reconstruction

In this section, I will lay out the precise assumptions that the three analyses of relative clauses make with regard to reconstruction. But before I proceed, I will briefly sketch how reconstruction is generally handled in A'-chains within the Principles & Parameters framework.

1.4.1 Reconstruction in A'-chains

Consider the following example:

(113) [Which picture of **his$_i$** mother]$_1$ does **every boy$_i$** like __$_1$ best?

[41] Safir (1999: 592) constructs a case where interpretation in several positions is necessary in *wh*-movement as well, but normally, this does not seem to be the case.

It is generally agreed upon that the fronted constituent, at least the restriction of the *wh*-phrase, has to be interpreted in the lower position so that the bound variable is c-commanded by *every boy*. Before the Minimalist Program, it was assumed that there was an explicit operation called reconstruction that moves the fronted constituent back into its theta-position.[42]

The perspective on reconstruction changed substantially with the advent of the Minimalist Program; this mostly has to do with the revival of the Copy Theory of Movement. Movement is no longer thought to leave a trace but a full copy of the antecedent. In the case at hand, this yields the following representation after *wh*-movement has taken place:[43]

(114) [Which picture of **his$_i$** mother]$_1$ does **every boy$_i$** like best [Which picture of **his$_i$** mother]$_1$?

This structure cannot be interpreted, however, because it is not a proper operator-variable structure. The *wh*-operator certainly has to be interpreted in Spec, CP and it has to bind a variable.[44] That means that at least part of the tail of the chain has to be converted into a variable. There are in principle two conceivable LF-representations for such a sentence, either with restricted or with unrestricted quantification. Under restricted quantification, the restriction of *which* is interpreted in the head of the chain and the entire lower copy is converted into a variable. Under unrestricted quantification, the restriction is interpreted in the tail of the chain and only the lower copy of the operator is converted into a variable (LF-deletion is marked by strike-through):

(115) a) [Which picture of **his$_i$** mother]$_1$ does **every boy$_i$** like best [x]$_1$?

b) [Which ~~picture of his$_i$ mother~~]$_1$ does **every boy$_i$** like best [x picture of **his$_i$** mother]$_1$?

Clearly, only unrestricted interpretation derives the right result in this case because the bound variable has to be interpreted in the reconstructed position. The question is what determines which copy is interpreted. One could argue that the grammar simply chooses the LF that derives a grammatical result. However, this cannot be correct because of the following sentence:

(116) *[Which picture of **Bill$_i$**]$_1$ does **he$_i$** like __$_1$?

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42 There were alternatives, which, however, never received widespread acceptance, namely the concept of layered traces or the L-model of van Riemsdijk & Williams (1981).

43 For reasons of presentation, I will continue to coindex members of a movement chain even under the Copy-theoretic notation. This will help tease apart the derivations of the HRA and the MA below.

44 With topicalization, things are somewhat less clear. Consider the following example from Sportiche (2003: 42, section 3.3.2. his ex. 68):

i) A book, it is obvious everyone will buy.

This sentence clearly allows for an interpretation of the whole preposed constituent in the scope of *everyone,* which suggests that there is not partial reconstruction as with *wh*-movement but total/radical reconstruction. At the same time, it is not clear what that would mean for the information structural properties of the moved constituent. Plausibly, movement for topic or focus also involves clause-typing, and it is not clear what would happen if the whole constituent, which arguably bears the relevant information structural features, would be reconstructed.

This sentence has again two possible LFs:[45]

(117) a) §[Which picture of **Bill$_i$**]$_1$ does **he$_i$** like [x]$_1$?

b) *[Which ~~picture of **Bill$_i$**~~]$_1$ does **he$_i$** like [x picture of **Bill$_i$**]$_1$?

(117)a incorrectly predicts the absence of a Condition C effect. (117)b must therefore be the correct interpretation. But how can this be derived? Chomsky (1995: 209) proposes the *Preference Principle* to cover such cases. The Preference Principle requires minimally restricted quantifiers. This will always prefer unrestricted quantification.[46]

There are also deletion operations that apply at PF. In the default case, the upper copy is retained, the lower one is deleted (see Nunes 2001 for an elaborate theory of PF-deletion). In the following representation, I have also added the PF-deletion operations. PF-deleted constituents appear in outline:

(118) [Which ~~picture of his$_i$ mother~~]$_1$ does every boy$_i$ like best
[x picture of his$_i$ mother]$_1$?

This yields the right result for most of the cases. Reconstruction is the default in A'-chains. This is exactly what the Preference Principle means.

However, it is just a preference, not an absolute principle. There are well-known cases where restricted interpretation is possible. Consider the following example with anaphor binding (for the sake of argument, let us assume that anaphors are subject to the Binding Theory):

(119) **John$_i$** wondered [which picture of **himself$_{i/j}$**]$_1$ **Bill$_j$** saw __$_1$.

According to the Preference Principle *picture of himself* should be reconstructed so that only the lower subject can bind the anaphor, contrary to fact:

(120) §**John$_i$** wondered [which ~~picture of himself$_{i/j}$~~]$_1$ **Bill$_j$** saw [x picture of **himself$_{*i/j}$**]$_1$.

Apparently, the Preference Principle can be overridden so that the upper copy can be exceptionally privileged. Chomsky (1995) argues that this follows from the exceptional properties of the anaphor. It undergoes LF-movement to cliticize onto its antecedent which yields the two following options:

(121) a) John$_i$ **self**-wondered [which picture of __$_{self}$]$_1$ Bill$_j$ saw [which picture of himself]$_1$.

b) John$_i$ wondered [which picture of himself]$_1$ Bill$_j$ **self**-saw [which picture of __$_{self}$]$_1$.

Movement of *self* restricts the deletion possibilities: Chomsky assumes that the copy that contains the trace of *self* cannot be deleted. This implies that the

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[45] I use the symbol "§" for representations that predict the wrong grammaticality, both when they wrongly predict a sentence to be bad or when they incorrectly predict it to be well-formed.

[46] See Fox (1999: 182) for a somewhat different implementation of the Preference Principle.

Preference Principle is not an option in (121)a; consequently, the entire upper copy is retained and we get restricted quantification:

(122) John$_i$ **self**-wondered [which picture of __$_{self}$]$_1$ Bill$_j$ saw [x]$_1$.

In (121)b, however, the upper copy does not contain a trace of the anaphor and therefore the Preference Principle can apply:[47]

(123) John$_i$ wondered [which ~~picture of himself~~]$_1$ Bill$_j$ **self**-saw [x picture of __$_{self}$]$_1$.

The same reasoning will account for binding in intermediate positions as in the following example (see Barss 1986):

(124) [Which picture of **himself$_{i/j}$**] does **John$_i$** think that **Bill$_j$** likes?

The *wh*-phrase can be interpreted both in the theta position or in the intermediate Spec, CP depending on which copy contains the trace of *self:*

(125) a) [Which ~~picture of himself$_{i/j}$~~]$_1$ does John$_i$ **self**-think [$_{CP}$ [x picture of __$_{self}$]$_1$ that Bill$_j$ likes [x]$_1$]?

b) [Which ~~picture of himself$_{i/j}$~~]$_1$ does John$_i$ think [$_{CP}$ [x ~~picture of himself$_{i/j}$~~]$_1$ that Bill$_j$ **self**-likes [x picture of __self]$_1$]?

There is another case where a copy other than the lowest one is privileged for interpretation, but as far as I can see, it is not covered by the assumptions so far. Fox (1999: 173), citing Lebeaux (1990) discusses questions where the *wh*-phrase is modified by a relative clause that contains both a bound pronoun and an R-expression. The *wh*-phrase has to reconstruct together with the relative clause for variable binding to be possible. Additionally, there is a pronoun coreferential with the R-expression that c-commands the lowest copy of the *wh*-phrase. Interestingly, we do not always get a Condition C effect:

(126) a) [Which of the papers that *he$_j$* gave to **Ms. Brown$_i$**]$_1$ did *every student$_j$* hope **she$_i$** will read __$_1$?

b) *[Which of the papers that *he$_j$* gave to **Ms. Brown$_i$**]$_1$ did **she$_i$** hope that *every student$_j$* will revise __$_1$?

Clearly, the *wh*-phrase has to reconstruct below the QP. In (126)b, there is only one option, the theta-position, and since this position is c-commanded by *she*, the lower copy of *Ms. Brown* will trigger a condition C effect:

(127) *[Which ~~of the papers that *he$_j$* gave to **Ms. Brown$_i$**~~]$_1$ did **she$_i$** hope that *every student$_j$* will revise [x of the papers that *he$_j$* gave to **Ms. Brown$_i$**]$_1$?

---

[47] If the interpretation of anaphors is governed by discourse properties (cf. 1.3.3), this is not necessary. Rather, the restriction would be retained in the lowest copy only and the anaphor could take various antecedents depending on their salience, cf. Pollard & Sag (1992), Safir (1999: 595). This would make it possible to adopt a stricter version of the Preference Principle. Interestingly, languages where anaphors cannot be licensed logophorically do not seem to allow (121)a. This might be an indication that there is indeed only reconstruction to the lowest position. I will come back to this issue in the next chapter when discussing the German facts (2.1).

But how is a Condition C violation avoided in (126)a? Fox argues that this is due to reconstruction into an intermediate landing site, the embedded Spec, CP position. This position guarantees variable binding (it is c-commanded by the QP) and at the same time avoids a Condition C violation because that position is outside the c-command domain of the coreferential pronoun:

(128) [Which ~~of the papers that *he*$_j$ gave to **Ms. Brown**$_i$~~]$_1$ did *every student*$_j$ hope [$_{CP}$ [x of the papers that *he*$_j$ gave to **Ms. Brown**$_i$]$_1$ **she**$_i$ will read [x]$_1$]?

Fox presents this as a possibility, but does not explain why it is possible to privilege a copy other than the tail. Clearly, this option must not always be available because otherwise we expect the general absence of Condition C effects once one level of embedding is involved. This is clearly wrong as the following example shows:

(129) *[Which picture of **John**$_i$]$_1$ do you think [$_{CP}$ __$_1$ **he**$_i$ likes __$_1$ best]?

To derive the ungrammaticality, reconstruction has to target the lowest position, not the intermediate Spec, CP position. Why this is exceptionally possible in (128) remains unaccounted for. One cannot derive this from a locality requirement on variable binding simply because there is no such requirement: bound variables can be arbitrarily far away from their antecedent. I will leave this issue here unresolved even though it shows that the Preference Principle does not cover the entire range of reconstruction effects.

There is one more case where interpretation of the higher copy is often thought to be required. These are the cases of late merger, briefly discussed already in 1.3.4.4. I repeat a relevant contrast:

(130) a) *[Which investigation of **Nixon**$_i$]$_1$ did **he**$_i$ resent __$_1$?

b) [Which investigation near **Nixon's**$_i$ house]$_1$ did **he**$_i$ resent __$_1$?

Abstracting away for the moment from the difficulty to distinguish arguments from adjuncts, the asymmetry with respect to Condition C seems to be a problem for the Preference Principle because it would predict a Condition C effect in both cases. Chomsky (1995) adopts Lebeaux's theory of late merger according to which adjuncts can be merged non-cyclically, in the present case after *wh*-movement has taken place. Therefore, there is no representation of the adjunct in the theta-position. Adjuncts, on the other hand, have to be merged cyclically and therefore leave a copy:

(131) a) *[Which investigation of **Nixon**$_i$]$_1$ did **he**$_i$ resent [Which investigation of **Nixon**$_i$]$_1$?

b) [Which investigation near **Nixon's**$_i$ house]$_1$ did **he**$_i$ resent [Which investigation]$_1$?

The Preference Principle can apply straightforwardly to (131)a so that we get unrestricted quantification, and the presence of *Nixon* in the tail of the chain triggers a Condition C effect:

(132) *[Which ~~investigation of **Nixon**$_i$~~]$_1$ did **he**$_i$ resent [x investigation of **Nixon**$_i$]$_1$?

In (131)b, however, the Preference Principle cannot apply because that would delete the adjunct and since it is not present in the lower copy it could not be recovered. The only option is therefore restricted quantification:[48]

(133) [Which investigation near **Nixon's**$_i$ house]$_1$ did he$_i$ resent [x]$_1$?

Importantly, late merger is an option that is not always available. It is not available in two configurations. First, if the adjunct contains an element such as a bound pronoun that is not licensed in Spec, CP, late merger is not possible because the pronoun would remain unbound and the derivation would crash. Consider the following example (Fox 1999: 189; see also Romero 1998: 154ff.):

(134) *[Which book that *he*$_j$ asked **Ms. Brown**$_i$ for]$_1$ did **she**$_i$ give *every student*$_j$ __$_1$?

The *wh*-phrase contains the bound pronoun *he*, which has to be reconstructed to be bound by *every student*. Under late merger, however, this would not be possible. Consequently, the adjunct has to be merged cyclically. As a consequence, there will be a copy of *Ms. Brown* in the c-command domain of *she* so that a Condition C violation obtains.

The other case where late merger is impossible concerns some of the cases with amount quantification from Heycock (1995) and Fox (1999) already discussed in 1.3.5.2. Recall that in those cases, the higher copy can exceptionally be privileged at LF because this yields a semantic effect, a difference in scope – e.g. when a quantifier inside the *wh*-phrase interacts with another scopal element. I repeat a relevant example from above:

(135) [How **many** people]$_1$ did Mary **decide** to hire __$_1$?

In this example, the quantifier *many* interacts with *decide*. In principle, both a wide-scope and a narrow-scope interpretation are possible. The following examples give the respective LF-representations (*how* is a pure question marker and does not reconstruct):

(136) a) [How ~~**many** people~~]$_1$ did Mary **decide** to hire [x **many** people]$_1$?
decide > many

b) [How **many** people]$_1$ did Mary **decide** to hire [x]$_1$?
man > decide

Example (136)a with scope reconstruction directly follows under the Preference Principle. (136)b, however, does not, in fact, it violates it. I will assume that the wide-scope cases are another instance where the Preference Principle can be overridden. This might not be entirely faithful to the sources that have discussed

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[48] Interestingly, Hornstein et al. (2005: 264, ex. 76d) seem to assume that it is possible to interpret the restriction in the tail of the chain, but the adjunct in Spec, CP. Fox (1999: 190) explicitly states that this is impossible. I will come back to this below when the correlation between scope and Condition C is discussed.

these data (Heycock 1995, Fox 1999) as they make somewhat different assumptions about reconstruction, but for my purposes, this will be sufficient.

Importantly, late merger interacts in intricate ways with these amount cases. As discussed in 1.3.5.2., if an adjunct is added that contains an R-expression coreferential with the subject of the embedded clause, these sentences are disambiguated in favor of the wide-scope reading as in the following example (Fox 1999: 169, ex. 28a):

(137) [How *many* slides of **Jonathan's$_i$** trip to Kamchatka]$_1$ did **he$_1$** *decide* to show __$_1$ at the party? (many > decide; *decide > many)

The only possible answer to this question is the specific set of slides he has decided on; the narrow-scope reading under which only the amount counts (e.g. before looking at the slides, Jonathan thought that 100 would be about the right amount) is not available. Importantly, Fox (1999: 167, note 23) argues that the obviation of the Condition C effect does not follow from the fact that only the higher copy is interpreted, but rather from the fact that the R-expression is contained in an adjunct that can be merged late. As discussed above, once we have late merger, only the higher copy can be interpreted:

(138) [How *many* slides of **Jonathan's$_i$** trip to Kamchatka]$_1$ did **he$_1$** *decide* to show [x]$_1$ at the party? (many > decide; *decide > many)

This conclusion (which is shared by Heycock 1995: 558) is actually somewhat surprising because in the case at hand it is not so clear that we are really dealing with an adjunct. Furthermore, the possibility to interpret only the higher copy if it makes a scopal difference would avoid a Condition C effect even if the *of*-PP is merged cyclically. The reason why both Heycock (1995) and Fox (1999) still prefer a late merger account presumably (they are not explicit about this) has to do with the fact that late merger also covers the cases where scope is not involved as in (130) above.

The second case where late merger is ruled out concerns configurations where the semantics of the verb force scope reconstruction, as in the following example (Heycock 1995: 558, note 15):[49]

(139) *[How *many* stories about **Diana$_i$**]$_1$ does **she$_i$** want Charles to *invent* __$_1$?

Crucially, the adjunct cannot be merged late in this case. If it were, it would be interpreted in a different position than the NP which it modifies, as in the following putative LF:

(140) *[How ~~*many*~~ stories about **Diana$_i$**]$_1$ does **she$_i$** want Charles to *invent* [x *many* stories]$_1$?

This would avoid the Condition C effect, contrary to fact. Heycock (1995: 561) and Fox (1999: 190, note 55, Sportiche 2003: 77[50]) argue that late merger is

[49] By adding a further level of embedding, a coreferential implicit PRO can be ruled out that is probably present in DPs selected by verbs of creation, cf. Heycock (1995: 558, note 15, Fox 1999: 167, note 24).

ruled out in this case because it would lead to an incoherent interpretation if the adjunct is not interpreted in the same position as the NP it modifies. Consequently, the adjunct has to be merged cyclically and will be represented in the lower copy. The Preference Principle then derives the right result:

(141) *[How ~~*many* stories about **Diana**$_i$~~]$_1$ does **she**$_i$ want Charles to invent [x *many* stories about **Diana**$_i$]$_1$?

In other words, scope reconstruction forces cyclic merger of the adjunct. As discussed in 1.3.4.4, the success of any approach that makes crucial use of the argument/adjunct asymmetry depends on the correct delimitation. While it seems unproblematic to treat relative clauses as adjuncts, this seems less likely in expressions like *stories about Diana*, *slides of Jonathan's trip*, *pictures of John* etc. It seems indeed to be the case that speakers find coreference in the latter cases more difficult; the fact that the difference between arguments is not always sharp and might be subject to speaker variation could explain the contradictory statements that are often found in the literature, cf. the examples in (67)–(68). The German data to be discussed in chapter two will confirm this tendency. For more discussion of the argument-adjunct asymmetry, see Heycock (1995: 557, note 13) and Fischer (2004: 183ff.).

These are more or less the standard assumptions about the PF- and LF-representations of A'-chains and the mechanisms that are needed to reach them. As always, there are more complex cases and some of the approaches in the literature are more elaborate, but the assumptions presented above are sufficient for my purposes. For further discussion see e.g. Munn (1994: 398ff.), Chomsky (1995: 252), Heycock (1995) Romero (1998), Safir (1999: 590ff.), who has a different view, Fox (1999), Sauerland (2003: 208f.), Sportiche (2003), Bianchi (2004: 84ff.) and Fischer (2004).

The default assumption is, of course, that reconstruction in relative clauses is modeled exactly the same way since we are also dealing with an A'-chain. But since relative clauses where shown to exhibit a somewhat different reconstruction behavior than *wh*-movement, some modifications will turn out to be necessary to capture all the facts. The extent to which this is successful will

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[50] Sportiche (2003: 50ff., ex. 78) also discusses a case where reconstruction is necessary for reciprocal binding but where a relative clause that contains an R-expression and modifies the phrase with the reciprocal is not reconstructed with it:

i) [Which pictures of each other$_j$ [which John$_i$ likes]]$_1$ does he$_i$ think they$_j$ like __$_1$?

This sentence is grammatical according to Sportiche. According to Fox' reasoning, reconstruction of the NP *pictures of each other* is necessary to guarantee binding. But as with scope, this would force cyclic merger of the relative clause so that we expect a Condition C effect, contrary to fact. Sportiche assumes – contrary to what he says later on (2003: 77) – that the adjunct can be merged late and does not have to be interpreted together with the reconstructed NP *pictures of each other*.

ii) [Which pictures of each other$_j$ [which John$_i$ likes]]$_1$ does he$_i$ think they$_j$ like [x pictures of each other]$_1$?

Unfortunately, he does not address this contradiction. The only possibility seems to be to assume that the top copy of *pictures of each other* is also retained, but then the reciprocal is not licensed in that position. A similar problem obtains with Sportiche's (2003: 52, ex. 81).

determine which of the analyses of relative clauses to be discussed below fares best.

1.4.2 The Head External Analysis

Even though the HEA was the standard analysis of relative clauses up to the mid-nineties, it was never spelled out in much detail how reconstruction of the external head into the relative clause should be handled. Since there is no direct movement relationship between the external head and the reconstruction position, reconstruction effects cannot be modeled by simply undoing a movement operation as with *wh*-movement. Instead, reconstruction has to be mediated via the relative operator. How this should be done was mostly left implicit, except for loose reference to predication: operator movement in the relative clause turns it into a predicate. Through predication the operator is coindexed with the external head (it binds the predicate variable) and "somehow" makes the content of the external head available inside the relative clause.

This quandary was accentuated by the introduction of the Minimalist Program and the way it handles reconstruction effects. To model reconstruction, it is necessary to have a full copy of the antecedent in the reconstruction site. Obviously, this is strictly impossible under the HEA since all there is inside the relative clause is a copy of the relative pronoun or the null operator (whose status is unclear anyway in a Copy Theory system):

(142) the man [who/Op]$_1$ I like [who/Op]$_1$

There is no relative clause-internal representation of the external head and reconstruction can no longer be captured by means of the Copy Theory. One could argue, of course, that in addition to the Copy-theoretic treatment, there is also another mechanism for reconstruction that makes use of feature transfer through the coindexation between the head NP and the relative operator. This is, in principle, a viable option, but the recent literature has interpreted the situation differently and considers the Copy Theory together with the Preference Principle the only option to model reconstruction. As a consequence, the literature (most prominently Bhatt 2002) assumes that the HEA cannot model reconstruction in relatives.

Admittedly, this move has been theory-internal to some extent, but since there are no convincing proposals how reconstruction effects would have to be handled with the HEA, I will adopt that position and assume that whenever there is reconstruction, the HEA is not an option.

1.4.3 The Head Raising Analysis

One of the major boosts for the revival of the HRA was certainly the fact that it provided a simple and straightforward way of modeling reconstruction within a minimalist setting: There is a movement chain and reconstruction is obtained by interpreting the lower copy of the A'-chain according to the Preference Principle. This is very straightforward under simpler versions of the HRA with only one

movement step (as e.g. Kayne (1994) and Bianchi (1999) propose for *that*-relatives): quantificational material is retained in the landing site, the restriction is deleted from the upper copy and only appears in the lower copy thereby accounting for reconstruction as in the following example:

(143) a) the [picture of **his$_i$** mother]$_1$ that **every boy$_i$** likes best __$_1$

b) the [$_{CP}$ [Op ~~picture of his$_i$ mother~~]$_1$ that every boy$_i$ likes best [x picture of his$_i$ mother]$_1$]

In versions of the HRA that involve additional extraction of the head NP from the operator phrase (as in Bianchi's derivation for *wh*-relatives, but also in Bhatt's and de Vries' derivation, cf. 1.1.2), there is an additional copy, but that copy is generally assumed to be deleted as well:

(144) the [$_{XP}$ [~~picture of his$_i$ mother~~]$_2$ [$_{X'}$ X°[$_{CP}$ [$_{DP}$ Op/which [~~picture of his$_i$ mother~~]$_2$]$_1$ C° [every boy$_i$ likes [x picture of his$_i$ mother]$_1$ best]]]]

I will always use this type of derivation for the HRA, which is based on Bhatt (2002) in the ensuing discussion, but nothing would change with respect to reconstruction under Bianchi's or de Vries' versions.

As described for *wh*-movement in the previous section, reconstruction in A'-chains is partial and obeys the Preference Principle. Even though this is seldom spelled out, it is generally assumed that reconstruction works the same in restrictive relative clauses. The restriction of the relative operator is reconstructed by default. The exceptions where the higher copy is privileged and we get restricted quantification are the same ones as with *wh*-movement. The first exception concerns the wide-scope cases discussed in (44) and more generally the wide-scope data discussed in 1.3.5.2; I repeat one example for convenience:

(145) No linguist would read the [**many** books] Gina will **need** __ for vet school. **many > need**; need > many

Under a wide-scope reading, the amount quantifier and the restriction are not interpreted in the scope of the modal, and are therefore in the higher copy, not in the lower one:[51]

(146) the [$_{XP}$ [~~many books~~]$_2$ [$_{CP}$ [Op [many books]$_2$]$_1$ that Gina will need [x]$_1$ for vet school]]

Interpreting the higher copy instead of the lower one is thus exceptionally possible because it yields a different interpretation, where – importantly – different interpretation means scopally different. The other exception involves cases of late merger where scope does not play a role as in (131).

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[51] I assume that the amount quantifier is interpreted in the operator phrase and not higher up; at this point, I cannot work out the implications of Bianchi's (2004: 87f.) assumption that the NP is interpreted in its final landing site outside the scope of the relative operator.

As a consequence of this, it is always only one copy (perhaps spread over two chain links) that is interpreted, but by assumption never both. This aspect of the HRA will become relevant in the discussion below.

The predictions that the HRA makes with regard to reconstruction in relatives is therefore straightforward: Unless wide scope or adjuncts are involved we expect systematic reconstruction. This will become crucial in the case of Condition C effects.

1.4.4 The Matching Analysis

The assumptions that are made in the literature with regard to reconstruction with the MA are somewhat confusing. Bhatt (2002) and Sauerland (1998, 2003) state that a MA can in principle handle reconstruction effects because it has a relative clause-internal representation of the external head. However, they apply the MA only in cases where there is no reconstruction. This mostly has to do with the fact that they doubt (cf. e.g. Bhatt 2002: 52) whether the MA derives the right semantics because the external head also has to be interpreted. As we will see presently, this is not a necessary assumption.

In other words, whenever the external head contains material that needs to be reconstructed, i.e. material that is not licensed in that position such as anaphors, idiom chunks or bound pronouns, the HRA applies. In all other cases, the MA applies. They make by and large the same assumptions for the MA as for the HRA in terms of interpretation of copies: only the operator of the higher copy in Spec, CP is interpreted whereas the restriction is interpreted in the lower copy. The external head is retained:[52]

(147) the [picture]$_j$ [$_{CP}$ [Op [~~picture~~]$_j$]]$_1$ that John likes [x picture]$_1$]

This means that under their implementation of the MA there will be a relative clause-internal representation of the external head. This will become important for the discussion of Condition C effects. As we will see, their absence in relatives does not follow without special provisions even under the type of MA assumed by Bhatt (2002) and Sauerland (1998, 2003).

So in Bhatt's (2002) and Sauerland's (1998, 2003) system, either a HRA or a MA is in principle possible. Which one is chosen depends on which one converges. If the external head contains material that is not licensed there, only the HRA converges whereas the MA crashes since the external head is interpreted as well, which leads to a clash. If the external head does not contain material that has to be reconstructed, both derivations are in principle possible. In the case of Condition C effects, only the MA converges, as we will see in the next section.

Munn (1994) and Citko (2001), on the other hand, employ a MA to account for the entire reconstruction pattern in English. Since Munn's (1994) account is less explicit, my presentation is based on Citko's (2001) account. As a starting point,

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[52] Notice that the external head is coindexed with its representation inside the operator phrase by means of a letter to indicate that there is only coreference but no movement relationship, whereas numbers were used in the representations above for the HRA.

there are two representations of the external head inside the relative clause, one in the operator position and one in the theta-position (and possibly one in intermediate positions in case there is long-distance relativization):

(148) the [picture$_j$] [$_{CP}$ [which picture$_j$]$_1$ John likes [which picture]$_1$]

The lower copy is completely PF-deleted together with *picture* in Spec, CP. As for the LF-interpretation, the Preference Principle applies: the restriction is LF-deleted in the operator phrase (i.e. it undergoes reconstruction) and the lower representation of the operator is converted into a variable. There are still two representations of *picture*, one is the external head, the other one is within the lower copy. Citko (2001: 137) assumes that either one can in principle be LF-deleted, subject to independent principles. We thus get the following possible representations:

(149) a) the picture$_j$ [$_{CP}$ [which ~~picture~~$_j$]$_1$ John likes [x ~~picture~~]$_1$]

b) the ~~picture~~$_j$ [$_{CP}$ [which ~~picture~~$_j$]$_1$ John likes [x picture]$_1$]

This deletion process is exceptional in that it involves two copies that are not part of the same chain. Citko argues that this is possible because the content of one copy can be recovered from the other copy.

Deletion of the lower copy must certainly be prevented if there is reconstruction. It is clear that at least one copy has to be retained. Since anaphors, bound variables and idiom chunks are not licensed inside the external head if there is reconstruction, the internal copy has to be retained and the external head is LF-deleted as in the following example:

(150) The **headway** she had **made** pleased her boss.

[$_{DP}$The [$_{NP}$ ~~headway~~]$_j$ [$_{CP}$ [Op [~~headway~~]$_j$]$_1$ she had made [x headway]$_1$]] pleased her boss.

The converse option where the external copy is retained and the internal one is deleted applies when the external head contains material that is licensed there (i.e. elements that do not have to be interpreted inside the relative clause) as e.g. in (149)a above. This option will become important in the discussion of Condition C effects.

An important consequence of this implementation of the MA is that it is argued to be sufficient to capture the entire reconstruction behavior of the language whereas on Bhatt's (2002) and Sauerland's (1998, 2003) approach, both HRA and MA derivations are necessary.

1.5 Reconstruction and its implications

In this section, I will discuss how the three analyses of relative clauses cope with the reconstruction facts discussed in 1.3. I will discuss both the patterns presented in 1.3. as well as a few more contexts that have figured prominently in recent work. Naturally, since Principle C effects are the locus where relatives differ from *wh*-movement, they will receive most of the attention.

1.5.1 Variable binding, idiom interpretation and Principle A

Reconstruction for variable binding, idiom interpretation and Principle A was shown to be straightforward in relative clauses.[53] I repeat a few examples for convenience:

(151) a) the [**careful track**] that she is **keeping** __ of her expenses

b) the [picture of **his$_i$** girlfriend] that **every man$_i$** likes __ best

c) the [picture of **himself$_i$**] **John$_i$** likes __ best

Since I have adopted the widely held view that the HEA fails to capture reconstruction effects, it cannot be an option for these cases. Furthermore, it is also confronted with the problem that there are elements inside the external head that are not licensed there. The reconstruction facts follow straightforwardly under the HRA as proposed in Bhatt (2002): reconstruction is obligatory, only the lower copy is interpreted. They also follow under the version of the MA employed by Citko (2001): As discussed above, idiom chunks, variable bound pronouns and anaphors are not licensed inside the external head so that only the relative clause-internal copy is retained, cf. (149)b.[54]

1.5.2 Reconstruction for scope and adjectival interpretation

Relative clauses allow scope reconstruction and also allow the low construal of adjectival modifiers. (Needless to say, an individual reading and the high construal are available as well.) I repeat two relevant examples for convenience:

(152) a) the [**two patients**] that **every doctor** will examine __ tomorrow
$\forall > 2; 2 > \forall$

b) the **first** book that John said that Tolstoy had **ever** *written*.
✓low reading

Again, for reasons by now familiar, the HEA is not an option here. The reconstruction effects follow under the HRA where the retention of the lower copy is the default. The wide-scope reading and the high reading of adjectival modifiers follow under the assumption that the higher copy can exceptionally be privileged to achieve a semantic effect which is scopal in nature.

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[53] I ignore the complications concerning the logophoric use of anaphors here. In other languages, the issue is clear.

[54] Sharvit (1999) argues that variable binding can also be handled by QR of the QP out of the relative clause. This may indeed be necessary for cases where the QP additionally binds a pronoun in the matrix clause:

i) The [woman] that every man$_i$ invited __ thanked him$_i$.

In this example, there is a reading under which there is a different woman per man who thanks the respective man. Reconstructing the external head into the relative clause will not explain how the relative clause-internal QP can bind the pronoun in the matrix clause. Several speakers I have consulted find these examples somewhat degraded so that I am not so sure how strong the argument is. But even if QR out of the relative clause were an option to handle variable binding, it would not be sufficient to capture other cases of reconstruction. It could extend to scope but not to anaphor binding and idioms.

It is not so clear, however, how this can be achieved under the MA proposed by Citko (2001). In the cases in the previous subsection, reconstruction, i.e. retention of the lowest copy, was forced because certain elements were not licensed inside the external head. However, this does not work straightforwardly for scope because a scopal element simply gets a wide scope reading if it is not reconstructed, and this is normally an option. The same goes for superlative adjectives, which are probably also licensed without reconstructing into the relative clause (cf. Bhatt 2002). One could claim for these cases that if an element is licensed inside the external head, both deletion of the external head or deletion of the lowest copy are an option. In principle, this works quite well. However, as we will see in the next subsection, this assumption threatens Citko's (2001) account of the lack of Condition C effects so that at least one problem persists.

1.5.3 The Condition C pattern

The Condition C pattern found in restrictive relatives, especially the widespread absence of Condition C effects, has become the *pièce de résistance* in recent years. I will provide a very detailed discussion here because it will be of great importance for the rest of the thesis. But first, I will briefly discuss the implications of the absence of Condition C effects of material contained in the external head.

1.5.3.1 The core case

I repeat one example to illustrate that R-expressions inside the external head do not seem to reconstruct:

(153) the [picture of **Bill$_i$**] that **he$_i$** likes __

The fact that there is no Condition C effect seems to imply that there is no relative clause-internal representation of *Bill*. This is expected under the HEA, and seems to argue in favor of it. However, considering the fact that reconstruction is pervasive elsewhere, the scope of the HEA would still be very limited, and it would be unclear why it would only apply in this particular case. I will therefore disregard the HEA in what follows.

As for the HRA, the absence of Condition C effects presents a serious problem. Since there is a regular A'-chain, and since in A'-chains it is by default the lower copy that is interpreted, there is a full copy of the external head with the R-expression *Bill* in the c-command domain of the coreferential pronoun *he* so that the sentence is predicted to be ungrammatical, contrary to fact:

(154) §the [$_{XP}$ [~~picture of Bill$_i$~~]$_2$ [$_{CP}$ [Op [~~picture of Bill$_i$~~]$_2$]$_1$ that **he$_i$** likes [x picture of Bill$_i$]$_1$]]

Without special provisions, the HRA derives the wrong result. Safir (1999) (and Henderson 2005, who by and large follows Safir) is the only approach that discusses the absence of Condition C effects in the context of the HRA. Both Bhatt (2002) and Sauerland (1998, 2003) assume that the MA applies instead in

these cases. Safir assumes an extra operation, called Vehicle Change, that is supposed to handle the Condition C cases. The notion Vehicle Change goes back to work on ellipsis by Fiengo & May (1994). They observed that an R-expression in the antecedent of ellipsis can correspond to a pronoun in the elided material and can thereby avoid a Condition C violation. Consider the following examples:

(155) a) *John likes **Mary$_i$** and she$_i$ does (like her$_i$), too.

b) John likes **Mary$_i$**, and she$_i$ knows that I do (like her$_i$), too.

In (155)a, the R-expression *Mary* corresponds to *her* in the ellipsis site. This does not lead to an improvement because there is still a Principle B effect. In (155)b, however, where an extra level of embedding is added, turning the R-expression into a pronoun derives the desired result: the sentence is correctly predicted to be grammatical.

Safir (1999) assumes that Vehicle Change is also possible outside the domain of ellipsis and uses it to account for the absence of Condition C effects. He assumes that Vehicle Change can freely turn the lower occurrence of *Bill* into *him*. Since pronouns inside picture NPs can be coreferential with a binder in the same clause (cf. 1.3.3), Vehicle Change derives a grammatical sentence, the relative is as grammatical as the base sentence in (156)b.

(156) a) the [$_{XP}$ [~~picture of Bill$_i$~~]$_2$ [$_{CP}$ [Op [~~picture of Bill$_i$~~]$_2$]$_1$ that **he$_i$** likes [x picture of him$_i$]$_1$]]

b) **Bill$_i$** likes a picture of **him$_i$**.

Safir's (1999) approach is undoubtedly very powerful and will turn out to overgenerate. But it should be clear that in the absence of such an invasive operation like Vehicle Change, the absence of Condition C effects remains unsolved under the HRA.

Sauerland (1998, 2003), on the other hand, uses the MA to account for the absence of Condition C effects. But this does not solve the problem yet. As described in the previous section, his implementation of the MA assumes that by default the lower copy inside the relative clause is retained. As the following representation shows, this means that there is still a relative clause-internal representation of the external head, and therefore, Condition C effects are predicted:

(157) §the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~picture of Bill$_i$~~]$_j$]$_1$ that **he$_i$** likes [x picture of Bill$_i$]$_1$]

Sauerland (1998, 2003) solves this problem in a way similar to Safir (1999): he also assumes that Vehicle Change applies. However, he restricts Vehicle Change to the ellipsis operation that links the external head with the copy in Spec, CP. Furthermore, he assumes two types of Vehicle Change (for reasons I will discuss below): either the entire NP comprising the external head is turned into the NP-anaphor *one*; alternatively, an R-expression inside the external head can be turned into a personal pronoun. For our purposes, both operations have the

same effect: no copy of the external head inside the relative clause contains the offending R-expression:[55]

(158) a) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~one~~]$_j$]$_1$ that **he$_i$** likes [x one]$_1$]

b) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~picture of him$_i$~~]$_j$]$_1$ that **he$_i$** likes [x picture of him$_i$]$_1$]

To be precise, Sauerland would only use the first type of Vehicle Change in this case because he assumes a different grammaticality for pronouns inside picture NPs (Sauerland 2003: 223):

(159) ***John$_i$** brought a picture of **him$_i$**.

This would be the output of the Vehicle Change operation that targets R-expressions. Therefore, Sauerland argues, the one that targets the entire external head has to apply. Vehicle-changing an R-expression into a pronoun would only be possible if the R-expression were more deeply embedded. This aspect of his analysis is somewhat peculiar in that it is in conflict with the literature, cf. the discussion in 1.3.3. I will mostly ignore this complication because with the standard judgments, normal Vehicle Change of an R-expression into a pronoun derives the right result.

Since under both types of Vehicle Change there is no R-expression anymore inside the relative clause, Condition C effects are correctly predicted to be absent. Another interesting difference between Safir's (1999) and Sauerland's (1998, 2003) implementation of Vehicle Change is that on Sauerland's approach, it can only affect material contained inside the external head of relatives and is therefore more restrictive. This aspect will be important in the discussion below.

Munn (1994) and Citko (2001) explain the absence of Condition C effects by their notion of recoverability. Recall that they assume that when the external head contains material which is licensed there, e.g. R-expressions, the lowest copy can exceptionally delete because its content is recoverable from the external head. This means that there is no R-expression inside the relative clause anymore so that the absence of Condition C follows:

(160) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op ~~picture of Bill$_i$~~]$_j$]$_1$ that **he$_i$** likes [x ~~picture of Bill$_i$~~]$_1$]

In other words, the absence of Condition C effects in relatives directly follows from the way the MA is implemented. Additional mechanisms such as Vehicle Change are not necessary.

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[55] To be more precise, Sauerland does not assume that the copies inside the relative are both modified; rather, he seems to adopt Merchant's (2004) theory of ellipsis where Vehicle Change is re-interpreted as a relaxed identity requirement for ellipsis. The pronominal elements are therefore base-generated in the relative clause and moved to the operator position where they can be related to more complex antecedents. Safir (1999) on the other hand assumes indeed that a copy can simply be altered.

In the following subsections, I will discuss the fine-grained properties of the Condition C pattern and evaluate to what extent the various accounts can handle them.

1.5.3.2 Semi-idiomatic cases

Once the core case is covered, we need to test to what extent the approaches can handle the semi-idiomatic cases, especially the following contrast (repeated from above), cf. Schachter (1973), Safir (1999: 597, note 11):

(161) a) *The [opinion of **John$_i$**] that **he$_i$** has __ is unfavorable.

b) The [opinion of **John$_i$**] that **he$_i$** thinks Mary has __ is unfavorable.

This contrast can help us find out whether we actually need the PRO account. A coreferential PRO is likely to present in (161)a, but not in (161)b. The agent of the predicate containing the semi-idiomatic expression is coreferential with the possessor of the opinion only in the former, but not in the latter. Under the HRA, the contrast with regard to Condition C is, of course, unexpected. In both cases, there is a full copy of the external head inside the relative clause and since the lower copy inside the relative clause is interpreted one expects a Principle C effect in both cases, regardless of whether there is a coreferential implicit PRO or not:

(162) a) *The [$_{XP}$ [~~opinion of **John$_i$**~~]$_2$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_2$]$_1$ that **he$_i$** has [x opinion of John$_i$]$_1$] is unfavorable].

b) §The [$_{XP}$ [~~opinion of **John$_i$**~~]$_2$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_2$]$_1$ that **he$_i$** thinks [$_{CP}$ Mary has [x opinion of John$_i$]$_1$]] is unfavorable].

Does Safir's HRA with Vehicle Change yield the right result? Probably yes: Suppose that Vehicle Change applies to the R-expression inside the lowest copy:

(163) a) *The [$_{XP}$ [~~opinion of **John$_i$**~~]$_2$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_2$]$_1$ that **he$_i$** has [x opinion of him$_i$]$_1$] is unfavorable].

b) The [$_{XP}$ [~~opinion of **John$_i$**~~]$_2$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_2$]$_1$ that **he$_i$** thinks [$_{CP}$ Mary has [x opinion of him$_i$]$_1$]] is unfavorable].

The relatives are predicted to be equal in grammaticality to the following simple sentences:

(164) a) ***He$_i$** has a good opinion of **him$_i$**.

b) **He$_i$** thinks that Mary has a good opinion of **him$_i$**.

The correlation is very neat and supports the Vehicle Change approach. However, this arguably does not follow without the postulation of an implicit PRO, at least not in (164)a), because unless one can find independent reasons for the deviance of the pronoun, it remains mysterious why it is impossible. With the postulation of a PRO, the sentence is ruled out by Principle B. The correct derivations therefore will look as follows:

(165) a) *The [$_{XP}$ [~~PRO$_i$ opinion of John$_i$~~]$_2$ [$_{CP}$ [Op [~~PRO$_i$ opinion of John$_i$~~]$_2$]$_1$ that he$_i$ has [x PRO$_i$ opinion of him$_i$]$_1$] is unfavorable].

b) The [$_{XP}$ [~~opinion of John$_i$~~]$_2$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_2$]$_1$ that he$_i$ thinks [$_{CP}$ Mary has [x opinion of him$_i$]$_1$]] is unfavorable].

Sauerland's implementation of the MA is very similar, in fact the reasoning is the same, the only difference being that the external head is not related to the operator phrase via movement, but via ellipsis. The rest remains the same, and Vehicle Change derives the right result:

(166) a) *The [PRO$_i$ opinion of **John$_i$**]$_j$ [$_{CP}$ [Op [~~PRO$_i$ opinion of him$_i$~~]$_j$]$_1$ that **he$_i$** has [x PRO$_i$ opinion of him$_i$]$_1$] is unfavorable.

b) The [opinion of **John$_i$**]$_j$ [$_{CP}$ [Op [~~opinion of him$_i$~~]$_j$]$_1$ that **he$_i$** thinks [$_{CP}$ Mary has [x opinion of him$_i$]$_1$]] is unfavorable.

Under Munn's (1994) and Citko's (2001) approach the absence of Condition C effects follows from the exceptional deletion of the lower relative clause-internal copy of the relative clause. Without the postulation of an implicit PRO, this would derive the wrong result for (161)a: there is no copy of the external head inside the relative clause anymore and a Condition C effect is therefore expected to be absent, contrary to fact. (161)b, on the other hand, is correctly predicted to be grammatical:

(167) a) §The [opinion of **John$_i$**]$_j$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_j$]$_1$ that **he$_i$** has [x ~~opinion of John$_i$~~]$_1$] is unfavorable.

b) The [opinion of **John$_i$**]$_j$ [$_{CP}$ [Op [~~opinion of John$_i$~~]$_j$]$_1$ that **he$_i$** thinks [$_{CP}$ Mary has [x ~~opinion of John$_i$~~]$_1$]] is unfavorable.

As in the other approaches, only with the postulation of a PRO in (161)a can the right result be derived. Once a PRO is postulated, it is, however, no longer clear, whether the lower relative clause-internal copy can be deleted at all: since the external head contains a PRO that is not controlled in that position (cf. 1.3.3), it is most likely necessary to retain the lower copy and delete the external head:

(168) *The [~~PRO$_i$ opinion of **John$_i$**~~]$_j$ [$_{CP}$ [Op [~~PRO$_i$ opinion of John$_i$~~]$_j$]$_1$ that **he$_i$** has [x PRO$_i$ opinion of John$_i$]$_1$] is unfavorable.

The semi-idiomatic cases show quite clearly that the postulation of a PRO is necessary in all three different approaches to derive the correct result, regardless of whether the otherwise systematic absence of Condition C effects is handled by Vehicle Change or the exceptional deletion of the lower copy. Once a PRO is adopted, reconstruction is forced so the PRO can be controlled. Once this is accepted, the semi-idiomatic case in (161)a will require the same kind of derivation as all other configurations in 1.5.1 where reconstruction is forced because the external head contains an element that is not licensed there. Incidentally, this will imply that Sauerland actually would not apply an MA to these cases, but rather the HRA.[56]

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[56] Citko (2001: 144) tries to use one of the semi-idiomatic cases with an implicit PRO to argue against Vehicle Change. The argument starts with the following sentence where the implicit PRO has to be coreferential with the external argument of the verb:

i) *He/Picasso$_i$ painted [PRO$_i$ self-portraits of him$_i$] in the Blue period.

1.5.3.3 The difference between relatives and *wh*-movement

An important conclusion of section 1.3.4 was that while reconstruction for Principle C is systematic in *wh*-movement (abstracting away from the wide-scope cases discussed in 1.3.5) it is absent in relatives. I repeat a pair for convenience:

(169) a) the [picture of **Bill$_i$**] that **he$_i$** likes__

b) *[Which picture of **Bill$_i$**]$_1$ does **he$_i$** like __$_1$?

This asymmetry is unexpected under the HRA. As discussed in the previous subsection, relatives have basically the same structure as questions as far as their A'-chain is concerned. In both cases, the lower copy is interpreted and should lead to a Condition C effect. Safir's (1999) Vehicle Change approach does not derive this difference, because on his account, Vehicle Change is in principle possible in all A'-chains, not only in relatives. It is not linked to an ellipsis operation as Sauerland's. A consequence of this is that it leads to massive overgeneration in that the absence of Condition C effects should be the default in A'-movement, contrary to fact. Safir (1999) does not consider this a problem because he bases himself on somewhat different empirical facts. He does indeed assume that Condition C effects are much more limited than previously thought and even considers most of the contested examples with *wh*-movement in (68)

There is no doubt that this sentence is ungrammatical. In a next step, she uses such an idiomatic DP with an R-expression instead of a pronoun and tests reconstruction for Principle C. According to her, the following sentence is grammatical:

ii) The [self-portraits of **Picasso$_i$**] that **he$_i$** had painted __ in the Blue period are in the Met now.

On a Vehicle Change approach, she argues, ii) should be equally ungrammatical as i): the lower copy inside the relative clause is retained and *Picasso* would be turned into *him*, but would still be c-commanded by the implicit PRO so that a Principle B effect obtains, contrary to fact:

iii)§ The [self-portraits of **Picasso$_i$**]$_j$ [$_{CP}$ [Op [~~PRO$_i$ self-portraits of him$_i$~~]$_j$]$_1$ that **he$_i$** had painted [x ~~PRO$_i$ self-portraits of him$_i$~~]$_1$ in the Blue period] are in the Met now.

Under her recoverability approach, however, things are different because the lower copy can be deleted under identity with the external head so that not even a Principle B effect obtains:

iv) The [self-portraits of **Picasso$_i$**]$_j$ [$_{CP}$ [Op [~~PRO$_i$ self-portraits of Picasso$_i$~~]$_j$]$_1$ that **he$_i$** had painted [x ~~PRO$_i$ self-portraits of Picasso$_i$~~]$_1$ in the Blue period] are in the Met now.

This seems indeed to argue in favor of Citko's approach. However, I do not think that the argument goes through. First of all, some speakers I have consulted do not share the judgment that ii) is grammatical. We will see in chapter 2 that the German facts point even more clearly in that direction. A probably more serious problem concerns the structure of the external head: Citko either seems to assume that it does not contain an implicit PRO at all or seems to have overlooked that fact. If there is indeed an implicit PRO inside the external head, the sentence is predicted to be ungrammatical, contrary to her judgment, because it locally binds the R-expression *Picasso:*

v)§ The [**PRO$_i$** self-portraits of **Picasso$_i$**]$_j$ [$_{CP}$ [Op [~~PRO$_i$ self-portraits of Picasso$_i$~~]$_j$]$_1$ that **he$_i$** had painted [x ~~PRO$_i$ self-portraits of Picasso$_i$~~]$_1$ in the Blue period] are in the Met now.

Additionally, as discussed in the main text, deleting the lower relative clause-internal copy is probably not possible because the PRO has to be reconstructed to be properly controlled.

Perhaps, Citko assumes that the implicit PRO is outside the NP and therefore not included in the external head (which is indeed just an NP). However, this seems unlikely because the PRO is not in complementary distribution with the determiner as in the following example:

vi)*He/Picasso$_i$ painted again a [PRO$_i$ self-portrait of him$_i$].

The PRO must therefore be lower than D, and since it is standardly assumed that the external head of relatives contains everything but the highest layer of the DP, the implicit PRO will have to be included in it so that v) is indeed the correct representation and Citko's argument fails.

grammatical. He does not make explicit what exactly governs the application of Vehicle Change (see Safir 1999: section 5, 609ff.). Except for the case of quantifiers that I will discuss below, Vehicle Change applies sometimes in *wh*-movement and relative operators, but practically always when R-expressions inside the external head of relatives are involved (Safir 1999: 614). This is a very unsatisfactory conclusion, but at least from his perspective inevitable since according to him, the empirical facts are different.[57]

Sauerland (1998, 2003) has a straightforward account for the difference with regard to Condition C effects between *wh*-movement and relatives. In *wh*-movement, interpretation of the lower copy leads to a straightforward Condition C effect. In relatives which do not contain unlicensed material in their external head the MA applies. Crucially, since Sauerland restricts Vehicle Change to the ellipsis operation between the external head and the copy in the operator position, absence of Condition C effects is only predicted in exactly this case. Here are again the representations of a MA with the two types of Vehicle Change:

(170) a) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~one~~]$_j$]$_1$ that **he$_i$** likes [x one]$_1$]

b) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~picture of him$_i$~~]$_j$]$_1$ that **he$_i$** likes [x picture of him$_i$]$_1$]

Since I have been assuming that there is a systematic difference between external heads of relatives and *wh*-movement, Sauerland's approach derives the right result. One has to admit, though, that it would fail if the empirical basis of Safir (1999) were used where there is no longer a neat division between *wh*-movement and relatives. Unfortunately, Sauerland does not discuss Safir's data.

In Munn's (1994) and Citko's (2001) approaches, the notion of recoverability correctly derives the asymmetry between *wh*-movement and relatives with respect to Condition C effects. In *wh*-movement, there are only two copies; the restriction of the higher copy is LF-deleted by default so that it has to be retained in the lower copy. Deleting the lower copy is impossible because its content cannot be recovered from anywhere else. Condition C effects are the direct consequence:

(171) b) *[Which picture of **John$_i$**]$_1$ does **he$_i$** like __$_1$?

b) *[Which ~~picture of John$_i$~~]$_1$ does he$_i$ like [~~which~~ picture of John$_i$]$_1$

As shown in the previous subsection, things are different in relatives in that there is an extra copy – the external head – which makes the deletion of the relative clause-internal copy recoverable. I repeat the relevant representation:

(172) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op ~~picture of Bill$_i$~~]$_j$]$_1$ that **he$_i$** likes [x ~~picture of Bill$_i$~~]$_1$]

The same caveat applies here as with Sauerland's implementation of the MA: the approach directly derives the differences with respect to Principle C between *wh*-movement and external heads of relatives, but this is only an advantage if that

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[57] Henderson's (2005) approach does not fare much better in this respect. The distribution of Condition C effects is essentially left unexplained.

generalization is indeed empirically solid. Citko (2001) unfortunately does not take Safir's data into account.

Summarizing briefly, as far as the difference with regard to Condition C effects between *wh*-movement and external heads of relatives is concerned, both Sauerland's (1998, 2003) as well as Munn's (1994) and Citko's (2001) approaches make the right empirical cut. However, if Safir (1999) should turn out to be right with his claim that the distribution of Condition C effects is different, the various MA-approaches can no longer be considered superior. I will continue to do so here, mostly because the literature predominantly seems to adopt the clear division and because it is reflected in the judgments of people I have consulted. Further research will eventually have to clarify the empirical situation.

1.5.3.4 Asymmetry between external head and the operator phrase

A similar difference as in the previous section was observed above between R-expressions contained inside the external head and those inside the relative operator phrase. I repeat the minimal pair for convenience from (76), (Safir 1999 via Sauerland 2000: 355):

(173) a) *I respect any [writer] [whose depiction of **John**$_i$]$_1$ **he**$_i$'ll object to __$_1$.

b) I respect [any depiction of **John**$_i$] **he**$_i$'ll object to __.

As discussed in the previous section, such an asymmetry is unexpected under an unmodified version of the HRA because in both cases, there is a trivial A'-chain where by default the lower copy is interpreted:[58]

(174) a) *I respect any [$_{XP}$ [~~writer~~]$_2$ [$_{CP}$ [[Op [~~writer~~]$_2$]~~'s depiction of **John**$_i$~~]$_1$ **he**$_i$'ll object to [[x writer]'s depiction of John$_i$]$_1$]].

b) §I respect any [$_{XP}$ [~~depiction of **John**$_i$~~]$_2$ [$_{CP}$ [Op [~~depiction of **John**$_i$~~]$_2$]$_1$ that **he**$_i$'ll object to [x depiction of John$_i$]$_1$]].

Under the assumption that the HRA can be applied to possessive relatives, *whose* must be reanalyzed as *[Op+X]'s*, in the case at hand as *[Op+writer]'s*.[59] Safir does not have the tools to derive this difference. Since he assumes that Vehicle Change applies basically freely, he cannot prevent it from applying to R-expressions inside the relative operator phrase. After Vehicle Change, the derivations look as follows:

(175) a) §I respect any [$_{XP}$ [~~writer~~]$_2$ [$_{CP}$ [[Op [~~writer~~]$_2$]~~'s depiction of **John**$_i$~~]$_1$ **he**$_i$'ll object to [[x writer]'s depiction of him$_i$]$_1$]].

b) I respect any [$_{XP}$ [~~depiction of **John**$_i$~~]$_2$ [$_{CP}$ [Op [~~depiction of **John**$_i$~~]$_2$]$_1$ that **he**$_i$'ll object to [x depiction of him$_i$]$_1$]].

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[58] This presupposes that the HRA is applied to possessive relatives. Bhatt (2002: 82) explicitly rejects this because of the problems with possessor extraction, cf. 1.2.3.4, and since superlative adjectives do not reconstruct in that context.

[59] Munn (1994: 399) and Safir (1999: 590ff.) show that *whose* or rather the operator part of it has to move out of the DP in order to take scope. I will ignore this complication here because it does not affect the discussion.

The structure in (175)a predicts (173)a to be grammatical, contrary to fact. It should be just as fine as the following base sentence:

(176) **He$_i$** will object to someone's depiction of **him$_i$**.

Safir probably does not even want to prevent the application of Vehicle Change in this case because – as mentioned in the previous subsection – he assumes that the absence of Condition C effects is more widespread. However, all examples he gives with R-expressions as complements inside the operator phrase do show a Condition C effect (cf. Safir 1999: 600, ex. 29a).

Sauerland (1998, 2003) derives this asymmetry without much ado. Vehicle Change is restricted to that part of the operator phrase that undergoes ellipsis. In the example where the R-expression is inside the external head, this is no problem as the following structure shows: The copy in Spec, CP undergoes ellipsis under identity with the external head. Vehicle Change can therefore apply and turn the entire copy into *one* or the R-expression into a personal pronoun:

(177) a) I respect any [depiction of **John$_i$**]$_j$ [$_{CP}$ [Op [~~one~~]$_j$]]$_1$ that **he$_i$**'ll object to [x one]$_1$].

b) I respect any [depiction of **John$_i$**]$_j$ [$_{CP}$ [Op [~~depiction of him$_i$~~]$_j$]]$_1$ that **he$_i$**'ll object to [x depiction of him$_i$]$_1$].

As a consequence, no R-expression is found inside the relative clause and no Condition C violation occurs.

With operator phrases, however, things are different: in the current example, it is only *whose* or, more precisely, just a part of it that is identical to the external head, but crucially not *depiction of John*. It is therefore not even clear whether there is an ellipsis operation in the first place. But suppose there is; this would mean that one has to adopt an abstract analysis of *whose*, as shown above for the HRA. *Whose* would correspond to *[Op+writer]'s*. The ellipsis operation then only targets *writer*. The complex *[Op+~~writer~~]'s* is spelled out as *whose* and the rest of the relative operator remains unaffected. Vehicle Change cannot apply to *depiction of John* or *John* so that the offending R-expression is retained in the lower copy and triggers a Condition C effect:[60]

(178) *I respect any [writer]$_j$ [$_{CP}$ [[Op [~~writer~~]$_j$]'s ~~depiction of **John$_i$**~~]$_1$ **he$_i$**'ll object to [[x writer]'s depiction of John$_i$]$_1$]].

The recoverability approach by Munn (1994) and Citko (2001) also accounts for this difference in a straightforward way. As for R-expressions inside the external head of relatives, exceptional LF-deletion of the lower copy inside the relative clause is possible because its content can be recovered from the external head.

(179) I respect any [depiction of **John$_i$**]$_j$ [$_{CP}$ [Op [~~depiction of John$_i$~~]$_j$]]$_1$ **he$_i$**'ll object to [x ~~depiction of John$_i$~~]$_1$].

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[60] Vehicle Change could only apply to *writer*. It could turn it into *one* but it is unclear if that would derive the spell-out *whose*.

Things are different with R-expressions contained inside the relative operator. Since the external head only contains *writer*, but not *depiction of John*, the lower copy inside the relative clause cannot be LF-deleted because that would be irrecoverable. Consequently, the copy is retained and triggers a Condition C violation:

(180) *I respect any [writer] [$_{CP}$ [whose ~~depiction of **John$_i$**~~]$_1$ **he$_i$**'ll object to [x depiction of John$_i$]$_1$].

As in Sauerland's approach, there also might be an ellipsis operation involving part of the relative operator if an abstract analysis of *whose* is adopted. But this would not affect the Condition C effects. Only *writer* is recoverable from the external head, but crucially not *depiction of John*. Even if *writer* is deleted (which is not so clear because that might lead to interpretive problems), *John* will still be present in the lower copy:

(181) *I respect any [writer]$_j$ [$_{CP}$ [[Op [~~writer~~]$_j$]'s ~~depiction of **John$_i$**~~]$_1$ **he$_i$**'ll object to [[x ~~writer~~]'s depiction of John$_i$]$_1$].

Neither Munn (1994) nor Citko (2001) discuss these cases, but it can be safely assumed that they make the right predictions.

1.5.3.5 (S)SCO Effects

(Secondary) Strong Crossover effects were shown to be systematic in English relatives. I repeat the relevant examples for convenience:

(182) a) *the man$_i$ **who$_{1/i}$** **he$_i$** likes __$_1$

b) *the man$_i$ [**whose$_i$** father]$_1$ **he$_i$** likes __$_1$

The (S)SCO cases are normally subsumed under Condition C effects, and I will do so too. This means that there is a copy of the offending operator in the c-command domain of the coreferential pronoun. Important in the present context is the precise analysis of operator phrases.

Under the HEA, there is nothing but the operator in the c-command domain of the coreferential pronoun, which is sufficient to trigger the violation:

(183) a) *the man$_i$ [**who$_i$**]$_1$ **he$_i$** likes [~~who$_i$~~]$_1$

b) *the man$_i$ [**whose$_i$** father] **he$_i$** likes [~~whose$_i$~~ father]$_1$

The operators are interpreted in the operator position, the lower occurrence of the operator is translated into a variable, and this causes the Condition C effect:

(184) a) *the [man]$_i$ [**who$_i$**]$_1$ **he$_i$** likes [x$_i$]$_1$

b) *the [man]$_i$ [**whose$_i$** father]$_1$ **he$_i$** likes [x$_i$'s father]$_1$

Under the HRA, things are a little different because the external head is represented inside the relative clause. For the SCO effects this means that it is not simply the variable left behind by *who*, but rather *[x, man]* that causes the violation. In the case of SSCO, if the HRA is applied at all in these cases (see

footnote 58), a more abstract form of *whose*, something like *[x, man]'s father* will be the offending copy:

(185) a) *the $[_{XP}$ [~~man~~]$_2$ $[_{CP}$ [who [~~man~~]$_2$]$_{1/i}$ he$_i$ likes [x man]$_{1/i}$]]

b) *the $[_{XP}$ [~~man~~]$_2$ [[Op [~~man~~]$_2$]$_i$~~'s father~~]$_1$ he$_i$ likes [[x man]$_i$'s father]$_1$]].

(S)SCO effects thus follow straightforwardly under the HRA.

Under Sauerland's (1998, 2003) approach, pretty much the same would obtain (if we assume again an abstract analysis of *whose*):

(186) a) *the [man]$_j$ [who [~~man~~]$_j$]$_{1/i}$ he$_i$ likes [x man]$_{1/i}$

b) *the [man]$_j$ $[_{CP}$ [[Op [~~man~~]$_j$]$_i$~~'s father~~]$_1$ he$_i$ likes [[x man]$_i$'s father]$_1$]

Could potential Vehicle Change remove the Condition C effect? The only type of Vehicle Change possible in this context would involve changing *man* into *one* as this is the only material that is deleted – there is no full DP that could be Vehicle-changed into a personal pronoun. But even if *man* were turned into *one*, the lower copy would still contain the variable, so that the Condition C effect would (presumably) still obtain.

In Munn's (1994) and Citko's (2001) approach, (S)SCO effects follow for similar reasons: the part of the relative operator that is deleted does not involve the operator. Consequently, the operator (or rather its trace converted into a variable) will remain in the c-command domain of the coreferential pronoun. Exceptionally deleting the variable is not possible because its content would not be recoverable from the external head. It is therefore correctly predicted that we get SCO and SSCO effects:

(187) a) *the [man]$_j$ $[_{CP}$ [who [~~man~~]$_j$]$_{1/i}$ he$_i$ likes [x man]$_{1/i}$]

b) *the [man]$_j$ $[_{CP}$ [[Op [~~man~~]$_j$]~~$_j$~~~~'s father~~]$_1$ he likes [[x ~~man~~]$_i$'s father]$_1$]

1.5.3.6 An abstract analysis of *whose*?

In the previous sections, I have tentatively discussed an abstract analysis of *whose*, but in all these cases the same result would have been obtained if *whose* had been taken at face value. I will therefore discuss another example in this subsection to clarify this issue. Due to independent properties of English, the result will be inconclusive, but the potential reasoning will become important later on for German. The test sentence contains an R-expression embedded inside the external head which is identical to (part of) the possessive relative operator. It is repeated for convenience:

(188) the [friend of **Bob$_i$**]$_j$ [whose$_j$ sister]$_1$ **he$_i$** loves __$_1$

The absence of a Condition C effect suggests that there is no relative clause-internal representation of the external head, including the R-expression *Bob*. An analysis that takes *whose* at face value trivially derives this fact: *whose* is not coreferential with *Bob* but with the entire external head. This holds for the HRA and the two different implementations of the MA discussed here.

However, as soon as an abstract analysis is used, things are different: *whose* would correspond to something like *[Op friend of Bob]'s* under any analysis. There would consequently be a relative clause-internal copy of *Bob* in the c-command domain of *he*. The following structure illustrates the HRA:

(189) §the $[_{XP}$ [~~friend of **Bob**$_i$~~]$_2$ $[_{CP}$ [[Op [~~friend of Bob$_i$~~]$_2$]~~'s sister~~]$_1$ **he**$_i$ loves [[x friend of Bob$_i$'s sister]$_1$]]

To avoid a Condition C effect, Safir (1999) would have to assume Vehicle change to turn *Bob* into *him*:

(190) the $[_{XP}$ [~~friend of **Bob**$_i$~~]$_2$ $[_{CP}$ [[Op [~~friend of Bob$_i$~~]$_2$]~~'s sister~~]$_1$ **he**$_i$ loves [[x friend of him$_i$'s sister]$_1$]]

The final spell-out of *[[x friend of him]'s sister]* would arguably be something like *his friend's sister* so that the relative is correctly predicted to be just as grammatical as the following sentence:

(191) **He** loves **his** friend's sister.

Things are similar under Sauerland's approach. This is irrespective of what kind of Vehicle Change applies. Either *Bob* is turned into *him* as just described or *friend of Bob* is turned into *one*. The following examples illustrate the latter derivation:

(192) the [friend of **Bob**$_i$]$_j$ $[_{CP}$ [[Op [~~friend of Bob$_i$~~]$_j$]~~'s sister~~]$_1$ **he**$_i$ loves [[x friend of Bob$_i$'s sister]$_1$]

the [friend of **Bob**$_i$]$_j$ $[_{CP}$ [[Op [~~one~~]$_j$]~~'s sister~~]$_1$ **he**$_i$ loves [[x one]'s sister]$_1$]

The relative then correctly has the same grammaticality as the following sentence:

(193) He loves someone's sister.

The situation is similar under Munn's (1994) and Citko's (2001) analysis. Since the relative clause-internal representation of *friend of Bob* is recoverable from the external head, the lower copy can exceptionally be deleted, thereby avoiding the Condition C effect:[61]

(194) the [friend of **Bob**$_i$]$_j$ $[_{CP}$ [[Op [~~friend of Bob$_i$~~]$_j$]~~'s sister~~]$_1$ **he**$_i$ loves [[x ~~friend of Bob$_i$~~]'s sister]$_1$]

So far, both an abstract and a surface-oriented analysis of *whose* derive the right result. Which one is correct boils down to the question of whether there has to be a relative clause-internal representation of the external head at all in these cases. The test case would therefore involve possessive relatives with elements inside the external head that have to be interpreted inside the relative clause, such as bound variables, idiom chunks, or anaphors. Unfortunately, there are reasons internal to English why this cannot easily be tested: for many speakers,

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[61] This presupposes, however, that it is possible to retain only part of the restriction in the lower copy. For the analysis to work, it must be possible to interpret that part together with the external head. This is certainly not trivial, but I will not pursue the issue here.

reconstruction is generally disfavored with *wh*-pronouns, a fact I will come back to in 1.5.6 below. Aoun & Li (2003: 244, note 15) star the following example with a bound variable inside the external head:

(195) *I saw the [girl of **his$_i$** dreams]$_j$ [whose$_j$ pictures]$_1$ **every boy$_i$** was showing off __$_1$.

So English is probably not the ideal language to test this. We will see in (346) below that one does get reconstruction effects with possessive relatives in German so that an abstract analysis of *whose* is required. Both the HRA in Safir's implementation as well as the two versions of the MA discussed here handle the various types of possessive relatives correctly.

1.5.3.7 The difference between R-expressions and quantifiers

Another important aspect concerns the asymmetry between R-expressions and quantifiers, a fact brought into the discussion by Safir (1999). I repeat the relevant contrast from above:

(196) a) *[Pictures of **anyone$_i$**] which **he$_i$** displays __ prominently are likely to be attractive ones.

b) the [picture of **Bill$_i$**] that **he$_i$** displays __ prominently

Safir (1999) is the only one who addresses this contrast. On his approach, the asymmetry between quantifiers and R-expressions implies that Vehicle Change only applies to the latter, but not to the former. The impossibility of applying Vehicle Change to quantifiers, Safir argues, is an independent fact. The argument starts with the following pair (Safir 1999: 605):

(197) a) Jones recommended **several chorus** girls to the producer and then Smith did too.

b) Jones recommended **several chorus** girls to the producer and then Smith recommended **them** to him too.

In (197)a, a quantified expression is elided, in (197)b, it is resumed by a pronoun. (197)b has an E-type reading (Evans 1980): *chorus girls* refers to the same set whether it is *Jones* or *Smith* who recommends them. This reading is difficult to get in (197)a), but it is not logically ruled out because it could accidentally be the case that the set of chorus girls that Smith recommends is the same set that Jones recommends. The following minimal pair shows, however, that this is not the E-type reading, and that in fact the E-type reading is not possible in an elliptical structure. Instead, an overt pronoun is necessary for an E-type reading (Safir 1999: 606):

(198) a) *Jones recommended **several chorus girls** to the producer and then Smith did a second time.

b) Jones recommended **several chorus girls** to the producer and then Smith recommended **them** to him a second time.

c) Jones recommended **the chorus girls** to the producer and then Smith did a second time.

The adverbial *a second time* forces the E-type reading because this must involve the same set of girls. If there was Vehicle Change of the quantified expression, one would expect (198)a to be just as acceptable as (198)b, contrary to fact. (198)c shows that names permit Vehicle Change. "Thus an E-type reading with an overt pronoun *them* can 'resume' the same set of chorus girls picked out by *several chorus girls*, but a pronoun that would result from Vehicle Change cannot." (Safir 1999: 606) Furthermore, if Vehicle Change could apply freely to quantifiers, sentences like the following should be grammatical (as shown by the partial LF in (199)b, contrary to fact (Safir 1999: 67, ex. 54a):

(199) a) *No one loves everyone's$_i$ mother as much as he$_i$ does.

b) … as much as he$_i$ [loves **his$_i$** mother]

Safir's version of Vehicle Change therefore correctly derives this difference.[62]

Sauerland (1998, 2003) does not assume that there is a systematic difference between R-expressions and quantifiers. The ungrammaticality of (196)a is argued to follow from independent reasons: Sauerland (2003: 222) argues that Vehicle Change of the entire external head *pictures of anyone* to *one* is impossible because the NP contains a variable: *pictures of x* (Sauerland assumes that the quantifier QRs out of the NP). There is no constant relation an NP-anaphor could refer to which is consistent with the external head-NP *pictures of x*. Sauerland also entertains the possibility of Vehicle Changing the variable x that is left by QR into a pronoun. He therefore assumes that Vehicle-Changing quantifiers is in principle possible. As mentioned above, he bases himself on different judgments for coreferential pronouns inside picture NPs (see the remarks in 1.5.3.10) and therefore argues that this type of Vehicle Change derives the wrong result:

(200) ??**John$_i$/he$_i$** displays a picture of **him$_i$**.

Since his assumptions about the grammaticality of such structures are at odds with the literature, it seems that he fails to account for the contrast between R-expressions and quantifiers. However, part of the problem are again the judgments. Sauerland could in principle follow Safir in assuming that Vehicle Change simply cannot apply to quantifiers and would get the right result. But he does not opt for that possibility because of the following contrast (Sauerland 2003: 223):

(201) a) *Mary exhibited the [picture of **every boy$_i$**] that **he$_i$** brought __.

b) Mary exhibited the [picture of **every boy's$_i$** father] that **he$_i$** brought __.

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[62] However, it is not fully clear to me how the Condition C effect obtains. Quantifiers cannot be interpreted in a theta-position. Therefore they cannot really be reconstructed. Rather, it must be the variable that the quantifiers leave after QR that will cause the SSCO violation in the lower copy.

Sauerland argues that in these cases, Vehicle Change targets the variable left by the quantifier; the relative clauses in the sentences above will have an LF akin to those of the following sentences (the judgments are again his):

(202) a) *__John__$_i$ brought a picture of __him__$_i$.

b) __John__$_i$ brought a picture of __his__$_i$ father.

In (201)a, Vehicle Change does not lead to an improvement because what we get in (202)a is still out under Principle B (according to Sauerland). If, however, the NP is further embedded as in (201)b, the resulting LF corresponding to (202)b is well formed. It is difficult to evaluate Sauerland's reasoning. On the one hand his assumptions about the grammaticality of certain picture NPs clash with the literature (e.g. Chomsky 1986, Reinhard & Reuland 1993) and therefore argue against his approach. If, on the other hand, the contrast in (201) is indeed relevant, he might have a point. Unfortunately, the crucial pair in (201) is discussed nowhere else so that it is no longer clear whether there is indeed a clear distinction between R-expressions and quantifiers in the first place. The point therefore remains moot, at least for English. The German equivalents to be discussed in chapter 2 do not support Sauerland's position, both are ungrammatical, cf. 2.2.6.

The difference between R-expressions and quantifiers with respect to Principle C is a problem for both Munn's (1994) and Citko's (2001) approach. On their account, the absence of Condition C effects in relatives is not due to Vehicle Change but rather to the exceptional deletion of the lower copy. This process is, of course, not sensitive to the difference between R-expressions and quantifiers; and since the quantifier is licensed inside the external head (it can scope out of the DP to bind the pronoun inside the relative) nothing rules out deleting the lower copy that contains the offending quantifier:

(203) a) §[Pictures of __anyone__$_i$]$_j$ [$_{CP}$ [which ~~Pictures of anyone$_i$~~]$_j$]$_1$ __he__$_i$ displays [x ~~Pictures of anyone$_i$~~]$_1$] prominently are likely to be attractive ones.

In other words, quantifiers are predicted to behave like R-expressions. Whether this is actually a serious problem is difficult to tell because it is still unclear whether the basic division is correct at all. The German facts I will discuss in Chapter 2 will not help to clarify the issue because of independent properties of the language.

1.5.3.8 The Argument-adjunct asymmetry

The argument/adjunct asymmetry with regard to Condition C observed with quantifiers inside external heads is important in that it provides a different argument against the HEA. I repeat the relevant data for convenience (Safir 1999: 611f., ex. 66a, 67a):

(204) a) *[Pictures of __anyone__$_i$] [which __he__$_i$ displays __ prominently] are likely to be unattractive ones.

b) [Pictures on **anyone**$_i$'s shelf] [which **he**$_i$ displays __ prominently] are likely to be attractive ones.

Even though the HEA fares generally badly when it comes to reconstruction, this asymmetry actually shows that there are more principled reasons to reject it (the ensuing discussion draws heavily on Bhatt 2002: 53ff.). Under the HEA, there is no relative clause-internal representation of the external head. The fact that the quantifier is inside an adjunct in the latter case and inside an argument in the former should therefore not make a difference. Both sentences should be equally (un-)grammatical. Even if the predication relation that co-indexes the relative operator with the external head could somehow handle reconstruction, it has no means of distinguishing between arguments and adjuncts inside the external head because the coindexation (or whatever expresses the predication relation) arguably takes place after the merger of the adjunct.

Under the HRA or the MA, however, this asymmetry follows straightforwardly if combined with Lebeaux's (1990) proposal that adjuncts can be merged countercyclically while arguments cannot. In the argument case, the quantifier is part of the external head and consequently represented inside the relative clause. Reconstruction effects are therefore expected under both analyses of (204)a as described in the previous section:

(205) a) *[$_{XP}$ [~~Pictures of **anyone**$_i$~~]$_2$ [$_{CP}$ [which [~~Pictures of anyone$_i$~~]$_2$]$_1$ **he**$_i$ displays [x Pictures of anyone$_i$]$_1$ prominently]] … HRA

b) *[Pictures of **anyone**$_i$]$_j$ [$_{CP}$ [which [~~Pictures of anyone$_i$~~]$_j$]$_1$ **he**$_i$ displays [x Pictures of anyone$_i$]$_1$ prominently] … MA

To be more precise, only a MA along the lines of Sauerland is able to handle this case because as discussed in the previous subsection, Munn (1994) and Citko (2001) predict the absence of Condition C effects with quantifiers.

The adjunct case (204)b is different in that the adjunct is not merged together with the external head inside the relative clause. Rather, it is either directly adjoined to the external head as in the MA or to the head NP *after* it has undergone A'-movement as in the HRA. The adjunct quantifier is therefore not represented inside the relative clause and does not trigger a Condition C effect. The first example illustrates a HRA derivation, the second one a MA derivation:[63]

(206) b) [$_{XP}$ [[~~Pictures~~]$_2$ on **anyone**$_i$'s shelf] [$_{CP}$ [which [~~Pictures~~]$_2$]$_1$ **he**$_i$ displays [x Pictures]$_1$]] … HRA

b) [[Pictures]$_j$ on **anyone**$_i$'s shelf] [$_{CP}$ [which [~~Pictures~~]$_j$]$_1$ **he**$_i$ displays [x Pictures]$_1$] … MA

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[63] I am not sure if the representations below are actually correct. As discussed in 1.4.1, late merger leads to restricted quantification, but this does not yet answer where exactly the adjunct is merged. I have adjoined the adjunct to the external head (MA) or the highest copy (HRA). But it would be just as possible to adjoin the adjunct to the operator phrase right after *wh*-movement. This would still avoid a copy of the R-expression in the c-command domain of the pronoun and therefore avoid a Condition C effect. Since I cannot assess the differences this might have, I will not be committed to one or the other solution.

It is important to note that late merger of adjuncts in relatives is only an option but not the rule. In some cases, it is systematically prohibited, e.g. when the adjunct contains an element that is only licensed inside the relative clause, such as a bound pronoun, cf. the following example:

(207) the [books in his$_i$ house] that every scientist$_i$ worships __

Both the HRA and Sauerland's version of the MA capture all these cases whereas a HEA has no way of accounting for the basic asymmetry in (204) and the case where cyclic merger is required (207). One would have to stipulate that it can somehow ignore adjuncts (i.e. when they are not reconstructed), but not always (i.e. when they contain e.g. a bound pronoun). This would be entirely stipulative, however.[64]

1.5.3.9 Condition C and variable binding/scope reconstruction

The structures where Condition C effects reemerge because reconstruction is forced by variable binding or scope have played a prominent role in the discussion and will turn out to be one of the crucial aspects in the analysis of German relatives in chapter 2. I repeat two relatively uncontroversial examples for convenience:

(208) a) *The [letters by **John$_i$** to *her$_j$*] that **he$_i$** told *every girl$_j$* to burn __ were published.

b) *the [many bottles of **Peter's$_i$** Merlot] that **he$_i$** drank __ in just one evening

The HRA can in principle derive these cases: since the external head contains material that needs to be reconstructed (bound pronouns and an amount quantifier that is most likely to be interpreted non-referentially in this context), the entire external head is represented inside the relative clause so that the R-expressions end up in the c-command domain of the personal pronoun and trigger a Condition C effect:

(209) a) *The [$_{XP}$ [~~letters by **John$_i$** to *her$_j$*~~]$_2$ [$_{CP}$ [Op [~~letters by John$_i$ to her$_j$~~]$_2$]$_1$ that **he$_i$** told *every$_j$ girl$_j$* to burn [x letters by John$_i$ to her$_j$]$_1$] were published].

b) *the [$_{XP}$ [~~many bottles of **Peter's$_i$** Merlot~~]$_2$ [$_{CP}$ [Op [~~many bottles of Peter's$_i$ Merlot~~]$_2$]$_1$ that **he$_i$** drank [x many bottles of Peter's$_i$ Merlot]$_1$ in just one evening]]

However, every version of the HRA that handles these cases fails to explain the absence of Condition C effects in the core cases. Whatever implementation of the HRA one adopts, it will always fail to cover one of the two cases. If Safir's implementation of the HRA is adopted, Vehicle Change should alleviate Condition C effects across the board and not just in the core cases, contrary to fact. The

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[64] The argument-adjunct asymmetry is also found with quantifiers inside the operator phrase, as shown in (76)a/(77). This can be handled by the HRA and the MA because the quantifiers are part of the phrase that undergoes movement. Late merger is therefore possible and will have the desired effect.

sentences above should therefore have the following structure and be grammatical:

(210) a) §The [$_{XP}$ [~~letters by **John**$_i$ to *her*$_j$~~]$_2$ [$_{CP}$ [Op [~~letters by John$_i$ to her$_j$~~]$_2$]$_1$ that **he**$_i$ told *every girl*$_j$ to burn [x letters by him$_i$ to her$_j$]$_1$] were published].

b) §the [$_{XP}$ [~~many bottles of **Peter's**$_i$ Merlot~~]$_2$ [$_{CP}$ [Op [~~many bottles of Peter's$_i$ Merlot~~]$_2$]$_1$ that **he**$_i$ drank [x many bottles of his$_i$ Merlot]$_1$ in just one evening]]

It must be admitted that, as noted in 1.3.5 above, Safir (1999: 613, note 22) questions the validity of the correlation and indeed seems to assume that Condition C effects do not reemerge if reconstruction is forced for other reasons. Pending clearer empirical results it remains moot whether the HRA captures the relevant data. Since the rest of the literature assumes different judgments, I will base myself on those judgments and conclude that Safir's (1999) approach faces problems.

As described in 1.4.3, Sauerland (1998, 2003) assumes that whenever the external head contains material that is not licensed there, the HRA applies. This yields the correct result for the correlation cases. Since the MA applies in the core Principle C cases, he derives the right distribution of Condition C effects, albeit at the cost of having to adopt two different analyses of relative clauses.

Munn (1994) and Citko (2001) can also account for the correlation cases: as described in 1.4.4, either the external head or the lower copy inside the relative clause can in principle be deleted as long as one survives. The absence of Condition C effects in the core cases follows from the possibility of deleting the lower copy inside the relative clause since its content can be recovered from the external head. This is, however, not possible in the correlation cases because the external head contains material that is not licensed there. Accordingly, it is the external head that must be deleted and the internal copy is retained so that a Condition C effect obtains:

(211) a) *The [~~letters by **John**$_i$ to *her*$_j$~~]$_k$ [$_{CP}$ [Op [~~letters by John$_i$ to her$_j$~~]$_k$]$_1$ that he$_i$ told *every girl*$_j$ to burn [x letters by John$_i$ to her$_j$]$_1$] were published.

b) *the [~~many bottles of **Peter's**$_i$ Merlot~~]$_j$ [$_{CP}$ [Op ~~many bottles of Peter's$_i$ Merlot~~]$_j$]$_1$ that **he**$_i$ drank [x many bottles of Peter's$_i$ Merlot]$_1$ in just one evening]

The major advantage of this approach is that the reemergence of Principle C effects follows naturally under this particular implementation of the MA. As opposed to Sauerland's version, it is not necessary to evoke another – different – analysis of relative clauses. The German correlation facts to be discussed in Chapter 2 will, however, argue for yet a different analysis of relative clauses.

1.5.3.10 Overview and evaluation

The preceding subsections have shown that the Condition C facts are extremely delicate, often leading to conflicting judgments. Pending further descriptive work,

any evaluation of these approaches will have to assume a particular empirical basis which might not do justice to all of them. In this thesis, I base myself on the assumptions about Condition C represented in Munn (1994), Citko (2001), and Sauerland (2003). This implies that Safir (1999) represents the marked case. The only area where I base myself on his judgments are the quantifier data since he is the only one who discusses them in some detail. Still, this will mean that his approach fares more badly in many cases than the others simply because his judgments are different.

Once this is accepted, Condition C effects or rather the almost systematic absence thereof clearly show that a HRA is confronted with serious problems. Safir's Vehicle Change approach is too powerful in that the absence of Condition C effects is predicted for A'-movement in general even though most sources claim that it should be limited to R-expressions contained in the external head of relative clauses.

Even though Sauerland's implementation of the MA derives by and large the right results, his assumption that one needs two different types of Vehicle Change seems unnecessary. Once the standard judgments for coreferential pronouns inside picture NPs are adopted, Vehicle Change of an NP into *one* is no longer necessary. One drawback of his approach is the necessity to use the HRA in certain configurations to capture the entire Condition C pattern.

Munn's (1994) and Citko's (2001) approaches fare somewhat better than the others because they not only capture practically the entire range of facts (except for the re-emergence of Condition C effects with quantifiers), but also manage to handle the entire Principle C pattern with just one type of derivation, their implementation of the MA where recoverability plays a crucial role. This advantage only holds, of course, if one can show that a different derivation is not needed anywhere else, a fact to be discussed in the following subsections.

Another issue that is not resolved yet is which basic mechanism lies at the heart of the absence of Condition C effects. Both Vehicle Change and deletion of the lower copy under identity with the external head are empirically almost indistinguishable so far. The German facts to be discussed in the next chapter will provide a means of teasing them apart, cf. 2.4.5.4 and 2.4.5.5. The following table gives an overview over the relevant facts for reconstruction for Principle C. A "+" means that a particular approach can account for a given phenomenon whereas "–" means that it cannot:

(212)

phenomenon	*Munn/Citko*	*Sauerland*	*Safir*
reconstruction of quantifiers in operator phrase (83)a/b	+	+	+
reconstruction of names in operator phrase (76)a	+	+	–[65]
reconstruction of quantifiers in external head (80)	–	+/–[66]	+
non-reconstruction of names in external head(65)	+	+	+
argument-adjunct asymmetry with quantifiers inside the external head (204)	+/–[67]	+/–	+
difference *wh*-movement relative clauses (169)	+	+	–
difference relative operator – external head w.r.t. names (76)	+	+	–
correlation Principle C-Variable Binding/ scope/idioms (84)-(86)	+	+	–
reconstruction of semi-idiomatic cases (73), (75)	+	+	+
possessive relatives (SSCO), (78)b, (79)	+	+	+

1.5.4 Obligatory non-reconstruction of the external head

While reconstruction generally favors the HRA and the MA, cases of non-reconstruction like those discussed in 1.3.6 do the opposite. I repeat two representative examples (ignoring for the sake of the argument the complications with logophoric reflexives in English):

(213) a) John **pulled the** [**strings**] that __ got Bill the job.

b) Gloria: **He**$_i$'s just got a [confident air about **himself**$_i$] that I think __ matches Leo's.
allmychildren.about.com/cs/recaps/a/bl20040312d.htm

The external head must not be interpreted inside the relative clause for the idiom or the anaphor to be properly interpreted. This follows in principle quite

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65 Since Safir does not really restrict Vehicle Change, I will assume that his approach fails wherever we get Condition C effects with names.

66 Sauerland's assumptions clash somewhat with Safir's data; since he assumes that Vehicle Change can in principle apply to quantifiers, I will tentatively assume that he cannot capture the full range of facts.

67 Even though the approach can handle argument-adjunct asymmetries in principle, it cannot account for the asymmetry with quantifiers inside the external head because it cannot handle Condition C effects with quantifiers inside the external head in the first place: the deletion of the lower copy is possible with quantifiers.

straightforwardly under the HEA because the external head is structurally part of the matrix clause and is also interpreted there:

(214) a) John **pulled the** [**strings**]$_i$ [$_{CP}$ [Op$_i$]$_1$ that [x$_i$]$_1$ that got Bill the job].

b) **He$_i$**'s just got a [confident air about **himself**$_i$]$_j$ [$_{CP}$ [Op$_j$]$_1$ that I think [x$_j$]$_1$ matches Leo's].

At least the idiom case is problematic for the HRA – at least for the version laid out in 1.4.3 where reconstruction of the external head is the default. Since the higher copies are deleted and only the lowest one survives, the idiom chunk is not adjacent to the matrix verb:

(215) §John pulled the [$_{XP}$ [~~strings~~]$_2$ [$_{CP}$ [Op [~~strings~~]$_2$]$_1$ that [x strings]$_1$ that got Bill the job]].

Privileging the higher copy is only exceptionally possible, as discussed extensively in 1.4.1, but none of those cases can be applied to idioms. Except for the wide-scope cases, there was only the option of late merger. But neither one could apply here to save the idiom case.

The anaphor case, however, can be dealt with the same way as the following *wh*-case from 1.4.1:

(216) **John$_i$** wondered [which picture of **himself$_{i/j}$**]$_1$ **Bill$_j$** saw __$_1$.

The derivation for the relative will be parallel to the embedded *wh*-case where the anaphor is bound by the matrix subject. If the anaphor moves to its antecedent, the higher copy can no longer be deleted, but has to be retained at the expense of the lower one:[68]

(217) He$_i$'s just **self**-got a [$_{XP}$ [confident air about __**self**$_i$]$_2$ [$_{CP}$ [Op [~~confident air about himself$_i$~~]$_2$]$_1$that I think [x]$_1$ matches Leo's]].

Sauerland (1998, 2003) and Bhatt (2002) apply the MA in all cases where there is no reconstruction. It is unclear to me, though, whether their version derives the right result. The interpretation of the idiom and the anaphor inside the matrix clause is not a problem because there is an external head that is interpreted as well. However, there is also a relative clause-internal copy, and this will lead to an uninterpretable structure:[69]

(218) a) §John **pulled the** [**strings**]$_j$ [$_{CP}$ [Op [~~strings~~]$_j$]$_1$ that [x strings]$_1$ that got Bill the job].

b) §**He$_i$**'s just got a [confident air about **himself**$_i$]$_j$ [$_{CP}$ [Op [~~confident air about himself$_i$~~]$_j$]$_1$ that I think [x confident air about himself$_i$]$_1$ matches Leo's].

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[68] As discussed in footnote 63, it is not so clear which of the two upper copies is interpreted in this case. I have arbitrarily chosen the highest copy.

[69] Bhatt (2002: 47f., note 1) argues that the MA can perhaps handle these cases with certain extensions, but he does not address the problem of the lower copy inside the relative clause. In the idiom case, this could perhaps be accommodated by the assumption that the idiom chunk

Munn's (1994) or Citko's (2001) version of the MA, however, seems more promising in this regard. The derivation used to account for the absence of Condition C effects (cf. 1.5.3.1) will work here as well: since the external head does not contain any material that is not licensed there, it is retained and the internal copy is exceptionally deleted because its content is recoverable from the external head. This derives the desired result:

(219) a) John **pulled the** [**strings**]$_j$ [$_{CP}$ [Op [~~strings~~]$_j$]]$_1$ that [x ~~strings~~]$_1$ that got Bill the job].

b) **He$_i$**'s just got a [confident air about **himself**$_i$]$_j$ [$_{CP}$ [Op [~~confident air about himself$_i$~~]$_j$]]$_1$ that I think [x ~~confident air about himself$_i$~~]$_1$ matches Leo's].

The importance of these facts should not be underestimated: as admitted by Bhatt (2002: 47, note 1), such examples show that the HRA is not sufficient to capture the entire range of reconstruction facts in English. This does not hold for Munn's and Citko's version of the MA, which can handle these cases as well as those where there is reconstruction, as shown in the previous subsections.

1.5.5 Conflicting requirements: interpreting more than one copy

The examples with conflicting demands on interpretation discussed in 1.3.7 are even more problematic. I repeat the crucial example for convenience:

(220) I always try to **take** [**pictures** of **his$_i$** wife] that **every man$_i$** likes __.

The only possibility to interpret this is by interpreting two copies, both the external head and the lowest relative clause-internal copy. A HEA cannot handle this because it cannot handle reconstruction quite generally.

The version of the HRA that I have based the discussion on also cannot handle these cases. Even though variable binding in the example above is not a problem because reconstruction is the default, the idiomatic expression cannot be properly interpreted because the upper copies are deleted:

(221) §I always try to take [$_{XP}$ [~~pictures of **his$_i$** wife~~]$_2$ [$_{CP}$ [Op [~~pictures of his$_i$ wife~~]$_2$]]$_1$ that **every man$_i$** likes [x pictures of his$_i$ wife]$_1$]].

A MA is generally better suited to cope with such cases because there is both an external head and a relative clause-internal copy that can in principle be interpreted. However, the implementations discussed so far cannot handle this case, I believe, at least not without extensions. Sauerland (1998, 2003) and Bhatt (2002) assume that the HRA applies as soon as the external head contains material that is not licensed there. Since in the example at hand, there is a bound variable that needs to be reconstructed, the HRA will have to apply and as a consequence, the interpretation of the idiom will remain unaccounted for.

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gets a different interpretation inside the relative clause and that the ellipsis operation that links it to the external head can somehow take care of this mismatch.

It is not completely clear what would happen under Munn's or Citko's approach: since the external head contains an element that is not licensed there, namely the bound variable, it has to be reconstructed, so that the lower copy has to be retained. This would argue for retaining the lower copy and deleting the external head:

(222) §I always try to take [~~pictures of **his**$_i$ wife~~]$_2$ [$_{CP}$ [Op [~~pictures of his$_i$ wife~~]$_2$]$_1$ that **every man**$_i$ likes [x pictures of his$_i$ wife]$_1$].

However, this fails to account for the idiomatic interpretation of *take pictures*. An alternative that interprets the external head but deletes the lower copy fails to account for variable binding:

(223) §I always try to take [pictures of **his**$_i$ wife]$_2$ [$_{CP}$ [Op [~~pictures of his$_i$ wife~~]$_2$]$_1$ that **every man**$_i$ likes [x ~~pictures of his$_i$ wife~~]$_1$].

It is therefore necessary to retain both the external head and the lower copy inside the relative clause. Whether this is possible at all under Munn's or Citko's approach is unclear since they do not discuss the case at hand. Citko (2001: 137) states that „one of them can delete at LF", which seems to imply that both can be retained.[70] But even if that is possible, there would still be problems:

(224) §I always try to take [pictures of **his**$_i$ wife]$_2$ [$_{CP}$ [Op [~~pictures of his$_i$ wife~~]$_2$]$_1$ that **every man**$_i$ likes [x pictures of his$_i$ wife]$_1$].

Now the upper copy contains an unlicensed bound variable and the lower copy and unlicensed idiom chunk. Consequently, what is needed is some kind of partial deletion as indicated schematically in the following example:

(225) [$_{ext\ head}$ idiom ~~pronoun$_i$~~]$_j$ [$_{CP}$ [Op [~~idiom pronoun$_i$~~]$_j$]$_1$ every man$_i$ [x ~~idiom~~ pronoun$_i$]$_1$]

In chapter 2, I will propose a new analysis of relative clauses that provides an account for these cases, cf. 2.4.7.

1.5.6 *that* vs. *wh*-relatives

Another issue that has been discussed for some time in the literature concerns the difference between *that*-relatives and *wh*-relatives. Recently, Aoun & Li (2003: 109ff.) have argued that the two types of relatives should be assigned completely different derivations. They propose a HRA for *that*-relatives and a HEA for *wh*-relatives. They confusingly refer to the latter as „matching relatives". Their variant of the HEA differs from the one outlined in 1.1.1 in that the relative clause is analyzed as a complement of the external D, it is not adjoined to the NP.

The crucial aspect for the present discussion is that they claim that *that*- and *wh*-relatives differ from each other with regard to reconstruction: only *that*-

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[70] This seems sufficient for the case mentioned in footnote 40 where an NP is idiomatically interpreted in both positions.

relatives show reconstruction effects as in the following example (2003: 113, ex. 52):[71]

(226) The [picture of **his$_i$** mother] that/?*which **every student$_i$** painted __ in art class is impressive.

If the facts are indeed correct, the HRA is definitely no option for *wh*-relatives. It is unclear to me whether a MA would derive the right result.

Under Munn's or Citko's approach, it probably would not unless one would force deletion of the lower relative clause-internal copy whenever there is a *wh*-pronoun, but that seems highly unlikely.

Sauerland's (1998, 2003) and Bhatt's (2002) general approach assumes two different derivations depending on whether the external head contains material that is licensed there or not. However, it remains unclear how to connect this with a particular relative structure (i.e. *that* vs. *wh*). At the point of merge there should not be any problems merging a *wh*-pronoun with an NP that contains e.g. a bound variable – unless the *wh*-relative pronoun cannot take complements, but then we would no longer be dealing with an MA.

It is not clear to me whether Aoun & Li (2003: 122) actually derive the difference or just describe it. In certain cases, a HRA can be independently ruled out because relative operators are often incompatible with a complement – such as *who boy* – (1.2.3.1) that would be necessary for a HRA. But then there are also combinations like *the book which*. Under a HRA this would require *which* to be merged with *book*, but that should not be a problem. Consequently, a HRA has to be prevented for those. Perhaps the locality problems discussed in 1.2.3.4 would help: a HRA with relative pronouns always requires subextraction of the external head in violation of the CED. If that constraint is taken seriously, we might get the right cut.[72]

Evidently, it seems very difficult to derive the difference technically. I will not dwell on this because the distinction itself is contested (Bhatt 2002 for instance assumes that there is no relevant difference with respect to reconstruction). Furthermore, as we will see in the chapter on German, the crosslinguistic validity of the *that*-relative vs. *wh*-relative dichotomy is very limited – at least when it comes to reconstruction effects. Many languages only have relative pronouns but still allow reconstruction quite straightforwardly in relatives.[73]

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71 But they acknowledge (p. 244, note 15) that this does not hold for all speakers.

72 This only works if there is no subextraction in *that*-relatives, but that is exactly what is proposed e.g. by Bhatt, cf. (18). Furthermore, Bianchi's (1999) structure for *that*-relatives, which Aoun & Li (2003) adopt, involves incorporation of the relative pronoun into the external D, cf. (14) so that this might eventually not work.

73 An interesting case in this context are adverbial relatives. Aoun & Li (2003: 124) argue that there is no reconstruction as in the following reason relative:

i) *We imitated the [method advocated by his$_i$ father-in-law] whereby every mechanic$_i$ fixed the car __.

Under their approach, this is little surprising given that they assume that all *wh*-relatives disallow reconstruction (perhaps except the cases with bare NP-adverbs discussed in 1.2.2.4). But the restriction seems to hold more generally. I have not been able to come up with fully

1.5.7 Extraposition

Another context where the HRA seems unavailable (in English) are extraposed relative clauses. As Hulsey & Sauerland (2002: 6/7, ex. 9a/13a) show, relative clause extraposition in English rules out reconstruction:

(227) a) *Mary praised the [**headway**] *last year* that John **made** __.

b) *I saw the [picture of **himself$_i$**] *yesterday* that **John$_i$** liked __.

They argue that this follows directly from the theory of extraposition by Fox & Nissenbaum (2000) when applied to the MA: For extraposition of adjuncts, they assume that it is derived by first covertly moving the source DP to some higher position and then adjoining the adjunct to the silent copy by late merger. When applied to relative clauses under the MA, this implies covert movement of the head noun with subsequent late merger of the relative clause. Late merger is only possible with adjuncts, but not with complements. But since the relative clause is a complement under the HRA, it is not available here. Only a MA is possible, where the relative clause is adjoined to NP. Since Bhatt (2002) and Sauerland (1998, 2003) assume that a MA is only possible when reconstruction is not forced, reconstruction effects are predicted to be absent.

However, the argument is based on the assumption that extraposition cannot be handled at all with the HRA. Hulsey & Sauerland (2002: 11) argue that this is impossible because the relative clause does not correspond to an XP. But this is exactly the kind of problem that was already addressed by Bianchi and Bhatt (recall the discussion in 1.1.2) who proposed slightly different derivations where the head noun moves out of the CP:

(228) the $[_{XP}$ [book$_2$] $[_{X'}$ X° $[_{CP}$ $[_{DP}$ Op/which $__2]_1$ C° [John likes $__1]]]]$

The relative CP is a constituent so that it should be possible to extrapose it and get reconstruction. The absence of reconstruction therefore remains puzzling.

The fact that there is no reconstruction under extraposition seems quite robust though even though the examples that Hulsey & Sauerland (2002) use are not particularly natural (*I saw the picture yesterday that John liked* sounds strange in the first place). But the following example, which controls for this fact, seems still unacceptable:

(229) ??I saw a [picture of **himself$_i$**] in the newspaper that **John$_i$** probably would not like __.

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convincing examples and the same seems to hold for German (see chapter 2), at least not for manner and reason relatives. The best results are achieved with temporal and locative relatives but even there impeccable examples are not easy to come by. At this point it is unclear to me whether this is really a fundamental structural property of adverbial relatives or just a semantic problem. A definitive answer to this question will, however, ultimately determine whether the HEA is still needed. If there is no reconstruction in adverbial relatives and if this cannot be reduced to semantic anomaly we have to conclude that they cannot be handled by either the HRA or the MA and that this is one of the residues – perhaps the only one – where the HEA is still required.

The non-reconstruction is also a problem for Munn's or Citko's approach because the lower copy inside the relative clause is retained in these cases, cf. 1.4.4. Extraposition should not really affect this. Perhaps, there is a problem with the deletion of the external head (which is necessary when it contains material that has to be reconstructed). Deletion takes place up to recoverability. It could be argued that deletion of the external head is no longer possible under extraposition, perhaps because extraposition makes it impossible to recover the relevant content.

I will leave this issue basically unsolved here because it is problematic for both the HRA as well as the two implementations of the MA. The only derivation that yields the right result is the HEA. But why it should be the only derivation that can apply in case of extraposition is unclear. I will leave this issue open here because at this point it cannot be used to argue in favor of or against a particular analysis of relative clauses.[74]

1.6 Conclusion

So where does this leave us? It should have become clear that the correct analysis of (English) relative clauses cannot be pinpointed so straightforwardly as the literature of recent years is trying to make one believe.

This chapter has shown that despite its wide acceptance the HRA still faces serious problems. The basic derivation requires a number of assumptions that are clearly non-standard and often peculiar to relative clauses, cf. 1.2.3. Most of the arguments cited in the literature turn out not to be decisive, cf. 1.2.2. Apart from its compatibility with Antisymmetry, reconstruction effects have probably been the strongest argument in favor of the HRA. It is indeed correct that a direct movement relationship between the external head and the relative clause-internal position allows a very straightforward explanation of reconstruction effects. However, since there are cases where there is no reconstruction, such as the absence of Condition C effects (1.5.3) and the cases where an idiom or an anaphor has to be interpreted in the matrix clause (1.5.4), an unmodified version of the HRA cannot capture the entire reconstruction pattern.

Safir (1999) adopts a powerful Vehicle Change mechanism that partly takes care of the Condition C effects, but at the price of massive overgeneration. He furthermore has nothing to say about the cases where the external head has to be interpreted in the matrix clause (1.5.4).

Bhatt (2002) and Sauerland (1998, 2003) solve the problem by adopting two different derivations, depending on whether there is reconstruction. A MA handles at least the Condition C problem, the HRA applies to the structures with reconstruction, but that still leaves the cases of non-reconstruction in 1.5.4 unexplained. Furthermore, it is quite uneconomical having to use two derivations.

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[74] The facts are somewhat different in German. Reconstruction is at least partially possible under extraposition, cf. footnote 123.

The traditional HEA is less problematic with respect to its basic derivation than the HRA (1.2). However, since there is no straightforward way of handling reconstruction on such an approach, it cannot be an option for a wide range of data. It would be limited to cases of non-reconstruction in 1.5.4 and the Condition C cases. The HEA would basically have the function which the MA has in Bhatt's and Sauerland's approach and except for the data discussed in 1.5.3.8 would derive the right results in combination with the HRA. But again, having to adopt two derivations is undesirable.

It is for the last reason that I believe that Munn's (1994) and Citko's (2001) implementation of the MA is the most promising approach to relative clauses: it accounts for reconstruction effects just as straightforwardly as for the absence of Principle C effects and for the cases of non-reconstruction in 1.5.4. Furthermore, it seems to be the only approach that gives us a handle on the cases where there are conflicting requirements on interpretation (1.5.5): it is in principle possible to interpret both the external head as well as the lower relative clause-internal copy.

This result goes against the thrust of much of the literature in recent years and is therefore very important. The German facts to be discussed in chapter 2 will in fact provide even more convincing evidence for the MA. The following table gives an overview over the various properties.[75]

(230)

		HEA	HRA		MA	
			Bhatt	Safir	Munn/ Citko	Sauerland
general properties	relative pronoun cannot take NP complement	+	+/–	+/–	+/–	+/–
	case on the external head	+	+/–	+/–	+	+
	locality constraints[76]	+	–	–	+	+
	coordination facts	–	–	–	–	–
+ reconstruction	idiom reconstruction (41)	–	+	+	+	does not apply; HRA is applied instead
	variable binding (42)	–	+	+	+	
	Binding A (51)	–	+	+	+	
	scope reconstruction (43), (44)	–	+	+	+	
	adjectival reconstruction (49)	–	+	+	+	

[75] The HRA-column with "Bhatt" gives the properties for a HRA that does not make extra assumptions as e.g. Safir. Even though Bhatt (2002) would not apply it to all the cases in the table (i.e. not to the cases without reconstruction), I have still evaluated it with respect to all reconstruction properties to show where a HRA is in principle successful and where it is not.

[76] A plus in this category means that a particular derivation does *not* lead to locality problems.

Principle C	operator phrase	quant arg (83)a	–	+	+	+	+
		quant adj (83)b	+	+	+	+	+
		R-exp arg (76)a	–	+	+/–	+	+
		R-exp adj (77)	+	+	+	+	+
	external head	quant arg (80)	–	+	+	–	+/–
		quant adj (82)	+	+	+	+	+
		R-exp arg (65)	+	–	+/–	+	+
		R-exp adj	+	+	+	+	+
	asymmetry *wh*-movement – relatives (65), (67)		–	–	–	+	+
	arg-adj asymmetries (204)		–	+	+	+/–[77]	+/–[78]
	asymmetry operator-phrase external head (76)		–	–	–	+	+
	correlation Principle C – variable binding/scope/adjectives (84)–(86)		–	+	–	+	HRA applies instead
	reconstruction of semi-idiomatic cases (73), (75)		–	+	+	+	+
	SCO effects and possessive relatives, (78)b, (79)		+	+	+	+	+
fine-grained reconstruction properties	non-reconstruction for idiom formation (108)		+	–	–	+	–
	non-reconstruction for anaphor binding (109)		+	+	+	+	+/–
	2 copies interpreted (111)		–	–	–	+/–	–
	wh-relatives (226)		+	–	–	–	–
	extraposition (227)		+	–	–	–	–

[77] I have chosen „+/–„ because the MA can in principle account for the asymmetry, but since the asymmetry only surfaces with quantifiers and neither Munn's nor Citko's approach can handle the exceptional behavior of quantifiers, there is still a residual problem.

[78] Sauerland has the same problem as Munn and Citko: Even though an MA can in principle model the argument-adjunct asymmetry, Sauerland has principled problems with quantifiers in that he allows them to be Vehicle-changed.

2 The syntax of relative clauses in German

This chapter provides a detailed analysis of the syntax of restrictive relative clauses in Standard German.[79] I intend to make both an empirical as well as a theoretical contribution. On the empirical side, this is to my knowledge the first in depth study of the properties of German relatives.[80] I will strongly focus on reconstruction effects because as chapter one has shown this is the crucial area for the evaluation of the various approaches. On the theoretical side, I argue in favor of a Matching Analysis for German relatives. The MA provides the best result because it not only avoids many difficulties the HRA is faced with, but also because it captures the intricate pattern of Principle C effects in a straightforward manner.

Before presenting the analysis, I will first provide the necessary background. Section one describes in some detail how binding works in German. This is important because German differs from English in the domain of reflexives so that reconstruction for Principle A will turn out to be a much more important diagnostic than in English. Section two contains the reconstruction data. I will be quite exhaustive, mainly because the data have never been presented in much detail so that I cannot refer to other sources. I will also include reconstruction data for *wh*-movement and topicalization to bring out relevant differences. Furthermore, some of those data will become important in chapter three. Section three shows that the Head Raising Analysis has undesirable effects for German. In section four, I present my analysis. Section five discusses previous approaches and shows that they are inferior to the analysis presented here. Section six concludes the chapter.[81, 82]

2.1 Binding in German

Since reconstruction and reconstruction for binding in particular will play a prominent role in this thesis, it is necessary to first have a look at the relevant binding data in German. Since reconstruction of entire anaphors can only be tested with topicalization *(Himself, John likes)*, I will have to focus on coreferential elements inside picture NPs, which provide the largest empirical basis for reconstruction. I will try to put together what can be considered more or less the communis opinio to the extent that this is possible. Binding judgments are notoriously delicate so that it is quite likely that individual speakers will disagree with parts of the data presented below (even though most of them are either

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79 I will neither discuss free relatives nor appositive relatives.

80 Heck (2005) is a recent contribution that anticipates both some of the empirical as well as the theoretical results. Thanks to that paper, much of this chapter has been rethought and improved.

81 To the extent that I have to be able to verify it, Dutch relatives pattern like their German counterparts. This is important because I will discuss Dutch data alongside with German data in chapter three and will argue that the two languages behave identically in the so-called proleptic construction whose derivation presupposes some of the results of chapter two.

82 A shorter version of this chapter appears as Salzmann (to appear b).

taken from the literature or the internet). I will try to indicate which facts are more contested than others. I will not present a new theory of binding in German, but will solely mention some of the assumptions that have been made and have proved useful. This will eventually not turn out to be a fully coherent system, but it will be sufficiently explicit to guarantee that the reconstruction effects discussed later on are relevant.

I will first show that anaphor binding in German differs from English in that anaphors *are* subject to the Binding Theory. Logophoric use is not attested. Anaphors have to be bound by the highest argument of a saturated predicate they are part of, which is the subject in the absence of an external argument of N; this is discussed in subsection two. Subsection three shows that – as in English – anaphors and pronouns are normally in free variation within DPs except for cases where an implicit PRO is present. In the last subsection, I will argue that binding cannot be reduced to thematic relations even though reference to the highest argument is often sufficient. But there is a configurational residue and this implies that reconstruction for Principle A, which will play a prominent role in this chapter, has to receive a syntactic treatment, possibly contrary to the English facts (cf. 1.3.3).[83]

2.1.1 Anaphors are subject to the Binding Theory

One important starting point is the fact that German and Dutch differ from English in that the use of anaphors is more limited, especially when it comes to uses that are not syntactically triggered. German *sich*[84] and Dutch *zichzelf* do not have an intensifying function like *himself:*

(231) John solved the problem himself.

Furthermore, logophoric uses of the anaphor *sich* do not seem to be attested:[85] As opposed to the English facts discussed in 1.3.3, picture NP reflexives cannot be bound across intervening definite, quantificational, and expletive subjects (cf. Kiss 2001 for discussion; his ex. 11 a, b):

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[83] I am grateful to Daniel Hole for help with binding in German. Needless to say, he is not responsible for any shortcomings of this part.

[84] I will not discuss German *sich selbst*, which is sometimes (Fischer 2004) mistaken as the equivalent of Dutch *zichzelf*. The former is only an intensifier, but does not have the systematically different status that *zichzelf* has with respect to *zich* in Dutch. In the examples below, nothing changes by replacing *sich* with *sich selbst*.

[85] This is probably an overstatement. Hole (in prep.) shows that in certain cases where both an anaphor and a reflexive are possible, the use of a *self*-form is preferred if „the (typically third person) protagonists who have thoughts in their minds, are reported to make utterances or perceive things, are identical to the referents referred to by the self-forms in the linguistic representations of their thoughts, utterances, or perceptions" (Hole 2002: 2). Importantly, even if there is residual logophoric use in German, it would never license binding across an intervening DP as in English. With the notable exception of Hole (in prep.), the issue of logophoricity is heavily under researched in German, and I will therefore leave this for further research.

(232) a) *$\textbf{Gernot}_i$ erinnerte sich daran, dass die Zeit ein Bild von $\textbf{sich}_i$
Gernot remembered self there.on that the Z. a picture of self
veröffentlicht hatte.
published had
'Gernot$_i$ remembered hat „the Zeit" published a picture of himself$_i$.'

b) *$\textbf{Gernot}_i$ dachte, dass niemand ein Bild von $\textbf{sich}_i$
G. thought that no.one a picture of self
veröffentlichen wollte
publish would
'Gernot$_i$ thought that nobody would publish a picture of himself$_i$.'

One also does not find any cases without c-command as the following contrast shows (Pollard & Sag 1992: 278, ex. 62a):

(233) a) The picture of $\textbf{himself}_i$ in Newsweek dominated $\textbf{John's}_i$ thoughts.

b) *Das Foto von $\textbf{sich}_i$ in der Zeit beherrschte $\textbf{Peters}_i$ Gedanken
the picture of self in the Zeit dominated Peter's thoughts
'The picture of himself in the "Zeit" dominated Peter's thoughts.'

Due to the differences mentioned above, an analysis treating anaphors inside picture NPs as exempt from the Binding Theory is insufficient (Kiss 2001). In other words, picture NP reflexives (and reflexives in general) are not exempt from, but are subject to the Binding Theory. This fact is generally agreed upon.

2.1.2 Distribution of anaphors

Another clear fact is that picture NP anaphors can only be bound by the highest argument of a given predicate, whereas in English, objects are possible antecedents in the presence a higher argument as well (Kiss 2001, Frey 1993: 124):[86]

(234) a) $\textbf{Hans}_i$ las ein Buch über $\textbf{sich}_i$.
John read a book about self
'John read a book about himself.'

b) $\textbf{Hans}_i$ gab Maria$_j$ ein Buch über $\textbf{sich}_{i\,/*j}$.
John gave Mary a book about self
'John$_i$ gave Mary$_j$ a book about himself$_i$/herself$_j$.'

c) $\textbf{John}_i$ gave $\textbf{Peter}_j$ a book about $\textbf{himself}_{i/j}$.

For simplicity, I will refer to the highest argument of a predicate as the SUBJECT. The SUBJECT is not necessarily the syntactic subject. Datives that are the highest arguments of a given predicate can also function as SUBJECTS:[87]

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[86] When it comes to binding between objects, there is a lot of controversy that I gladly leave up to the interested reader to cherish, see e.g. Grewendorf (1988), Frey (1993: 112).

[87] Importantly, there are no dative subjects in German.

(235) a) **Der Maria$_i$** wurde ein Spiegelbild von **sich$_i$** gezeigt.
the.DAT Mary was a reflection of self shown
'Mary$_i$ was shown a reflection of herself$_i$.'

b) **Dem Peter$_i$** gefällt dieses Bild von **sich$_i$**.
the.DAT Peter pleases this picture of self
'This picture of himself$_i$ pleases Peter$_i$.'

c) Es graut **dem Peter$_i$** vor schlechten Nachrichten über **sich$_i$**.
it dreads the.DAT Peter before bad news about self
'Peter$_i$ is afraid of bad news about himself$_i$.'

Binding of an anaphor is also subject to a proximity requirement (as in English). It has to be bound by the closest possible binder. If a noun projects an external argument, this will count as the highest argument of the predicate and will serve as a SUBJECT for an NP-internal anaphor:

(236) Hans$_i$ mag **Peters$_j$** Bild von **sich$_{*i/j}$**
John likes Peter's pictures of self
'John$_i$ likes Peter's$_j$ picture of himself$_{*i/j}$.'

Here, the agent/possessor *Peter* is a closer possible binder and, therefore, binds the reflexive. For coreference with the syntactic subject, a pronoun must be used – as in English.

(237) **Hans$_i$** mag Peters$_j$ Bild von **ihm$_{i/*j}$**
John likes Peter's pictures of him
'John$_i$ likes Peter's$_j$ picture of him$_{i/*j}$.'

The generalization of these facts is straightforward (a version of Principle A, see Kiss 2001, ex. 15):

(238) Anaphors have to be bound by the closest SUBJECT.

If there is no SUBJECT inside the DP, the binding domain is extended up to the clause as in (234) and (235).[88] Pronouns must be free in the minimal binding domain which is captured by a version of Principle B along the following lines (similar to Kiss 2001, his ex. 21):

(239) Principle B: A pronoun must not be bound by a coargument.

If N projects an external argument, the DP counts as a binding domain and the pronoun has to be disjunct from the external argument as in (237).

2.1.3 Implicit arguments, anaphors vs. pronouns

The next point is somewhat more controversial. German and Dutch resemble English (cf. Reinhard & Reuland 1993: 661, the examples in (57) above) in that

[88] For reasons that I will not discuss, extension across a clause-boundary is not possible if there is no SUBJECT available as e.g. when the reflexive is contained in the syntactic subject.

the complementary distribution between anaphors and pronouns breaks down in picture NPs without a specifier (Kiss 2001: ex. 7):[89]

(240) **Ulrich$_i$** las ein Buch über **ihn$_i$/sich$_i$**.
Ulrich read a book about him/self
'Ulrich$_i$ read a book about him$_i$/himself$_i$.'

On the other hand, one also finds the class of predicates as in English where only a reflexive is possible, cf. the examples in (59), Reinhard & Reuland 1993: 685)

(241) a) **Peter$_i$** machte ein Foto von ***ihm$_i$/sich$_i$**.
Peter took a picture of him/self
'Peter$_i$ took a picture of *him$_i$/himself$_i$.'

b) **Peter$_i$** hat eine Geschichte über ***ihn$_i$/sich$_i$** erzählt.
Peter has a story about him/self told
'Peter$_i$ told a story about *him$_i$/himself$_i$.'

c) **Peter$_i$** hat eine gute Meinung von ***ihm$_i$/sich$_i$**.
Peter has a good opinion of him/self
'Peter$_i$ has a good opinion of *him$_i$/himself$_i$.'

d) **Peter$_i$** hat ein Gerücht über ***ihn$_i$/sich$_i$** verbreitet
Peter has a rumor about him/himself spread
'Peter spread a rumor about *him$_i$/himself$_i$.'

e) **Peter$_i$** hat ein Buch über ***ihn$_i$/sich$_i$** geschrieben
Peter has a book about him/self written
'Peter$_i$ wrote a book about *him$_i$/himself$_i$.'

In these examples, the agents of the verb and the noun are identical, and this relationship has been modeled by means of an implicit PRO that is projected as the external argument:

(242) a) Peter$_i$ machte ein **PRO$_i$** Foto von ***ihm$_i$/sich$_i$**.
Peter took a picture of him/self
'Peter$_i$ took a picture of *him$_i$/himself$_i$.'

b) Peter$_i$ hat eine **PRO$_i$** Geschichte über ***ihn$_i$/sich$_i$** erzählt.
Peter has a story about him/self told
'Peter$_i$ told a story about *him$_i$/himself$_i$.'

c) Peter$_i$ hat eine **PRO$_i$** gute Meinung von ***ihm$_i$/sich$_i$**.
Peter has a good opinion of him/self
'Peter$_i$ has a good opinion of himself$_i$.'

d) Peter$_i$ hat ein **PRO$_i$** Gerücht über ***ihn$_i$/sich$_i$** verbreitet
Peter has a rumor about him/himself spread
'Peter spread a rumor about *him$_i$/himself.'

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[89] Fischer (2004: 107) assumes without argument that only reflexives are possible, Frey (1993: 168) assumes that the optionality is only apparent: Whenever a pronoun is possible, he assumes that there is a disjunct implicit PRO, see below.

e) Peter$_i$ hat ein **PRO$_i$** Buch über ***ihn$_i$/sich$_i$** geschrieben
Peter has a book about him/self written
'Peter$_i$ wrote a book about *him$_i$/himself$_i$.'

Since the nominal predicate is saturated in these cases, it counts as the binding domain. Consequently, only anaphors are possible here. Pronouns, however, must not be bound within the minimal binding domain. That is why they cannot corefer with the matrix subject here. They are ruled out by Principle B. The postulation of a PRO nicely derives this asymmetry.

Once a PRO is possible, the question is whether it also appears in other contexts. In the following examples anaphors and pronouns are again in free variation (again subject to speaker variation):[90]

(243) a) **Peter$_i$** sah ein Foto von **ihm$_i$/sich$_i$** in der Zeitung.
Peter saw a picture of him/self in the newspaper
'Peter$_i$ sah a picture of him$_i$/himself$_i$ in the newspaper.'

b) **Peter$_i$** hat eine Geschichte über **ihn$_i$/sich$_i$** gehört.
Peter has a story about him/self heard
'Peter$_i$ heard a story about him$_i$/himself$_i$.'

d) **Peter$_i$** findet dieses Gerücht über **ihn$_i$/sich$_i$** unfair.
Peter finds this rumor about him/self unfair
'Peter$_i$ finds this rumor about him$_i$/himself$_i$ unfair.'

e) **Peter$_i$** hat ein Buch über **ihn$_i$/sich$_i$** gelesen
Peter has a book about him/self read
'Peter$_i$ read a book about him$_i$/himself$_i$.'

An implicit coreferential PRO is certainly impossible in these cases because the agent of the noun is different from the matrix subject. An implicit disjunct PRO would cover the pronoun cases, but it must not be projected in the case of the anaphor. Needless to say, the distribution of PRO under such an approach would be entirely circular, basically restating the distribution of anaphors and pronouns. Rather, one should limit the use of an implicit argument to the cases in (241) where the external arguments are identical.

For (240) and (243), I will assume no implicit PRO. This means that the anaphor is minimally bound by the closest SUBJECT, the syntactic subject. The pronouns are possible because they are free in the minimal binding domain.[91]

This approach also nicely accounts for the possible interpretations of the following example (Frey 1993: 168):

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[90] For some speakers, the choice between anaphor and pronouns determines whether the argument is interpreted e.g. as the possessor (pronoun) or the object on a picture (anaphor).

[91] See Frey (1993: 125, ex. 46) for a different view. I do not share his judgments, though.

(244) **Peter$_i$** hat diese Nachforschungen über **ihn$_i$/sich$_i$**
Peter has these investigations about him/self
vor mir verheimlicht.
before me concealed
'Peter$_i$ concealed these investigations about him$_i$/himself$_i$ from me.'

With an anaphor, the preferred interpretation is that Peter did the investigation himself. With a pronoun, it is most natural if the investigator is a different person, but it could also be Peter. Again, this follows if there is an implicit coreferential argument of N when the two agents are the same. This will require the anaphor and rule out the pronoun. When the agents are not identical, both an anaphor or a pronoun are possible.

Implicit PROs have also been postulated for event nominals. In the following case, it is assumed that there in a *disjunct* implicit argument. This is supposed to explain the impossibility of an anaphor in the following example (Frey 1993: 131):

(245) **Hans$_i$** hörte bei Bemerkungen über **ihn$_i$/*sich$_i$** weg.
John heard at comments about him/self away
'John$_i$ didn't listen to comments about him$_i$/himself$_i$.'

An disjunct implicit PRO would limit the binding domain to the arguments of N, and the anaphor would fail to be bound by the closest SUBJECT (PRO). The pronoun, however, would be free and therefore licensed. While I tend to agree on this particular judgment, one can find counterexamples with event nominals on the internet where an anaphor is fine:

(246) Er sucht Herzls Memoiren, "Mein Kampf" betitelt, in denen **er$_i$**
he looks.for Herzel's memoires my fight titled in which he
abfällige Bemerkungen über **sich$_i$** befürchtet.
derogatory remarks about self fears
'He is looking for Herzel's memoirs titled „my fight" in which he$_i$ fears he will find derogatory remarks about himself$_i$.'
http://www.sim-kultur.at/?sub=archiv&sub1=werke&sub2=schauspiele&sub3=&sub4=&id=1829

If there were an implicit PRO in such examples, it would be disjunct (since the subject is afraid of somebody else's remarks), which in turn would not license the anaphor. This casts doubt on a prolific use of implicit arguments and suggests that disjunct implicit arguments should be dispensed with.

For the purposes of this thesis, I only use coreferential implicit PROs, and I assume that they only appear where the agents of the verb and the noun are identical as in (242). Such coreferential PROs are possible with picture nouns and event nominals. Furthermore, I submit that there are no disjunct implicit PROs. Cases like (245) are perhaps better ruled out by the lack of agentivity on the part of the subject, to be discussed in the following subsection.

2.1.4 Thematic hierarchy or syntax?

So far, there has been frequent reference to argument structure: Only SUBJECTS qualify as antecedents of picture-NP reflexives, and in addition, there is a strong preference for the binder to be agentive or at least to be relatively high on the argument structure.[92] This is why in the following example, a pronoun seems preferred:[93]

(247) **Hans$_i$** wurde durch ein Buch über **ihn$_i$/?-??sich$_i$** verletzt.
John became by a book about him/self offended
'John$_i$ was offended by a book about him$_i$/himself $_i$.'

One may therefore ask to what extent binding should be handled by syntax. Some (e.g. Kiss 2001/2003) conclude from these facts that binding should be done purely by argument structure. There are several reasons against this. First, the binding options between objects are subject to c-command (Frey 1993: 112ff.). Second, scrambling can lead to new (operator) binding options as in the following examples (Frey 1993: 112, ex. 1d, Haider 1993):

(248) a) Ich habe [die Leute$_i$]$_1$ einander$_i$ __$_1$ vorgestellt.
I have the people each.other introduced.to
'I introduced the people$_i$ to each other$_i$.'

b) weil [jeden Botschafter$_i$]$_1$ sein$_i$ Übersetzer __$_1$ begleiten sollte.
because every.ACC ambassador his interpreter accompany should
'because every ambassador$_i$ should be accompanied by his$_i$ interpreter.'

In (248)a), the direct object has scrambled across the indirect object and binds it even though on the argument structure, it would be lower than the direct object/theme. In b), the direct object has scrambled across the subject and binds a pronoun in it, again against the thematic hierarchy. Another case concerns ECM constructions. There are cases where the binding domain is extended even though there is a SUBJECT (Frey 1993: 128, ex. 55b):

(249) **Hans$_i$** hörte den Professor neben **sich$_i$** sprechen.
John heard the professor next self talk
'John$_i$ heard the professor talk next to him$_i$.'

The external argument of the embedded predicate *Professor* is projected and therefore expected to bind the reflexive, contrary to fact. So being an external argument is not enough. Obviously, finiteness also plays a role, which clearly argues for a syntactic treatment.

While these points are not directly related to picture-NP reflexives, they do show that syntax plays a role in German binding so that it would be strange if parts of the binding theory would be handled exclusively without syntax.

There is one more issue that is important in this respect, namely the possibility of getting bound in a derived position as in the following English example:

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92 This would account for the experiencers in (235).

93 The example was pointed out to me by Daniel Hole.

(250) **John$_i$** wonders [$_{CP}$ [which picture of **himself$_i$**]$_1$ I like __$_1$ best].

Here the matrix subject binds a reflexive in the embedded Spec, CP position. The picture NP belongs to a different predicate; if English were subject to the requirement that an anaphor must be bound by the highest argument of its predicate, the sentence should be ungrammatical because the highest argument of the embedded predicate, *I,* is not the binder. Interestingly, corresponding examples are bad in German and Dutch with an anaphor. Only a pronoun is possible:

(251) a) **Hans$_i$** fragt sich, [$_{CP}$ [welches Foto von ***sich$_i$/ihm$_i$***]$_1$
John asks self which picture of self/him
ich am besten __$_1$ mag].
I the.best like

b) **Peter$_i$** denkt, [$_{CP}$ [dieses Buch über ***sich$_i$/ihn$_i$***]$_1$
Peter thinks this book about self/him
fände ich __$_1$ interessant].
find.SUBJ I interesting
'Peter$_i$ thinks that this book about him$_i$ I find interesting.'

This can be considered another strong argument in favor of a thematically-based theory of binding. There is one more set of data that has figured prominently in the discussion (Frey 1993: 136, Kiss 2001, ex. 12b): reconstruction into intermediate positions. Both authors claim that this is impossible, in contrast to English:[94]

(252) a) [Dieses Buch über **sich$_{*i/j}$**]$_1$ glaubt **Peter$_i$**,
this book about self believes Peter
mag der **Hans$_j$** __$_1$ schon sehr.
likes the John indeed a.lot
'This book about himself$_{i/j}$, Peter$_i$ thinks John$_j$ likes a lot.'

b) [This book about himself$_{i/j}$]$_1$, Peter$_i$ thinks that John$_j$ likes __$_1$.

As opposed to English, the fronted reflexive can only be bound by the lower subject, but crucially not by the higher one.[95] Again, this suggests that the anaphor is simply bound by the highest argument of the predicate it belongs to. For coreference with the higher subject, a pronoun is necessary. While I tend to agree on that particular example, I think that one can construct examples where an A'-moved anaphor *can* be bound by the matrix subject. This is much clearer if one uses an embedded subject that cannot serve as binder (because it differs in phi-features):

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94 The same is claimed for Dutch in van de Koot (2004).

95 Pollard & Sag (1992: 296, ex. 121) and Reinhard & Reuland (1993: 683ff.) argue that the multiple binding options in English are due to the logophoric nature of reflexives and do not provide any evidence for reconstruction into intermediate positions. See also footnote 47.

(253) a) [Diesen Wesenszug von **ihm$_i$/?sich$_i$**]$_1$ glaubt **Peter$_i$**,
this trait of him/himself believes Peter
fände ich $___1$ attraktiv.
find.SUBJ I attractive
'This trait of him$_i$/himself$_i$ Peter$_i$ thinks I would find attractive.'

b) [Welchen Artikel über **ihn$_i$/?sich$_i$**]$_1$ glaubt **Peter$_i$**,
which article about him/himself believes Peter
dass ich $___1$ gelesen habe?
that I read have
'Which article about him$_i$/himself$_i$ does Peter$_i$ believe that I have read?'

c) [Welches Bild von **ihm$_i$/?sich$_i$**]$_1$ denkt **Peter$_i$**,
which picture of him/himself thinks Peter
dass ich $___1$ am besten finde?
that I the best find
'Which picture of him$_i$/himself$_i$ does Peter think I like best?'

While I concede that this is a delicate matter, several people I have consulted have supported the judgments given here. I do not intend to explain why binding in a final landing site of A'-movement as in (251) is impossible. It is sufficient for my purposes to have shown that binding in German is (at least partially) governed by syntactic structure. This conclusion is important because it implies for the reconstruction effects for Principle A to be discussed in the next section that they do provide evidence for a transformational relationship between landing site and theta-position.

2.2 Reconstruction in German A'-movement

In this section, I will discuss reconstruction effects in German A'-movement. Even though this chapter is about relative clauses, I will also provide data for *wh*-movement and topicalization because there are certain interesting asymmetries and because the data will be relevant for later chapters.

I will first discuss variable binding, scope and idiom interpretation where all types of A'-movement pattern the same. Thereafter, I will discuss the interpretation of superlative adjectives and finally binding. As in English, relative clauses differ from the other constructions with respect to Principle C effects when the R-expression is contained inside the external head. Other than that, reconstruction is as robust as in the other types of A'-movement. In later subsections, I discuss cases where the external heads of relatives must not be reconstructed or must be interpreted in more than one position. Subsection ten deals with reconstruction into intermediate positions and subsection eleven concludes the section.

I will employ the same notation as in the first chapter: the reconstruction site is marked with an underline. In cases where it is beyond doubt that movement is involved (as in *wh*-movement and topicalization) the gap is coindexed with the antecedent by means of a number index. In the case of external heads of

relatives, there is no coindexation to avoid a prejudgment of the analysis. Coreference between categories is marked by coindexation with letter indices.

2.2.1 Idiom interpretation

The following examples show reconstruction for idiom interpretation:[96, 97]

(254) a) die [**Rede**], die er __ **geschwungen** hat *eine Rede schwingen* =
the speech which he swung has 'give a speech'
'the speech he gave'

b) [**Eine Rede**]$_1$ hat er __$_1$ **geschwungen**.
a speech has he swung
'A speech, he gave'

c) [**Was für eine Rede**]$_1$ hat er gestern wohl __$_1$ **geschwungen**?
what.kind.of speech has he yesterday PRT swung
'What kind of speech did he give yesterday?'

To be properly interpreted, an idiom has to form a constituent at LF. This is achieved if the fronted constituent is interpreted in the complement position of the idiomatic verb.

2.2.2 Scope

Reconstruction for scope is straightforward in German A'-movement. I will first give examples that illustrate distributive readings:[98]

(255) a) die [**Band**], die **jeder Student** __ am besten findet
the band which every student the best finds
'the band that every student likes best' ∃ > ∀; ∀ > ∃

b) [**Welche Band**]$_1$ findet **jeder Student** __$_1$ am besten?
which band finds every student the best
'Which band does every student like best?' wh > ∀; ∀ > wh

c) [**Zwei von den Bands**]$_1$ findet **jeder Student** __$_1$ gut.
two of the bands finds every student good
'Two bands, every student likes.' 2 > ∀; ∀ > 2

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96 As in English, the head noun of the relative clause only contains the NP; the determiner is external to it and is not reconstructed. The scope data in this section and reconstruction into *there*-sentences in footnote 100 will prove that point.

97 As discussed in footnote 24, only relatively transparent collocations can be used in relativization. The head noun more or less retains its meaning in these examples. See de Vries (2002: 78f.) for many Dutch examples some of which can be translated into German.

98 Scope reconstruction of material contained in a relative operator phrase is impossible to construct in German because the possessive relative pronoun makes it definite so that it always takes wide-scope with respect to other quantifiers:

i) ein Fotograf, [dessen Bilder von einem Mädchen]$_1$ jeder Mann__$_1$ mag ∃ > ∀; *∀ > ∃
a photographer whose pictures of a girl every man likes
'a photographer whose pictures of a girl every man likes'

Pied-piping with an indefinite as in English (cf. (48)) is not possible in German

A distributive interpretation implies that the fronted DP can be interpreted in the scope of the universal quantifier, and is therefore reconstructed. For the examples at hand, this means that there are different bands per student.

The following triple illustrates scope ambiguities with amount quantifiers. Amount readings, i.e. reconstructed readings are found in all types of A'-movement.[99]

(256) a) die [**vielen Bücher**], die Hans fürs Medizinstudium __ **braucht**
the many book which John for.the med.school needs
'the many books John needs for med school' many > need;
need > many

b) [**Wieviele Bücher**]$_1$ **braucht** Hans fürs Medizinstudium __$_1$?
How.many books needs John for med.school
'How many books does John need for med school?' many > need;
need > many

c) [**Viele Bücher**]$_1$ **braucht** Hans fürs Medizinstudium __$_1$.
many books needs John for med.school
'Many books, John needs for vet school.' many > need;
need > many

On the reconstructed reading, the amount reading, the pure amount is focused on, not specific books. The wide-scope or referential reading implies that there is a given specific set of books. (256)b, for instance, would have a wide-scope reading in the following context: A has bought a number of books and B asks how many (of them) A needs for med school. The narrow-scope reading would be more salient in a context where someone compares the amount of books one has to read for different subjects and then wonders if one needs more for med school or less than e.g. for literature. A natural answer would be a number such as 100. Since *viele* 'many' can be construed in the scope of the modal, we have further evidence for reconstruction.

German also has the type of amount relatives discussed for English where there is no additional scopal element (cf. e.g. Bhatt 2002: 50f. and 1.3.1). The first triple involves an existential context:[100]

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[99] Again reconstruction of scopal elements inside the operator phrase is impossible to construct in German because the operator phrase is definite (the English translation makes the same point):

i) der Autor, [dessen viele Bücher]$_1$ man fürs Medizinstudium __$_1$ braucht
the author whose many books one for.the med.school needs
'the author whose many books one needs for vet school' many > need; *need > many

As shown in example (48), indefinite operators are possible in English and allow scope reconstruction.

[100] Existential contexts also show that only the head NP to the exclusion of the external D is reconstructed. The following pair with the South German expression *es hat* 'there is' shows that a universal determiner can head an NP modified by an existential sentence but it cannot occur in a simple *there*-sentence, it triggers a definiteness effect (*es hat* 'there is' is mostly used in southern varieties).

(257) a) der [**viele** Wein], den es noch __ im Keller hat
the much wine which it still in.the cellar has
'the amount of wine that there still is in the cellar'

b) [**Wieviel** Wein]$_1$ hat es noch __$_1$ im Keller?
how.much wine has it still in.the cellar
'How much wine is there still in the cellar?'

c) [Sehr **viel** Wein]$_1$ hat es noch __$_1$ im Keller.
very much wine has it still in.the cellar
'A lot of wine there still is in the cellar.'

The next triple involves the noun *Wein* 'wine' which is ambiguous between an individual and an amount reading. By adding an amount quantifier, only an amount reading is possible (it cannot refer to bottles in this context):

(258) a) der [**viele**] Wein, den wir gestern __ getrunken haben
the much wine which we yesterday drunk have
'the wine we drank yesterday'

b) [**Wieviel** Wein]$_1$ habt ihr gestern __$_1$ getrunken?
how.much wine have you yesterday drunk
'How much wine did you drink yesterday?'

c) [Sehr **viel** Wein]$_1$ haben wir gestern __$_1$ getrunken.
very much wine have we yesterday drunk
'A lot of wine we drank yesterday.'

2.2.3 Variable binding

Reconstruction for variable binding is also straightforward. A pronoun in the dislocated phrase is bound by a quantifier that c-commands its base position:

(259) a) das [Foto von **seiner$_i$** Geliebten], das **jeder Mann$_i$**
the picture of his beloved which every man
in seiner Brieftasche __ hat
in his wallet has
'the picture of his$_i$ beloved that every man$_i$ keeps in his wallet'

b) der Fotograf, [dessen Foto von **seiner$_i$** Geliebten]$_1$
the photographer whose picture of his beloved
jeder Mann$_i$ gerne in seiner Brieftasche __$_1$ hätte
every man likes.to in his wallet keeps
'the photographer whose picture of his$_i$ beloved every man$_i$ would like to have in his wallet'

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i) **jedes** [Buch], das es __ auf dem Tisch hat
every book which it on the table has
'every book that there is on the table'

ii)* Es hat **jedes Buch** auf dem Tisch.
it has every book on the table
lit.: 'There is every book on the table.'

b) [Was für ein Foto von **seiner$_i$** Geliebten]$_1$ hat **jeder Mann$_i$**
what.kind.of picture of his beloved has every man
in seiner Brieftasche __$_1$?
in his wallet
'What kind of picture of his$_i$ beloved does every man$_i$ keep in his wallet?'

c) [Ein Foto von **seiner$_i$** Geliebten]$_1$ hat **jeder Mann$_i$**
A picture of his beloved has every man
in seiner Brieftasche __$_1$.
in his wallet
'A picture of his$_i$ beloved, every man$_i$ keeps in his wallet.'

2.2.4 The construal of superlative adjectives

The interpretation of adjectival modifiers is somewhat difficult to test in German because the required configuration – long-distance relativization – is strongly degraded for most speakers of Standard German, a fact that will be the starting point for chapter 3.

Heck (2005) nevertheless assumes that German shows the same asymmetry as English (cf. 1.3.2). He gives the following sentence, which is ambiguous according to him:

(260) das **erste** Buch, das Peter *sagte*, dass Tolstoj __ *geschrieben* hat
the first book which Peter said that Tolstoy written has
'the first book that Peter said that Tolstoy wrote'

The adjective *erste* 'first' can apply to both verbs. On the high reading, *erste* applies to *sagen* 'say', the first book about which Peter made the statement that Tolstoy wrote it is meant. On the low reading where *erste* applies to *geschrieben* 'written', the first book that Tolstoy actually wrote is meant. I will not attribute much importance to these data because they are independently bad for most speakers.

2.2.5 Principle A and B

Reconstruction for Principle A is straightforward, but it is important to avoid the semi-idiomatic expressions from (241) with an implicit PRO because reconstruction is not necessary to bind the anaphor: it is already bound within the external head by the implicit PRO (the same holds when such a DP is *wh*-moved or topicalized):

(261) das [**PRO$_i$** Bild von **sich$_i$**], das **Peter$_i$** __ gemacht hat
the picture of self which Peter made has
'the picture of himself$_i$ that Peter$_i$ took'

As mentioned in the first chapter (1.3.3), reconstruction is probably still necessary in these cases to control the PRO, but to be on the safe side, I will not use such examples. Instead, I give a triple for every type of A'-movement to test

different kinds of nouns. The first triple illustrates reconstruction of anaphors contained inside the external head:[101]

(262) a) das [Bild von **sich$_i$**], das **Peter$_i$** __ am liebsten mag
the picture of self which Peter the best likes
'the picture of himself$_i$ that Peter$_i$ likes best'

b) das [Gerücht über **sich$_i$**], das **Peter$_i$** nicht __ ertragen kann
the rumor about self which Peter not bear can
'the rumor about himself$_i$ that Peter$_i$ cannot bear'

c) der [Wesenszug von **sich$_i$**], den **Peter$_i$** noch nicht __ kannte
the trait of self which Peter still not knew
'the trait of himself$_i$ that Peter$_i$ did not know'

The second triple makes the same point for *wh*-movement:

(263) a) [Welches Bild von **sich$_i$**]$_1$ findet **Peter$_i$** am besten __$_1$?
which picture of self finds Peter the best
'Which picture of himself$_i$ does Peter$_i$ like best?'

b) [Welches Gerücht über **sich$_i$**]$_1$ kann **Peter$_i$** nicht __$_1$ ertragen?
which rumor about self can Peter not bear
'Which rumor about himself$_i$ can't Peter$_i$ bear?'

c) [Welchen Wesenszug von **sich$_i$**]$_1$ kannte **Peter$_i$** noch nicht __$_1$?
which trait of self knew Peter still not
'Which trait of himself$_i$ didn't Peter$_i$ know yet?'

Finally, topicalization:

(264) a) [Dieses Bild von **sich$_i$**]$_1$ findet **Peter$_i$** __$_1$ am besten.
this picture of self finds Peter the best
'This picture of himself$_i$, Peter$_i$ likes best.'

b) [Dieses Gerücht über **sich$_i$**]$_1$ kann **Peter$_i$** nicht __$_1$ ertragen.
this rumor about self can Peter not bear
'This rumor about himself$_i$, Peter$_i$ cannot bear.'

c) [Diesen Wesenszug von **sich$_i$**]$_1$ kannte **Peter$_i$** noch nicht __$_1$.
this trait of self knew Peter still not
'This trait of himself$_i$, Peter$_i$ did not know yet.'

There is actually another possibility with topicalization: the moved constituent can consist only of the anaphor:

(265) [**Sich (selbst)**]$_1$ mag **Peter$_i$** __$_1$ schon.[102]
himself likes Peter indeed
'Himself$_i$, Peter$_i$ likes.'

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[101] Anaphors contained in the operator phrase of relatives cannot be tested because of the possessive relative pronoun, which is the closest possible binder:
i) der Mann$_i$, [dessen$_i$ Bild von sich$_{i/*j}$]$_1$ Peter$_j$ __$_1$ mag.
the man whose picture of self Peter likes
'the man$_i$ whose$_i$ picture of himself$_{i/*j}$ Peter$_j$ likes'

Reconstruction for Principle B cannot be tested except for one residual case because – as discussed in 2.1.3 – pronouns are normally grammatical inside picture NPs. As a consequence, reconstruction will also not lead to a Condition B effect. But since the pronoun does not have to be c-commanded by the antecedent, coreference with the subject does not imply reconstruction so that sentences such as the following do not provide any evidence to that effect:[103, 104]

(266) a) das [Bild von **ihm$_i$**], das **Peter$_i$** in der Zeitung __ sah
the picture of him which Peter in the newspaper saw
'the picture of him$_i$ that Peter$_i$ saw in the newspaper'

b) [Welches Bild von **ihm$_i$**]$_1$ hat **Peter$_i$** in der Zeitung __$_1$ gesehen?
which picture of him has Peter in the newspaper seen
'Which picture of him$_i$ did Peter$_i$ see in the newspaper?'

c) [Ein Bild von **ihm$_i$**]$_1$ hat **Peter$_i$** in der Zeitung __$_1$ gesehen.
a picture of him has Peter in the newspaper seen
'A picture of him$_i$, Peter$_i$ saw in the newspaper.'

The cases with an implicit PRO (241) are ungrammatical in this configuration, but as discussed above, this is not due to reconstruction but primarily due to the presence of the implicit PRO (of course, this also holds under topicalization or *wh*-movement of such a DP):

(267) das [**PRO$_i$** Bild von ***ihm$_i$**], das **Peter$_i$** __ gemacht hat
the picture of him which Peter made has
lit.: 'the picture of *him$_i$ that Peter$_i$ took'

The only straightforward Condition B violation under reconstruction obtains when a pronoun is topicalized by itself across a coreferential element:

(268) *[**Ihn$_i$**]$_1$ mag **Peter$_i$** __$_1$ nicht.
him likes Peter not
lit.: 'Him$_i$, Peter$_i$ does not like.'

2.2.6 Principle C

Principle C effects are the most interesting reconstruction data. I discussed at length in chapter one that reconstruction for Principle C is not found in English relatives, but in *wh*-movement and topicalization (1.3.4). The same holds for German as well. As in the chapter on English, I will first discuss the core case and then more complex examples.

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[102] The self-component is only an intensifier that makes topicalization more felicitous. In principle, though, a pure *sich* 'self' is also possible.

[103] It seems to me that coreference is slightly more difficult in these cases than when the pronoun follows its binder, but this is arguably just a property of cataphora.

[104] As with anaphors, data with pronouns inside the relative operator are irrelevant because the pronoun is necessarily free if there is a disjunct possessive relative pronoun. It will therefore never be ungrammatical with or without reconstruction.

2.2.6.1 The core case

R-expressions contained inside the external head to not trigger Condition C effects if they are coindexed with the subject that c-commands the putative reconstruction site. I use three different types of nouns to make the point stronger:

(269) a) das [Bild von **Peter$_i$**], das **er$_i$** __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) die [Nachforschungen über **Peter$_i$**], die **er$_i$** mir
the investigations about Peter which he me
lieber __ verschwiegen hätte
prefer conceal had.SUBJ
'the investigations about Peter$_i$ that he$_i$ would have rather concealed from me'

c) der [Wesenszug von **Peter$_i$**], auf den **er$_i$** am meisten __ stolz ist
the trait of Peter on which he the most proud is
'the trait of Peter$_i$ he$_i$ is most proud of'

Many speakers are puzzled by such examples when first confronted with them. The coreference is more easily to get if the subject is slightly stressed. As discussed in 1.3.4.1 this arguably has to do with the somewhat exceptional anaphoric relation in this case.

2.2.6.2 Contrast with other types of A'-movement

Other types of A'-movement, however, show robust Condition C effects. The first triple illustrates reconstruction of R-expressions contained inside the relative operator phrase:[105]

(270) a)??die Fotografin, [deren Bild von **Peter$_i$**]$_1$ **er$_i$** __$_1$ am besten findet
the photographer whose picture of Peter he the best likes
lit.: 'the photographer whose picture of Peter$_i$ he$_i$ likes best'

b)??die Journalistin, [deren Nachforschungen über **Peter$_i$**]$_1$ **er$_i$** mir
the journalist whose investigations about Peter he me.DAT
am liebsten __$_1$ verschwiegen hätte
the preferred conceal had.SUBJ
lit.: the journalist whose investigations about Peter$_i$ he$_i$ would have preferred to conceal from me'

The same holds for *wh*-movement:

(271) a) *[Welches Bild von **Peter$_i$**]$_1$ findet **er$_i$** __$_1$ am besten?
which picture of Peter finds he the best
lit.: 'Which picture of Peter$_i$ does he$_i$ like best?'

b) *[Welche Nachforschungen über **Peter$_i$**]$_1$ hätte **er$_i$** dir
which investigations about Peter had he you.DAT
lieber __$_1$ verschwiegen?
preferred concealed
lit.: 'Which investigations about Peter$_i$ would he$_i$ have preferred to conceal from you?'

c) *[Welchen Wesenszug von **Peter$_i$**]$_1$ kannte **er$_i$** noch nicht __$_1$?
which trait of Peter knew he still not
lit.: 'Which trait of Peter$_i$ didn't he$_i$ know yet?'

Topicalization patterns the same:

(272) a) *[Dieses Bild von **Peter$_i$**]$_1$ findet **er$_i$** __$_1$ am besten.
this picture of Peter finds he the best
lit.: 'This picture of Peter$_i$, he$_i$ likes best.'

b) *[Diese Nachforschungen über **Peter$_i$**]$_1$ hätte **er$_i$** mir
these investigations about Peter had he me.DAT
am liebsten __$_1$ verschwiegen.
the preferred concealed
lit.: 'These investigations about Peter$_i$, he$_i$ would have preferred to conceal from me.'

c) *[Diesen Wesenszug von **Peter$_i$**]$_1$ kannte **er$_i$** noch nicht __$_1$.
This trait of Peter knew he still not
lit.: 'This trait of Peter$_i$, he$_i$ didn't know yet.'

The same results if only an R-expression is topicalized across a coreferential element:

(273) *[**Den Peter**]$_{1/i}$ mag **er$_i$** __$_1$ nicht.
the Peter likes he not
lit.: 'Peter$_i$, he$_i$ does not like.'

2.2.6.3 No Argument-adjunct asymmetries

In 1.3.4.4, I discussed in some detail the influence of the argument/adjunct distinction on reconstruction for Condition C. I concluded that the basic contrast is quite clear, but that there is large grey area where a number of other factors (degrees of argumenthood, embedding, logophoricity) obscure the facts. I will first discuss a context that avoids any interference, basically the translation of (70) and will discuss more delicate examples thereafter.

Since R-expressions inside the external head do not show any Condition C effects, there are naturally no argument/adjunct asymmetries either. This is why the following sentences are equally acceptable:

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[105] For reasons that are unclear to me, the effect seems somewhat weaker to me than with *wh*-movement or topicalization. At present I have no explanation for this contrast.

(274) a) die [Nachforschungen über **Kohl$_i$**], gegen die
the investigations about Kohl against which
er$_i$ sich __ gewehrt hat
he self objected has
'the investigations about Kohl$_i$ that he$_i$ objected to'

b) die [Nachforschungen nahe **Kohls$_i$** Haus], gegen die
the investigations near Kohl's house against which
er$_i$ sich __ gewehrt hat
he self objected has
'the investigations near Kohl's$_i$ house he$_i$ objected to'

The other types of A'-movement, however, show such asymmetries. Condition C effects only obtain with R-expressions inside complements, but not if they are contained in adjuncts:

(275) a) *der Detektiv, [gegen dessen Nachforschungen über **Kohl$_i$**]$_1$
the detective against whose investigations about Kohl
er$_i$ sich __$_1$ wehrte
he self objected
lit.: 'the detective whose investigations about Kohl$_i$ he$_i$ objected to.'

b) der Detektiv, [gegen dessen Nachforschungen nahe **Kohls$_i$** Haus]$_1$
the detective against whose investigations near Kohl's house
er$_i$ sich __$_1$ wehrte
he self objected
'the detective whose investigations near Kohl's$_i$ house he$_i$ objected to'

(276) a) *[Gegen welche Nachforschungen über **Kohl$_i$**]$_1$
against which investigations about Kohl
hat **er$_i$** sich __$_1$ gewehrt?
has he self objected
lit.: 'Which investigation about Kohl$_i$ did he$_i$ object to?'

b) [Gegen welche Nachforschungen nahe **Kohls$_i$** Haus]$_1$
against which investigations near Kohl's house
hat **er$_i$** sich __$_1$ gewehrt?
has he self objected
'Which investigations near Kohl's$_i$ house did he$_i$ object to?'

(277) a) *[Gegen diese Nachforschungen über **Kohl$_i$**]$_1$ hat **er$_i$** sich __$_1$ gewehrt.
against these investigations about Kohl has he self objected
lit.: 'These investigations about Kohl$_i$ he$_i$ objected to.'

b) [Gegen diese Nachforschungen nahe **Kohl's$_i$** Haus]$_1$
against these investigations near Kohl's house
hat **er$_i$** sich __$_1$ gewehrt.
has he self objected
'These investigations near Kohl's$_i$ house he$_i$ objected to.'

Again, external heads of relative clauses turn out to behave special with respect to Principle C. We thus find the same asymmetry as in English between R-expressions contained inside the external head and those contained in operator phrases.

I would like to briefly discuss some of the contexts that have been disputed in the literature on English. It seems to me that the situation in German is similar. Next to the straightforward cases, there is a grey area where Condition C effects are sometimes weaker with R-expressions contained inside arguments. I have chosen to simply juxtapose the English data in (68) with their German translations. The cases that seem best to me are those with topicalization whereas many of the other ones are pretty much ungrammatical:

(278) a) [Which biography of **Picasso$_i$**]$_1$ do you think **he$_i$** wants to read $___1$?

b) [Whose criticism of **Lee$_i$**]$_1$ did **he$_i$** choose to ignore $___1$?

c) [Whose criticism of **Lee's$_i$** physical fitness]$_1$ did **he$_i$** use $___1$ when he applied to NASA for space training?

d) [Whose allegation that **Lee$_i$** was less than truthful]$_1$ did he$_i$ refute $___1$ vehemently?

e) [Most articles about **Mary$_i$**]$_1$ I am sure **she$_i$** $___1$ hates.

f) [That **Ed$_i$** was under surveillance]$_1$ **he$_i$** never realized $___1$.

g) [That **John$_i$** had seen the movie]$_1$ **he$_i$** never admitted $___1$.

h) [Which picture of **John$_i$**]$_1$ does **he$_i$** like best $___1$?

(279) a) *[Welche Biographie von **Picasso$_i$**]$_1$ glaubst du,
which biography of Picasso believe you
dass **er$_i$** $___1$ lesen will?
that he read wants

b) *[Wessen Kritik an **Schröder$_i$**]$_1$ zog **er$_i$** vor $___1$ zu ignorieren?
whose criticism of Schröder preferred he PRT to ignore

c) ??[Wessen Kritik an **Schröders$_i$** Politik]$_1$
whose criticism of Schröder's policy
hat **er$_i$** entschieden $___1$ zurückgewiesen?
has he vehemently refuted

lit.: 'Whose criticism of Schroeder's policy die he refute vehemently?

d) ?[Wessen Anschuldigung, dass **Schröder$_i$** unehrlich war]$_1$ hat **er$_i$**
whose allegation that Schröder untruthful was has he
entschieden $___1$ zurückgewiesen?
vehemently refuted

e) ?[Die meisten Artikel über **Maria$_i$**]$_1$ denke ich, dass **sie$_i$** $___1$ hasst.
the most articles about Mary think I that she hates

f) ?[Dass **Eduard** unter Beobachtung $\text{stand}_i]_1$ hat **er$_i$** nie $___1$ gemerkt.
that Ed under surveillance stood has he never noticed

g) ?[Dass **Hans$_i$** den Film gesehen hat]$_1$, hat **er$_i$** nie $___1$ zugegeben.
that John the movie seen has has he never admitted

h) *[Welches Foto von **Hans$_i$**]$_1$ findet **er$_i$** $___1$ am besten?
which picture of John finds he the best

Other people I have consulted have more or less confirmed these judgments even though there will always be some degree of variation across speakers. The same seems to hold for a contrast Fischer (2004: 207) puts a lot of emphasis on: the presence of a disjunct specifier is claimed to alleviate the Condition C effect. She gives the following pair (her judgments):

(280) a) [Marias Strafe für **Peters$_i$** Zuspätkommen]$_1$
Mary's punishment for Peter's being.late
hat **er$_i$** $___1$ akzeptiert.
has he accepted
'Mary's punishment for his being late, Peter accepted.'

b) *[Die Strafe für **Peters$_i$** Zuspätkommen]$_1$ hat **er$_i$** $___1$ akzeptiert.
the punishment for Peter's being.late has he accepted
'The punishment for his being late, Peter accepted.'

I agree that there is a contrast, but it does not seem nearly as clear to me as Fischer claims. I will not try to tease apart the factors that might be relevant here. I will continue to assume that the argument/adjunct distinction remains important for the distribution of Condition C effects. Notice that there are no cases where an R-expression contained in an adjunct (that modifies an NP) suddenly causes a Condition C violation; it is only R-expressions inside arguments whose effect is sometimes less clear. I will continue to assume that Condition C effects have a syntactic basis; in addition, there are a number of interfering mostly non-syntactic factors whose precise evaluation is beyond the scope of this thesis.[106]

Despite all the qualifications in this subsection, one fact remains very clear: there is a systematic difference between R-expressions contained in external heads of relatives and R-expressions contained in operator phrases. This I will take to be the major explanandum.

2.2.6.4 Semi-idiomatic cases

The semi-idomatic cases discussed in (241) are interesting because there is a contrast depending on the level of embedding. Without embedding, such examples are ungrammatical, arguably due to the implicit PRO inside the external head or the operator phrase:

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[106] I will briefly come back to the argument/adjunct distinction in 2.2.7.3.

(281) a) *das [**PRO$_i$** Foto von **Peter$_i$**], das **er$_i$** __ gemacht hat
the picture of Peter which he made has
lit.: 'the picture of Peter$_i$ that he$_i$ took'

b) *[Was für ein **PRO$_i$** Foto von **Peter$_i$**]$_1$ hat **er$_i$** __$_1$ gemacht
what.kind.of picture of Peter has he taken
lit.: 'What kind of picture of Peter did he take?'

c) *[Dieses **PRO$_i$** Foto von **Peter$_i$**]$_1$ hat **er$_i$** __$_1$ gemacht.
this picture of Peter has he taken
lit.: 'This picture of Peter, he took.'

Interestingly, once a level of embedding is added, an asymmetry emerges: the relative clause case is suddenly grammatical whereas examples with *wh*-movement and topicalization remain ungrammatical:[107]

(282) a) Die [Meinung von **Peter$_i$**], die **er$_i$** glaubt, dass Maria __ hat
the opinion of Peter which he believes that Mary has
'the opinion of Peter$_i$ that he$_i$ thinks Mary has'

b) *[Welche Meinung von **Peter$_i$**]$_1$ glaubt **er$_i$**, dass Maria __$_1$ hat?
which opinion of Peter believes he that Mary has
lit.: 'Which opinion of Peter$_i$ does he$_i$ think Mary has?'

c) *[Diese Meinung von **Peter$_i$**]$_1$ glaubt **er$_i$**, dass Maria __$_1$ hat.
this opinion of Peter believes he that Mary has
lit.: 'This opinion of Peter$_i$ he$_i$ believes Mary has.'

2.2.6.5 Strong Crossover effects and possessive relativization

Strictly speaking, all the data in the previous subsections were already cases of (Secondary) Strong Crossover: An R-expression embedded in an operator phrase is moved across a coreferential pronoun. In this section, I will simply add the cases where only the operator itself leads to a violation. The following examples illustrate Primary and Secondary Strong Crossover with *wh*-operators and relative operators:

(283) a) *der Mann$_i$, [**den$_i$**]$_1$ **er$_i$** __$_1$ mag
the man whom he likes
lit.: 'the man who$_i$ he$_i$ likes'

b) *der Mann$_i$, [**dessen$_i$** Vater] **er$_i$** __$_1$ mag
the man whose father he likes
lit.: 'the man whose$_i$ father he$_i$ likes'

(284) a) *[**Wen$_i$**]$_1$ mag **er$_i$** __$_1$?
who likes he
lit.: 'Who$_i$ does he$_i$ like?'

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[107] The force of the argument for relatives is weakened by the fact that long relativization in German is degraded for most speakers. But the coreference as such is fine.

b) *[**Wessen**$_i$ Vater] mag **er**$_i$ __$_1$?
whose father likes he
lit.: Whose$_i$ father does he$_i$ like?'

These facts clearly show that the operators are reconstructed (assuming that SCO effects are subsumed under Condition C). It is furthermore interesting to see how the relative operator is linked to the external head. This is particularly interesting in the case of possessive relatives. In the following example, a translation of the English case in (79), there is no Principle C effect:

(285) der [Freund von **Peter**$_i$]$_j$, [dessen$_j$ Schwester]$_1$ **er**$_i$ __$_1$ liebt
the friend of Peter whose sister he loves
'the friend of Bob whose sister he likes'

So even though the relative pronoun is coindexed with the external head, which contains an R-expression coreferential with the subject pronoun across which the relative operator has moved, we do not get a Condition C violation whereas in the standard SCO cases we do.

2.2.6.6 Quantifiers vs. R-expressions

The distinction between R-expressions and quantifiers played an important role in the discussion of the English facts, especially in Safir's approach (1.3.4.8). Unfortunately, the quantifier cases all seem pretty much unacceptable to me and other speakers I have consulted, irrespective of the position of the trace and the position of the quantifier. Scoping out of the DP seems impossible to everybody I have talked to. The base structures are ungrammatical already:

(286) a) *Eine Rezension von **jedes Dichters**$_i$ Buch wird **ihn**$_i$
a review of every poet's book will him
bestimmt verärgern.
surely upset
'Some review of every poet's$_i$ book is bound to upset him$_i$.'

b) ***Er**$_i$ versucht eine Rezension von **jedes Dichters**$_i$ Buch zu vergessen.
he tries a review of every poet's book to forget
lit.: 'He$_i$ tries to forget some review of every poet's$_i$ book.'

The same goes for the data discussed in Sauerland (2003), cf. (201). It is therefore impossible to ascertain whether the argument/adjunct distinction is relevant in German relatives on the basis of quantifier data. I will consequently, disregard this aspect in what follows.

2.2.6.7 Summary: Reconstruction for Principle C

The following table compares the Condition C pattern for the different types of A'-movement:

(287)

phenomenon	*external head*	*relative operator*	*wh-movement*	*Topicalization*
reconstruction of arguments (269)-(272)	–	+	+	+
reconstruction of adjuncts (274)b, (275)b, (276)b, (277)b	–	–	–	–
argument adjunct asymmetries	–	+	+	+
reconstruction if argument in external head with *whose* (285)	–	n.a.	n.a.	n.a.
semi-idiomatic cases under embedding (282)	–	+	+	+
SCO and SSCO (with quantifiers) (283)	n.a.	+	+	n.a.

2.2.7 Correlations

The purpose of this section is to show that the lack of reconstruction for Principle C in relatives is not due to a failure to reconstruct in those cases. This is quite unlikely in the first place because all the other tests have shown quite convincingly that there is reconstruction of material contained inside the external head. But to make sure that there *is* reconstruction also with R-expressions, it is useful to look at examples where reconstruction of the external head is triggered independently, namely when it is reconstructed for scope, idiom formation, variable binding or the low construal of adjectives. As discussed in 1.3.5, Principle C effects reemerge in English when reconstruction is independently necessary (even though many of the examples are quite problematic).

Heck (2005) has shown, however, that in German, even if reconstruction is forced, there are still no Condition C effects with relatives. With *wh*-movement, however, there are straightforward Condition C effects. In other words, the pattern remains the same: R-expressions inside the external head do not trigger Condition C effects while those inside the operator phrase do.

2.2.7.1 Principle C effects and variable binding

The following examples show that Condition C effects do not emerge if the head noun has to undergo reconstruction for variable binding. I present a large number of examples to make this point very strong because this is the crucial area where German differs from English:

(288) a) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

b) die [Nachforschungen von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the investigations of Peter about her past
die **er$_i$** *jeder* *Geliebten$_j$* __ verheimlichte
which he every.DAT mistress concealed
lit.: 'the investigations by Peter$_i$ about her$_j$ past that he$_i$ concealed from every mistress$_j$'

c) [Diejenigen[108] von **Marias$_i$** Kopien *seiner$_j$* Bilder], die **sie$_i$**
those of Mary's copies his.GEN pictures which she
jedem$_j$ mit der Post __ sandte, waren schwarz-weiß.
everyone.DAT by.mail sent were black.and.white
lit.: 'Those of Mary's$_i$ copies of his$_j$ pictures that she$_i$ sent everyone$_j$ by mail were black and white.' (Heck 2005: 8, ex. 32a)

d) [Dasjenige von **Marias$_i$** Portraits *seiner$_j$* zukünftigen Frau], das **sie$_i$**
that of Mary's portraits his.GEN future wife which she
jedem$_j$ __ schenkte, war in Öl. (Heck 2005: 8, ex. 32b)
everyone gave was in oil
lit.: 'That one of Mary's$_i$ portraits of his$_j$ future wife that she$_i$ sent everyone$_j$ was in oil.'

e) das [Spiegelbild von **Peter$_i$** in *ihrer$_j$* Badewanne],
the reflection of Peter in her bath.tub
das **er$_i$** *jeder* Geliebten$_j$ nach dem Essen stolz __ zeigt
which he every.DAT mistress after the dinner proudly shows
lit.: 'the reflection of Peter$_i$ in her$_j$ bathtub that he$_i$ shows every mistress$_j$ after dinner'

f) der [Übername von **Peter$_i$** in *ihrer$_j$* Firma], den **er$_i$**
the nickname of Peter in her company which he
jeder *Geschäftspartnerin$_j$* __ verheimlichen möchte
every business.partner.DAT conceal would.like.to
lit.: 'the nickname of Peter$_i$ in her$_j$ company that he$_i$ would like to conceal from every business partner$_j$'

This contrasts with *wh*-movement where reconstruction for variable binding also triggers Condition C effects. Again, I use several examples to make the contrast as clear as possible:[109]

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[108] It is actually incorrect to include *diejenigen* in the external head because it is a determiner and therefore outside the head noun. Strictly speaking, the head noun would be the empty NP complement it selects.

(289) a) *[Welches Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit]$_1$ hat **er$_i$**
which book of Peter about her past has he
jeder *Schauspielerin$_j$* __$_1$ geschickt?
every.DAT actress sent
lit.: 'Which book by Peter$_i$ about her$_j$ past did he$_i$ send every actress$_j$?'

b) *[Welche Nachforschungen von **Peter$_i$** über *ihre$_j$* Vergangenheit]$_1$
which investigations by Peter about her past
hat **er$_i$** *jeder* *Geliebten$_j$* __$_1$ verheimlicht?
has he every.DAT mistress concealed
lit.: 'Which investigations by Peter$_i$ about her$_j$ past did he$_i$ conceal from every mistress$_j$?'

c) *[Welche von **Marias$_i$** Kopien *seiner$_j$* Bilder]$_1$
which of Mary's copies his.GEN pictures
hat **sie$_i$** *jedem$_j$* mit der Post __$_1$ geschickt?
has she everyone by.mail sent
lit.: 'Which of Mary's$_i$ copies of his$_j$ pictures did she$_i$ send everyone$_j$ by mail?'

d) *[Welches von **Marias$_i$** Portraits *seiner$_j$* zukünftigen Frau]$_1$
which of Mary's portraits his.GEN future wife
hat **sie$_i$** *jedem$_j$* __$_1$ geschenkt?
has she everyone given
lit.: 'Which of Mary's$_i$ portraits of his$_j$ future wife did she$_i$ give everyone$_j$?'

e) *[Welches Spiegelbild von **Peter$_i$** in *ihrer$_j$* Badewanne]$_1$
which reflection of Peter in her bath-tub
zeigt **er$_i$** *jeder* *Geliebten$_j$* nach dem Essen voller Stolz __$_1$?
shows he every.DAT mistress after the dinner full.of pride
lit.: 'Which reflection of Peter$_i$ in her$_j$ bath tub does he$_i$ proudly show every mistress$_j$ after dinner?'

f) *[Welchen Übernamen von **Peter$_i$** in *ihrer$_j$* Firma]$_1$ möchte **er$_i$**
which nickname of Peter in her company would.like.to he
jeder *Geschäftspartnerin$_j$* __$_1$ verheimlichen?
every.DAT business.partner conceal
lit.: Which nickname of Peter$_i$ in her$_j$ company would he$_i$ like to conceal from every business partner$_j$?'

2.2.7.2 Principle C and idiom interpretation

As discussed in 1.3.5, examples combining Principle C and idiom interpretation are difficult to construct due to the combinatory restrictions imposed by the idiom. Most idioms simply do not readily allow a modification of the idiomatic

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[109] In 2.2.10 I will discuss cases where Condition C effects are avoided even if there is reconstruction for variable binding.

object. Heck (2005: 8, ex. 33) uses the following idioms: *eine Rede schwingen,* lit. swing a speech, 'give a speech', *einen Streit vom Zaun brechen*, lit.: break a fight from the fence, 'start a fight', *den Gefühlen freien Lauf lassen* 'give free rein to one's feelings'. He gives the following examples that are supposed to show that there is no reconstruction for Condition C even if reconstruction is necessary so that the idiom can form a unit at LF:

(290) a) die [Reden von **Fritz$_i$**], die **er$_i$** gerne __ schwingt.
the speeches of Fritz which he likes.to swing
'the speeches of Fritz$_i$ that he$_i$ likes to give'

b) der [Streit über **Marias$_i$** Sucht],
the fight about Mary's addiction
den **sie$_i$** __ vom Zaun gebrochen hat
which she off.the fence broken has
(lit.:) 'the fight about Mary's$_i$ addiction that she$_i$ started'

c) [**Marias$_i$** Gefühle], denen **sie$_i$** __ freien Lauf ließ
Mary's feelings which she free rein let
'Mary's$_i$ feelings which she$_i$ gave free rein'

I think that these examples do not really show what they are supposed to show. I certainly agree that the examples are grammatical. However, each example is independently problematic: in (290)a, the R-expression is most likely contained in a modifier that has been merged late because the base structure is completely unacceptable even if the R-expression is replaced by a pronoun:

(291) *__Er$_i$__ schwingt gerne Reden von **ihm$_i$**.
he swings likes.to speeches of him
lit.: 'He$_i$ likes to give speeches of him$_i$'

This is not a Binding Theory violation, but the sentence is simply semantically incongruous. But since the relative above is grammatical, the PP must have been merged late. Consequently, the absence of a Condition C effect is expected anyway.[110]

(290)b involves a possessor, and possessors are clearly less clearly arguments that constituents that realize a theta-role like agent of theme. Therefore, the example might also be grammatical because of late merger.

In (290)c, finally, the head noun contains a proper name, which tends to make it definite so that the relative clause is likely to get an appositive interpretation. Appositive relatives, however, normally do not show reconstruction effects, cf. Bianchi (1999).[111]

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[110] The attentive reader will have noticed that this implies that the adjunct is interpreted in the top copy even though the lower copy has to be interpreted for idiom formation. This contradicts the claim in 1.4.1 that late merger always requires the top copy to be interpreted. A the moment I do not know how to resolve this paradox.

[111] See Heck (2005) for a different view with respect to German. I am not fully convinced by his examples, but the issue is still open.

It is therefore necessary to use different examples. If the R-expression is merged as a complement of the idiomatic NP (to avoid late merger), the result is ungrammatical:

(292) *der [Streit über **Maria$_i$**], den **sie$_i$** __ vom Zaun gebrochen hat
the fight about Mary which she off.the fence broken has
lit.: 'the fight about Mary$_i$ that she$_i$ started'

However, I do not think that this is due to a Condition C effect, at least not directly. I suspect that many of these expressions actually contain an implicit PRO inside the idiomatic DP. This is corroborated by the observation that pronouns inside the DP cannot corefer with the matrix subject; only anaphors are possible (the same holds for English, I think):

(293) **Sie$_i$** hat einen Streit über ***sie$_i$/sich$_i$*** vom Zaun gebrochen.
she has a fight about her/self off.the fence broken
'She$_i$ started a fight about *her$_i$/herself$_i$.'

This suggests that the correct representation is instead:

(294) **Sie$_i$** hat [einen **PRO$_i$** Streit über ***sie$_i$/sich$_i$***] vom Zaun gebrochen].
she has a fight about her/self off.the fence broken
'She$_i$ started a fight about *her$_i$/herself$_i$.'

The other two idioms pattern identically. The PRO-problem in the base-sentence disappears if the pronoun is more deeply embedded as in the following sentence:

(295) **Er$_i$** hat einen [**PRO$_i$** Streit über Marias Kritik an **ihm$_i$**]
he has a fight about Mary's criticism of him
vom Zaun gebrochen.
off.the fence broken
'He$_i$ started a fight about Mary's criticism of him$_i$.'

Once we transform this into a relative clause and replace the pronoun by an R-expression, the sentence is suddenly grammatical (whereas it seems to me that the English equivalent is not well-formed):

(296) der [Streit über Marias Kritik an **Peter$_i$**],
the fight about Mary's criticism of Peter
den **er$_i$** __ vom Zaun gebrochen hat
which he off.the fence broken has
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

This is quite surprising since one would still expect a Principle C violation inside the external head in this case.

With topicalization, however, we get an ungrammatical result (there is no natural *wh*-question one could form based on the idiom):

(297) *[Einen Streit über Marias Kritik an **Peter$_i$**]$_1$ hat **er$_i$** __$_1$
a fight about Mary's criticism of Peter has he
vom Zaun gebrochen.
off.the fence broken
lit.: 'A fight about Mary's criticism of Peter$_i$, he$_i$ started.'

We therefore get the same contrast. R-expressions inside the external head do not trigger Condition C effects even if reconstruction is independently necessary. Other types of A'-movement, however, show straightforward Condition C effects in this context.[112]

2.2.7.3 Principle C and scope reconstruction

In 1.3.5.2, I pointed out that many of the English examples that are supposed to show that Condition C effects reemerge under scope reconstruction are independently problematic. So even though the following pair has the right grammaticality pattern, the ungrammaticality of the first example is simply due to the fact that (as discussed for English) the dislocated constituent is not well-formed. Under the intended reading, the noun and the modifier simply do not form a constituent so that they cannot be moved together to derive (298)a:

(298) a) *[*Wieviele* Häuser in **Peters$_i$** Stadt]$_1$ *glaubt* **er$_i$**,
how.many houses in Peter's city believes he
dass du __$_1$ bauen solltest?
that you build should
lit.: 'How many houses in John's$_i$ city does he$_i$ think you should build?'

b) ?[*Wieviele* Häuser in **Peters$_i$** Stadt]$_1$ *glaubt* **er$_i$**,
how.many houses in Peter's city believes he
dass du __$_1$ aufbauen solltest?
that you rebuild should
'How many houses in John's$_i$ city does he$_i$ think you should rebuild?

There is no such problem in (298)b because the PP does modify houses and can be merged late. Evidence for this interpretation comes from the strong degradedness if the R-expression in (298)a is replaced by a pronoun:

(299) ??[*Wieviele* Häuser in **seiner$_i$** Stadt]$_1$ *glaubt* **er$_i$**,
how.many houses in his city thinks he
dass du __$_1$ bauen solltest?
that you build should
'How many houses in his$_i$ city does he$_i$ think you should build?'

(298)a must therefore be deviant for independent reasons because a Condition C effect can no longer be the relevant factor in (299).

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[112] It should be mentioned that these idiom cases have turned out to behave identically as the semi-idiomatic cases in 2.2.6.4.

This fact is important because it explains away an otherwise puzzling fact: With relatives, we get the same contrast as in (298):[113]

(300) a) *die [*vielen* Häuser in **Peters$_i$** Stadt], die **er$_i$** __ bauen *sollte*
the many houses in Peter's city which he build should
lit.: 'the many houses in Peter's$_i$ city which he$_i$ should build'

b) die [*vielen* Häuser in **Peters$_i$** Stadt],
the many houses in Peter's city
die **er$_i$** __ wiederaufbauen *sollte*
which he rebuild should
'the many houses in Peter's$_i$ city that he$_i$ should rebuild'

It would be surprising if we would get Condition C effects all of a sudden. It is much more likely that (300)a is deviant because of the shape of its external head. Such examples therefore do not provide any evidence that Condition C effects re-emerge under scope reconstruction in German relatives.

Existential sentences avoid the problematic external heads, but the contrast does not strike me as very sharp in German (I use non-standard *es hat* 'there is' to create an existential context):

(301) a) ??[*Wieviele* Leute von **Dianas$_i$** Nachbarschaft]$_1$ denkt **sie$_i$**,
how.many people of Diana's neighborhood thinks she
dass __$_1$ auf dem Fest sind?
that at the party are
'How many people from Diana's$_i$ neighborhood does she$_i$ think are at the party?'

b) *[*Wieviele* Leute von **Dianas$_i$** Nachbarschaft]$_1$ denkt **sie$_i$**,
how.many people of Diana's neighborhood thinks she
dass es __$_1$ auf dem Fest hat?
that it at the party has
lit.: 'How many people from Diana's$_i$ neighborhood does she$_i$ think there are at the party?'

(301)a does not require scope reconstruction so that late merger of the PP *von Dianas Nachbarschaft* is possible. I still find the sentence quite degraded, though. (301)b requires scope reconstruction so that the adjunct has to be merged cyclically and will be in the c-command domain of *sie* 'she' at LF, triggering a Condition C effect. The equivalent for relative clauses is difficult to test because one would need another level of embedding, which independently leads to degradation in German.

So far the picture is not very clear. But with some care, one can find better examples. I will first illustrate that scope reconstruction triggers a Condition C

[113] Instead of a propositional attitude verb, I use a modal to illustrate the scope options. Propositional attitude verbs imply long relativization, which is independently degraded in Standard German. I have therefore chosen not to evaluate such sentences.

effect under *wh*-movement, but crucially not under relativization. Consider the following pair:

(302) a) *[*Wieviele* Flaschen von **Peters$_i$** Merlot]$_1$
how.many bottles of Peter's Merlot
hat **er$_i$** gestern __$_1$ getrunken?
has he yesterday drunk
lit.: 'How many bottles of Peter's$_i$ Merlot did he$_i$ drink yesterday?'

b) *[*Wieviele* Bücher über **Peters$_i$** Vater]$_1$ *muss* **er$_i$**
how.many books about Peter's father must he
in seinem Studium __$_1$ lesen?
in his studies read
lit.: 'How many books about Peter's$_i$ father does he$_i$ have to read for his studies?'

In (302)a, *Merlot* is interpreted as an amount so that it has to be reconstructed (cf. 2.2.2). In (302)b, the amount quantifier is interpreted in the scope of the modal *muss* 'must' and receives an amount interpretation in this context (a wide-scope reading is almost impossible to get here). When we look at relatives, we find no Condition C effects:

(303) a) ?die [*vielen* Flaschen von **Peters$_i$** Merlot],
the many bottles of Peter's Merlot
die **er$_i$** gestern __ getrunken hat
which he yesterday drunk has
lit.: 'the many bottles of Peter's$_i$ Merlot that he$_i$ drank yesterday'

b) die [*vielen* Bücher über **Peters$_i$** Vater],
the many books about Peter's father
die **er$_i$** in seinem Studium __ lesen *muss*
which he in his studies read must
lit.: 'the many books about Peter's$_i$ father which he$_i$ must read for his studies'

So relativization still behaves differently. The contrast with *wh*-movement can be illustrated in another way. Consider the following example (a translation of Fox 1999: 169, ex. 28a):

(304) [*Wieviele* Dias von **Peters$_i$** Reise nach Amerika]$_1$ hat **er$_i$**
how.many slides of Peter's trip to America has he
beschlossen, während des Fests __$_1$ zu zeigen?
decided during the party to show
'How many slides of Peter's$_i$ trip to America did he$_i$ decide to show during the party?' *decide > many; many > decide

This sentence only allows a wide-scope or referential interpretation. Under this interpretation, it is presupposed that Peter will show a number of slides from his trip, and it is the number of those that he selects (e.g. the ones he likes best) that are in question. An amount reading, which is not available here, would not

presuppose any, but would simply question the pure number of slides he intends to show (e.g. based on the time that is available). This example therefore nicely shows that differences in scope have consequences for Condition C.

Importantly, no such effect is found with relative clauses:

(305) die [*vielen* Dias von **Peters**$_i$ Reise nach Amerika], die **er**$_i$
the many slides of Peter's trip to America which he
beschlossen hat, während des Fests __ zu zeigen
decided has during the party to show
'the many slides of Peter's$_i$ trip to America that he$_i$ decided to show at the party' decide > many; many > decide

This sentence is ambiguous, that is, an amount reading, which was unavailable under *wh*-movement, is possible under relativization. This shows once more that there are no Condition C effects in relativization.

To sum up, this subsection has provided further evidence that there simply are no Condition C effects in German relatives and that they also do not emerge if reconstruction is required for independent reasons.

2.2.7.4 Principle C and interpretation of adjectival modifiers

As pointed out in 2.2.4, examples with putative low readings of superlative adjectives suffer from the fact that long relativization is strongly degraded for most speakers of Standard German. Heck (2005: 8, ex. 34) gives the following as grammatical under the low reading:

(306) die [*erste* Schwester von **Fritz**$_i$], die **er**$_i$ sagte,
the first sister of Fritz who he said
dass Maria __ *kennen gelernt* habe
that Mary got.to.know has.SUBJ
lit.: 'the first sister of Fritz$_i$ that he$_i$ said Mary got to know'

Under the low reading, the adjective applies to the embedded verb, *kennen lernen* 'get to know' so that the resulting reading implies that it is the first sister of Fritz that actually Mary got to know and not (that would be the high reading) the first sister of Fritz about whom he made the statement. To the extent that such sentences can really be judged, I tend to agree with Heck. But due to the difficulties with long relativization, I will not base any arguments on such data. Still, they are very much in line with the results of the previous subsections: Condition C effects do not re-emerge if reconstruction is forced by other means.

2.2.7.5 Summary

It seems safe to conclude that when reconstruction is required for independent reasons we find the same Condition C pattern as in contexts where reconstruction is not explicitly forced. With relatives, there are no Condition C effects, with *wh*-movement or topicalization, they are as robust as elsewhere. The results of this subsection are important because they show that the lack of

Condition C effects in "ordinary" relatives (as in 1.3.4) is not due to non-reconstruction of the external head. Furthermore, this is the central area where German differs from English. If reconstruction is forced for variable binding, idiom formation or scope reconstruction, the external head has to be reconstructed so that a Condition C effect is predicted, contrary to fact. Consequently, the explanation for the lack of such effects will have to be found in the mechanism that links the external head with its reconstruction site. This will turn out to be one of the major ingredients of my proposal below.

2.2.8 Obligatory non-reconstruction of the external head

As in English (1.3.6), there are also cases where the external head of the relative has to be interpreted in the matrix clause. The following examples illustrate this for idiom formation (Heck 2005: 14, ex. 53):

(307) a) Er **schwingt** [**große Reden**], die keiner __ hören will.
he swings grand speeches which no.one hear wants
'He gives grand speeches no one wants to hear.'

b) Er **spielte** ihr **einen** [**Streich**], den sie so schnell nicht __ vergisst.
he plays her a trick which she so quickly not forgets
'He played a trick on her she won't forget soon.'

The same lack of reconstruction can be illustrated with anaphor binding. I concluded in subsection 2.1.1 that anaphors in German are subject to the Binding Theory. Consequently, if an anaphor contained inside the external head is bound by the subject of the matrix clause, it must not be reconstructed because binding across clauses is not possible in German (cf. (232)):

(308) a) Wählen **Sie**$_i$ ein [Foto von **sich**$_i$], das Ihnen selbst __ gefällt
choose you a picture of self which you self pleases
und qualitativ nicht zu schlecht ist.
and qualitatively not too bad is
'Please select a picture of yourself that you like yourself and is qualitatively not too bad.'
www.herz2010.de/index_richtig.php

b) Schicken **Sie**$_i$ uns ein [Foto von **sich**$_i$], das __ beweist,
send you us a picture of self which proves
dass Sie ein wahrer Ferrari-Anhänger sind.
that you a true Ferrari-fan are
'Send us a picture of yourself which proves that you are a true Ferrari-fan.'
www.vodafone-racing.de/pda/f_fancontest.html

A possibly comparable case in the realm of *wh*-movement and topicalization would involve non-reconstruction of a *wh*-moved or topicalized constituent that contains an anaphor that is bound by the subject of the verb selecting the CP whose Spec the moved phrase occupies. As discussed in 2.1.4, however, such sentences are ungrammatical in German:

(309) a) **Hans$_i$** fragt sich, [$_{CP}$ [welches Foto von ***sich$_i$/ihm$_i$***]$_1$
John asks self which picture of self/him
ich am besten $___1$ mag].
I the.best like

b) **Peter$_i$** denkt, [$_{CP}$ [dieses Buch über ***sich$_i$/ihn$_i$***]$_1$
Peter thinks this book about self/him
fände ich $___1$ interessant].
find.SUBJ I interesting
'Peter$_i$ thinks that this book about him$_i$ I find interesting.'

This asymmetry will turn out to be an important cornerstone of the proposal below.

2.2.9 Conflicting requirements

There are also examples in German with conflicting requirements on the interpretation of the external head (cf. 1.3.7). The following examples (Heck 2005: 14, ex. 54) require that the external head be interpreted in the matrix clause for idiom formation, but at the same time be reconstructed into the relative clause for variable binding:

(310) a) ?**Schwing keine** [**großen Reden** über denjenigen *seiner$_i$* Fehler],
swing no grand speeches about that his.GEN mistakes
den *keiner$_i$* $__$ vorgehalten bekommen will.
which no.one reproach get wants
'Don't give speeches about the one of his$_i$ mistakes that no one$_i$ wants to be reproached for.'

b) Maria **brach** immer einen [**Streit** über diejenige *seiner$_i$* Schwächen]
Mary broke always a fight about that.one his.GEN weaknesses
vom Zaun, die *jeder Therapieteilnehmer$_i$* am wenigsten $__$
off.the fence which every participant.of.therapy the least
ertragen konnte.
bear could
'Mary always started a fight about the one of his$_i$ weaknesses which every therapy participant$_i$ could bear the least.' (break a fight off the fence = 'start a fight')

2.2.10 Reconstruction into intermediate positions

I already discussed some examples in (253) that provide evidence for an intermediate landing site, Spec, CP. Those examples involved anaphor binding. Such examples are unfortunately difficult to construct with relativization in German because long-distance relativization is strongly degraded for most speakers. It is therefore difficult to tell whether binding in an intermediate position is possible; it seems to me that the binding possibilities are about as

acceptable as in the examples in (253), but due to long relativization, the sentences remain strongly degraded:

(311) a) # der [Wesenszug von **sich$_i$**], den **Peter$_i$** denkt,
the trait of self which Peter thinks
dass ich __ attraktiv finde
that I attractive find
'the trait of himself that Peter thinks I find attractive'

b) #das [Bild von **sich$_i$**], das **Peter$_i$** denkt,
the picture of self which Peter thinks
dass ich __ am besten finde
that I the best find
'the picture of himself that Peter thinks I like best'

While the evidence for reconstruction into an intermediate position based on binding is somewhat problematic in German, one can construct straightforward examples with variable binding (cf. 1.4.1). The test case involves an R-expression and a bound pronoun in a relative modifying the *wh*-phrase. The fronted constituent has to reconstruct for variable binding to be possible. However, if the reconstruction site is c-commanded by a pronoun coreferential with the R-expression, we get a Condition C effect (as was shown extensively in 2.2.7.1). The following contrast shows that reconstruction into the intermediate Spec, CP must be available (translations of Fox 1999: 173, ex. 37):

(312) a) [Welchen der Artikel, die *er$_j$* **Ms. Brown$_i$** gegeben hat]$_1$,
which the.GEN articles which he Ms. Brown given has
hofft *jeder Student$_j$*, [$_{CP}$ __$_1$ dass **sie$_i$** lesen wird]?
hopes every student that she read will
'Which of the papers that he$_j$ gave to Ms. Brown$_i$ does every student$_j$ hope she$_i$ would read?'

b)??[Welchen der Artikel, die *er$_j$* **Ms. Brown$_i$** gegeben hat]$_1$,
which the.GEN articles which he Ms. Brown given has
hofft **sie$_i$**, [$_{CP}$ dass *jeder Student$_j$* __$_1$ überarbeiten wird]?
hopes she that every student revise will
lit.: 'Which of the papers that he$_j$ gave to Ms. Brown$_i$ does she$_i$ hope that every student$_j$ will revise?'

The crucial difference between these examples lies in the position of the coreferential pronoun with respect to the quantifier. In (312)a, reconstruction into the intermediate Spec, CP is sufficient to guarantee variable binding. In (312)b, however, reconstruction has to target a position in the embedded clause, but that position will be c-commanded by the coreferential pronoun so that we get a Condition C effect.

We even find evidence for reconstruction into a position between the subject and the object, arguably Spec, vP (translations of Fox 1999: 174, ex. 40a/b):

(313) a) [Welche der Bücher, um die er_j **Ms. Brown$_i$** gebeten hat]$_1$,
which the.GEN books for which he Ms. Brown asked for
hat *jeder Student$_j$* [$_{VP}$ __$_1$ von **ihr$_i$** bekommen]?
has every student from her received
'Which of the books that he$_j$ asked Ms. Brown$_i$ for did every student$_j$ get from her$_i$?'

b) *[Welche der Bücher, um die er_j **Ms. Brown$_i$** gebeten hat]$_1$,
which the.GEN books for which he Ms. Brown asked has
hat **sie$_i$** *jedem Studenten$_j$* __$_1$ gegeben?
has she every student given
'Which of the books that he asked Ms. Brown$_i$ for did she$_i$ give every student?'

Only in (313)a does reconstruction target a position above the coreferential pronoun so that a Condition C effect can be prevented. In (313)b, reconstruction has to target a lower position to be c-commanded by the QP; as a consequence, a Condition C effect obtains.

Unfortunately, the variable binding cases in (312) and (313) cannot be applied to relativization due to the general absence of Condition C effects in German relatives (and also the degradedness of long-distance relativization). I therefore do not list any examples.

To sum up, there is evidence for reconstruction into intermediate positions in German A'-movement, but that evidence is only clear with *wh*-movement that involves reconstruction for variable binding; with anaphor binding, things are less clear. For relativization, the relevant variable binding cases cannot be constructed because of the general absence of Condition C effects. Intermediate reconstruction for anaphor binding is degraded as in *wh*-movement and is further hampered by the general deviance of long-distance relativization.[114]

2.2.11 Summary and overview

The reconstruction pattern observed in German A'-movement is very similar to the English one. *Wh*-movement, relative operators and topicalization show robust reconstruction effects. External heads of relatives show almost the same pattern, with the exception of Condition C: R-expressions contained inside the external head never cause Principle C violations even if reconstruction is independently necessary. This property together with obligatory non-reconstruction in some cases will be the key to my analysis of German relatives. The following table provides an overview over the reconstruction properties in Standard German A'-movement:[115]

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[114] Potentially, the interpretation of superlative adjectives could provide more evidence for intermediate positions if e.g. the adjective applies to the verb of an intermediate clause (Bhatt 2002: 61). Unfortunately, this again requires long-distance relativization, which we have seen is independently degraded in German.

[115] Properties I have not illustrated appear in parentheses.

(314)

	phenomenon	*relativization*		*topicalization*	*wh-movement*
		ext. head	operator phrase		
	idiom formation (254)	+	n.a.	+	+
	scope reconstruction (255)–(258)	+	–	+	+
	variable binding (259)	+	+	+	+
	low construal of adjectives (260)	+	n.a.	n.a.	n.a.
	Principle A (262)–(264)	+	n.a.	+	+
	Principle B (268)	n.a.	n.a.	+	n.a.
Principle C	if argument in operator phrase (269)–(272), (274)a	–	+	+	+
	if adjunct in operator phrase (274)b, (275)b, (276)b, (277)b	–	–	–	–
	SCO and SSCO with pure operators (283)–(284)	n.a.	+	n.a.	+
	correlation with variable binding (288)-(289)	–	+	(+)	+
	correlation with idiom interpretation (296)–(297)	–	n.a.	+	(+)
	correlation with scope reconstruction (302)–(303)	–	n.a.	(+)	+
	correlation with low construal of adjectives (306)	–	n.a.	n.a.	n.a
	non-reconstruction for idiom formation (307)	+	n.a.	n.a.	n.a.
	non-reconstruction for anaphor binding (251), (308)	+	n.a.	–	–
	conflicting requirements (310)	+	?	?	?
	reconstruction into intermediate positions (253), (311)–(313)	n.a.	(+)	(+)	+

2.3 Difficulties for the HRA

As discussed in 1.2.3, the basic derivation of the HRA is quite problematic because it either violates well-established constraints or requires ad hoc assumptions. I will show in this section that the German facts lead to the same conclusion: a HRA requires a number of non-standard devices just to make the basic derivation work whereas neither the MA nor the HEA have these problems.

2.3.1 Relative pronoun and NP complement

A potential problem for both the HRA and the MA comes from the incompatibility between the relative pronoun and its NP complement. Under both analyses, relative pronouns are reanalyzed as relative determiners that take an NP complement that is either raised (HRA, (315)a) or deleted (MA, (315)b). In some cases, relative pronouns will have to take complements that they are normally not compatible with when used as articles (Heck 2005: 4, ex. 15-17):

(315) a) die [Freunde]$_2$, [**denen** __$_2$]$_1$ ich __$_1$ vertraue
the friends who.DAT.PL I trust
'the friends who I trust'

b) die [Freunde]$_i$, [**denen** Freunden$_i$] ich vertraue
the friends who.DAT.PL friends I trust
'the friends who I trust'

c) Ich habe ***denen/den** Freunden vertraut.
I have the.DAT.PL friends trusted
'I trusted the friends.'

As discussed in 1.2.3.1, this problem is arguably not that serious: Even if relative pronouns are reanalyzed as D-elements, this does not necessarily imply that they have the same selectional properties as articles, they certainly have different features so that other differences are not too surprising.

2.3.2 Case

The case problem is quite salient in German, being a language with morphological case: Nouns and adjectives within the external head agree with the external D and not with the relative clause-internal context where they originate under the HRA (Heck 2005: 2. ex. 9/10). The first pair has the external D in accusative case with nominative case inside (316), in the second pair it is the other way around (317):

(316) a) den großen Bären, der im Müll gestöbert hat
the.**ACC** big.**ACC** bear.**ACC** which.**NOM** in.the garbage rummaged has
'the big bear which rummaged in the garbage'

b) *den große Bär, der im Müll gestöbert hat
the.**ACC** big.**NOM** bear.**NOM** which.**NOM** in.the garbage rummaged has
'the big bear which rummaged in the garbage'

(317) a) der große Bär, den sie beim Stöbern erwischten
the.**NOM** big.**NOM** bear.**NOM** which.**ACC** they at.the rummaging caught
'the big bear they caught rummaging'

b) *der großen Bären, den sie beim Stöbern erwischten
the.**NOM** big.**ACC** bear.**ACC** which.**ACC** they at.the rummaging caught
'the big bear they caught rummaging'

These facts remain problematic for the HRA because its basic derivation predicts the grammaticality to be the other way around. I discussed Bianchi's and de Vries' solutions in some detail in 1.2.3.3 and will therefore not reproduce them here. But the objections raised against those solutions still stand: both have to resort to mechanisms of case assignment that are non-standard and ad hoc; their sole purpose seems to be to save the HRA. Neither the HEA nor the MA share these problems.

2.3.3 Adjectival inflection

A related problem concerns adjectival inflection in German (cf. Heck 2005: 3, ex. 12–13). Attributive adjectives in German take a different form depending on the form of the determiner. Determiners without an ending or an empty determiner trigger a so-called strong form, determiners with an ending (boldfaced) trigger a weak form (cf. e.g. Gallmann 1998):

(318) a) ein gut-er Wein
a good-STR wine

b) d**er** gut-e Wein
the good-WK wine

c) mit gut-em Wein
with good-STR wine

d) d**em** gut-en Wein
the.DAT good-WK wine

In relatives, the form of the adjective depends on the external D, not the relative clause-internal context as predicted by the HRA: the relative pronoun would be expected to trigger a weak form on the adjective because it has an ending, but instead the strong form is required:

(319) a) ein gut-er Wein, d**en** sie gekauft hat
a good-STR wine which she bought has

b) *ein gut-e Wein, d**en** sie gekauft hat
a good-WK wine which she bought has

(320) a) mit gut-em Wein, d**en** sie gekauft hat
with good-STR wine which she bought has

b) *mit gut-en Wein, d**en** sie gekauft hat
with good-WK wine which she bought has

To save the HRA, Bianchi would have to argue that the form of the adjective can also be determined postsyntactically when the adjective comes to be governed by the external D after head raising. Again, this assumption is only necessary for the HRA but nowhere else.

De Vries could probably extend his approach to case to adjectival inflection. Suppose that the right form of the adjective depends on a checking relation between D and A, de Vries could argue that a determiner is merged with an AP whose head does not have the right inflection, but agrees with D in phi-features. The only option to check the phi-features (and arguably the case of the NP contained in the AP) would be for the AP to move to Spec, DP:

(321) $[_{DP}\ [_{AP}\ A_{\{a\ infl,\ \sout{phi}\}}\ [_{NP}\ N_{\{a\ case,\ \sout{phi}\}}]_1\ [_{D'}\ D_{\{b\ case,\ b\ infl,\ \sout{phi}\}}\ __1]]$

To check both the case on N and the inflection feature on A, feature movement of N via A into the external D is required:

(322) $FF_{3/4}$+ein $[_{CP}\ [_{AP}$ [gut-er$_4$ Wein$_3$]$_2$, d**en** $__2]_1$ sie $__1$ gekauft hat]
a good-STR wine which she bought has

Even though this is technically feasible, de Vries' solution suffers from the fact that it is a derivation that will only apply in relative clauses and therefore remains ad hoc.

2.3.4 Violations of locality constraints

Some implementations of the HRA that are currently entertained involve extraction from a constituent in a derived position. I repeat Bhatt's and de Vries' derivations for convenience:

(323) a) the $[_{XP}$ [book$_2$] $[_{X'}$ X° $[_{CP}\ [_{DP}$ Op/which $__2]_1$ C° [John likes $__1$]]]]

b) FF_2 + the $[_{CP}\ [_{DP}$ book$_2$ $[_{D'}$ Op/which $__2]]_1$ John likes $__1]$

However, extraction from derived positions are ungrammatical and usually subsumed under the Condition of Extraction Domains (Huang 1982). In the following example, there is *wh*-extraction from the subject which originates in the underlying object position:

(324) *Who$_2$ do you think $[_{CP}$ t'$_2$ that $[_{DP}$ pictures of $__2$ $]_1$ were painted $__1]$?

CED-effects are systematically observed in German as well (e.g. Müller 1998). This makes a HRA unlikely. The following pair shows the contrast in extraction from a DP that is either scrambled or not, the scrambled case showing a CED effect:

(325) a) [Über wen]$_1$ hat niemand [ein Buch $__1$] gelesen?
about whom has nobody a book read
'Who did nobody read a book about?'

b) *[Über wen]$_2$ hat [ein Buch $__2]_1$ niemand $__1$ gelesen?
about whom has a book nobody read
'Who did nobody read a book about?'

Furthermore, with relatives that pied-pipe a preposition we have to assume that preposition stranding is possible even though this is normally not possible in German (in the given context):

(326) a) der Mann$_2$, [mit dem __$_2$]$_1$ ich __$_1$ gesprochen habe
the man with who I spoken have
'the man I spoke with'

b) *__Wem__$_i$ hast du [__mit__ __$_1$] gesprochen
who.DAT have you with spoken
'Who did you speak with?'

Admittedly, this is not a perfect minimal pair as in relatives only an NP extracts whereas in regular cases of preposition stranding, it is the DP that extracts. Still, PPs are islands quite generally in German except for certain cases of postposition stranding, but those are limited to extraction of R-pronouns from pronominal adverbs, cf. e.g. Oppenrieder (1990).

Again, the derivation of the HRA violates a well-established constraint. Neither the MA nor the HEA have this problem.

2.3.5 Summary

The previous subsections should have shown quite convincingly that the HRA faces serious technical problems. The derivation that is necessary to raise the head noun from the relative clause across the relative pronoun next to the external determiner violates an otherwise well-established constraint, the CED. It makes the wrong prediction for case-assignment and the inflection of the adjective; especially the second movement step that extracts the head noun from the relative operator (this was discussed in 1.2.3.2) is poorly motivated; there is no clear trigger. There have been proposals in the literature to save the case and the trigger problem, but they are ad hoc and seem to be limited to relativization so that they amount to a restatement of the problem.

It is therefore justified at this point to conclude that unless the HRA is extremely superior in its coverage of reconstruction effects, either the HEA or the MA should be preferred.

2.4 Towards a Matching Analysis

2.4.1 Introduction

In this subsection, I will propose a new analysis of German relative clauses. The previous subsections have shown that the HRA faces a large number of technical difficulties with respect to its basic derivation, problems that both the HEA and the MA avoid. Section 2.2 has shown that there are reconstruction effects in Standard German relative clauses. This immediately implies that the HEA cannot be the only derivation for German restrictive relatives, it would only apply in cases where there is no reconstruction, see the discussion in 1.4.2. The fact that

Principle C effects are not always observed (2.2.6), as in the following example, shows that the HRA cannot be the only possible derivation either because it predicts reconstruction across the board (cf. 1.4.3):

(327) das [Bild von **Peter**$_i$], das **er**$_i$ __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

This leaves several options: It could be that one needs both the HRA and the HEA, the HRA and the MA or, and this is arguably the most interesting position, *only the MA*. In this section, I will argue for the third option, which is not only the most economical one, but also the descriptively most adequate one.

My version of the MA handles all cases of reconstruction and non-reconstruction so that only one derivation is needed for German relative clauses. I will argue for a Vehicle Change type of implementation that integrates elements from the analyses by Munn, Citko and Sauerland. For obvious reasons, Principle C effects will be the central issue.

2.4.2 A new MA for German

The MA I would like to propose for German unites ingredients of both the recoverability approach proposed by Munn (1994) and Citko (2001) as well as Sauerland's (2001) VC approach. I assume that there is A'-movement of the operator phrase to Spec, CP. The relative pronoun takes a full NP complement which is deleted under identity with the external head:[116]

(328) das [**Buch**$_j$] [$_{CP}$ [das Buch$_j$]$_1$ er __$_1$ mag]
the book which book he likes
'the book which he likes'

---

[116] The external head and its representation in Spec, CP will frequently differ in case (and possibly adjectival inflection). Since the deletion operation is conceived of as ellipsis, such mismatches are not a problem because it is well-established that ellipsis can handle such mismatches as in the following sluicing example (Jeroen van Craenenbroeck p.c.):

i) They told **me** to go, but I don't know when (I should go)

The pronoun in the antecedent is accusative while the deleted element inside the sluice is nominative. One might object (Henk van Riemsdijk, p.c.) that what is deleted here is rather *when to PRO go* because deletion of *should* would be irrecoverable. However, I don't think that this is true because deontic modality can be recovered by means of the verb *tell*. Whether what is deleted is a finite clause or an non-finite clause is somewhat difficult to tell in the example at hand. Using a German example, however, removes that objection because there are no *wh*-infinitives:

ii) Er befahl mir zu gehen, aber er sagte nicht wann (ich gehen sollte).
he told me to go but he said not when I go should
'He told me to go, but he didn't say when.'

The issue of possible mismatches in ellipsis is far more complex than I have space to discuss. There are certainly stricter requirements in Right Node Raising, which, however, may not involve ellipsis at all, cf. Abels (2004). Furthermore, while agreement, case and certain modality mismatches are tolerated in gapping and VP-ellipsis, this is not the case with temporal and voice mismatches, cf. Lasnik (1995) and Merchant (2001a).

The LF-representation is basically derived according to the Preference Principle: the restriction of the *wh*-operator is deleted in the operator copy, but retained in the lower copy inside the relative clause:

(329) das [**Buch**$_j$] [$_{CP}$ [das **~~Buch~~**$_j$]$_1$ er [x **Buch**]$_1$ mag]
the book which book he book likes

In other words: reconstruction is the default. As for the external head, I assume that it is retained in the default case. Both defaults can be overridden in one well-defined circumstance: elements with a so-called positive licensing requirement that are located inside the external head or the lower copy inside the relative clause are exceptionally deleted if they are not licensed in that particular position. By "positive licensing requirement" I mean that a given element is dependent on another element. Three different elements are relevant in the present discussion: anaphors, bound pronouns and idiomatic NPs: anaphors require a local c-commanding antecedent, bound pronouns need a c-commanding antecedent which does not have to be local, and idiomatic NPs have to be adjacent to the idiomatic verb to be interpreted. Importantly, this exceptional deletion operation is subject to a recoverability requirement: the external head may only be deleted if its content is recoverable from a the copy inside the relative clause and vice versa. Next to elements with a "positive licensing requirement" there are elements with a "negative licensing requirement". Such elements have to be free in a certain domain. The prime examples of this category are pronouns and R-expressions. By assumption neither one can be exceptionally deleted. This division will turn out to be crucial for the account of Condition C effects and cases where only the external head is interpreted. In the following subsections I will show how my version of the MA accounts for the full range of reconstruction effects presented in 2.2.

2.4.3 Variable binding, idiom interpretation and Principle A

Reconstruction for variable binding, idiom interpretation and anaphor binding was shown to be straightforward. I repeat three relevant examples for convenience:

(330) a) die [**Rede**], die er __ **geschwungen** hat *eine Rede schwingen* =
the speech which he swung has 'give a speech'
'the speech he gave'

b) das [Foto von **seiner**$_i$ Geliebten],
the picture of his beloved
das **jeder Mann**$_i$ in seiner Brieftasche __ hat
which every man in his wallet has
'the picture of his$_i$ beloved that every man$_i$ keeps in his wallet'

c) das [Bild von **sich**$_i$], das **Peter**$_i$ __ am liebsten mag
the picture of self which Peter the best likes
'the picture of himself$_i$ that Peter$_i$ likes best'

Reconstruction follows straightforwardly under the Preference Principle: the restriction of the relative pronoun is deleted from the copy in Spec, CP and retained only in the lower copy inside the relative clause. Additionally, the external head is exceptionally deleted because it contains elements subject to a "positive licensing requirement" which are not licensed inside it: the idiomatic NP is not adjacent to the idiomatic verb, the bound pronoun is not c-commanded by a QP and the anaphor is not locally c-commanded by an antecedent. The correct LF-representations therefore look as follows:

(331) a) die [~~Rede~~$_j$], [$_{CP}$ [die ~~Rede~~$_j$]$_1$ er [x Rede]$_1$ geschwungen hat]
the speech which speech he speech swung has

b) das [~~Foto von **seiner**$_i$ Geliebten~~]$_j$,
the picture of his beloved
[$_{CP}$ [das [~~Foto von **seiner**$_i$ Geliebten~~]$_j$]$_1$ **jeder Mann**$_i$
which picture of his beloved every man
in seiner Brieftasche [x Foto von **seiner**$_i$ Geliebten]$_1$ hat]
in his wallet picture of his beloved has

c) das [~~Bild von **sich**$_i$~~]$_j$, [$_{CP}$ [das [~~Bild von **sich**$_i$~~]$_j$]$_1$
the picture of self which picture of self
Peter$_i$ [x Bild von **sich**$_i$]$_1$ am liebsten mag]
Peter picture of self the most likes

2.4.4 Scope reconstruction and adjectival interpretation

Reconstruction for scope and the interpretation of adjectival modifiers differ from the reconstruction effects of the previous subsection in that reconstruction is only an option. Both the wide-scope reading and the high reading of the adjective are also possible as the following examples show:[117]

(332) a) die [**zwei** Lieder], die **jeder Schüler** __$_1$ vorbereitet hat
the two songs which every pupil prepared has
'the two songs that every pupil prepared' ∃ > ∀; ∀ > ∃

b) die [**vielen** Bücher], die Hans fürs Medizinstudium __ **braucht**
the many books which John for.the med.school needs
'the many books John needs for med school' many > need;
need > many

(333) das **erste** Buch, das Peter sagte, dass Tolstoj __ *geschrieben* hat
the first book which Peter said that Tolstoy written has
'the first book that Peter said that Tolstoy wrote' ✓low reading

I will need to make one extra assumption to handle this optionality. So far, the Preference Principle will lead to scope reconstruction and the low construal of adjectives. At the same time, the scopal element/the adjective is also present in the external head. Importantly, these scopal elements are not subject to a

[117] There are contexts, of course, where reconstruction is forced as e.g. in relativization out of a *there*-construction. However, in most contexts, this is optional.

"positive licensing requirement". Under the assumptions made so far, it is not possible to exceptionally delete the external head. As a consequence, both copies are in principle retained. It is clear, however, that such an LF cannot be readily interpreted since it expresses contradictory scope relations. I will assume for these cases that either copy can be privileged to yield the respective readings. Importantly, this option is limited to scopal elements because it yields a difference in interpretation. The following pair illustrates the two readings for (332)a:[118]

(334) a) die [~~**zwei Lieder**~~]$_j$, [$_{CP}$ [die [~~**zwei Lieder**~~]$_j$]$_1$
the two songs which two songs
jeder Schüler [x **zwei** Lieder]$_1$ vorbereitet hat]
every pupil two songs prepared has

b) die [**zwei** Lieder]$_j$, [$_{CP}$ [die [~~zwei **Lieder**~~]$_j$]$_1$
the two songs which two songs
jeder Schüler [x]$_1$ vorbereitet hat]
every pupil prepared has

2.4.5 Reconstruction for Principle C

2.4.5.1 The core case

The absence of Condition C effects in restrictive relatives is uncontroversial in German. I repeat a representative example for convenience:

(335) das [Bild von **Peter$_i$**], das **er$_i$** __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

Under the assumptions made so far, this is unexpected because the Preference Principle leads to straightforward reconstruction so that a Condition C effect should ensue. Consequently, an extra mechanism is needed to remove the copy of the R-expression in the c-command domain of the subject pronoun. I propose that every R-expression contained inside the external head is subject to Vehicle Change, which turns it into a personal pronoun with corresponding *phi*-features. In the case at hand, the LF looks as follows:[119]

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[118] An alternative option to derive the high reading would be to assume that it is possible to privilege the copy in Spec, CP if that yields a scopal effect. Something along these lines is necessary anyway to handle wide-scope in A'-movement, cf. 1.4.1 so that this would be possible here as well. The question is then what would happen to the external head. I believe that it is possible to retain it together with the copy in Spec, CP. I will not choose between the two options outlined here because I cannot think of any empirical facts that would favor one over the other.

[119] Recall that letter indices indicate coreference whereas number indices indicate members of a movement chain.

(336) das [Buch über **Peter$_i$**]$_j$ [$_{CP}$ [das ~~Buch über **ihn$_i$**~~]$_j$]$_1$
the book about Peter which book about him
er$_i$ [x Buch über **ihn$_i$**]$_1$ am besten findet]
he book about him the best finds

Since the relative clause-internal copy only contains a pronoun, the sentence is equivalent in grammaticality to a base sentence which contains a pronoun inside the picture NP:

(337) **Er$_i$** mag dieses Buch über **ihn$_i$**.
He likes this book about him
'He$_i$ likes this book about him$_i$.'

So crucially, the absence of Principle C effects is not due to deletion of the relative clause-internal copy (as in Munn's and Citko's analyses): remember that only elements with a positive licensing requirement can exceptionally be deleted. Therefore, the lower copy is retained and the alleviation of Condition C effects must be due to Vehicle Change. Since Vehicle Change is systematic, it will void any difference between arguments and adjuncts (cf. 2.2.6.3): R-expressions contained in adjuncts are not represented relative clause-internally because adjuncts are merged late. R-expressions inside arguments all undergo Vehicle Change so that they are never represented in the lower copy within the relative clause.

Importantly, Vehicle Change predicts that whenever a pronoun is not possible inside a picture NP, the corresponding relative with an R-expression should be ungrammatical as well. This prediction will be shown to be correct in 2.4.5.5 below.

2.4.5.2 Contrast with other types of A'-movement

The contrast with other types of A'-movement follows straightforwardly under this type of MA. Consider first *wh*-movement:

(338) *[Welches Bild von **Peter$_i$**]$_1$ findet **er$_i$** __$_1$ am besten?
which picture of Peter finds he the best
lit.: 'Which picture of Peter$_i$ does he$_i$ like best?'

The Preference Principle applies so that reconstruction is expected. Exceptional deletion of the lower copy is impossible because its content would not be recoverable. The LF looks as follows:

(339) *[Welches ~~Bild von **Peter$_i$**~~]$_1$ findet **er$_i$**
which picture of Peter finds he
[x Bild von **Peter$_i$**]$_1$ am besten?
picture of Peter the best

Similar things hold for R-expressions contained inside the relative operator phrase:

(340) a)??die Fotografin, [deren Bild von **Peter$_i$**]$_1$ **er$_i$** __$_1$ am besten findet
the photographer whose picture of Peter he the best likes
lit.: 'the photographer whose picture of Peter$_i$ he$_i$ likes best'

Since the R-expression *Peter* is not part of the constituent that is PF-deleted under identity with the external head, it cannot undergo Vehicle Change. If there is an ellipsis operation at all, it will involve part of an abstract form of *deren* 'whose' only (e.g. [Op+Fotografin]-GEN). As a consequence, the R-expression will be retained in the lower copy and a Condition C violation ensues (I give both the LF and the PF structure):

(341) a)??die [Fotografin]$_j$, [$_{CP}$ [[Op ~~Fotografin$_j$~~]-GEN Bild von **~~Peter$_i$~~**]$_1$ **er$_i$**
the photographer photographer picture of Peter he
[[x Fotografin]-GEN Bild von Peter$_i$]$_1$ am besten findet
photographer picture of Peter the best finds

In other words, the exceptional behavior of external heads of relative clauses with respect to Condition C effects crucially has to do with the ellipsis operation that makes Vehicle Change possible.

2.4.5.3 SCO effects and possessive relatives

(Secondary) Strong Crossover effects were shown to be systematic (2.2.6.5):

(342) a) *der Mann$_i$, [**den$_i$**]$_1$ **er$_i$** __$_1$ mag
the man whom he likes
lit.: 'the man who$_i$ he$_i$ likes'

b) *der Mann$_i$, [**dessen$_i$** Vater]$_1$ **er$_i$** __$_1$ mag
the man whose father he likes
lit.: 'the man whose$_i$ father he$_i$ likes'

Both cases follow straightforwardly under the present assumptions. Since the external head is represented relative clause-internally, the offending copy in the c-command domain of *er* 'he' is not just a variable left by the relative operator, but rather the variable left by the relative pronoun plus its restriction. The LF of (342)a therefore looks as follows under the MA:

(343) *der [Mann]$_j$, [$_{CP}$ [den ~~Mann$_j$~~]$_{1/i}$ **er$_i$** [x Mann]$_{1/i}$ mag]
the man which man he man likes

In (342)b, things are slightly more complex if an abstract analysis of *dessen* 'whose' is adopted:

(344) *der [Mann]$_j$, [$_{CP}$ [[Op Mann$_j$]$_i$-GEN Vater]$_1$ **er$_i$** [[x Mann]$_i$-GEN Vater]$_1$ mag]
the man man father he man father likes

Importantly, Vehicle Change cannot void the Condition C effect because the offending expression [Op+Mann] cannot be Vehicle-changed: a DP containing a quantifier is not amenable to vehicle change, cf. Safir (1999) and the discussion in 1.5.3.7, and furthermore, the external head does not even contain a possible

source for Vehicle Change: the external head *Mann* 'man' is just an NP, but Vehicle Change crucially operates on DPs.

So far, I have been assuming an abstract analysis of the possessive relative pronoun even though none of the facts so far actually required such an analysis. The (S)SCO effects also follow if the relative pronoun is not decomposed since the variable left behind by the relative pronoun is sufficient to trigger a Condition C violation. I already discussed this issue in 1.5.3.6 for English. The result was inconclusive, though, because reconstruction with possessive relative pronouns was shown to be degraded for many speakers in the first place:

(345) *I saw the [girl of **his$_i$** dreams]$_j$ [whose$_j$ pictures]$_1$ **every boy$_i$** was showing off $___1$.

However, this does not hold for German even though it is somewhat difficult to construct naturally sounding examples. Here are two that show reconstruction for variable binding and seem quite unproblematic:

(346) a) Die [Nacktbilder **seiner$_i$** Frau], [deren Schöpfer]$_1$
the nude.pictures his.GEN wife whose creator
jeder Ehemann$_i$ $___1$ finden will, sind gewöhnlich solche,
every husband find wants are usually such
die ein anderer gemacht hat.
which an other taken has
lit.: 'The nude pictures of his$_i$ wife whose creator every husband$_i$ wants to find out are usually those that someone else took.'

b) Der [Mörder **seiner$_i$** Tochter], [dessen Motive]$_1$ **kein Vater$_i$** $___1$
the murderer his.GEN daughter whose motives no father
versteht, ist gewöhnlich ein Psychopat.
understands is usually a psychopath
lit.: 'The murderer of his$_i$ daughter whose motives no father$_i$ understands is usually a psychopath.'

Clearly, under the assumptions that I have made about reconstruction, there has to be a relative clause-internal representation of the bound pronoun. But this is only possible under an abstract analysis of the possessive relative pronoun because this is the only part of the relative operator that is related to the external head via ellipsis. I will consequently decompose it into [Op+external head]-GEN. For (346)b, this yields the following LF:

(347) Der [~~Mörder **seiner$_i$** Tochter~~]$_j$,
the murderer his.GEN daughter
[$_{CP}$ [[[Op [~~Mörder seiner$_i$ Tochter~~]$_j$] ~~GEN Motive~~]$_1$
murderer his.GEN daughter motive
kein Vater$_i$ [[x Mörder **seiner$_i$** Tochter]-GEN Motive]$_1$ versteht]
no father murderer his.GEN daughter motive understands

The external head is deleted because it contains an element with a positive licensing requirement that is not licensed there. The chain inside the relative

clause is transformed according to the Preference Principle so that the bound pronoun is correctly c-commanded by a QP.

An abstract analysis of the possessive relative pronoun has consequences for the following example:

(348) der [Freund von **Peter$_i$**]$_j$, [dessen$_j$ Schwester]$_1$ **er$_i$** __$_1$ liebt
the friend of Peter whose sister he loves
'the friend of Bobi whose sister hei likes'

There is no Condition C effect. However, if there is a relative clause-internal representation of the external head, there will be an occurrence of Peter in the c-command domain the coreferential pronoun. But fortunately, Vehicle Change applies to every R-expression inside the external head so that Condition C effects are alleviated:

(349) der [Freund von **Peter$_i$**]$_j$,[$_{CP}$ [[Op [~~Freund von **ihm$_i$**]$_j$~~]-GEN ~~Schwester~~]$_1$ **er$_i$**
the friend of Peter friend of him-GEN sister he
[[x Freund von **ihm$_i$**]-GEN Schwester]$_1$ liebt]
friend of him sister loves

This would then arguably correspond to the following grammatical base sentence:[120]

(350) **Er$_i$** liebt die Schwester des Freundes von **ihm$_i$**.
He loves the sister the.GEN friend of him
'He$_i$ loves the sister of his$_i$ friend.'

I have shown so far that the approach proposed here handles the Condition C pattern successfully. I will now discuss data showing that the absence of Condition C effects must be due to Vehicle Change and not e.g. exceptional deletion of the lower copy.

2.4.5.4 The correlation cases

The first argument in favor of Vehicle Change comes from the correlation cases discussed in 2.2.7. I concluded that there are no Condition C effects even if reconstruction of the external head is independently required. I repeat two examples for convenience:

(351) a) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

---

[120] For reasons internal to German, the possessor has to occur postnominally in this construction. Potentially, the VC version could also involve a possessive pronoun as in English, which also leads to the right result (and is the more natural version):

i) Er$_i$ liebt die Schwester seines$_i$ Freundes
he loves the sister his.GEN friend
'He$_i$ loves the sister of his$_i$ friend.'

b) die [*vielen* Bücher über **Peters$_i$** Vater],
the many books about Peter's father
die **er$_i$** in seinem Studium __ lesen *muss*
which he in his studies read must
lit.: 'the many books about Peter's$_i$ father which he$_i$ must read for his studies'

Clearly, there has to be a relative clause-internal representation of the external head so that the bound variable is c-commanded by the QP. The same is needed for narrow-scope of the amount quantifier. But once the external head has to be represented in the c-command domain of the subject pronoun, one expects a Condition C effect. Exceptional deletion of the lower copy (as e.g. in Munn 1994 or Citko 2001) is not possible because this would make variable binding and scope reconstruction impossible. Consequently, some other mechanism is needed to avoid the Condition C effect. Vehicle Change derives the right result as the LF for (351)b shows:

(352) die [~~*vielen* Bücher über **Peters$_i$** Vater~~]$_j$,
the many books about Peter's father
[$_{CP}$ [die [~~*vielen* Bücher über **seinen$_i$** Vater~~]$_j$]]$_1$ **er$_i$** in
which many books about his father he in
seinem Studium [x *vielen* Bücher über **seinen$_i$** Vater]$_1$ lesen *muss*]
his studies many books about his father read must

The sentence is therefore equal in grammaticality to the following base sentence with a possessive pronoun instead of an R-expression:[121]

(353) **Er$_i$** muss in seinem Studium viele Bücher über **seinen$_i$** Vater lesen.
he must in his studies many books about his father read
'He must read many books about his father during his studies.'

2.4.5.5 The Semi-idiomatic cases

The second argument in favor of Vehicle Change comes from the semi-idiomatic cases. In 2.2.6.4, I pointed out an interesting asymmetry: without embedding, these cases were strictly ungrammatical, but with an additional level of embedding, the sentences improve to full grammaticality:

(354) a) *die [Meinung von **Peter$_i$**], die **er$_i$** __ hat
the opinion of Peter which he has
lit.: 'the opinion of Peter$_i$ that he$_i$ has'

b) die [Meinung von **Peter$_i$**], die **er$_i$** glaubt, dass Maria __ hat
the opinion of Peter which he believes that Mary has
'the opinion of Peter$_i$ that he$_i$ thinks Mary has'

---

[121] Mark de Vries (p.c.) has pointed out to me that this also shows that Vehicle Change must target an R-expression. If it could target the entire external head and turn it into *one* as in Sauerland's approach, it would avoid the Condition C effect but would fail to capture variable binding because the bound pronoun would no longer be represented inside the relative clause.

The ungrammaticality of (354)a was linked to the presence of a coreferential implicit PRO inside the external head:

(355) *die [**PRO$_i$** Meinung von **Peter$_i$**], die **er$_i$** __ hat
the opinion of Peter which he has
lit.: 'the opinion of Peter$_i$ that he$_i$ has'

As discussed in 1.3.3 and 2.2.5 reconstruction is necessary in these cases to control the PRO. This means that there will be a relative clause-internal representation of the external head. Even if Vehicle Change turns the R-expression into a pronoun, there will still be a Condition B violation because of the implicit PRO that binds the pronoun:

(356) *die [~~PRO$_i$ Meinung von **Peter$_i$**~~]$_j$, [$_{CP}$ [die [~~PRO$_i$ Meinung von **ihm$_i$**~~]$_j$]$_1$
the opinion of Peter which opinion of him
er$_i$ [x PRO$_i$ Meinung von **ihm$_i$**]$_1$ hat]
he opinion of him has

The following base sentence shows the unacceptability of the pronoun in such cases:

(357) **Peter$_i$** hat eine gute Meinung von ***ihm$_i$/sich$_i$**.
Peter has a good opinion of him/self
'Peter$_i$ has a good opinion of himself$_i$.'

Consequently, even though Vehicle Change is possible, it cannot avoid the Condition B effects. The situation is different in (354)b: there is no coreferential implicit PRO because the person having an opinion is different due to the embedding, it is *Maria* 'Mary'. I decided in 2.1 that implicit PROs of the disjunct type are to be dispensed with. This means that there won't be an implicit PRO at all in (354)b. Consequently, Vehicle Change will turn the offending R-expression into a pronoun and alleviate the Condition C effect (and since there is no implicit PRO there is also no Condition B effect):

(358) Die [Meinung von **Peter$_i$**]$_j$, [$_{CP}$ [die [~~Meinung von **ihm$_i$**~~]$_j$]$_1$ **er$_i$**
the opinion of Peter which opinion of him he
glaubt, dass Maria [x Meinung von **ihm$_i$**]$_1$ hat]
believes that Mary opinion of him has

The relative is just as grammatical as the following base sentence:

(359) **Er$_i$** glaubt, dass Maria eine gute Meinung von **ihm$_i$** hat.
he thinks that Mary a good opinion of him has
'He$_i$ thinks that Mary has a good opinion of him$_i$.'

The Vehicle Change approach makes an interesting prediction for the PRO-cases: as soon as the R-expression is more deeply embedded, the sentences should become grammatical: The pronoun resulting from Vehicle Change is subject to Principle B, which is satisfied under embedding.

This is exactly what one finds. Consider first the following idiomatic expression (from 2.2.7.2):

(360) *der [Streit über **Maria$_i$**], den **sie$_i$** __ vom Zaun gebrochen hat
the fight about Mary which she off.the fence broken has
lit.: 'the fight about Mary$_i$ that she$_i$ started'

I concluded that the ungrammaticality of this example is arguably related to an implicit PRO because a coreferential pronoun is not possible inside the picture NP:

(361) **Sie$_i$** hat einen Streit über ***sie$_i$/sich$_i$** vom Zaun gebrochen.
she has a fight about her/self off.the fence broken
'She$_i$ started a fight about *her$_i$/herself$_i$.'

This follows under the postulation of an implicit PRO:

(362) **Sie$_i$** hat [einen **PRO$_i$** Streit über ***sie$_i$/sich$_i$**] vom Zaun gebrochen].
she has a fight about her/self off.the fence broken
'She$_i$ started a fight about *her$_i$/herself$_i$.'

In the case of the relative clause, the correct representation is therefore as follows:

(363) *der [**PRO$_i$** Streit über **Maria$_i$**],
the fight about Mary
den **sie$_i$** __ vom Zaun gebrochen hat
which she off.the fence broken has
lit.: 'the fight about Mary$_i$ that she$_i$ started'

Even if Vehicle Change turns Maria 'Mary' into a personal pronoun, the sentence will still be as bad as the version with the pronoun in (361), exactly as predicted by the following LF:

(364) *der [~~PRO$_i$ Streit über **Maria$_i$**~~]$_j$,[$_{CP}$ [den [~~PRO$_i$ Streit über **sie$_i$**~~]$_j$]$_1$ **sie$_i$**
the fight about Mary which fight about her she
[x PRO$_i$ Streit über **sie$_i$**]$_1$ vom Zaun gebrochen hat]
fight about her off.the fence broken has

The sentence is therefore out because of a Principle B violation.

I also observed in 2.2.7.2 that the PRO approach predicts that a pronoun is fine once it is more deeply embedded. The following example illustrates this for a base sentence:

(365) **Er$_i$** hat einen [PRO$_i$ Streit über Marias Kritik an **ihm$_i$**]
he has a fight about Mary's criticism of him
vom Zaun gebrochen.
off.the fence broken
'Hei started a fight about Mary's criticism of himi.'

Crucially, once we transform this into a relative clause and replace the pronoun by an R-expression, the sentence is grammatical as well:

(366) der [Streit über Marias Kritik an **Peter**$_i$],
the fight about Mary's criticism of Peter
den **er**$_i$ __ vom Zaun gebrochen hat
which he off.the fence broken has
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

This shows that Vehicle Change makes exactly the right prediction: the R-expression is turned into a pronoun and since it is locally free, there is no Condition B violation and the sentence is grammatical – just like (365). The following LF illustrates this:

(367) der [~~PRO$_i$ Streit über Marias Kritik an **Peter**$_i$~~]$_j$,
the fight about Mary's criticism of Peter
[$_{CP}$ [den [~~PRO$_i$ Streit über Marias Kritik an **ihm**$_i$~~]$_j$]$_1$ **er**$_i$
which fight about Mary's criticism of him he
[x PRO$_i$ Streit über Marias Kritik an **ihm**$_i$]$_1$
fight about Mary's criticism of him
vom Zaun gebrochen hat]
off.the fence broken has

I conclude from these facts that the Vehicle Change approach is correct: an R-expression inside the external head behaves like a personal pronoun inside the relative clause. It is therefore subject to Principle B and does indeed sometimes trigger a Principle B violation if it is too close to a coreferential implicit PRO.

2.4.6 Obligatory Non-reconstruction of the external head

The MA proposed here also handles the cases where the external head must not be reconstructed:

(368) a) Er **schwingt** [**große Reden**], die keiner __ hören will.
he swings grand speeches which no.one hear wants
'He grand speeches no one wants to hear.'

b) Schicken **Sie**$_i$ uns ein [Foto von **sich**$_i$], das __ beweist,
send you us a picture of self which proves
dass Sie ein wahrer Ferrari-Anhänger sind.
that you a true Ferrari-fan are
'Send us a picture of yourself which proves that you are a true Ferrari-fan.'
www.vodafone-racing.de/pda/f_fancontest.html

Interpreting the idiom or the anaphor in the external head is no problem under a MA because the external head is retained by default. However, assuming that the Preference Principle applies to the A'-chain, there will be a relative clause-internal representation of the external head, the lower copy in the theta-position. Crucially, that copy contains elements with a positive licensing requirement, an anaphor or an idiom chunk. However, these elements are not licensed in that position: the anaphor is too far away from its antecedent and the idiomatic NP is

not adjacent to the idiomatic verb. Preserving the lower copy would therefore lead to a crash. Now the assumptions about deletion introduced in 2.4.2 come into play: elements with a positive licensing requirement are deleted in positions where they are not licensed subject to recoverability. This is exactly what happens to the lower copy in the case at hand: it is deleted under identity with the external head. Here are the resulting LF-representations:

(369) a) Er **schwingt** [**große Reden**]$_j$, [$_{CP}$ [die [~~große Reden~~]$_j$]$_1$ keiner
he swings grand speeches which grand speeches no.one
[x ~~große Reden~~]$_1$ hören will].
grand speeches hear wants

b) Schicken **Sie$_i$** uns ein [Foto von **sich$_i$**]$_j$,
send you us a picture of self
[$_{CP}$[das [~~Foto von sich$_i$~~]$_j$]$_1$ [$_{IP}$ [x ~~Foto von sich$_i$~~]$_1$ beweist]],
which picture of self picture of self proves
dass Sie ein wahrer Ferrari-Anhänger sind.
that you a true Ferrari-fan are

2.4.7 Conflicting requirements

The most challenging case are arguably sentences where the external head is subject to conflicting requirements as in the following example, repeated for convenience:

(370) a) ?**Schwing keine** [**großen Reden** über denjenigen *seiner$_i$* Fehler],
swing no grand speeches about that his.GEN mistakes
den *keiner$_i$* __ vorgehalten bekommen will.
which no.one reproached get wants
'Don't give speeches about the one of his$_i$ mistakes that no one$_i$ wants to be reproached for.'

The external head contains an idiomatic NP that has to be interpreted in that position; at the same time, it also contains a bound variable, which is not licensed in that position, but rather has to be interpreted relative clause-internally. Retaining both the external head and the lower copy inside the relative clause will not be sufficient because each will still contain material that is not licensed in that position: the bound pronoun must not be retained in the external head and neither should the idiomatic NP in the copy in the theta-position. The solution are again the assumptions about deletion from 2.4.2: material with a positive licensing requirement is deleted in positions where it is not licensed. I will additionally assume that deletion does not always target full copies, but may also target parts of copies. In the case at hand, this will lead to deletion of the bound pronoun from the external head and of the idiomatic NP in the copy in the theta-position. We effectively get a case of partial deletion as the LF-representation shows:

(371) a) ?**Schwing keine** [**großen Reden** ~~über denjenigen *seiner*$_i$ Fehler~~]$_j$,
swing no grand speeches about that his.GEN mistakes
[$_{CP}$[den [~~große Reden über denjenigen *seiner*$_i$ Fehler~~]$_j$]$_1$ *keiner*$_i$
which grand speeches about that his.GEN mistakes no.one
[x ~~große Reden~~ über denjenigen *seiner*$_i$ Fehler]$_1$
grand speeches about that his.GEN mistakes
vorgehalten bekommen will]
reproached get wants

2.4.8 Summary

The implementation of the MA proposed here nicely accounts for the entire range of reconstruction effects. It can model both the cases where there is systematic reconstruction by adopting the Preference Principle. It also accounts for the lack of Condition C effects by employing Vehicle Change. The notion "positive licensing requirement" adopted here furthermore gives a handle on the cases where particular elements are not interpretable in certain positions.

The advantages of the approach proposed here are threefold: by adopting a MA, the difficulties that beset the HRA are avoided. Second, with the particular implementation of the MA proposed here, the entire reconstruction pattern in German relatives can be covered. Finally, only one derivation is necessary for relative clauses. In the next subsection, I will discuss in more detail the advantages of my proposal over previous approaches.

2.5 Previous approaches

In this subsection, I will show in which respects the approach presented here is superior to previous approaches. I will discuss different implementations of both the HRA and the MA.

2.5.1 HRA 1: Bhatt (2002)

An unmodified version of the HRA can account straightforwardly for cases that obey the Preference Principle, that is, all cases where there is straightforward reconstruction as with idiom chunks, variable binding, anaphor binding, scope and the low construal of adjectives. This holds for the versions proposed by Kayne (1994), Bianchi (1999), Bhatt (2002) and de Vries (2002), see the discussion in 1.5.1.

As discussed extensively in 1.5.3.1, the HRA makes the wrong prediction for Condition C: the A'-chain is modified according to the Preference principle so that the R-expression is represented relative clause-internally and a Condition C is predicted, contrary to fact. Since Bhatt (2002) would not apply the HRA in these cases, but a version of the MA, this does not affect his overall approach.

A further problem constitute the cases where the external head must not reconstruct (2.2.8) and the cases with conflicting requirements (2.2.9): I will discuss these in somewhat more detail because a lot depends on the precise

implementation of the HRA. I first repeat two relevant examples where the external head does not reconstruct:

(372) a) Er **schwingt** [**große Reden**], die keiner __ hören will.
he swings grand speeches which no.one hear wants
'He gives grand speeches no one wants to hear.'

b) Schicken **Sie**$_i$ uns ein [Foto von **sich**$_i$], das __ beweist,
send you us a picture of self which proves
dass Sie ein wahrer Ferrari-Anhänger sind.
that you a true Ferrari-fan are
'Send us a picture of yourself which proves that you are a true Ferrari-fan.'
www.vodafone-racing.de/pda/f_fancontest.html

In both cases, the Preference Principle will delete the higher copy in Spec, CP and arguably also the copies outside the relative CP (1.4.3). In the idiom case, there is no possibility to privilege the higher copy (cf. 1.5.4) so that only the lower copy inside the relative clause is retained (the following representation follows Bhatt's 2002 implementation, but nothing hinges on this):

(373) §Er schwingt [$_{XP}$ [~~große Reden~~]$_2$, [$_{CP}$ [die [~~große Reden~~]$_2$]$_1$ keiner
he swings grand speeches which grand speeches no.one
[x große Reden]$_1$ hören will]].
grand speeches hear wants

With anaphors, things are perhaps somewhat different. I showed in 1.4.1 that the Preference Principle can be overridden when an anaphor is bound in a higher copy as in the following embedded *wh*-example from English and its LF:

(374) a) **John**$_i$ wondered [which picture of **himself**$_{i/j}$]$_1$ **Bill**$_j$ saw __$_1$.

b) John$_i$ **self**-wondered [which picture of __$_{self}$]$_1$ Bill$_j$ saw [x]$_1$.

As argued in 1.5.4, the same mechanism could apply in relative clauses so that the HRA could actually capture cases like (372)b, at least in English. In German, however, it is much less clear whether something like this would be possible because binding an anaphor in the landing site of A'-movement is impossible as discussed in 2.1.4:

(375) **Hans**$_i$ fragt sich, [$_{CP}$ [welches Foto von ***sich**$_i$**/ihm**$_i$]$_1$
John asks self which picture of self/him
ich am besten __$_1$ mag].
I the.best like
'John$_i$ was wondering which picture of himself$_i$ I like best.'

Consequently, retaining the copy in Spec, CP of the relative clause as in the following LF would certainly not do (I have not indicated possible LF-movement of the anaphor):

(376) §Schicken **Sie**$_i$ uns ein [$_{XP}$ [~~Foto von **sich**$_i$~~]$_2$,
send you us a picture of self
[$_{CP}$[das [Foto von **sich**$_i$]$_2$]$_1$
which picture of self
[$_{IP}$ [x]$_1$ beweist]], dass Sie ein wahrer Ferrari-Anhänger sind].
proves that you a true Ferrari-fan are

The sentence should be as bad as (375), contrary to fact. There is one last option, and that would be retaining the highest copy in Spec, XP:

(377) §Schicken **Sie**$_i$ uns ein [$_{XP}$ [Foto von **sich**$_i$]$_2$,
send you us a picture of self
[$_{CP}$[das [~~Foto von **sich**$_i$~~]$_2$]$_1$
which picture of self
[$_{IP}$ [x]$_1$ beweist]], dass Sie ein wahrer Ferrari-Anhänger sind].
proves that you a true Ferrari-fan are

One could argue that the highest copy has to be retained (in violation of the Preference Principle) because that's the position from which the anaphor moves to its antecedent. The crucial question in the case at hand is whether this position is sufficiently different from the ultimate landing site of A'-movement as in (375). This is difficult to tell because the nature of the head XP is unclear. Bhatt (2002) claims it is a nominal head, but does not specify it any further. Under de Vries' approach, where the head noun is in the Spec of the relative pronoun in Spec, CP, those cases certainly cannot be dealt with. I will leave this issue open here; but it is certainly clear that such cases are much more of a problem for the HRA than for the MA, and the idiom case certainly cannot be solved under any implementation of the HRA.

The cases with conflicting requirements (2.2.9) present a similar problem, I repeat one for convenience:

(378) a) ?**Schwing keine** [**großen Reden** über denjenigen *seiner*$_i$ Fehler],
swing no grand speeches about that his.GEN mistakes
den *keiner*$_i$ __ vorgehalten bekommen will.
which no.one reproach get wants
'Don't give speeches about the one of his$_i$ mistakes that no one$_i$ wants to be reproached for.'

Reconstruction for variable binding is not a problem because retention of the lowest copy follows from the Preference Principle. However, the idiom will not be licensed this way: the idiomatic NP is retained in the lower copy, but cannot be interpreted there and its highest occurrence, the one in Spec, XP, which would be necessary for idiom interpretation, is deleted as well (1.4.3).

In conclusion, an unmodified version of the HRA cannot deal with cases where there is no reconstruction. This implies that the HRA cannot be the only possible derivation. To evaluate Bhatt's (2002) general approach to relative clauses, where an MA is used for cases of non-reconstruction, it is also necessary to check how his version of the MA fares.

2.5.2 HRA 2: Safir (1999)

Like every version of the HRA, Safir's implementation straightforwardly accounts for all cases with reconstruction of the external head, cf. the discussion in 1.5.1.

More interesting is his treatment of Condition C effects. As described in much detail in 1.5.3.1 he assumes a quite unrestricted Vehicle Change mechanism that can in principle turn the lower relative clause-internal copy of an R-expression into a personal pronoun. This captures the absence of Condition C effects in relatives, but he fails to capture the important contrast in German between R-expressions contained inside external heads of relatives and those inside operator phrases (2.2.6.2). Since Vehicle Change in Safir's account applies unrestrictedly in A'-movement (cf. 1.5.3.3), he more or less predicts the complete absence of Condition C effects in A'-movement, which is certainly incorrect for German. I repeat two relevant cases for convenience:

(379) a) das [Bild von **Peter$_i$**], das **er$_i$** __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) *[Welches Bild von **Peter$_i$**]$_1$ findet **er$_i$** __$_1$ am besten?
which picture of Peter finds he the best
lit.: 'Which picture of Peter$_i$ does he$_i$ like best?'

Like other versions of the HRA, Safir's version of the HRA probably runs into difficulties when applied to cases of non-reconstruction (2.2.8). The anaphor case in (372)b can potentially be taken care of as described in the previous subsection. As for the idiom case in (372)a, things are less clear. Safir (1999: 590ff.) does make some special assumptions about LF-representations and rejects the Preference Principle. He claims that retention of the upper copy is necessary to capture certain Weak Crossover effects. Even if that should turn out to be correct, there will still be a relative clause-internal representation of the idiom, and this will lead to a crash, as argued in the previous subsection.

To conclude, even though Safir (1999) is the only version of the HRA that is supposed to cover the entire range of reconstruction effects, it does not fully succeed. Its major drawback is that it overgenerates massively and predicts Principle C effects to be generally absent in A'-movement. At least for German, that is not correct.

2.5.3 MA 1: Munn (1994) and Citko (2001)

As discussed in 1.5.1, both approaches successfully account for reconstruction in relative clauses: whenever the external head contains material that is not licensed there, it is deleted and the lower relative clause-internal copy is retained.

Both approaches can also deal with cases where the external head must not be reconstructed (2.2.8): as discussed in 1.5.4, such cases involve deletion of the lower relative clause-internal copy under identity with the external head.

The absence of Condition C effects in principle follows under their approach as well: as outlined in 1.5.3.1, the lower copy can be deleted under identity with the external head as in the following example with its corresponding LF:

(380) a) das [Bild von **Peter$_i$**], das **er**$_i$ __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) das [Buch über **Peter$_i$**]$_j$ [$_{CP}$ [das ~~Buch über **Peter$_i$**~~]$_j$]$_1$
the book about Peter which book about him
er$_i$ [x ~~Buch über **Peter**~~]$_1$ am besten findet]
he book about him the best finds

This assumption also handles the difference between external heads of relatives and other types of A'-movement (cf. 2.2.6.2 and for the details 1.5.3.3–1.5.3.4). There are two aspects of the German data, however, that show that the recoverability approach is inferior to the Vehicle Change approach I propose here:

The first problem are the correlation cases of which I repeat one example for convenience:

(381) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

Citko (2001) assumes (see 1.5.3.9) that the relative clause-internal copy has to be retained to handle variable binding; as a consequence, the offending R-expression will be in the c-command domain of the coreferential pronoun so that a Condition C effect is expected, contrary to fact

(382) §das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit]$_j$,
the book of Peter about her past
[$_{CP}$[das [~~Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit~~]$_j$]$_1$ **er$_i$** *jeder*
which book of Peter about her past he every.DAT
Schauspielerin$_j$ [x Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit]$_1$ sandte]
actress book of Peter about her past sent

Even though this correctly accounts for the English data where Condition C effects re-emerge, it makes the wrong predictions for German where Condition C effects are systematically absent in restrictive relatives.

The second problem concerns the embedding effect that was observed with the semi-idiomatic cases in 2.2.7.2; the relevant examples are repeated for convenience:

(383) a) *der [Streit über **Maria$_i$**], den **sie$_i$** __ vom Zaun gebrochen hat
the fight about Mary which she off.the fence broken has
lit.: 'the fight about Mary$_i$ that she$_i$ started'

b) der [Streit über Marias Kritik an **Peter$_i$**],
the fight about Mary's criticism of Peter
den **er$_i$** __ vom Zaun gebrochen hat
which he off.the fence broken has
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

In both cases, there was shown to be a coreferential implicit PRO (2.4.5). In those cases, Citko (2001) would assume that the relative clause-internal copy has to be retained because the PRO needs to be controlled (cf. the discussion in 1.5.3.2). However, that predicts both sentences to have the same grammaticality, contrary to fact. The approach proposed here, on the other hand, makes the right prediction: Vehicle turns the R-expression into a pronoun; pronouns are subject to Principle B and are therefore sensitive to embedding, exactly as the pair in (383) shows.

To conclude, Munn's (1994) and Citko's (2001) approach fares quite well, but crucially makes incorrect predictions for some aspects of Principle C that follow under the approach proposed above.

2.5.4 MA 2: Sauerland (1998, 2003)

Sauerland applies his version of the MA only in cases where there is no reconstruction. In case there is reconstruction, the HRA applies. This means that reconstruction for variable binding, anaphor binding, idiom interpretation, scope and the low construal of adjectives will be handled by the HRA in Sauerland's system.

The MA is, however, relevant for the Condition C pattern. Since it is very close to the implementation I have proposed above, it makes pretty much the same predictions.[122] It correctly derives the absence of Condition C effects in the core case (1.5.3.1), and also predicts the contrast with other types of A'-movement (cf. 1.5.3.3-1.5.3.4) since the alleviation of Condition C effects crucially depends on Vehicle Change, which is only licensed under ellipsis. Ellipsis, in turn, is restricted to relatives. However, there are two aspects of the German Condition C pattern that cannot be accounted for in Sauerland's system.

The first problem are the correlation cases. I repeat a relevant example:

(384) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

Sauerland assumes that the HRA applies whenever the external head contains material that needs to be reconstructed. Applied to the example at hand, there will be an R-expresssion in the c-command domain of a coreferential pronoun

[122] This only holds if Vehicle Change of an R-expression into a pronoun is used, but not if the entire external head is turned into *one*.

and a Condition C effect is predicted. While this derives the right result for English (1.5.3.9), it makes the wrong prediction for German where Condition C effects do not re-emerge.

The second problem is the embedding effect that was observed with the semi-idiomatic cases in 2.2.7.2. I repeat the crucial pair:

(385) a) *der [Streit über **Maria**$_i$], den **sie**$_i$ __ vom Zaun gebrochen hat
the fight about Mary which she off.the fence broken has
lit.: 'the fight about Mary$_i$ that she$_i$ started'

b) der [Streit über Marias Kritik an **Peter**$_i$],
the fight about Mary's criticism of Peter
den **er**$_i$ __ vom Zaun gebrochen hat
which he off.the fence broken has
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

Since both contain an implicit PRO, Sauerland would probably apply the HRA in this case to control the PRO. But then, the embedding effect no longer follows because there is no Vehicle Change anymore. Under the HRA, both examples are incorrectly predicted to be ungrammatical.

The last aspect where Sauerland's system makes the wrong predictions are the cases of non-reconstruction (2.2.8). Here is one example:

(386) Er **schwingt** [**große Reden**], die keiner __ hören will.
he swings grand speeches which no.one hear wants
'He gives grand speeches no one wants to hear.'

As discussed in 1.5.4, Sauerland's implementation of the MA assumes that there is always a relative clause-internal representation of the external head. In the present case, this will lead to an unlicensed idiomatic NP inside the relative clause. Such cases are therefore predicted to be impossible, contrary to fact.

2.5.5 Summary

The previous subsections have shown that earlier analyses of relative clauses cannot cover the entire reconstruction pattern of German relatives and are therefore inferior to the MA analysis proposed here.

The major difficulty posed by relatives and German relatives in particular is that reconstruction it not observed throughout. This immediately implies that the HRA cannot be the only option. If the HRA is modified as in Safir (1999) overgeneration results. Approaches such as those by Bhatt (2002) and Sauerland (1998, 2003) that combine the HRA with the MA are inherently less economical than an approach that employs only one derivation. Furthermore, their version of the MA still fails to capture some aspects of the Condition C pattern.

Munn's (1994) and Citko's (2001) approaches are the only ones that manage to capture both cases with reconstruction and those without. They nearly attain the same level of descriptive adequacy as the approach proposed here; however, they

still fail to account for two aspects of the German Principle C facts, the correlation cases and the embedding effect with semi-idiomatic expressions.

2.6 Conclusion

This chapter has argued in favor of a version of the MA for German restrictive relative clauses where Vehicle Change and well-defined cases of exceptional deletion play an important role.

The MA proposed here avoids the problems the HRA is confronted with (2.3) and provides the best account of the reconstruction effects: It accounts for the cases of reconstruction (2.4.3) as well as the systematic lack of reconstruction for Principle C by employing systematic Vehicle Change. Consider again the following relative clause:

(387) das [Bild von **Peter$_i$**], das **er**$_i$ __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

Vehicle Change turns the R-expression *Peter* into a pronoun so that the sentence is identical in grammaticality to the following base sentence with a coreferential pronoun inside the picture NP:

(388) **Peter$_i$** findet dieses Bild von **ihm$_i$** am besten.
Peter finds this picture of him the best
'Peter$_i$ likes this picture of him$_i$.'

The crucial argument in favor of Vehicle Change comes from two phenomena: first, there is a crucial difference between German and English in that Principle C do not re-emerge if reconstruction is forced for other reasons such as variable binding. I repeat a relevant minimal pair for convenience:

(389) a) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

b) *The [letters by **John$_i$** to *her$_j$*]$_1$ that **he$_i$** told *every girl$_j$* to burn __$_1$ were published.

Since a relative clause-internal representation is required for variable binding, the lack of a Condition C effect in German can only result from Vehicle Change (see 2.4.5).

The second argument comes from the embedding effect observed with semi-idiomatic expressions, repeated here for convenience:

(390) a) *der [PRO$_i$ Streit über **Peter$_i$**],
the fight about Peter
den **er$_i$** __ vom Zaun gebrochen hat
which he off.the fence broken has
lit.: 'the fight about Peter$_i$ that he$_i$ started'

b) der [PRO$_i$ Streit über Marias Kritik an **Peter$_i$**],
the fight about Mary's criticism of Peter
den **er$_i$** __ vom Zaun brach
which he off.the fence broke
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

Since both cases contain an implicit PRO, a relative clause-internal representation of the external head is necessary for reasons of Control. Vehicle Change will turn the R-expression *Peter* into a personal pronoun in each case. Since pronouns are subject to Principle B differences in embedding are correctly predicted to make a difference. The two relatives therefore correspond to the following base sentences:

(391) a) **Er$_i$** hat einen [PRO$_i$ Streit über ***ihn$_i$/sich$_i$***] vom Zaun gebrochen].
he has a fight about him/self off.the fence broken
'He$_i$ started a fight about *him$_i$/himself$_i$.'

b) **Er$_i$** hat einen [**PRO$_i$** Streit über Marias Kritik an **ihm$_i$**]
he has a fight about Mary's criticism of him
vom Zaun gebrochen.
off.the fence broken
'He started a fight about Mary's criticism of him.'

In other words, one of the major advantages of the my proposal is that modification of a relative clause-internal copy by means of Vehicle Change is possible even if that copy is necessary to ensure e.g. variable binding. That option is explicitly excluded in Sauerland's system, who employs the HRA in these cases, and also in Munn's and Citko's approach where the absence of Condition C effects is not due to Vehicle Change.

Lastly, the MA proposed here also handles intricate cases of non-reconstruction as in 2.2.8 and cases where the external head is subject to conflicting requirements on interpretation (2.2.9) so that there is no context where a different derivation would be necessary. It is therefore clearly superior to those approaches in the literature that require two derivations to capture all the relevant cases (Bhatt 2002, Sauerland 1998, 2003).[123, 124] The following table

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[123] I have chosen not to discuss extraposition because this involves complexities that go beyond the scope of this thesis even though the facts would be very relevant for the current discussion. It seems to me that reconstruction is degraded with extraposed relatives, at least for anaphor binding whereas with bound variables, this is less clear to me.

i)* Ich habe das Buch über sich$_i$ gelesen, das Peter$_i$ am besten findet.
I have the book about self read which Peter the best finds
'I read the book about himself$_i$ which Peter$_i$ likes best.'

provides an overview over the various properties of Standard German relatives and the extent to which different analyses account for them.[125]

---

ii)?weil die Pubertät diejenige Zeit seines$_i$ Lebens ist, die keiner$_i$ vergessen dürfte.
because the puberty the.one time his.GEN life is which no.one forget likely.to
'because puberty is the only period of his$_i$ life which no one$_i$ is likely to forget'

Such examples all suffer from the fact that reconstruction (for binding) is less acceptable in German when the head noun does not occur sentence-initially (a fact also observed for Dutch in De Vries 2002: 82). If one constructs examples for binding where this is the case (they involve remnant vP-topicalization), the result seems still quite degraded. I strongly prefer the pronoun over the anaphor:

iii)[dasBuch über ihn$_i$/*sich$_i$ gelesen, das Peter$_i$ am besten findet,]$_1$ habe ich __$_1$ nochnicht.
the book abouthim/self read which Peter the best finds have I still not
'Read the book about him$_i$/himself$_i$ which Peter$_i$ likes best, I did not.'

As pointed out to me by Henk van Riemsdijk (p.c.) idiom interpretation is not affected by extraposition, contrary to English:

iv) Die "Zeit" sollte häufiger über die **Fortschritte** berichten,
the Zeit should more.often about the progresses report
[die unsere Jungs **gemacht** haben].
which our boys made have
'The "Zeit" should report more often on the progress which our boys have made.'

I hope to be able to tackle these issues in further research. The importance of these examples is enforced by the fact that a late-merger account à la Fox & Nissenbaum (1999) is untenable for German because extraposed relative clauses obligatorily reconstruct for binding (Bühring & Hartmann 1997). In the following example, a bound variable inside the relative clause is bound by a quantifier inside the root:

iv) Peter hat jeder Frau$_i$ ein Geschenk gegeben, das ihr$_i$ große Freude gemacht hat.
Peter has every woman a present given which her big joy made has
'Peter gave every woman$_i$ a present which made her$_i$ very happy.'

If, as this example suggests, relative clauses have to be merged cyclically in German, one does not expect the absence of reconstruction.

124 I have not discussed adverbial relatives here. As pointed out for English in footnotes 14 and 73, adverbial relatives remain a recalcitrant problem. The same holds for German. I have not been able to find clear examples with reconstruction. Depending on the source of this, this might imply that the HEA is still required. I leave this for future research.

125 A '+' means that a given analysis explains the reconstruction effects or avoids a problem. '–' means that a certain problem is not avoided and that reconstruction effects cannot be accounted for.

(392)

			HEA	HRA		MA		
				Bhatt (2002)	*Safir (1999)*	*Munn (1994) Citko (2001)*	*Sauer-land (2003)*	*this thesis*
general properties	case-problem (316)–(317)		+	–	–	+	+	+
	adjectival inflection (319)–(320)		+	–	–	+	+	+
	locality problem (325)–(326)		+	–	–	+	+	+
+ reconstruction	idiom interpretation (254)		–	+	+	+	HRA applies	+
	variable binding (259)		–	+	+	+		+
	scope (255)–(258)		–	+	+	+		+
	Principle A (262)		–	+	+	+		+
	adjectival modifiers (260)		–	+	+	+		+
Principle C	operator phrase	arg: + reconstr. (270)	–	+	+/–	+	+	+
		adj: – reconstr. (275)b	+	+	+	+	+	+
	external head	arg: – reconstr. (269)	+	–	+/–	+	+	+
		adj: – reconstr. (274)b	+	+	+	+	+	+
	no argument-adjunct asymmetries in reconstruction (274)		–	+	+	+	+	+
	difference operator-phrase-external head (269)–(270);		–	–	–	+	+	+
	contrast with *wh*-movement (270)–(272)		–	–	–	+	+	+
	no correlation Princ. C-variable Binding/scope (288)–(289), (303), (306)		–	–	–	–	– (HRA applies)	+
	reconstruction of semi-idiomatic cases (354)		–	–	+	+	+	+
	embedding effect with semi-idiomatic cases (390)		–	–	–	–	– (HRA applies)	+
	(S)SCO effects and possessive relatives (283), (285)		+	+	+	+	+	+
other properties	non-reconstruction of external head for idiom interpretation (307)		+	–	–	+	–	+
	non-reconstruction of external head for anaphor binding (308)		+	+/–	+/–	+	+/–	+
	2 copies interpreted (310)		–	–	–	+/–	–	+

3 Resumptive Prolepsis

3.1 Introduction: long A'-movement and its alternatives

It is a well-known fact about Standard German that long A'-movement is not available to all speakers. For many, the long extractions in (393), instantiating long *wh*-movement, long relativization, and long topicalization, respectively, are ungrammatical:[126, 127, 128]

(393) a) #**Wen**$_1$ glaubst du, dass Petra __$_1$ liebt?
who.ACC think you that Petra loves
'Who do you think that Petra loves?'

b) #ein Maler, **den**$_1$ er glaubt, dass Petra __$_1$ mag
a painter who.ACC he thinks that Petra likes
'a painter who he thinks Petra likes'

c) #[**Den Maler**]$_1$ glaubt er, dass Petra __$_1$ mag.
the.ACC painter thinks he that Petra likes
'The painter he thinks that Petra likes.'

It is frequently assumed that the distribution is best captured in terms of a North-South division. The speakers in the North reject long A'-movement, while those from the South make liberal use of it. Whether this is actually true has become difficult to verify due to the increased mobility in recent decades. What is certainly true is the fact that the Upper German dialects (Swabian, Bavarian, Alemannic) are more liberal. Even conservative descriptive grammars of dialects (like e.g. Weber 1964) list examples of long A'-movement (referred to as *Satzverschränkung* 'sentence interleaving'). It would therefore be little surprising if this dialectal background were to influence speakers when they (attempt to) speak the Standard language.[129] Whether this is actually true is something I will not try to verify in this thesis. I will also not attempt to give an account of the

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126 Arguably, the same also holds for comparative deletion.

127 Recall the notational conventions used in this thesis: The trace position of movement is indicated by an underline. Movement dependencies are coindexed with number indices, coreference relations with letter indices, cf. footnote 2.

128 The following people have provided judgments relevant for this chapter: Hans den Besten, Janneke ter Beek, Anne Breitbarth, Hans Broekhuis, Liesbeth De Clerk, Jeroen van Craenenbroeck, Berit Gehrke, Jutta Hartmann, Andreas Henrici, Holger Hopp, Riny Huijbregts, Irene Jacobi, Katarina Klein, Marjo van Koppen, Joost Kremers, Alies McLean, Roland Pfau, Mika Poss, Hilke Reckmann, Mirjam Rigterink, Manuela Schönenberger, Erik Schoorlemmer, Roman Sigg, Mark de Vries, Ton van der Wouden, Kathrin Würth, Tobias Zimmermann, Hedde Zeijlstra, Hans-Jürg Zollinger. Their time-consuming effort is hereby gratefully acknowledged.

129 Apart from speakers with a Swabian or Bavarian background, dialectal influence becomes more and more marginal in Germany, in most cases being restricted to pronunciation and particular lexical items. Many speakers do no longer learn a dialect as their native language, but a variety that is very close to Standard German. Things are different in Switzerland, where the first language acquired is a dialect. The Swiss version of Standard German is referred to as *Schweizerhochdeutsch* 'Swiss Standard German' and shows more traces of the dialectal (Alemannic) background of the speakers.

lack of long A'-movement for many speakers. My concerns will turn out to be orthogonal to these facts.

Needless to say, the lack of long A'-movement constitutes a functional gap one would expect to be filled by alternative strategies. This is indeed the case. For *wh*-movement, there is the scope-marking construction, see e.g. McDaniel (1989) and Lutz et al. (2000):

(394) **Was** glaubt Peter, **wen**$_1$ du gestern __$_1$ getroffen hast?
what thinks Peter who.ACC you yesterday met have
'Who does Peter think that you met yesterday?'

Speaking of an alternative strategy may be somewhat misleading in this context because Scope Marking is also available to speakers who allow long *wh*-movement. Whether it is actually available in all varieties of German (including dialects) is unclear. Swiss speakers, for instance, can use this construction, but whether it is actually part of their dialect grammar is unclear. The use of the scope marking construction might simply be due to Standard German influence.

Another alternative strategy is represented by extraction from V2-complement clauses:

(395) a) **Wen**$_1$, glaubst du, liebt Petra __$_1$?
whom think you loves Petra
'Who do you think Petra loves?'

b) [**Den Maler**]$_1$, glaube ich, mag Petra __$_1$.
the.ACC painter think I likes Petra
'The painter, I think Petra likes.'

This strategy is possible for *wh*-movement and topicalization, but not for relativization. It is arguably available to all speakers of any German variety and probably the preferred construction. Therefore, it is strictly speaking only an alternative for speakers of restrictive varieties.[130, 131]

There is a third "alternative", and this is the topic of this chapter: in this construction, the preposition *von* 'of' precedes the (putatively) extracted phrase and a coreferring pronoun[132] occurs in the dependent clause in the position of the (alleged) extraction site (cf. also Lühr 1988: 78):[133]

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[130] However, both the scope-marking construction as well as extractions from V2 complement clauses do not cover the same range of verbs. Both of them are incompatible with volitional and factive verbs, see McDaniel (1989) for scope marking and Müller & Sternefeld (1995) for V2-extraction.

[131] It is disputed whether these constructions actually involve extraction from an embedded clause; Reis (1996), for instance, has argued convincingly that what looks like the main clause (without the dislocated constituent) behaves more like a parenthetical.

[132] „Coreferring pronoun" is used as a purely descriptive term in this thesis and is therefore not meant to imply a particular analysis. It is simply a label for the pronoun in this construction that refers back to the putatively dislocated phrase (which is later called the proleptic object). The exact status of the pronoun will be become clear in the analysis part.

[133] Since I do not want to anticipate the analysis, I use the same neutral notation as in the first two chapters when I was introducing the data but not evaluating particular analyses: the putatively dislocated constituent is enclosed in brackets but does not bear an index. The

(396) a) **Von** [**welchem Maler**] glaubst du, dass Petra **ihn** mag?
of which.DAT painter think you that Petra him likes
'Which painter do you think that Petra likes?'

b) ein [**Maler**], **von dem** ich glaube, dass Petra **ihn** mag
a painter of who.DAT I think that Petra him likes
'a painter who I think that Petra likes'

c) **Von** [**dem Maler**] glaube ich, dass Petra **ihn** mag.
of the.DAT painter think I that Petra him likes
'The painter, I think that Petra likes.'

This construction is also available to all speakers of any German variety and therefore not an alternative in the strict sense. However, there is one domain where it *is* an alternative, namely in the domain of relativization in the standard language: While sometimes claimed to be acceptable (Grewendorf 1988), practically no speaker of Standard German actually accepts (393)b. Consequently, the speakers of Standard German only have (396)b at their disposal.[134] For reasons that will become clear later on, I will refer to this construction as the "proleptic construction" and to the fronted constituent as the "proleptic object".

The situation in Dutch is similar though not identical. First of all, scope marking and extraction from V2 clauses are impossible in the standard language, but found in certain dialects. The acceptability of long A'-movement is generally taken for granted, but at least in the domain of relativization and topicalization, some speakers have a preference for the proleptic construction: The extracted constituent is preceded by the preposition *van* 'of', and a personal pronoun appears in the (alleged) extraction site:

(397) a) **Van** [**welk boek**] denk je dat Piet **het** leuk vindt?
of which book think you that Peter it cool finds
'Which book do you think that Peter likes?'

b) het [**boek**] [**waar**]**-van** ik denk dat Piet **het** leuk vindt
the book which-of I think that Peter it cool finds
'the book I think Peter likes'

c) **Van** [**dit boek**] denk ik dat Piet **het** leuk vindt.
of this book think I that Peter it cool finds
'This book, I think Peter likes.'

---

pronoun that this constituent is related to is marked with an underline, but bears no index either. Relative clauses based on this alternative construction are more complex: the external head is only indirectly related to the coreferring pronoun, mediated by the relative operator. For reasons of legibility and because the external head will be more important in the discussion, I will only enclose the head noun in brackets. This is not to suggest that the coreferring pronoun directly refers back to the external head, which would be a puzzling relationship given that the head noun is just an NP. Rather, the pronoun refers back to the proleptic object constituted by the relative operator phrase (more precisely it refers to the DP within the PP).

[134] Dialects differ from the standard language. Hessian, for instance, allows long-distance relativization (Schmitt 2005).

In both languages, the proleptic construction sounds most natural with relativization, followed by topicalization and *wh*-movement. With relativization it is almost grammaticalized and therefore pervasive whereas with topicalization and *wh*-movement it is considerably rarer.

It is not perfectly clear what gave rise to the proleptic construction at the expense of normal long A'-movement. While Andersson & Kvam (1984: 106) claim it was a spontaneous change, Lühr (1988: 79) cites some sources that suggest that there was explicit prescriptive pressure in the 19th century in Germany. Long A'-movement was considered "illogical" or "sloppy". The fact that long A'-movement is much more productive in dialectal varieties of German clearly argues for the second explanation since dialectal varieties are usually immune to such pressure. I have no information about the Dutch situation, unfortunately.

The proleptic construction is semantically very similar to long A'-movement (see 3.5 below for a precise characterization). The crucial question is, however, whether the semantic similarity correlates with a similar syntactic structure. In the followings section, I will first lay out the properties of the proleptic construction. As we shall see presently, it has paradoxical properties. On the one hand, there is evidence suggesting that the operator (and the external head) is related to the coreferring pronoun via long A'-movement. On the other hand there is just as much evidence suggesting that such a relationship is impossible because the embedded clause is a barrier.

I will first discuss properties that neither argue for one or the other approach. In the third subsection, I will discuss reconstruction effects, which generally suggest movement from the embedded clause. Then, I will discuss syntactic arguments against movement from the embedded clause. The fifth subsection deals with the interpretation of the proleptic construction, which provides further arguments against movement. Section six provides an intermediate summary. In section seven I present an analysis of the proleptic construction, section eight discusses in some detail the nature of the coreferring element. Section nine discusses a residual problem, and the last section concludes the chapter.

3.2 General properties

3.2.1 Operator, preposition and coreferring element

The proleptic construction is similar to the regular A'-movement types in that the same set of operators is used, the only difference being that they are preceded by the preposition *von/van* 'of'. Dutch seems to disallow other prepositions whereas there is a small set of alternative prepositions in German: *hinsichtlich/bezüglich* 'concerning', even though they sound very clumsy, and *bei* 'at', which is mostly found with reflexives, cf. 3.9.3 below and 4.10.6 in the next chapter. Still, the most unmarked, grammaticalized choice is the preposition *von* 'of'. It assigns dative case to the proleptic object.

The coreferring pronoun is normally identical in form to a personal pronoun. In the unmarked case, the pronoun will be weak and will behave exactly as a weak

pronoun behaves elsewhere in the language. For instance, it always tends to occur in positions reserved for weak pronouns, higher than their theta-position: in German in the Wackernagel position (right below TP, the clitic version of *es* 'it' also adjoined to C), in Dutch in a similar part of the structure. This is illustrated by the following examples (the adjunct *morgen* 'tomorrow' is assumed to be adjoined to vP):[135, 136, 137]

(398) a) der [**Ring**], von dem ich hoffe,
the ring of which.DAT I hope
dass du < **ihn** > morgen < ***ihn*** > kaufst
that you it tomorrow it buy
'the ring that I hope you will buy tomorrow'

b) Ich hoffe, dass du < **ihn >** morgen < ***ihn >*** kaufst.
I hope that you it tomorrow it buy
'I hope you will buy it tomorrow.'

(399) a) het [**boek**] waarvan ik denk
the book which.of I think
dat ik < **'t** > aan Marie < ***'t*** > zou moeten geven
that I it to Mary it should give
'the book I think I should give to Mary' NL

b) dat ik < **'t** > aan Marie < ***'t >*** zou moeten geven
that I it to Mary it should give
'that I should give it to Mary' NL

The a-examples show that the coreferring pronoun occurs above its theta-position in the proleptic construction; the b-examples show that this parallels the behavior of pronouns in normal declarative clauses.

If a pronoun is modified, e.g. by a focus particle, it is obligatorily strong. This also holds for the proleptic construction; it then occurs preferably inside the vP (the sentential adverb is assumed to mark the vP boundary):[138]

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135 I translate the proleptic construction like regular long A'-movement to ease comprehension; this should not be taken to prejudge the outcome of the analysis.

136 I will predominantly use examples with relativization because it is the most natural construction and the judgments are therefore clearer. Nevertheless unless noted otherwise, the same property is assumed to hold for the proleptic construction with *wh*-movement and topicalization.

137 Except for the core cases, I will tend to limit myself to illustrate a given point with German only. Unless noted otherwise, Dutch can be taken to behave the same. Dutch examples are marked with "NL" at the right margin.

138 Another case where a pronoun is obligatorily strong is when it is coordinated. See 3.8.4.1 for such cases.

(400) a) der [**Mann**], von dem ich glaube,
the man of who I believe
dass Maria wahrscheinlich **nur IHN** liebt
that Mary probably only HIM loves
'probably the only man who I think that Mary loves'

b) dass Maria wahrscheinlich nur **IHN** liebt
that Mary probably only him loves
'that Mary probably loves only him'

Another parallel with simple clauses concerns R-pronouns: If a neuter pronoun referring to an inanimate antecedent is governed by a preposition, it is realized as a so-called R-pronoun.[139] The entire complex is referred to as a pronominal adverb. Again, the coreferring element in resumptive prolepsis behaves like a normal pronoun in that it is realized as an R-pronoun:

(401) a) ein [**Resultat**], von dem ich weiß,
a result of which I know
dass du **da**mit nicht zufrieden bist
that you there.with not satisfied are
'a result that I know you are not satisfied with'

b) **Dieses Resultat$_i$** – ich weiß, dass du **da$_i$**mit nicht zufrieden bist
this result I know that you there.with not satisfied are
'That result – I know that you are not satisfied with it.'

Importantly, pronominal adverbs can be split by postposition stranding, both in normal declarative clauses and in the proleptic construction:

(402) a) ein [**Resultat**], von dem ich weiß,
a result of which I know
dass du **da$_1$** nicht zufrieden $___1$ **mit** bist
that you there not satisfied with are
'a result that I know you are not satisfied with'

b) **Dieses Resultat$_i$** – ich weiß,
this result I know
dass du **da$_i$** nicht zufrieden $___1$ mit bist.
that you there not satisfied with are
'That result – I know that you are not satisfied with it.'

These facts demonstrate convincingly that the pronoun in the proleptic construction behaves in all respects like a regular personal pronoun. Personal pronouns are not the only possible coreferring elements, though. If the antecedent denotes a location in space or time, locative/temporal proforms are found as coreferring elements, just like in normal sentences:

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[139] R-pronouns are obligatory if the antecedent is neuter and inanimate. They are strictly impossible if the antecedent is human and non-neuter. With non-neuter inanimates, both R-pronouns and NP-pronouns are in principle possible, with a certain preference for the R-pronoun. See Müller (2000) for a more precise statement.

(403) a) die [**Stadt**], von der ich weiß, dass die Mieten **<u>da/dort</u>** hoch sind
the city of which I know that the rents there high are
'the city where I know that the rents are high'

b) Ich will **in der Stadt**$_i$ wohnen,
I want in the city live
obschon die Mieten **da/dort**$_i$ hoch sind .
although the rents there high are
'I want to live in the city although the rents are high there.'

(404) a) die [**Zeit**], von der Peter sagte,
the time of which Peter said
dass man **<u>damals</u>** die Eltern noch siezte
that one back.then the parents still saySie
'the time Peter said one was still on formal terms with one's parents'

b) **Diese Zeit**$_i$ war sehr anders,
that time was very different
damals$_i$ waren die Menschen noch fromm.
back.then were the people still pious
'That time was very different, people were still pious back then.'

We will see in the section on interpretation (3.5) that not anything goes. Proforms referring to manners, amounts or predicates are impossible.

Even if the antecedent denotes an individual there are other options: Demonstratives and epithets can also serve as coreferring elements:

(405) a) der [**Typ**], von dem ich vermute, dass **<u>der</u>** Maria heiraten will
the guy of who I suspect that DEM Mary marry wants
lit.: 'the guy that I suspect HE wants to marry Mary'

b) der [**Typ**], von dem ich weiß,
the guy of who I know
dass **<u>der Idiot</u>** sein Vermögen verprasst hat
that the idiot his fortune squandered has
lit.: 'the guy who I know the idiot squandered his fortune'

There are still different types of coreferring elements. Since this touches upon points that will become important later on, I defer discussion to 3.8.4.1.

3.2.2 The proleptic object is a DP

The proleptic object is obligatorily a DP. Neither PPs, APs or CPs are possible (for obvious reasons, this cannot be illustrated with relativization):

(406) a) *Von [**im Garten**] denke ich,
of in.the garden think I
dass man dort ein Gartenhäuschen bauen könnte
that one there a garden.house.DIM build could
'In the garden, I believe one could build a little garden house.'

b) *Von [**groß**] denke ich nicht, dass du das bist.
of tall think I not that you that are
'Tall, I don't think you are.'

c) *Von [**dass Peter dumm ist**] wusste ich nicht, dass du das denkst.
of that Peter stupid is knew I not that you that think
lit.: 'That Peter is stupid I didn't know that you think.'

These facts are intimately related to the possible interpretations of the proleptic object and will be discussed in more detail in 3.5.1.

3.2.3 Orientation

The proleptic object can be linked to a coreferring pronoun of any grammatical relation. The following examples illustrate pronouns in subject, object, and possessor function, and as complement of a preposition:

(407) a) der [**Mann**], von dem ich glaube, dass **er** Maria heiratet
the man of who.DAT I believe that he Mary marries
'the man who I believe will marry Mary'

b) der [**Mann**], von dem ich glaube, dass Maria **ihn** heiratet
the man of who.DAT I believe that Mary him marries
'the man who I believe Mary will marry'

c) der [**Mann**], von dem ich glaube, dass **seine** Mutter gesund ist
the man of who.DAT I believe that his mother well is
'the man whose mother I believe is well'

d) der [**Mann**], von dem ich glaube, dass jeder stolz auf **ihn** ist
the man of who.DAT I believe that everyone proud on him is
'the man who I believe everyone is proud of'

3.2.4 Unboundedness

The relationship between the matrix constituent and the coreferring pronoun is potentially unbounded, irrespective of the grammatical relation of the pronoun. In the following examples, it spans three clauses:

(408) a) das [**Buch**], von dem ich denke, dass du bezweifelt,
the book of which I think that you doubt
dass **es** ein Erfolg wird
that it a success becomes
lit.: 'the book I think you doubt will be a success'

b) het [**boek**] waarvan ik denk dat jij betwijfelt
the book which.of I think that you doubt
dat **het** een success wordt
that it a success becomes

3.2.5 Obligatoriness of the coreferring element

An overt coreferring element is obligatory, relating the proleptic object to a gap inside the complement clause leads to ungrammaticality:

(409) der [**Mann**], [**von dem**] ich glaube, dass du ***(ihn)** liebst
the man of who I believe that you him love
'the man who I think you love'

The requirement is even stronger: the proleptic object has to be *thematically* related to an element in the embedded clause. This is not the case in the following examples and leads to ungrammaticality:

(410) a) *Von [**Computern**] glaube ich, dass jeder einen PC kaufen sollte.
of computers.DAT believe I that everyone a PC buy should
lit.: 'I believe of computers that everyone should buy a PC.'

b) *die [**erste Weltmeisterschaft**], von der ich hoffe, dass Deutschland
the first world.championship of which I hope that Germany
nicht schon in der ersten Runde ausscheidet
not already in the first round drops.out
lit.: 'the first world championship that I hope Germany will not drop out in the first round'

c) *ein [**Wetter**], von dem ich hoffe, dass Peter zuhause bleibt
a weather of which I hope that Peter at.home stays
lit.: 'a weather which I hope Peter will stay at home'

This does not show that the proleptic object originates inside the embedded clause. But it shows that it is not thematically licensed outside the embedded clause.[140] It differs in this regard from indirect objects of verbs that also take a complement clause such as *tell*, as e.g. in the following example (Control verbs are different, of course):[141]

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[140] Henk van Riemsdijk (p.c.) has informed me that for him a coreferring element is not necessary. The following is grammatical for him:

i) Das Fahrrad – Nun, vom Fahrrad finde ich,
the bike well of.the bike think I
dass man sich doch lieber ein Auto kaufen sollte.
that one self PRT rather a car buy should
Lit.: 'The bike – Well, as for the bike, I think that one should rather buy a car.'

As suggested by the translation, the proleptic construction would thus be similar to the Hanging Topic construction in English. I do not share this judgment.

[141] Sjef Barbiers (p.c.) has informed me that there are varieties of Dutch where a gap is possible. I have to leave examination of those data for future research.

(411) I told **Mary** that Germany would drop out in the first round of the championship.

3.3 Reconstruction

In this section, I will discuss reconstruction effects in the proleptic construction. The pattern we find is pretty much the same as with regular A'-movement in German, in fact, it strongly resembles the pattern we find in relativization. Reconstruction for idiom interpretation, variable binding and Principle A is straightforward: the proleptic object is interpreted in the position occupied by the coreferring element.[142] Reconstruction effects therefore provide a strong argument in favor of a movement analysis of the proleptic construction.

It does not make much difference whether the proleptic construction involves relativization, topicalization or *wh*-movement, except in one area, namely Principle C effects. They are completely absent with relativization, but do occur in the matrix clause with topicalization and *wh*-movement. However, the fact that there is no reconstruction for Principle C into the embedded clause with topicalization and *wh*-movement in the proleptic construction sets them apart from their counterparts in normal long A'-movement.

This subsection is only devoted to reconstruction for idiom interpretation, binding and variable binding. Reconstruction for scope and the low construal of adjectives will be dealt with in the section on interpretation (3.5).

The presentation parallels the discussion in 2.2. I will first discuss idiom interpretation, variable binding, then Principle A and B. Subsection four is devoted to Principle C, which will receive the most attention. In subsection five I discuss the correlation between Principle C and variable binding. Subsection six addresses cases where the external head of relatives must not be reconstructed. Subsection seven deals with cases where the external head has to be interpreted in more than one position. Subsection eight is about reconstruction into intermediate positions and subsection nine concludes the section.

3.3.1 Idiom interpretation

Reconstruction of idiom chunks was shown to be systematic in German A'-movement. I repeat the relevant examples from 2.2.1:

(412) a) die [**Rede**], die er __ **geschwungen** hat *eine Rede schwingen* =
the speech which he swung has 'give a speech'
'the speech he gave'

[142] This is not always correct because – as discussed in 3.2.1 – the coreferring pronoun often occurs higher than its theta-position. Strictly speaking, then, the reconstruction site is the theta-position of the coreferring pronoun. I often leave the coreferring pronoun in its theta-position to indicate the reconstruction site more clearly.

b) [**Was für eine Rede**]$_1$ hat er gestern wohl __$_1$ **geschwungen**?
what.kind.of speech has he yesterday PRT swung
'What kind of speech did he give yesterday?'

c) [**Eine Rede**]$_1$ hat er __$_1$ **geschwungen**.
a speech has he swung
'A speech, he gave.'

This extends to long-distance A'-movement (keeping in mind that long-distance relativization is degraded for many):

(413) a) #die [**Rede**], die ich sagte, dass er __ **geschwungen** habe
the speech which I said that he swung has
'the speech I said he gave'

b) [**Was für eine Rede**]$_1$ glaubst du,
what.kind.of speech believe you
dass er gestern __$_1$ **geschwungen** hat?
has he yesterday swung has
'What kind of speech do you think he gave yesterday?'

Reconstruction for idiom interpretation is also possible in the proleptic construction as the following examples show:[143]

(414) a) die [**Rede**], von der ich sagte, dass er sie **geschwungen** habe
the speech of which I said that he it swung has
'the speech I said he gave'

b) Von [**welcher Rede**]$_1$ glaubst du,
of which speech believe you
dass er sie gestern wieder einmal **geschwungen** hat?
has he it yesterday once.again swung has
'Which speech do you think he gave once again yesterday?'

b) Von [**dieser Rede**]$_1$ hoffe ich nicht,
of this speech hope I not
dass er sie schon wieder **geschwungen** hat.
that he it again swung has
'This speech I don't hope he has given again'

3.3.2 Variable binding

Recall first variable binding in regular A'-movement: as shown in 2.2.3, all types of A'-movement show straightforward reconstruction effects. I repeat the relevant examples:

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[143] As pointed out before (cf. footnote 24), only relatively transparent collocations can be used in A'-movement. I will show in 3.5 that the proleptic construction imposes certain semantic restrictions on the proleptic object. As a consequence, the range of collocations that can be used with it is more limited than in regular A'-movement.

(415) a) das [Foto von **seiner$_i$** Geliebten],
the picture of his beloved
das **jeder Mann$_i$** in seiner Brieftasche __ hat
which every man in his wallet has
'the picture of his$_i$ beloved that every man$_i$ keeps in his wallet'

b) der Fotograf, [dessen Foto von **seiner$_i$** Geliebten]$_1$ **jeder Mann$_i$**
the photographer whose picture of his beloved every man
gerne in seiner Brieftasche __$_1$ hätte
likes.to in his wallet had.SUBJ
'the photographer whose picture of his$_i$ beloved every man$_i$ would like to keep in his wallet'

b) [Was für ein Foto von **seiner$_i$** Geliebten]$_1$
what.kind.of picture of his beloved
hat **jeder Mann$_i$** in seiner Brieftasche __$_1$?
has every man in his wallet
'What kind of picture of his$_i$ beloved does every man$_i$ keep in his wallet?'

c) [Ein Foto von **seiner$_i$** Geliebten]$_1$
A picture of his beloved
hat **jeder Mann$_i$** in seiner Brieftasche __$_1$.
has every man in his wallet
'A picture of his$_i$ beloved, every man$_i$ keeps in his wallet.'

If we add a level of embedding, we get reconstruction into the complement clause (as pointed out in the introduction to this chapter, long relativization is degraded for many speakers):

(416) a) #das [Foto von **seiner$_i$** Geliebten], das ich glaube,
the picture of his beloved which I believe
dass **jeder Mann$_i$** in seiner Brieftasche __ hat
that every man in his wallet has
'the picture of his$_i$ beloved that I think every man$_i$ keeps in his wallet'

b) [Was für ein Foto von **seiner$_i$** Geliebten]$_1$ glaubst du,
what.kind.of picture of his beloved believe you
dass **jeder Mann$_i$** in seiner Brieftasche __$_1$ hat?
that every man in his wallet has
'What kind of picture of his$_i$ beloved do you think every man$_i$ keeps in his wallet?'

The same is found in the proleptic construction. The bound pronoun can be bound by QPs located in the embedded clause. The reconstruction site corresponds to the position occupied by the coreferring element. I will first discuss pronouns contained in the external head of relatives and then pronouns inside the operator phrase.

3.3.2.1 Pronouns inside the external head

The following pair shows reconstruction of a bound pronoun inside the external head:

(417) a) Die [Periode **seines$_i$** Lebens], von der ich glaube,
the period his.GEN life.GEN of whichI believe
dass **keiner$_i$** gerne dar-an denkt, ist die Pubertät.
that no.one likes.to there-at thinks is the puberty

b) De [periode van **z'n$_i$** leven] waarvan ik denk
the period of his life whereof I think
dat **niemand$_i$** er graag aan terug denkt is de puberteit.
that no.one there likes.to to back thinks is the puberty NL
'The period of his$_i$ life I think no one$_i$ likes to remember is puberty.'

3.3.2.2 Pronouns contained inside the operator phrase

We get the same results with pronouns inside the operator phrase, be it relativization, *wh*-movement or topicalization:

(418) der Journalist, von [dessen Artikel über **sein$_i$** Privatleben]
the journalist of whose articles about his private.life
ich glaube, dass **jeder Star$_i$** sie fürchtet
I believe that every star them fears
'the journalist whose articles about his$_i$ private life I think every star$_i$ is afraid of'

b) Von [welcher Periode **seines$_i$** Lebens] denkst du,
of which period his.GEN life.GEN think you
dass **keiner$_i$** gerne dran denkt?
that no.one likes.to there.at think
'Which period of his$_i$ life do you think no one$_i$ likes to remember?'

c) Von [dieser Periode **seines$_i$** Lebens] denke ich,
of this period his.GEN life.GEN think I
dass **keiner$_i$** gerne dran denkt.
that no.one likes.to there.at think
'This period of his$_i$ life, I think no one$_i$ likes to remember.'

With topicalization, a somewhat different type can also be tested: The bound pronoun does not have to be embedded in the complement of N, it can also be its specifier. Reconstruction for variable binding is possible in that case as well:

(419) Von [**seiner$_i$** Mutter] weiß man doch,
of his mother knows one PRT
dass **kein Teenager$_i$** sie toll findet.
that no teenager her great finds
'His$_i$ mother, one knows no teenager$_i$ finds great.'

3.3.3 Principle A

In 2.1.1 I established that anaphors in German (and Dutch) are subject to the Binding Theory. Consequently, if an anaphor can be bound by an antecedent that does not c-command it at surface structure, the anaphor has to be reconstructed since alternative mechanisms such as logophoric interpretation are not available. I also pointed out in 2.2.5 that the cases with a coreferential implicit PRO strictly speaking do not provide evidence for reconstruction for anaphor binding because the actual binder is the PRO:

(420) die [**PRO$_i$** Meinung von **sich$_i$**], die **er$_i$** __ hat
the opinion of self which he has
lit.: 'the opinion of himself$_i$ that he$_i$ has'

The same holds, of course, for corresponding examples in the proleptic construction, as the following example shows:

(421) die [**PRO$_i$** Meinung von **sich$_i$**], von der ich sagte,
the opinion of self of which I said
dass **Peter$_i$** sie habe, ist positiv.
that Peter it has is positive
'The opinion of himself$_i$ that I said Peter$_i$ had is very positive.'

Such examples do show, however, that there must be reconstruction to control the PRO, cf. the discussion in 1.3.3.

But even without an implicit PRO, reconstruction for Principle A was shown to be systematic in all types of A'-movement (2.2.5). I repeat some relevant examples:

(422) a) das [Bild von **sich$_i$**], das **Peter$_i$** __ am liebsten mag
the picture of self which Peter the best likes
'the picture of himself$_i$ that Peter$_i$ likes best'

b) [Welches Gerücht über **sich$_i$**]$_1$ kann **Peter$_i$** nicht __$_1$ ertragen?
which rumor about self can Peter not bear
'Which rumor about himself$_i$ can't Peter$_i$ bear?'

c) [Diesen Wesenszug von **sich$_i$**]$_1$ kannte **Peter$_i$** noch nicht __$_1$.
this trait of self knew Peter still not
'This trait of himself$_i$, Peter$_i$ did not know yet.'

Reconstruction is also observed if a level of embedding is added and the binder occurs in the embedded clause (again, long relativization is degraded for many):

(423) a) #das [Bild von **sich$_i$**], das ich glaube,
the picture of self which I believe
dass **Peter$_i$** __ am liebsten mag
that Peter the best likes
'the picture of himself$_i$ that I think Peter$_i$ likes best'

b) [Welches Gerücht über **sich$_i$**]$_1$ glaubst du,
which rumor about self believe you
dass **Peter$_i$** nicht __$_1$ ertragen kann?
that Peter not bear can
'Which rumor about himself$_i$ do you think Peter$_i$ can't bear?'

c) [Diesen Wesenszug von **sich$_i$**]$_1$ glaube ich,
this trait of self believe I
dass **Peter$_i$** noch nicht __$_1$ kannte.
that Peter still not knew
'This trait of himself$_i$ I think Peter$_i$ did not know yet.'

As the following subsections show, the proleptic construction patterns the same. Reconstruction for Principle A is found with all types of A'-movement. For reasons that will become clear later on, it is also important to look at cases where the binder is located in the matrix clause. I will first discuss anaphors inside the external head and then anaphors contained in the relative operator:

3.3.3.1 Anaphors inside the external head

Reconstruction into the embedded clause is straightforward. None of the following cases contain an implicit PRO:

(424) a) das [Bild von **sich$_i$**], von dem ich glaube,
the picture of self of which I believe
dass **Peter$_i$** es am besten findet
that Peter it the best finds
'the picture of himself$_i$ that I think Peter$_i$ likes best'

b) das [Gerücht über **sich$_i$**], von dem ich glaube,
the rumor about self of which I believe
dass **Peter$_i$** es nicht ertragen kann
that Peter it not bear can
'the rumor about himself$_i$ that I think Peter$_i$ cannot bear'

c) das [Spiegelbild von **sich$_i$**], von dem ich glaube,
the reflection of self of which I believe
dass **Peter$_i$** es an der Wand sah
that Peter it on the wall saw
'the reflection of himself$_i$ that I think Peter$_i$ saw on the wall'

d) die [Lügen über **einander$_i$**], von denen ich glaube,
the lies about each.other of which I believe
dass **Hans und Marie$_i$** sie gehört haben
that John and Mary them heard have
'the lies about each other$_i$ that I think John and Mary$_i$ heard'

(425) a) de [foto van **zichzelf$_i$**] waarvan ik denk
the picture of self whereof I think
dat **Piet$_i$** ze heel leuk vindt
that Peter it very cool finds
'the picture of himself$_i$ that I think Peter$_i$ likes a lot' NL

b) het [gerucht over **zichzelf$_i$**] waarvan ik denk
the rumor about self whereof I think
dat **Piet$_i$** het niet wil horen
that Peter it not wants to.hear
'the rumor about himself$_i$ that I think Peter$_i$ does not want to hear' NL

c) het [spiegelbeeld van **zichzelf$_i$**] waarvan ik denk
the reflection of self whereof I think
dat **Piet$_i$** het op de muur zag
that Peter it on the wall saw
'the reflection of himself$_i$ that I think Peter$_i$ saw on the wall' NL

d) de [leugens over **elkaar$_i$**] waarvan ik denk
the lies about each.other whereof I think
dat **Hans en Marie$_i$** ze hebben gehoord
that John and Mary them have heard
'the lies about each other$_i$ that I think John and Mary$_i$ heard' NL

The next set shows that the anaphor can also be bound by the matrix subject:

(426) a) das [Bild von **sich$_i$**], von dem **Peter$_i$** denkt,
the picture of self of which Peter thinks
dass es das schönste ist
that it the most.beautiful is
'the picture of himself$_i$ that Peter$_i$ thinks is the most beautiful one'

b) das [Gerücht über **sich$_i$**], von dem **Peter$_i$** denkt,
the rumor about self of which Peter thinks
dass es ein Skandal ist
that it a scandal is
'the rumor about himself$_i$ that Peter$_i$ thinks is scandalous'

c) der [Wesenszug von **sich$_i$**], von dem **Peter$_i$** glaubt,
the trait of self of which Peter thinks
dass ich ihn noch nicht kenne
that I it still not know
'the trait of himself$_i$ that Peter$_i$ thinks I still know yet'

d) die [Lügen über **einander$_i$**], von denen **[Hans und Maria]$_i$** fürchten,
the lies about each.other of which John and Mary fear
dass man sie erzählt
that one them tells
'the lies about each other$_i$ that John and Mary$_i$ fear one is telling'

(427) a) de [foto van **zichzelf$_i$**] waarvan **Piet$_i$** denkt
the picture of self whereof Peter thinks
dat ze de mooiste is
that it the most.beautiful is NL

b) het [gerucht over **zichzelf$_i$**] waarvan **Piet$_i$** denkt
the rumor about self whereof Peter thinks
dat het een schandaal is
that it a scandal is NL

c) het [gedeelte van **zichzelf$_i$**] waarvan **Piet$_i$** denkt
the part of self whereof Peter thinks
dat ik het nog niet ken
that I it still not know NL

d) de [leugens over **elkaar$_i$**] waarvan **Hans en Marie$_i$** vrezen
the lies about each.other whereof John and Mary fear
dat men ze verteld
that one them tells NL

Reconstruction is straightforward in both cases. The fact that the anaphor can also be bound in the matrix clause will be taken up again in 3.3.9.1.

3.3.3.2 Anaphors inside the operator phrase

We find the same pattern with topicalization and *wh*-movement in the matrix clause. Reconstruction for Principle A is systematic. The following examples have the binder in the embedded clause. The first set shows *wh*-movement:

(428) a) Von [welchem Foto von **sich$_i$**] denkst du,
of which picture of self think you
dass **Peter$_i$** es am besten findet?
that Peter it the best finds
'Which picture of himself$_i$ do you think Peter$_i$ likes best?'

b) Von [welchem Gerücht über **sich$_i$**] denkst du,
of which rumor about self think you
dass **Peter$_i$** stolz drauf ist?
that Peter proud there.on is
'Which rumor about himself$_i$ do you think Peter$_i$ is proud of?'

c) Von [welchem Wesenszug von **sich$_i$**] denkst du,
of which trait of self think you
dass **Peter$_i$** ihn verheimlichen möchte?
that Peter it conceal would.like.to
'Which trait of himself$_i$ do you think Peter$_i$ would like to conceal?'

d) Von [welchem Gerücht über **einander**$_i$] fürchtest du,
of which rumor about each.other fear you
dass **Hans und Marie**$_i$ es bereits gehört haben?
that John and Mary it already heard have
'Which rumor about each other$_i$ do you fear John and Mary$_i$ have already heard?'

The second set shows topicalization:

(429) a) Von [diesem Bild von **sich**$_i$] glaube ich schon, dass **Peter**$_i$ es mag.
of this picture of self believe I indeed that Peter it likes
'This picture of himself$_i$ I think Peter$_i$ likes.'

b) Von [diesem Gerücht über **sich**$_i$] glaube ich schon,
of this rumor about self think I indeed
dass **Peter**$_i$ stolz drauf ist.
that Peter proud there.on is
'This rumor about himself$_i$ I think Peter$_i$ is proud of.'

c) Von [diesem Wesenszug von **sich**$_i$] glaube ich schon,
of this trait of self believe I indeed
dass **Peter**$_i$ ihn verheimlichen möchte.
that Peter it conceal would.like.to
'This trait of himself$_i$ I think Peter$_i$ would like to conceal.'

d) Von [diesem Gerücht über **einander**$_i$] fürchte ich,
of this rumor about each.other fear I
dass **Hans und Marie**$_i$ es bereits gehört haben
that John and Mary it already heard have
'This rumor about each other$_i$ I fear John and Mary$_i$ have already heard.'

The anaphor can also be bound in the matrix clause. The following examples show *wh*-movement:

(430) a) Von [welchem Foto von **sich**$_i$] denkt **Peter**$_i$,
of which picture of self thinks Peter
dass es das schönste ist?
that it the most.beautiful is
'Which picture of himself$_i$ does Peter$_i$ think is the most beautiful one?'

b) Von [welchem Gerücht über **sich**$_i$] denkt **Peter**$_i$,
of which rumor about self thinks Peter
dass es ein Skandal ist?
that it a scandal is
'Which rumor about himself$_i$ does Peter$_i$ think is scandalous?'

c) Von [welchem Wesenszug von **sich$_i$**] denkt **Peter$_i$**,
of which trait of self thinks Peter
dass ich ihn noch nicht kenne?
that I it still not know
'Which trait of himself$_i$ does Peter$_i$ think that I don't know yet?'

d) Von [welchen Lügen über **einander$_i$**] fürchten **Hans und Marie$_i$**
of which lies about each.other fear John and Mary
dass man sie erzählt?
that one them tells
'Which lies about each other$_i$ do John and Mary$_i$ fear one is telling?'

The same holds for topicalization:

(431) a) Von [diesem Bild von **sich$_i$**] denkt **Peter$_i$**,
of this picture of self thinks Peter
dass es das schönste ist.
that it the most.beautiful is
'This picture of himself$_i$ Peter$_i$ thinks is the most beautiful one.'

b) Von [diesem Gerücht über **sich$_i$**] denkt **Peter$_i$**,
of this rumor about self thinks Peter
dass es ein Skandal ist.
that it a scandal is
'This rumor about himself$_i$ Peter$_i$ thinks is scandalous.'

c) Von [diesem Wesenszug von **sich$_i$**] hofft **Peter$_i$**,
of this trait of self hopes Peter
dass ich ihn noch nicht kenne
that I it still not know
'This trait of himself$_i$ Peter$_i$ hopes I don't know yet.'

d) Von [diesen Lügen über **einander$_i$**] fürchten **Hans und Marie$_i$**
of these lies about each.other fear John and Mary
dass man sie erzählt.
that one them tells
'These lies about each other$_i$ John and Mary$_i$ fear one is telling.'

With topicalization, another case can be tested, namely, when the entire proleptic object corresponds to an anaphor. In this case, binding by the matrix subject is possible:[144]

(432) Von [**sich$_i$**] denkt **Peter$_i$** immer, dass er der beste ist.
of self thinks Peter always that he the best is
'Himself$_i$ Peter$_i$ always believes to be the best.'

[144] Reconstruction into the embedded clause cannot be tested because that is independently ruled out by Principle B: the coreferring pronoun would be locally bound by the embedded subject.

In sum, reconstruction for Principle A is systematic in the proleptic construction, regardless of what type of A'-movement applies in the matrix clause. Importantly, the binder can be located both in the matrix and in the embedded clause. I will come back to this in 3.3.9.1.

3.3.4 Principle B

Principle B effects were shown to be absent in regular A'-movement (2.2.5):

(433) a) das [Bild von **ihm$_i$**], das **Peter$_i$** in der Zeitung __ sah
the picture of him which Peter in the newspaper saw
'the picture of him$_i$ that Peter$_i$ saw in the newspaper'

b) [Welches Bild von **ihm$_i$**]$_1$ hat **Peter** in der Zeitung __$_1$ gesehen?
which picture of him has Peter in the newspaper seen
'Which picture of him$_i$ did Peter$_i$ see in the newspaper?'

This has to do with the fact that coreferential pronouns are acceptable in picture NPs as discussed in 2.1.3. It is therefore little surprising that we also do not find any Principle B effects in the proleptic construction if the binder is located inside the embedded clause (nothing changes if the binder is in the matrix clause). The first pair illustrates relativization:

(434) a) das [Bild von **ihm$_i$**], von dem ich glaube,
the picture of him of which I believe
dass **Peter$_i$** es am schönsten findet
that Peter it the most.beautiful finds
'the picture of him$_i$ that I think Peter$_i$ finds most beautiful'

b) der [Wesenszug von **ihm$_i$**], von dem ich glaube,
the trait of him of which I believe
dass **Peter$_i$** ihn nicht kennt
that Peter it not knows
'the trait of him$_i$ that I think Peter$_i$ does not know'

The second pair illustrates *wh*-movement and topicalization:

(435) a) Von [welchem Wesenszug von **ihm$_i$**] denkst du,
of which trait of him think you
dass **Peter$_i$** ihn noch nicht kennt?
that Peter it still not knows
'Which trait of him$_i$ do you think Peter$_i$ does not know yet?'

b) Von [diesem Wesenszug von **ihm$_i$**] denke ich,
of this trait of him think I
dass **Peter$_i$** ihn noch nicht kennt.
that Peter it still not knows
'This trait of him$_i$ I think Peter$_i$ does not know yet.'

The semi-idiomatic cases with an implicit PRO (cf. 2.1.3) are ungrammatical, again as in regular A'-movement:

(436) a) *die [**PRO**$_i$ Meinung von **ihm**$_i$], die **er**$_i$ __ hat
the opinion of him which he has
lit.: 'the opinion of him$_i$ that he$_i$ has'

b) *Die [**PRO**$_i$ Meinung von **ihm**$_i$], von der ich sagte,
the opinion of him of which I said
dass **Peter**$_i$ sie habe, ist sehr positiv.
that Peter it has is very positive
'The opinion of him$_i$ that I said Peter$_i$ had is very positive.'

As noted previously, such cases do not provide evidence for binding. Still, they show that there is reconstruction into the embedded clause to control the PRO.

In sum, Principle B in the proleptic construction shows the same pattern as in regular A'-movement and does not provide evidence for reconstruction.[145]

3.3.5 Principle C

As discussed in 2.2.6, reconstruction for Principle C is absent in German relatives, but systematic in other types of A'-movement. I repeat a few relevant examples:

(437) a) das [Bild von **Peter**$_i$], das **er**$_i$ __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b)??die Fotografin, [deren Bild von **Peter**$_i$]$_1$ **er**$_i$ __$_1$ am besten findet
the photographer whose picture of Peter he the best likes
lit.: 'the photographer whose picture of Peter$_i$ he$_i$ likes best'

c) *[Welches Bild von **Peter**$_i$]$_1$ findet **er**$_i$ __$_1$ am besten?
which picture of Peter finds he the best
lit.: 'Which picture of Peter$_i$ does he$_i$ like best?'

d) *[Dieses Bild von **Peter**$_i$]$_1$ findet **er**$_i$ __$_1$ am besten.
this picture of Peter finds he the best
lit.: 'This picture of Peter$_i$ he$_i$ likes best.'

The Condition C pattern remains the same if a level of embedding is added and the coreferential pronoun is in the complement clause (again, long relativization is degraded for many):

(438) a) #das [Bild von **Peter**$_i$], das ich glaube,
the picture of Peter which I believe
dass **er**$_i$ __ am besten findet
that he the best finds
'the picture of Peter$_i$ that I believe he$_i$ likes best'

---

[145] I will show in 3.3.9.1, however, that when the proleptic object is just a pronoun we can get Condition B effects in the matrix clause.

b) *[Welches Bild von **Peter$_i$**]$_1$ glaubst du,
which picture of Peter believe you
dass **er$_i$** __$_1$ am besten findet?
that he the best finds
lit.: 'Which picture of Peter$_i$ do you think he$_i$ likes best?'

c) *[Dieses Bild von **Peter$_i$**]$_1$ glaube ich,
this picture of Peter believe I
dass **er$_i$** __$_1$ am besten findet.
that he the best finds
lit.: 'This picture of Peter$_i$ I think he$_i$ likes best.'

As we shall see presently, this asymmetry is only partially found in the proleptic construction. Principle C effects are completely absent if the coreferential pronoun is located inside the complement clause. However, things are different when the coreferring pronoun is located in the matrix clause. In that case, we get Condition C effects with *wh*-movement and topicalization, but not with relativization.

I will first discuss R-expressions contained in the external head and then R-expressions contained in the operator phrase. I will also discuss other aspects that were shown to be important in 2.2.6 such as the semi-idiomatic cases and Crossover effects.

3.3.5.1 R-expressions inside the external head

Principle C effects are completely absent if there is relativization in the proleptic construction. This is independent of the position of the coreferential pronoun and holds for R-expressions inside arguments. In the following examples the coreferential pronoun is in the embedded clause:

(439) a) das [Bild von **Peter$_i$**], von dem ich glaube,
the picture of Peter of which I believe
dass **er$_i$** es am besten mag
that he it the best likes
'the picture of Peter$_i$ that I think he$_i$ likes best'

b) die [Verwandten von **Peter$_i$**], von denen ich weiß, dass **er$_i$** sie mag
the relatives of Peter of who I know that he them likes
'the relatives of Peter$_i$ that I know he$_i$ likes'

c) der [Wesenszug von **Peter$_i$**, von dem ich fürchte,
the trait of Peter of which I fear
dass **er$_i$** ihn noch nicht kennt
that he it still not knows
'the trait of Peter$_i$ that I fear that he$_i$ does not know yet'

d) die [Nachforschungen über **Peter$_i$**], von denen ich vermute,
the investigations about Peter of which I suspect
dass **er$_i$** sie vor mir verheimlichen wollte
that he them from me conceal wanted
'the investigations about Peter$_i$ that I suspect he$_i$ wanted to conceal from me'

The following examples have the coreferential pronoun in the matrix clause:

(440) a) das [Bild von **Peter$_i$**], von dem **er$_i$** glaubt,
the picture of Peter of which he believes
dass es das schönste ist
that it the most.beautiful is
'the picture of Peter$_i$ that he$_i$ thinks is the most beautiful one'

b) die [Verwandten von **Peter$_i$**], von denen **er$_i$** sagt,
the relatives of Peter of who he says
dass sie dumm seien
that they stupid are
'the relatives of Peter$_i$ that he$_i$ says are stupid'

c) der [Wesenszug von **Peter$_i$**], von dem **er$_i$** glaubt,
the trait of Peter of which he believes
dass ich ihn nicht kenne
that I it not know
'the trait of Peter$_i$ that he$_i$ thinks that I don't know'

d) die [Nachforschungen über **Peter$_i$**], von denen **er$_i$** vermutet,
the investigations about Peter of which he suspects
dass sie politisch motiviert sind
that they politically motivated are
'the investigations about Peter$_i$ that he$_i$ suspects are politically motivated'

3.3.5.2 R-expressions inside the operator phrase

With R-expressions inside the relative operator, we get a different pattern. If the coreferential pronoun is located in the embedded clause, we do not get a Condition C violation. The first set shows this for R-expressions inside relative operators:

(441) a) die Fotografin, von [deren Bild von **Peter$_i$**] ich glaube,
the photographer of whose picture of Peter I believe
dass **er$_i$** es mag
that he it likes
lit.: 'the photographer whose picture of Peter$_i$ I think he$_i$ likes'

b) die Journalistin, von [deren Lüge über **Peter$_i$**] ich hoffe,
the journalist of whose lie about Peter I hope
dass **er$_i$** sie nie erfährt
that he it not find.out
lit.: 'the journalist whose lie about Peter$_i$ I hope he$_i$ will never find out about'

c) die Freundin, von [deren Meinung von **Peter$_i$**] ich hoffe,
the girlfriend of whose opinion of Peter I hope
dass **er$_i$** sie schätzt
that he it appreciates
lit.: 'the girlfriend whose opinion of Peter$_i$ I hope he$_i$ appreciates'

Wh-movement also does not show Condition C effects:

(442) a) Von [welchem Bild von **Peter$_i$**] glaubst du,
of which picture of Peter believe you
dass **er$_i$** es am besten mag?
that he it the best likes
lit.: 'Which picture of Peter$_i$ do you think he$_i$ likes best?'

b) Von [welchen Verwandten von **Peter$_i$**] denkst du, dass **er$_i$** sie mag?
of which relative of Peter think you that he them likes
lit.: 'Which relatives of Peter$_i$ do you think he$_i$ likes?'

c) Von [welchem Wesenszug von **Peter$_i$**] denkst du,
of which trait of Peter think you
dass **er$_i$** ihn noch nicht kennt?
that he it still not knows
lit.: 'Which trait of Peter$_i$ do you think he$_i$ does not know yet?'

d) Von [welcher Nachforschung über **Peter$_i$**] denkst du, dass **er$_i$** sie
of which investigation about Peter think you that he it
vor dir verheimlichen wollte?
from you conceal wanted
lit.: 'Which investigation about Peter$_i$ do you think he$_i$ wanted to conceal from you?'

Condition C effects are neither found with topicalization:

(443) a) Von [diesem Bild von **Peter$_i$**] glaube ich schon,
of this picture of Peter believe I indeed
dass **er$_i$** es am besten mag.
that he it the best likes
lit.: 'This picture of Peter$_i$ I think he$_i$ likes best.'

b) Von [diesen Verwandten von **Peter$_i$**] glaube ich schon,
of these relatives of Peter believe I indeed
dass **er$_i$** sie mag.
that he them likes
lit.: 'These relatives of Peter$_i$, I think he$_i$ likes.'

c) Von [diesem Wesenszug von **Peter$_i$**] denke ich,
of this trait of Peter think I
dass **er$_i$** ihn noch nicht kennt.
that he it still not knows
lit.: 'This trait of Peter$_i$, I think he$_i$ does not know yet.'

d) Von [dieser Nachforschung über **Peter$_i$**] denke ich nicht,
of this investigation about Peter think I not
dass **er$_i$** sie vor dir verheimlichen wollte.
that he it from you conceal wanted
'This investigation about Peter$_i$, I do not think he$_i$ wanted to conceal from you.'

However, if the coreferential pronoun is in the matrix clause, we get systematic Principle C violations. The first set shows this for relative operators:

(444) a) *die Fotografin, von [deren Bild von **Peter$_i$**] **er$_i$** denkt,
the photographer of whose picture of Peter he thinks
dass es ein Skandal ist
that it a scandal is
lit.: 'the photographer whose picture of Peter$_i$ he$_i$ thinks is scandalous'

b) *die Journalistin, von [deren Lüge über **Peter$_i$**] **er$_i$** hofft,
the journalist of whose lie about Peter he hopes
dass sie niemand erfährt
that it no.one finds.out
lit.: 'the journalist whose lie about Peter$_i$ he$_i$ hopes no one will find out about'

c) *die Freundin, von [deren Meinung von **Peter$_i$**] **er$_i$** hofft,
the girlfriend of whose opinion of Peter he hopes
dass sie gut bleibt
that it good stays
lit.: 'the girlfriend whose opinion of Peter$_i$ he$_i$ hopes will remain positive'

Wh-movement also shows Condition C effects in this configuration:

(445) a) *Von [welchem Bild von **Peter$_i$**] denkt **er$_i$**,
of which picture of Peter thinks he
dass es das schönste ist?
that it the most.beautiful is
lit.: 'Which picture of Peter$_i$ does he$_i$ think is the most beautiful one?'

d) *Von [welchen Verwandten von **Peter$_i$**] glaubt **er$_i$**,
Of which relatives of Peter believes he
dass sie dumm sind?
that they stupid are
lit.: 'Which relatives of Peter$_i$ does he$_i$ think are stupid?'

c) *Von [welchem Wesenszug von **Peter$_i$**] denkt **er$_i$**,
of which trait of Peter thinks he
dass er peinlich ist?
that it embarrassing is
lit.: 'Which trait of Peter$_i$ does he$_i$ think is embarrassing?'

d) *Von [welchen Nachforschungen über **Peter$_i$**] denkt **er$_i$**,
of which investigations about Peter thinks he
dass sie politisch motiviert sind?
that they politically motivated are
lit.: 'Which investigations about Peter$_i$ does he$_i$ think are politically motivated?'

Topicalization patterns the same:

(446) a) *Von [diesem Bild von **Peter$_i$**] denkt **er$_i$**,
of this picture of Peter thinks he
dass es das schönste ist.
that it the most.beautiful is
lit.: 'This picture of Peter$_i$ he$_i$ thinks is the most beautiful one.'

d) *Von [diesen Verwandten von **Peter$_i$**] glaubt **er$_i$**,
of these relatives of Peter believes he
dass sie dumm sind.
that they stupid are
lit.: 'These relatives of Peter$_i$ he$_i$ thinks are stupid.'

c) *Von [diesem Wesenszug von **Peter$_i$**] denkt **er$_i$**,
of this trait of Peter thinks he
dass er peinlich ist.
that it embarrassing is
lit.: 'This trait of Peter$_i$ he$_i$ thinks is embarrassing.'

d) *Von [diesen Nachforschungen über **Peter$_i$**] denkt **er$_i$**,
of these investigations about Peter thinks he
dass sie politisch motiviert sind.
that they politically motivated are
lit.: 'These investigations about Peter$_i$ he$_i$ thinks are politically motivated.'

This is a very interesting result for two reasons. First, in regular A'-movement, there is a clear asymmetry between relatives and other types of A'-movement with respect to Condition C. In the proleptic construction, however, this asymmetry is

limited to cases where the binder is in the matrix clause. When it is in the embedded clause, however, there are no Condition C effects at all, even with R-expressions contained in the operator phrase.

3.3.5.3 The argument-adjunct asymmetry

As the previous subsection showed, Condition C effects are limited in the proleptic construction. They only occur with *wh*-movement and topicalization, and only if the coreferential element is located in the matrix clause. In the cases tested above, the R-expressions were contained in arguments. The Condition C effects vanish as soon as the R-expressions are inside adjuncts. We therefore get a residual argument-adjunct asymmetry (cf. 2.2.6.3).

The following set shows this for R-expressions inside relative operators:

(447) a) *der Detektiv, von [dessen Nachforschungen über **Kohl$_i$**] **er$_i$** denkt,
the detective of whose investigations about Kohl he thinks
dass sie ungerecht sind
that they unfair are
lit.: 'the detective whose investigations about Kohl$_i$ he$_i$ thinks are unfair'

b) der Detektiv, von [dessen Nachforschungen nahe **Kohls$_i$** Haus] **er$_i$**
the detective of whose investigations near Kohl's house he
denkt, dass sie ungerecht sind
thinks that they unfair are
'the detective whose investigations near Kohl's$_i$ house he$_i$ thinks are unfair'

The same is found with *wh*-movement:

(448) a) *Von [welchen Nachforschungen über **Kohl$_i$**] denkt **er$_i$**,
of which investigations about Kohl thinks he
dass sie unnötig sind?
that they unnecessary are
lit.: 'Which investigations about Kohl$_i$ does he$_i$ think are unnecessary?'

b) Von [welchen Nachforschungen nahe **Kohls$_i$** Haus] denkt **er$_i$**,
of which investigations near Kohl's house thinks he
dass sie unnötig sind?
that they unnecessary are
'Which investigations near Kohl's$_i$ house does he$_i$ think are unnecessary?'

With topicalization, we also find an argument-adjunct asymmetry:

(449) a) *Von [diesen Nachforschungen über **Kohl$_i$**] denkt **er$_i$**,
of these investigations about Kohl thinks he
dass sie unnötig sind.
that they unnecessary are
lit.: 'These investigations about Kohl$_i$ he$_i$ thinks are unnecessary.'

b) Von [diesen Nachforschungen nahe **Kohls$_i$** Haus] denkt **er$_i$**,
of these investigations near Kohl's house thinks he
dass sie unnötig sind.
that they unnecessary are
'These investigations near Kohl's$_i$ house he$_i$ thinks are unnecessary.'

3.3.5.4 Semi-idiomatic cases

In normal relativization, the semi-idiomatic cases turned out to be crucial for the analysis, cf. 2.4.5.5. I observed that they are ungrammatical without embedding, but improve once the coreferential pronoun is more distant from the extraction site. I repeat the relevant pair:

(450) a) *die [Meinung von **Peter$_i$**], die **er$_i$** __ hat
the opinion of Peter which he has
lit.: 'the opinion of Peter$_i$ that he$_i$ has'

b) die [Meinung von **Peter$_i$**], die **er$_i$** glaubt, dass Maria __ hat
the opinion of Peter which he believes that Mary has
'the opinion of Peter$_i$ that he$_i$ thinks Mary has'

Importantly, such an improvement was not observed with other types of A'-movement (cf. 2.2.6.4):

(451) *[Welche Meinung von **Peter$_i$**]$_1$ glaubt **er$_i$**, dass Maria __$_1$ hat?
which opinion of Peter believes he that Mary has
lit.: 'Which opinion of Peter$_i$ does he$_i$ think Mary has?'

The situation is similar in the proleptic construction. If the coreferential pronoun is in the embedded clause and therefore close to the coreferring pronoun, the semi-idiomatic cases are ungrammatical with all types of A'-movement:

(452) a) *die [Meinung von **Peter$_i$**], von der ich glaube, dass **er$_i$** sie hat
the opinion of Peter of which I believe that he it has
lit.: 'the opinion of Peter$_i$ that I believe he$_i$ has'

b) *die [Geschichte über **Maria$_i$**], von der ich weiss,
the story about Mary of which I know
dass **sie$_i$** sie gerne erzählt
that she it likes.to.tell
lit.: 'the story about Mary$_i$ that I know she$_i$ likes to tell'

(453) a) *Von [was für einer Meinung von **Peter$_i$**] denkst du,
of what kind.of opinion of Peter think you
dass **er**$_i$ sie hat?
that he it has
lit.: 'What kind of opinion of Peter$_i$ do you think he$_i$ has?'

b) *Von [welcher Geschichte über **Maria$_i$**] weißt du,
of which story about Mary know you
dass **sie$_i$** sie gerne erzählt?
that she it likes.to tell
lit.: 'Which story about Mary$_i$ do you know that she$_i$ likes to tell?'

(454) a) *Von [dieser Meinung über **Peter$_i$**] denke ich schon,
of this opinion of Peter think I indeed
dass **er$_i$** sie haben könnte.
that he it have could
lit.: 'This opinion of Peter$_i$, I think he$_i$ could have indeed.'

b) *Von [dieser Geschichte über **Maria$_i$**] weiß ich,
of this story about Mary know I
dass **sie$_i$** sie gerne erzählt.
that she it likes.to tell
lit.: 'This story about Mary$_i$, I know that she$_i$ likes to tell.'

If, however, the coreferential pronoun is located in the matrix clause, the relative clause case improves to full grammaticality. With *wh*-movement or topicalization, on the other hand, the semi-idiomatic cases remain bad:

(455) a) die [Meinung von **Peter$_i$**], von der **er$_i$** glaubt,
the opinion of Peter of which he believes
dass jedermann sie habe
that everyone it has.SUBJ
lit.: 'the opinion of Peter$_i$ that he$_i$ thinks everyone has'

b) *Von [welcher Meinung von **Peter$_i$**] glaubt **er$_i$**,
of which opinion of Peter believes he
dass jedermann sie habe?
that everyone it had.SUBJ
lit.: 'Which opinion of Peter does he$_i$ think everyone has?'

c) *Von [dieser Meinung von **Peter$_i$**] glaubt **er$_i$**,
of this opinion of Peter believes he
dass jedermann sie habe
that everyone it has.SUBJ
lit.: 'This opinion of Peter$_i$ he$_i$ thinks everyone has.'

In 2.4.5.5 and 2.6 I discussed an interesting embedding effect with (semi-) idiomatic expressions. I repeat the relevant minimal pair (recall that *to break a fight off the fence* means 'start a fight'):

(456) a) *der [**PRO**$_i$ Streit über **Peter**$_i$], den **er**$_i$ __ vom Zaun gebrochen hat
the fight about Peter which he off.the fence broken has
lit.: 'the fight about Peter$_i$ that he$_i$ started'

b) der [**PRO**$_i$ Streit über Marias Kritik an **Peter**$_i$],
the fight about Mary's criticism of Peter
den **er**$_i$ __ vom Zaun brach
which he off.the fence broke
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

We find the same contrast in the proleptic construction, in all types of A'-movement:

(457) a) *der [**PRO**$_i$ Streit über **Peter**$_i$], von dem ich sagte,
the fight about Peter of which I said
dass **er**$_i$ ihn vom Zaun gebrochen hat
that he it off.the fence broken has
lit.: 'the fight about Peter$_i$ that I said he$_i$ started'

b) der [**PRO**$_i$ Streit über Marias Kritik an **Peter**$_i$], von dem
the fight about Mary's criticism of Peter of which
ich sagte, dass **er**$_i$ ihn vom Zaun gebrochen hat
I said that he it off.the fence broken has
lit.: 'the fight about Mary's criticism of Peter$_i$ that I said he$_i$ started'

(458) a) *Von [diesem **PRO**$_i$ Streit über **Peter**$_i$] sagte ich,
of this fight about Peter said I
dass **er**$_i$ ihn vom Zaun gebrochen habe.
that he it off.the fence broken has.SUBJ
lit.: 'This fight about Peter$_i$ I said he$_i$ started.'

b) Von [diesem [**PRO**$_i$ Streit über Marias Kritik an **Peter**$_i$] sagte ich,
of this fight about Mary's criticism of Peter said I
dass **er**$_i$ ihn vom Zaun gebrochen habe.
that he it off.the fence broken has.SUBJ
lit.: 'This fight about Mary's criticism of Peter$_i$, I said he$_i$ started.'

3.3.5.5 SCO effects

Strictly speaking, all the Condition C cases discussed in the previous subsection were Strong Crossover configurations. In this subsection, I will discuss SCO configurations where either only quantifiers are involved (relativization and *wh*-movement) or where the R-expression corresponds to the entire proleptic object (topicalization).

(S)SCO effects were shown to be straightforward in regular A'-movement, cf. 2.2.6.5. The same holds for the proleptic construction as long as operators are involved: the Crossover effects obtain systematically with relativization and *wh*-movement, both if the coreferential pronoun is in the matrix clause and if it is in the complement clause. The first two pairs illustrate relativization:

(459) a) *der Mann, von [**dem**$_i$] **er**$_i$ glaubt, dass er intelligent ist
the man of who he believes that he intelligent is
lit.: 'the man$_i$ who$_i$ he$_i$ thinks is intelligent'

b) *der Mann$_i$, von [**dessen**$_i$ Mutter] **er**$_i$ glaubt, dass sie intelligent ist
the man of whose mother he believes that she intelligent is
lit.: 'the man$_i$ whose$_i$ mother he$_i$ thinks is intelligent'

(460) a) *der Mann, von [**dem**$_i$] ich glaube, dass **er**$_i$ ihn nicht mag
the man of who I believe that he him not likes
lit.: 'the man who$_i$ I think he$_i$ does not like'

b) *der Mann, von [**dessen**$_i$ Vater] ich glaube, dass **er**$_i$ ihn nicht mag
the man of whose father I believe that he him not likes
lit.: 'the man whose$_i$ father I think he$_i$ does not like'

For obvious reasons (460)a is irrelevant because the coreferring pronoun triggers a Principle B effect. The next two pairs illustrate *wh*-movement:

(461) a) *Von [**wem**$_i$] glaubt **er**$_i$, dass er intelligent ist?
of who thinks he that he intelligent is
lit.: 'Who$_i$ does he$_i$ think is intelligent?'

b) *Von [**wessen**$_i$ Mutter] glaubt **er**$_i$, dass sie intelligent ist?
of whose mother thinks he that she intelligent is
lit.: 'Whose$_i$ mother does he$_i$ think is intelligent?'

(462) a) *Von [**wem**$_i$] glaubst du, dass **er**$_i$ ihn mag?
of who think you that he him likes
lit.: 'Who$_i$ do you think he$_i$ likes?'

b) *Von [**wessen**$_i$ Mutter] denkst du, dass **er**$_i$ sie mag?
of whose mother think you that he her likes
'Whose$_i$ mother do you think he$_i$ likes?'

Obviously, (462)a is again irrelevant because the coreferring pronoun independently triggers a Principle B effect.

With topicalization, things are somewhat different: SCO effects are only found in the matrix clause, but not in the embedded clause:

(463) a) *Von [**Peter**$_i$] glaubt **er**$_i$, dass er intelligent ist.
of Peter believes he that he intelligent is
lit.: 'Peter$_i$, he$_i$ thinks is intelligent.'

b) *Von [**Peters**$_i$ Bewerbung] glaubt **er**$_i$, dass sie gut ist.
of Peter application believes he that it good is
lit.: 'Peter's$_i$, application he$_i$ thinks is good.'

(464) a) *Von [**Peter**$_i$] glaube ich, dass **er**$_i$ ihn mag.
of Peter believe I that he him likes
lit.: 'Peter$_i$, I think he$_i$ likes.'

b) Von [**Peters$_i$** Bewerbung] denke ich,
of Peter's application think I
dass **er$_i$** sie überarbeiten muss.
that he it revise must
lit.: 'Peter's$_i$ application, I think he$_i$ should revise.'

(464)a is again irrelevant because of the Principle B effect triggered by the coreferring pronoun.

This is quite an intriguing pattern. The fact that we get Strong Crossover effects – usually subsumed under Condition C – in the embedded clause with relativization and *wh*-movement is surprising given the systematic absence of such effects elsewhere in the proleptic construction, as discussed in 3.3.5.2.

3.3.5.6 Summary: reconstruction for Principle C

Reconstruction for Principle C in the proleptic pattern yields an interesting pattern. There are two important asymmetries: first, R-expressions inside the external head are again special in that they never trigger Condition C effects, whereas other types of A'-movement do at least to some extent. Second, R-expressions inside the operator phrase show an asymmetry between main and subordinate clause. Condition C effects are only found if the coreferential pronoun is located in the matrix clause. In a sense, the Condition C pattern we find in the proleptic construction resembles the one found in relatives. This aspect will prove important for the analysis. The following table summarizes the Condition C effects with resumptive prolepsis:[146]

[146] A "+" indicates that a Condition C effect obtains.

(465)

Condition C effects		*external head*	*relative operator*	*wh-movement*	*Topicalization*
reconstruction of arguments	matrix clause (440), (444), (445), (446)	–	+	+	+
	embedded clause (439), (441), (442), (443)	–	–	–	–
reconstruction of adjuncts	matrix clause (447)b (448)b, (449)b	–	–	–	–
	embedded clause	–	–	–	–
argument-adjunct asymmetries	matrix clause (447)–(449)	–	+	+	+
	embedded clause	–	–	–	–
semi-idiomatic cases under embedding (455)		–	n.a.	+	+
embedding effect inside proleptic object with semi-idiomatic cases (456)–(458)		–	–	–	–
SCO and SSCO	main clause (459), (461), (463)	n.a.	+	+	+
	embedded clause (460), (462), (464)	n.a.	+	+	–

3.3.6 The correlation between Condition C and variable binding

Recall from (2.2.7.1) that the Condition C pattern in regular A'-movement does not change if reconstruction is forced for other reasons such as variable binding. There are no Condition C effects with relatives, but there are with other types of A'-movement:

(466) a) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

b) *[Welches Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit]$_1$ hat **er$_i$**
which book of Peter about her past has he
jeder *Schauspielerin$_j$* __$_1$ geschickt?
every.DAT actress sent
lit.: 'Which book by Peter$_i$ about her$_j$ past did he$_i$ send every actress$_j$?'

The same holds for the proleptic construction: the Condition C pattern we get once we force reconstruction via variable binding does not change.[147] With R-expressions in the external head, there are no Condition C effects, regardless of where the coreferential pronoun is located. With *wh*-movement and topicalization, Condition C effects only obtain if the coreferential pronoun is in the matrix clause. If the coreferential pronoun is in the embedded clause, there are no Condition C effects. The following examples illustrate the pattern with R-expressions inside the relative head:

(467) a) ?die [Briefe von **Hans$_i$** an *ihre$_j$* Eltern], von denen **er$_i$** denkt,
the letters of John to her parents of which he thinks
dass *jedes Mädchen$_j$* sie lesen sollte
that every girl them read should
lit.: 'the letters by John$_i$ to her$_j$ parents that he$_i$ thinks every girl$_j$ should read

b) ?[die Briefe von **Hans$_i$** an *ihre$_j$* Eltern], von denen ich vermute,
the letters of John to her parents of which I suspect
dass **er$_i$** *jeder Schülerin$_j$* gedroht hat,
that he every student threatened has
sie in der Klasse vorzulesen
them in the class read.out
lit.: 'the letters by John$_i$ to her$_j$ parents that I suspect he$_i$ threatened every student$_j$ to read out in class'

The following pair shows the same for relative operators:

(468) a) *die Journalistin, von [deren Artikel über **Clintons$_i$** Brief an
the journalist of whose article about Clinton's letter to
ihre$_j$ Eltern] **er$_i$**, vermutet, dass *jede Schülerin$_j$* ihn aufbewahrt
her parents he suspects that every student it keeps
lit.: 'the journalist whose article about Clinton's$_i$ letter to her$_j$ parents he$_i$ suspects every student$_j$ keeps'

b) die Journalistin, von [deren Artikel über **Clintons$_i$** Brief an *ihre$_j$*
the journalist of whose article about Clinton's letter to her
Eltern] ich glaube, dass **er$_i$** *jeder Schülerin$_j$* rät, ihn nicht zu lesen
parents I believe that he every student advises it not to read
lit.: 'the journalist whose article about Clinton's$_i$ letter to her$_j$ parents I believe he$_i$ advises every student$_j$ not to read'

With *wh*-movement, we get exactly the same picture:

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[147] I do not give any examples of correlations with amount readings. As we will see in 3.5.3 below, there are independent reasons why this cannot be tested.

(469) a) *Von [welcher Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz] denkt **er$_i$**,
of which opinion of John about her essay thinks he
dass *jede Schülerin$_j$* sie ernst nimmt?
that every student it seriously takes
lit.: 'Which opinion of John$_i$ about her$_j$ essay does he$_i$ think every student$_j$ takes seriously?'

b) Von [welcher Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz] denkst du,
of which opinion of John about her essay think you
dass **er$_i$** *jeder Schülerin$_j$* rät, sie ernst zu nehmen?
that he every student advises it seriously to take
lit.: 'Which opinion of John$_i$ about her$_j$ essay do you think he$_i$ advises every student$_j$ to take seriously?'

Finally, topicalization patterns the same as well:

(470) a) *Von [der Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz] denkt **er$_i$**,
of the opinion of John about her essay thinks he
dass *jede Schülerin$_j$* sie ernst nimmt.
that every student it seriously takes
lit.: 'The opinion of John$_i$ about her$_j$ essay, he$_i$ thinks every student$_j$ takes seriously.'

b) Von [der Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz] denke ich,
of the opinion of John about her essay think I
dass **er$_i$** *jeder Schülerin$_j$* rät, sie ernst zu nehmen.
that he every student advises it seriously to take
lit.: 'The opinion of John$_i$ about her$_j$ essay, I think he$_i$ advises every student$_j$ to take seriously.'

Summing up this subsection, the Condition C pattern does not change if reconstruction if forced by variable binding, a fact we also observed with regular relativization. This is therefore another fact that suggests that the proleptic construction is structurally very similar to regular relativization.

3.3.7 Obligatory non-reconstruction

I mentioned in 2.2.8 that there are cases where the external head must not be reconstructed because it has to be interpreted in the matrix clause as e.g. in the following example with idiom formation:

(471) Er **schwingt** [**große Reden**], die keiner __ hören will.
he swings grand speeches which no.one hear wants
'He gives grand speeches no one wants to hear.'

The idiom *eine Rede schwingen*, lit. 'swing a speech', meaning 'give a speech', can only be formed if the external head is not reconstructed. The same is found in the proleptic construction. The following two examples illustrate this for idiom formation:

(472) a) Er **schwingt** [**große Reden**], von denen ich weiß,
he swings grand speeches of which I know
dass sie keiner hören will.
that them no.one hear wants
'He gives grand speeches that I know no one wants to hear.'

b) Ich habe ihr **einen** [**Streich**] **gespielt**, von dem ich fürchte,
I have her a trick played of which I fear
dass sie ihn nicht so schnell vergisst. (*einen Streich spielen* =
that she it not so quickly forgets 'play a trick')
'I played a trick on her that I fear she won't forget soon.'

The same can also be illustrated with anaphor binding (2.2.8). In the following example, the anaphor contained inside the external head is bound by the matrix subject. Consequently, the external head must not be reconstructed:

(473) **Peter$_i$** hat mir ein [Bild von **sich$_i$**] gegeben,
Peter has me.DAT a picture of self given
von dem ich fürchte, dass es niemandem gefällt.
of which I fear that it no.one pleases
'Peter$_i$ gave me a picture of himself$_i$ that I fear no one will like.'

3.3.8 Conflicting requirements

In 2.2.9, I discussed examples where the external head is subject to conflicting requirements. Some elements of the external head have to be interpreted in the matrix clause and some in the embedded clause. The same is found in the proleptic construction as the following examples show:

(474) a) **Schwing keine** [**großen Reden** über denjenigen *seiner$_i$* Fehler],
swing no grand speeches about the.one his.GEN mistakes
von dem du weißt, dass *keiner$_i$* ihn vorgehalten bekommen will.
of which you know that no.one it reproached get wants
'Don't give grand speeches about the one of his$_i$ mistakes that you know no one$_i$ wants to be reproached for.'

b) Maria **brach** immer einen [**Streit** über diejenige *seiner$_i$* Schwächen]
Mary broke always a fight about that.one his.GEN weaknesses
vom Zaun, von dem sie wusste, dass *jeder Therapieteilnehmer$_i$*
off.the fence of which she knew that every therapy.participant
sie am wenigsten ertragen konnte. (*to break a fight off the fence* =
it the least bear could 'start a fight')
'Mary always started a fight about the one of his$_i$ weaknesses that she knew every therapy participant$_i$ could bear the least.'

3.3.9 Reconstruction into intermediate positions

In this subsection, I want to discuss whether there are also cases where the proleptic object is interpreted in an intermediate position. In regular A'-movement, such cases are very restricted. I pointed out in 2.2.10 that binding an anaphor in an intermediate position is degraded for many speakers (not only because of independent problems with long-distance relativization):

(475) a) #das [Bild von **sich$_i$**], das **Peter$_i$** denkt,
the picture of self which Peter thinks
dass ich __ am besten finde
that I the best find
'the picture of himself$_i$ that Peter$_i$ thinks I like best'

b) #[Welches Bild von **sich$_i$**]$_1$ denkt **Peter$_i$**,
which picture of himself thinks Peter
dass ich __$_1$ am besten finde?
that I the best find
'Which picture of himself$_i$ does Peter$_i$ think I like best?'

Probably the best case was found in the interplay between variable binding and Principle C: in the following examples, there must be reconstruction into the lowest clause to satisfy the variable binding. At the same time, reconstruction must target a position above the coreferential pronoun to avoid a Condition C effect. This is possible in the first example and consequently must involve an intermediate position:

(476) [Welchen der Artikel, die *er$_j$* **Ms. Brown$_i$** gegeben hat]$_1$,
which the.GEN articles which he Ms. Brown given has
hofft *jeder Student$_j$*, [$_{CP}$ __$_1$ dass **sie$_i$** lesen wird]?
hopes every student that she read will
'Which of the articles that he$_j$ gave to Ms. Brown$_i$ does every student$_j$ hope she$_i$ will read?'

b)??[Welchen der Artikel, die *er$_j$* **Ms. Brown$_i$** gegeben hat]$_1$,
which the.GEN articles which he Ms. Brown given has
hofft **sie$_i$**, [$_{CP}$ dass *jeder Student$_j$* __$_1$ überarbeiten wird]?
hopes she that every student revise will
lit.: 'Which of the articles that he$_j$ gave to Ms. Brown$_i$ did she$_i$ hope that every student$_j$ will revise?'

3.3.9.1 Reconstruction into the matrix clause as intermediate binding?

The attentive reader will have noticed that in a sense I have already discussed cases where reconstruction into an intermediate position has taken place, namely the anaphor binding cases where the binder was located in the matrix clause, cf. (426), (430)–(431). I repeat two examples for convenience:

(477) a) das [Bild von **sich$_i$**], von dem **Peter$_i$** denkt,
the picture of self of which Peter thinks
dass ich es am besten finde
that I it the best find
'the picture of himself$_i$ that Peter$_i$ thinks I like best'

b) Von [welchem Wesenszug von **sich$_i$**] denkt **Peter$_i$**,
of which trait of self thinks Peter
dass ich ihn noch nicht kenne?
that I it still not know
'Which trait of himself$_i$ does Peter$_i$ think that I don't know yet?'

In case there is an A'-dependency between the proleptic object and the position occupied by the coreferring pronoun, we would be dealing with intermediate binding. Importantly, however, these sentences are much better than those with intermediate binding in regular A'-movement illustrated in (475) above.

A similar and perhaps even more striking asymmetry is found in cases where only an anaphor or a pronoun is topicalized. The following pair shows that a topicalized anaphor can be bound by the matrix subject in the proleptic construction, but not in regular topicalization:

(478) a) Von [**sich$_i$**] denkt **Peter$_i$** immer, dass alle Menschen ihn toll finden.
of self thinks Peter always that all people him great find
'Himself$_i$ Peter$_i$ always thinks all people find great.'

b) *[**Sich$_i$**]$_1$ denkt **Peter$_i$** immer, dass alle Menschen __$_1$ toll finden.
self thinks Peter always that all people great find
'Himself$_i$ Peter$_i$ always thinks all people find great.'

A comparable contrast is found with Principle B: in the proleptic construction, the topicalized pronoun leads to a Principle B effect whereas no such effect obtains in regular topicalization:

(479) a) *Von [**ihm$_i$**] denkt **Peter$_i$** immer, dass alle Menschen ihn toll finden.
of him thinks Peter always that all people him great find
'Him$_i$, Peter$_i$ always thinks all people find great.'

b) [**Ihn$_i$**]$_1$ denkt **Peter$_i$** immer, dass alle Menschen __$_1$ toll finden.
him thinks Peter always that all people great find
'Him$_i$, Peter$_i$ always thinks all people find great.'

This suggests, of course, that binding in the matrix clause in the proleptic construction is something qualitatively different, namely, that the proleptic object can be interpreted in the matrix clause, in the c-command domain of the matrix subject. This aspect will indeed turn out to be one of the keys to the understanding of the proleptic construction.

3.3.9.2 Reconstruction into an intermediate position in the complement

Given the result of the previous section, it is interesting to look at intermediate binding in the complement of the matrix verb. Interestingly, intermediate binding

in this configuration is more difficult to get than in the matrix clause cases discussed in the previous subsection. The judgments reflect the variation and uncertainty that is found in regular A'-movement. For many speakers, intermediate binding is therefore dispreferred in the following examples. The putative intermediate positions are indicated by underline. The first pair illustrates relativization:

(480) a) #das [Gerücht über **sich$_{i/j}$**], von dem ich glaube,
the rumor about self of who I believe
dass **Hans$_i$** fürchtet, __ dass **Maria$_j$** es gehört hat
that John fears that Mary it heard has
'the rumor about him$_i$-/herself$_j$ that I think John$_i$ fears that Mary$_j$ heard'

b) #die [Lügen über **einander$_{i/j}$**], von denen ich glaube,
the lies about each.other of who I believe
dass **Hans und Marie$_i$** fürchten,
that John and Mary fear
__ dass **die Schwestern$_j$** sie gehört haben könnten
that the sisters them heard have could
'the lies about each other$_{i/j}$ that I think John and Mary$_i$ fear that the sisters$_j$ could have heard'

Wh-movement patterns the same:

(481) a) #Von [welchem Gerücht über **sich$_{i/j}$**] denkst du, dass **Hans$_i$**
of which rumor about self think I that John
fürchtet , __ dass **Maria$_j$** es gehört haben könnte?
fears that Mary it heard have could
'Which rumor about him$_i$-/herself$_j$ do you think John$_i$ fears that Mary$_j$ could have heard?'

b) #Von [welchen Lügen über **einander$_{i/j}$**] denkst du,
of which lies about each.other think you
dass **Hans und Maria$_i$** fürchten,
that John and Mary fear
__ dass **die Schwestern$_j$** sie gehört haben könnten?
that the sisters them heard could have
'Which lies about each other$_{i/j}$ do you think that John and Mary$_i$ fear that the sisters$_j$ could have heard?'

The final pair illustrates topicalization:

(482) a) #Von [diesem Gerücht über **sich$_{i/j}$**] denke ich, dass **Hans$_i$**
of this rumor about self think I that John
fürchtet , __ dass **Maria$_j$** es gehört haben könnte.
fears that Mary it heard have could
'This rumor about him$_i$-/herself$_j$ I think John$_i$ fears that Mary$_j$ could have heard.'

b) #Von [diesen Lügen über **einander$_{i/j}$**] denke ich,
of these lies about each.other think I
dass **Hans und Maria$_i$** fürchten,
that John and Mary fear
__ dass **die Schwestern$_j$** sie gehört haben könnten.
that the sisters them heard could have
'These lies about each other$_{i/j}$ I think that John and Mary$_i$ fear that the sisters$_j$ could have heard.'

There is one more type one can test, namely, when the anaphor constitutes the entire proleptic object. Binding in an intermediate position is again only available to some speakers:

(483) #Von [**sich$_i$**] denke ich schon, dass **Peter$_i$** glaubt,
of self think I indeed that Peter believes
__ dass ihn jeder mag.
that him everyone likes
'Himself$_i$ I think Peter$_i$ believes to be loved by everyone.'

As for the evidence for intermediate positions that is provided by the contrast in (476), it cannot be reproduced with the proleptic construction because Condition C effects are systematically absent if the coreferential pronoun is in the complement clause. Both examples of the following pair, modeled after (476), are therefore equally grammatical:

(484) a) Von [welchem der Artikel, die *er$_j$* **Ms. Brown$_i$** gegeben hat],
of which the.GEN articles which he Ms. Brown given has
denkst du, dass *jeder Student$_j$* hofft, __ dass **sie$_i$** ihn lesen wird].
think you that every student hopes that she it read will
'Which of the papers that he$_j$ gave to Ms. Brown$_i$ do you think every student$_j$ hopes she$_i$ will read?'

b) Von [welchem der Artikel, die *er$_j$* **Ms. Brown$_i$** gegeben hat],
of which the.GEN articles which he Ms. Brown given has
denkst du, dass **sie$_i$** hofft,
think you that she hopes
dass *jeder Student$_j$* ihn überarbeiten wird?
that every student it revise will
lit.: 'Which of the articles that he$_j$ gave to Ms. Brown$_i$ do you think she$_i$ hopes that every student$_j$ will revise?'

In conclusion, the proleptic construction behaves only partially like regular A'-movement. While intermediate binding in the complement of the matrix verb is degraded for many speakers, anaphor binding by the matrix subject is straightforwardly available and suggests that this is not due to intermediate binding.

3.3.10 Overview

Reconstruction in resumptive prolepsis is very similar to reconstruction in regular A'-movement in German. Reconstruction for variable binding and Principle A/B is pretty much identical, and all types of A'-movement behave the same.

The only aspect where the different types of A'-movement in the matrix clause play a role concerns Condition C effects. With relativization in the matrix clause, they are completely absent. With relative operators, topicalization, and *wh*-movement, they occur systematically in the matrix clause, but are absent in the embedded clause. In a sense, the latter A'-movement types behave like relativization with respect to reconstruction for Principle C into the complement clause. Another important observation is that the Condition C pattern is preserved in the proleptic construction even if reconstruction is forced by variable binding.

One can also construct examples with the proleptic construction where there is either obligatorily no reconstruction or where there are conflicting requirements on interpretation. Finally, intermediate binding shows a number of intriguing asymmetries: while binding in an intermediate position in the complement of the matrix verb is about as restricted as in regular A'-movement, anaphor binding by the matrix subject is impeccable.

Since the pattern is very similar to that of regular German A'-movement, reconstruction effects in the proleptic construction are strong evidence in favor of movement. The following gives an overview of the results:[148]

(485)

phenomenon		*external head*	*relative operator*	*wh-movement*	*topicalization*
idiom interpretation	(414)	+	n.a.	+	+
variable binding	(417), (418)	+	+	+	+
Principle A	matrix clause (426), (430), (431)	+	n.a.	+	+
	embedded clause (424), (429), (428)	+	n.a.	+	+

[148] Unless noted otherwise, a „+" means that there is reconstruction and „–" that there isn't.

	Principle B	(434)–(435)	–	n.a.	–	–
Principle C	argument	matrix clause (440), (444), (445), (446)	–	+	+	+
		embedded clause (439), (441)–(443)	–	–	–	–
	adjunct	matrix clause (447)b, (448)b, (449)b	–	–	–	–
		embedded clause	–	–	–	–
	argument-adjunct asymmetries [149]	matrix clause (447)–(449)	–	+	+	+
		embedded clause	–	–	–	–
	semi-idiomatic cases under embedding (455)		–	+	+	+
	embedding effect inside proleptic object with semi-idiomatic cases (456)–(458)		–	–	–	–
	SCO and SSCO	matrix clause (459), (461), (463)	n.a.	+	+	+
		embedded clause (460), (462), (464)	n.a.	+	+	–
	correlation with variable binding	matrix clause (467)a, (468)a, (469)a, (470)a	+	+	+	+
		embedded clause (467)b, (468)b, (469)b, (470)b	–	–	–	–
	non-reconstruction for idioms and anaphors (472), (473)		+	n.a.	n.a.	n.a.
	conflicting requirements (474)		+	n.a.	n.a.	n.a.
	reconstruction into intermediate positions (480)–(482)		+/–	n.a.	+/–	+/–

[149] A „+“ in this category means that there is an argument-adjunct asymmetry.

3.4 Arguments against extraction from the complement

In this section, I will discuss data suggesting that the relationship between the matrix argument and the coreferring pronoun does not result from movement. Instead, we will see that there is strong evidence that the fronted proleptic object originates in the matrix clause and that the CP complement is a barrier.

3.4.1 The PP originates in the matrix clause

This section presents evidence for a matrix clause-internal base-position of the proleptic object.

3.4.1.1 A base-construction with the proleptic object in-situ

There is reason to believe that the proleptic object originates in the matrix clause. Next to the A'-cases of resumptive prolepsis we find well-formed examples with the proleptic object in a low position in the matrix clause:

(486) a) Ich hoffe von [**diesem Buch**], dass **es** ein Erfolg wird.
I hope of this.DAT book that it a success becomes
'I hope that this book will be a success.'

b) Ik hoop van [**dit boek**] dat **het** een success wordt.
I hope of this book that it a success becomes NL

I will refer to this variant of the proleptic construction as the in-situ variant. The construction where the *von*-XP is A'-moved will be called the ex-situ variant. For many speakers, the in-situ construction is somewhat marked, an issue I will come back to in 3.9.

So far one could argue that the fact that there is an in-situ construction has no implications as long as we don't know whether the ex-situ variants are actually based on it. This is, however, indeed the case, as can be easily shown in Dutch: the relative PP can be separated, the preposition *van* 'of' being stranded in the verbal domain:

(487) a) het [boek] **waarvan**$_1$ ik $___1$ denk, dat Piet het leuk vindt
the book whereof I think that Peter it cool finds
'the book that I think Peter likes'

b) het [boek] **waar**$_1$ ik $___1$ **van** denk, dat Piet het leuk vindt
the book where I of think that Peter it cool finds
'the book that I think Peter likes' NL

This fact shows that both the ex-situ and the in-situ construction have the same basis. The derivation of the ex-situ variant therefore always has the proleptic object in a middle-field internal position at some point.

In case there should still be movement from the embedded clause, this would have to be of a somewhat exotic type and is therefore quite unlikely, as will be discussed below. But first I want to determine the in-situ position of the proleptic object more precisely.

The position of the proleptic object can be determined quite accurately: It is higher than the VP and lower than the matrix subject. The following examples provide evidence for this: a vP-internal subject can bind a pronoun inside the proleptic object. I use negative indefinite subjects to make sure that the subject is actually inside the vP (cf. Diesing 1992):

(488) a) weil wahrscheinlich [$_{vP}$ **keiner$_i$** von [**seinem$_i$** Sohn] denkt,
because probably no.one of his son thinks
dass er intelligent ist]
that he intelligent is
'because probably no one$_i$ thinks of his$_i$ son that he is intelligent'

b) omdat er [$_{vP}$ **niemand$_i$** van [**zijn$_i$** zoon] denkt
because there no.one of his son thinks
dat hij intelligent is]
that he intelligent is NL

VP-topicalization shows that the complement clause forms a constituent together with the matrix verb, to the exclusion of the proleptic object:

(489) a) [Geglaubt, dass **er** intelligent ist]$_1$, habe ich von [**Peter**] schon __$_1$.
believed that he intelligent is have I of Peter indeed
Lit.: 'Believed that he is intelligent I have indeed of Peter.'

b) *[Von [**Peter**] geglaubt] habe ich schon, [$_{CP}$ dass **er** intelligent ist].
of Peter believed have I indeed that he intelligent is
Lit.: 'Of Peter believed have I indeed that he is intelligent.'

This shows that the proleptic object is generated higher than the verb, either in a higher projection of V or adjoined to VP.

That the proleptic object is higher than the complement clause is also shown by the fact that the DP c-commands out of the PP into the complement clause. In the following example an NPI in the complement clause is licensed by a negative indefinite proleptic object:

(490) a) Ich glaube von [**keinem** Holländer],
I believe of no Dutchman
dass er **auch nur einen einzigen Euro** verschwenden würde.
that he even only a single Euro squander would
'I believe of no Dutchman that he would squander even a single Euro.'

b) Ik denk van [**geen** Nederlander]
I think of no Dutchman
dat ie **ook maar een** euro zou verspillen.
that he even only a euro would squander NL
'I believe of no Dutchman that he would squander even a single Euro.'

3.4.1.2 The in-situ position as a non-derived position: anaphor binding

There is strong evidence that the in-situ position is not a derived position, i.e. not the landing site of some movement from the embedded clause: anaphors contained in the PP in its base-position can be bound by the matrix subject:[150]

(491) a) dass **Peter$_i$** von [**sich$_i$**] denkt, dass er der Größte ist
that Peter of self thinks that he the greatest is
'that Peter$_i$ thinks of himself$_i$ that he is the greatest.

b) dat **Piet$_i$** van [**zichzelf$_i$**] denkt dat hij de grootste is
that Peter of self think that he the greatest is NL

This fact is important: Recall from 2.1.4 that German and Dutch differ from English in not allowing binding of anaphors in the landing sites of A'-movement as in the following examples (which show *wh*-movement and embedded topicalization):

(492) a) **John$_i$** wonders which picture of **himself$_i$** I like best.

b) **Hans$_i$** fragt sich, [$_{CP}$ [welches Foto von ***sich$_i$/ihm$_i$**]$_1$
John asks self which picture of self/him
ich $___1$ am besten mag].
I the best like

c) **Hans$_i$** vraagt zich af [welke foto van ***zichzelf$_i$/hem$_i$**]$_1$
John asks self up which picture of self/him
ik $___1$ het leukst vind.
I the best find NL

(493) **Peter$_i$** denkt, [$_{CP}$ [dieses Buch über ***sich$_i$/ihn$_i$**]$_1$
Peter thinks this book about self/him
fände ich $___1$ interessant].
find.SUBJ I interesting
'Peter$_i$ thinks that this book about him$_i$/himself$_i$ I find interesting.'

This implies that the in-situ position cannot be the final landing site of some long A'-movement operation, which in turn implies that there cannot have been A'-movement out of the embedded clause.

The only case where binding of anaphors in a derived A'-position is (marginally) possible are intermediate positions, as discussed in 2.2.10 and 3.3.9. However, since the in-situ construction is grammatical, the position of the proleptic object cannot be argued to be an intermediate landing site. Consequently, the proleptic object occupies a non-derived position in the in-situ construction.

One could object to this reasoning and claim that the proleptic object actually occupies a derived A-position: Suppose there is A'-movement up to the Spec, CP of the complement clause and then A-movement to the matrix middle field.

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[150] The same was, of course, implied by the binding facts of the ex-situ construction in 3.3.9.1.

However, as the following subsection shows, this is ruled out by the ban against Improper Movement.

3.4.1.3 The in-situ position as a non-derived position: Improper Movement

Movement from the embedded clause is also ruled out on theoretical grounds because it would instantiate a violation of the constraint against Improper Movement. If there was movement from the embedded clause, it would have to be of the A'-type. Since the landing site would be middle-field-internal, it would be an instance of long-distance scrambling. However, it is a well-known fact (at least) about German that scrambling across finite clauses is prohibited, cf. Müller & Sternefeld (1993):

(494) *weil ich [das Buch]$_1$ glaube, dass Peter __$_1$ gekauft hat
because I this book believe that Peter bought has
'because I think that Peter bought this book'

Müller & Sternefeld (1993) rule out such movement as an instance of Improper Movement. They argue that this would require the combination of two different types of A'-movement (which they disallow): first movement to a position adjoined to CP, then to a matrix middle-field position (scrambling is conceived of as A'-movement in their approach).

Different derivations are also unlikely for the same theoretical reasons. Suppose that there is direct A'-movement from the embedded clause. Then we predict further A-movement to be impossible (the sequence of positions A-A'-A is ruled out). However, the following example shows A-scrambling of the proleptic object where the proleptic object binds a pronoun inside the subject:

(495) dass von [**jedem Politiker$_i$**]$_1$ **sein$_i$** Übersetzer __$_1$ denkt,
that of every politician his interpreter thinks
dass er kein Talent für Fremdsprachen hat
that he no talent for foreign.languages has
'that every politician$_i$ is considered to have no talent for foreign languages by his$_i$ interpreter'

Further A'-movement as in the A'-variants of the proleptic construction is predicted to be impossible as well, contrary to fact.

Another option would be to assume A'-movement to the edge of the complement clause, followed by A-movement to the matrix middle field. Again, this violates the classical ban against Improper Movement.[151]

Things are somewhat different in Dutch because there is a type of scrambling, called focus-scrambling, that can undergo long-distance movement and can target a matrix middle field position, cf. Neeleman (1994: 398):[152]

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[151] But see Hornstein (2000) and Hicks (2003: 63) for approaches to *tough*-movement that assume just that to overcome a paradox very similar to the one discussed here.

(496) dat Jan [**zulke boeken**]$_1$ zelfs onder vier ogen niet zegt
that John such books even under four eyes not says
dat hij __$_1$ gekocht heeft
that he bought has NL
'that John would not even admit in private that he bought such books'

It is assumed that this movement does not touch down in the embedded Spec, CP but reaches the matrix middle field in one fell swoop, cf. Barbiers (2002). Given Müller & Sternefeld's (1993) constraint against mixing different types of A'-movement, this would predict that the A'-versions of resumptive prolepsis are impossible, contrary to fact. Furthermore, the following example shows A'-scrambling of the proleptic object in Dutch and therefore makes the same point (under the assumption that short and long scrambling are different A'-types and must not be mixed):

(497) omdat van [**zijn$_i$** zoon]$_1$ **geen vader$_i$** __$_1$ zou denken
because of his son no father would think
dat hij stom is
that he stupid is
'because no father$_i$ would think of his$_i$ son that he is stupid' NL

A-scrambling is possible as well, which would be ruled out under the traditional constraint against Improper Movement (*A-A'-A). In the following example, the scrambled proleptic object binds a pronoun inside an adverbial:

(498) dat ik van [**elke man$_i$**]$_1$ op **zijn$_i$** verjaardag altijd __$_1$ denk
that I of every man on his birthday always think
dat hij een bofkont is
that he a lucky.guy is
'that I think of every man$_i$ on his$_i$ birthday that he is a lucky guy' NL

There is another theoretical possibility I have not considered so far: the in-situ position is a derived A-position. This would be compatible with the binding facts in (491) and would not violate Improper Movement. However, A-movement across finite clauses does not seem to be an option in the languages under discussion. Section 3.4.1.5 will provide further independent evidence that movement is generally ruled out.

To summarize, since the proleptic object can undergo both A- and A'-movement from its in-situ position, that position must be a non-derived position. Otherwise, the constraint against Improper Movement is violated.

3.4.1.4 No long-distance Superiority effects

Another argument against movement from the embedded clause and in favor of a matrix clause-internal base position of the proleptic object comes from an

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[152] German, too, has a type of long-distance scrambling, referred to as T-scrambling (Haider & Rosengren 1998). Crucially, it can only target positions in the left periphery, but not in the middle field.

asymmetry in superiority. While German is well-known not to have short-distance Superiority effects, it is equally well-established that Superiority effects re-emerge under long-distance movement (irrespective of D-linking, cf. Fanselow 2002: 4):

(499) a) [*Welchen Knaben*]$_1$ hat *welcher Perversling* __$_1$ verführt?
which.ACC boy has which.NOM pervert seduced
'Which boy did which pervert seduce?'

b) *[*Welchen Knaben*]$_1$ denkt *welcher Lehrer*,
which.ACC boy thinks which.NOM teacher
dass gestern jemand __$_1$ verführt hat?
that yesterday someone seduced has
lit.: 'Which boy does which teacher think that someone seduced yesterday?'

Crucially, if the proleptic object consists of a *wh*-phrase and is moved across another *wh*-phrase in the matrix clause, the result is perfectly grammatical:

(500) Von [*welchem Knaben*] denkt *welcher Lehrer*,
of which.DAT boy thinks which.NOM teacher
dass jemand ihn verführt hat?
that someone him seduced has
'Of which boy does which teacher think that someone him seduced?'

If (part of) the proleptic object were to originate in the embedded clause, the asymmetry between (499)b and (500) would remain completely mysterious. If instead the PP originates in the matrix clause and does not have a direct movement relationship with the alleged extraction site in the embedded clause, these facts are as expected.

Things would be different if there were a way of A-moving the proleptic object into the matrix clause. This is possible in German and Dutch AcI constructions. In such cases, there are no Superiority effects. In the following example, the raised *wh*-phrase counts as a clausemate of the matrix *wh*-phrase:

(501) *Wen*$_1$ sah __$_1$ *wer* gestern __$_1$ ein Auto stehlen?
whom saw who yesterday a car steal
'Who saw whom steal a car?'

However, cross-clausal A-movement is crucially not available in finite clauses as (499)b shows. Consequently, there is no reason to assume that it is possible in (500).[153]

[153] It is not so clear to what extent Superiority effects are absent in Dutch. It is arguably somewhere in between German and English. But to the extent that I have been able to ascertain it, reversal of clause-mate *wh*-phrases is possible, but crucially only in local *wh*-movement. The equivalent of (500) is good in Dutch, but the equivalent of (499)b is not, so that we find essentially the same pattern as in German.

3.4.1.5 CP is an island

There is additional evidence against movement from the embedded clause. The following data show that the CP-complement in the proleptic construction is opaque for extraction:

(502) a) Ich glaube vom [Lehrer Müller],
I believe of.the teacher Muller
dass er dem Hans eine gute Note gibt.
that he the.DAT John a good grade gives
'I believe of teacher Müller that he will give John a good grade.'

b)??[**Welchem Schüler**]$_1$ glaubst du vom [Lehrer Müller],
which .DAT student think you of.the teacher Muller
dass er $___1$ eine gute Note gibt?
that he a good grade gives
'Which student do you think teacher Müller will give a good grade?

c) ***Warum**$_1$ glaubst du vom [Lehrer Müller],
why think you of.the teacher Muller
dass er $___1$ Hans eine gute Note gibt?
that he John a good grade gives
'Why do you think teacher Müller will give John a good grade?'
➔ matrix construal only

d) [**Welchem Schüler**]$_1$ glaubst du,
which.DAT student think you
dass der Lehrer $___1$ eine gute Note gibt?
that the teacher a good grade gives
'Which student do you think that the teacher will give a good grade?'

e) **Warum**$_1$ glaubst du,
why think you
dass der Lehrer $___1$ Müller Hans eine gute Note gibt?
that the teacher Muller John a good grade gives
'Why do you think that the teacher Müller will give John a good grade?'
➔ ambiguous

(502)a) is the base sentence, (502)b) shows indirect argument extraction, and (502)c) adjunct extraction. (502)d) and (502) e) illustrate extraction from the CP complement of the same verb when there is no proleptic object. The contrast is striking: with a proleptic object, argument extraction leads to strong degradation, and adjunct extraction is only possible under a matrix construal. Without a proleptic object, however, argument extraction is impeccable and adjunct extraction is possible with an embedded construal. This clearly suggests that the complement CP is an island in the presence of an proleptic object. The following set makes the same point for Dutch:

(503) a) Ik denk van [de leraar] dat hij Hans een goed cijfer zal geven.
I think of the teacher that he John a good grade will give

b)??[**Welke scholier**]$_1$ denk je van [de leraar]
which student think you of the teacher
dat hij $___1$ een goed cijfer zal geven?
that he a good grade will give

c) *__Waarom__$_1$ denk je van [de leraar]
why think you of the teacher
dat hij $___1$ Hans een goed cijfer zal geven?
that he John a good grade will give
➔ matrix construal only

d) [**Welke scholier**]$_1$ denk je
which student think you
dat de leraar $___1$ een goed cijfer zal geven?
that the teacher a good grade will give

e) **Waarom**$_1$ denk je
why think you
dat de leraar $___1$ Hans een goed cijfer zal geven?
that the teacher John a good grade will give
➔ ambiguous NL

The following examples make the same point with topicalization: extraction from the proleptic construction is very restricted. Without the proleptic object, the complement of the same verb is transparent again:

(504) a) *[**Den Peter**]$_1$ glaube ich von [Maria] nicht, dass sie $___1$ mag.
the Peter believe I of Mary not that she likes
'Peter, I think Mary does not like'

b) *__Darum__$_1$ vermute ich von [Peter],
for.this.reason suspect I of Peter
dass er $___1$ Maria heiraten will.
that he Mary marry wants
'For this reason I suspect that Mary wants to marry Peter.'

(505) a) [**Den Peter**]$_1$ vermute ich, dass Maria $___1$ heiraten will.
the Peter suspect I that Mary marry wants
'Peter I suspect Mary wants to marry.'

b) **Darum**$_1$ vermute ich, dass Peter $___1$ Maria heiraten will.
for.this.reason suspect I that Peter Mary marry wants
'For this reason I suspect Peter wants to marry Mary.'

3.4.1.6 No embedded V2

It has been argued (Müller & Sternefeld 1995) that verbs which allow long extraction also allow embedded verb second clauses. The following pairs illustrate this correlation: epistemic verbs allow extraction and V2-complements, factive verbs do not:

(506) a) **Wen**$_1$ glaubst du, dass Maria $___1$ geküsst hat?
who believe you that Mary kissed has
'Who do you think Mary kissed?'

b) Ich glaube, Maria hat Hans geküsst.
I believe Mary has John kissed
'I think Mary kissed Hans.'

(507) a)??**Wen**$_1$ hast du geleugnet, dass Maria $___1$ geküsst hat?
who have you denied that Mary kissed has
'Who did you deny that Mary kissed?'

b) *Ich habe geleugnet, Maria hat Hans geküsst.
I have denied Mary has John kissed
'I denied that Mary kissed John.'

Interestingly, the proleptic construction also does not allow embedded V2-clauses:[154]

(508) *Ich glaube von [Peter], er ist intelligent.
I believe of Peter he is intelligent
'I believe of Peter *(that) he is intelligent.'

In light of this, it would be surprising if there were extraction from the CP-complement.

3.4.2 Absence of lexical restrictions

The proleptic construction differs from other forms of long A'-movement in that it is not subject to any lexical restrictions. There are certain preferences for either *bei* 'at' or *von* 'of' depending on the verb. For instance, the preposition *von* 'of' is most frequently used with epistemic verbs while *bei* 'at' is the preferred one with reflexives. Many people would therefore intuitively say that the two prepositions are in more or less complementary distribution, but upon closer inspection, this is not correct. *Bei* 'at' is fully acceptable with any verb for all speakers I have consulted. With *von* 'of' things are a little more difficult. It sounds best with epistemic verbs, but a quick search on the internet reveals that this is not correct. Rather, it is found with practically any kind of predicate, desiderative verbs, factives, finite control verbs, reflexives, verbs with *wh*-complements and even the prime examples of non-bridge verbs such as *flüstern/fluisteren* 'whisper'. The following examples that illustrate the various verb types are all taken from the internet or from television:

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[154] Chris Reintges (p.c.) has pointed out to me that V2 complements improve with past tense in the matrix clause and subjunctive in the complement clause as in the following example:

i)?-?? Ich glaubte von [Peter] erst, er sei intelligent, aber
I believed of Peter first he be intelligent but
'I first thought of Peter that he was intelligent, but'

I have no explanation for this fact and leave it for further research.

(509) a) Weiß ist ein [einzigartiges Buch] gelungen, von dem ich *hoffe*,
Weiss is a unique book succeeded of which I hope
dass ihm neue weitere folgen werden.
that it.DAT new more follow will
'Weiss succeeded in putting out a book that I hope will be followed by others.'
www.traumapaedagogik.de/rehdiag1.html

b) Ich hab hier einen [Link], von dem ich *bezweifle*,
I have here a link of which I doubt
dass viele den kennen
that many it.ACC know
'I have a link here that I doubt that many know.'
www.usa-talk.de/yabbse/index.php?topic=551.15

c) Und jetzt komme ich auch zu einem [Wort], von dem ich *bedauere*,
and now come I also to a word of which I regret
daß es so sehr zur Mode geworden ist.
that it so much to.the fashion become is
'And now I come to a word that I regret has become very fashionable.'
www.spd-fraktion-stuttgart.de/aktuelles/reden/1999_05_06_kussmaul.php?navid=34

d) Ich zahle gerne Steuern für einen [Staat],
I pay like.to taxes for a government
von dem ich *das Gefühl habe*, daß er für mich da ist.
of which I the feeling have that it for me there is
'I am happy to pay taxes for a government that I feel is there for me.'
www.faz.net/.../Doc~E0306E84C9A1A43D9BAC55A712FCCAED4~ATpl~Ecommon~Skomlist.html

e) Ich besorgte mir einen [übelriechenden Trank], von dem man
I got me.DAT a stinky potion of which one
mir *versprach,* dass man mit ihm nicht ertrinken könne.
me.DAT promised that one with it not drown could
'I got a stinky potion that one promised me one could not drown with.'
www.daoc-ds.de/board/index.php?s=f82cc209addf02357dc4be54716bd176&act=ST&f=29&t=532

f) FrohenMutes legte ich also meinen [Reisepass] vor,
happy spirit lay I PRT my passport PRT
von dem ich mich noch *gefreut*
of which I me still be.happy
hatte, daß er nun endlich doch noch zum Zuge kommen würde.
had that it now finally PRT still to.draw come would
'I happily presented my new passport that I was happy would finally be put to use.'
www.mzillekens.de/Reiseberichte/Taiwan/seoul.html [155]

g) Wir hatten einen [fürchterlichen Streit],
we had a terrible fight
von dem ich bis heute eigentlich noch
of which I until today actually still
nicht so genau *weiß*, warum er so heftig wurde.
not so precisely know why it so intense became
'We had a terrible fight that I still don't know why it got so intense.'
www.aysen.net/von_anja.htm

h) beim [al-Qaida-Terrornetzwerk], von dem gleichzeitig sämtliche
at.the al-Qaida-terror.network of which simultaneously all
Experten augenzwinkernd *flüstern*,
experts with.a.wink whisper
dass es überhaupt nicht mehr existiert
that it at.all not anymore exists
lit.: 'with the Al-Qaida terror network that all experts simultaneously whisper with a wink that it does not exist anymore'
www.uni-kassel.de/fb5/frieden/themen/Terrorismus/mellenthin.html

The following examples illustrate the same for Dutch:

(510) a) Ik bied [iets] aan waarvan ik *hoop*
I offer something PRT where.of I hope
dat het de lezers zal interesseren.
that it the readers will interest
'I offer something that I hope will be interesting to the readers.'
www.anneprovoost.com/dutch/Gedachten/GedachtenKatrienVloeberghs.htm

[155] As mentioned above, the proleptic constructions sounds better with the preposition *bei* 'at' when used with reflexives, but the example in the text shows that this preference does not hold for all speakers.

b) In het [gedeelte] waarvan ik *betreur* dat dat niet op de foto staat
in the part where.of I regret that that not on the picture stands
zie ik bv pappie en mammie die nog maar net vertrokken
see I e.g. dad and mum who just left
zijn naar hun vakantiebestemming.
are to their holiday.destination
'In the part that I regret is not on the picture I see e.g. mum and dad who have just left for their holiday destination.'
designhulp.nl/nieuws/designhulp/teleurstellende-uitslag-van-de

c) We bestellen een [rundvleesschotel] waarvan ons *beloofd wordt*
we ordered a beef.dish where.of we promised were
dat het voldoende is voor twee personen.
that it sufficient is for two people
'We order a beef dish that we are promised is sufficient for two people.'
www.eco.rug.nl/~haanma/nu/vietnam/week3.htm

d) Als ik in Amsterdam of Rotterdam kom zie ik ook [autochtonen]
when I to Amsterdam or Rotterdam come see I also indigenous
waarvan ik *mij afvraag* of zij ooit ingeburgerd zijn.
where.of I myself ask if they ever naturalized are
'When I come to Amsterdam or Rotterdam I always see indigenous people who I wonder whether they were ever naturalized.'
debatplaats.vara.nl/forum/listthreads?forum=170201&thread=1197&postId=68884

e) een [boek] waarvan ik me kan herinneren
a book where.of I me can remember
dat het juist na 50 paginas een prachtig boek wordt
that it just after 50 pages a wonderful book becomes
'a book that I can remember became a really good book after 50 pages'
NOS Journaal Nederland 1, 20:00, 1.10.2005

f) een [film] waarvan ik nog steeds *niet weet* waarom mensen hem
a movie where.of I still not know why people it
zo ontzettend goed vinden
so extremely good find
'a movie that I still don't know why people like it so much'
www.filmwise.nl/reviews/reviews.php?id=1035

g) De CD begint erg sterk met de [titeltrack Mother Earth],
the CD begins very strong with the title.track Mother Earth
waarvan wel *gefluisterd* wordt
where.of PRT whispered is
dat dit de nieuwe single zou kunnen worden.
that this the new single could become
lit.: 'The CD begins very strong with the title track "Mother Earth" that people whisper could become the new single.'
frontpage.fok.nl/review/459/2 NL

The examples above increase in markedness, but the fact that one can find numerous examples on the internet shows that there are in principle no restrictions. Verbs taking infinitival complements seem to be even more marked, but even for those, examples can be found. The following pairs give examples with epistemic and control verbs:[156]

(511) a) Und doch hab ich [jemanden] kennen gelernt,
and still have I someone got.to.know
von dem ich *glaube,* ihn zu lieben
of who I believe him to love
'Still, I met someone who I believe to love.'
www.lovetalk.de/showthread.php?t=12775

b) den [heiligen Geist], von dem Jesus *versprochen* hat,
the holy spirit of who Jesus promised has
ihn den Jüngern nach seiner Himmelfahrt zu senden
it the disciples after his ascension to send
'the holy spirit that Jesus promised to send to his disciples after his ascension'
www.weltvonmorgen.org/artikel/wig.htm

The following pair is from Dutch:

(512) a) Het is gewoon een [computer] die ik tijdelijk over heb en
it is just a computer that I temporarily left have and
waarvan ik *dacht* hem te kunnen gaan gebruiken als U. U. server.
where.of I thought it to be.able.to go use as U. U. server
'It is just a computer that I have left temporarily and I thought to be able to use as an U.U. server.'
forum.dutchmystcommunity.com/index.php?showtopic=670&mode=linear&view=findpost&p=10132

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[156] This disproves the claim in Ruys (2005: 9) who argues that the proleptic construction is restricted to finite complements. There is one prominent exception, though: I have not been able to find examples where *von* 'of' is used with *versuchen* 'try'. With *bei* 'at', however, numerous examples can be found.

b) als een man na de dood van zijn vrouw alleen overblijft in een
if a man after the death of his wife alone remains in a
[groot huis] – waarvan hij *beloofd* heeft het niet te zullen verkopen
big house where.of he promised has it not to will sell
'if a man is left alone after the death of his wife in a big house that he promised not to sell'
winkel.bruna.nl/Auteurs_op_Alfabet/P/Papathanassopoulou,044_M,046/905713697X.htm NL

These facts provide another argument against movement: it is a well-known fact that A'-movement is restricted to a certain class of predicates, so-called bridge-verbs. The fact that no such restriction is observed in resumptive prolepsis suggests that this must involve a dependency of a different type.[157]

3.4.3 Insensitivity to islands

The arguments presented so far in this section have only shown that there is reason to believe that the proleptic object originates in the matrix clause and that there is no direct movement relationship with the putative extraction site in the embedded clause. The following examples, however, argue against movement altogether: the coreferring pronoun can not only be embedded unboundedly deeply, it can even occur within strong and weak islands. The following examples illustrate a strong island (a), a weak island (b), possessors (c) and coreferring elements inside PPs (d/e):[158]

(513) a) der [Mann], von dem ich denke, dass Marie
the man of who I think that Mary
<jedes Buch liest, das er schreibt>
every book reads which he writes
lit.: 'the man who I think Mary reads every book that he writes'

b) der [Mann], von dem ich glaube, dass niemand weiß,
the man of who I believe that no.one knows
<wie er heißt>
how he is.called
lit.: 'the man who I think no one knows what he is called'

c) der [Mann], von dem ich glaube, dass <seine Mutter> gesund ist
the man of who I believe that his mother healthy is
'the man whose mother I think is well'

---

[157] These facts also argue against Lühr (1988: 78f.) who tries to show that verbs that can take the proleptic construction also allow long extraction. The data above clearly show that there is no such correlation.

[158] Islands are enclosed in angled brackets.

d) der [Mann], von dem ich glaube,
the man of who.DAT I believe
dass niemand < mit ihm > reden will
that no.one with him talk wants
'the man who I think no one wants to talk to'

e) der [Mann], von dem ich glaube, dass ich
the man of who I believe that I
< mit einer Schwester von ihm > zur Schule gegangen bin
with a sister of him to.the school went am
'the man with a sister of whom I think I went to school'

The situation in Dutch is the same:

(514) a) de [man] waarvan ik denk dat Marie
the man whereof I think that Mary
< elk boek leest dat hij schrijft >
every book reads that he writes

b) de [man] waarvan ik denk dat niemand weet < hoe hij heet >
the man whereof I think that no.one knows how he is.called

c) de [man] waarvan ik denk dat < zijn moeder > gezond is
the man whereof I think that his mother healthy is

d) de [man] waarvan ik denk dat niemand < met hem > wil praten
the man whereof I think that no.one with him wants talk

e) de [man] waarvan ik denk dat ik < met een zuster van hem >
the man whereof I think that I with a sister of him
heb op school gezeten
have at school been NL

With normal *wh*-movement, such extractions are completely impossible:[159, 160]

(515) a) *[Welcher Mann]$_1$ denkst du, dass Marie
which man think you that Mary
< jedes Buch liest, das __$_1$ schreibt >?
every book reads that writes
lit.: 'Which man do you think that Mary reads every book which writes?'

b) *[Welcher Mann]$_1$ denkst du, dass niemand weiß < wie __$_1$ heißt >?
which man think you that no.one knows how is.called
lit.: 'Which man do you think that no one knows what is called?'

---

[159] The examples do not improve (markedly) if the gap is replaced by a resumptive pronoun. See the discussion in 3.8.2.1.

[160] The fact that what is extracted is a subject (in some of the examples) is not the relevant factor because extracting objects from relative clauses and *wh*-islands leads to the same degree of deviance.

c) *[Wessen]$_1$ denkst du, dass ich <__$_1$ Mutter > mag?
whose think you that I mother like
lit.: 'Whose do you think that I like mother?'

d) *[Wem]$_1$ will niemand <mit __$_1$ > reden ?
who.DAT wants no.one with talk
'Who does no one want to talk to?'

e) *[Von wem]$_1$ bist du <mit einer Schwester __$_1$ > zur Schule gegangen?
of who are you with a sister to school gone
lit.: 'Who did you go to school with a sister of?'

The following examples illustrate the same for Dutch:

(516) a) *[Welke man]$_1$ denk je dat Marie <elk boek leest dat __$_1$ schrijft >?
which man think you thatMary every book reads that writes

b)??[Welke man]$_1$ denk je dat niemand weet < hoe __$_1$ heet >?
which man think you that no.one knows how is.called

c) *[Wiens]$_1$ denk je dat ik <__$_1$ moeder > leuk vind?
whose think you that I mother cool find

d) *[Wie]$_1$ wil niemand <mee/met __$_1$> praten?
who wants no.one with talk

e) *[Van wie]$_1$ heb je <met een zuster __$_1$ > op school gezeten?
of who have you with a sister at school been NL

The stark contrast clearly suggests that there is no movement involved in (513)–(514).[161]

3.4.4 Coreferring Pronoun

The fact that the proleptic construction involves a coreferring pronoun in the alleged extraction site can be considered another argument against movement. Under a movement approach, this would mean that A'-movement terminates not in a gap, but in a resumptive pronoun. However, German and Dutch are not languages that allow resumptive pronouns in A'-movement:

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[161] The attentive reader will have noticed that most of the islands appear embedded in a complement clause. Without this intervening complement clause, many of these examples sound markedly worse; this is particularly clear with adjunct islands:

i) das [Bild], von dem ich fürchte, dass alle lachen, < wenn ich es zeige>
the picture of which I fear that everyone laughs if I it show
lit.: 'the picture that I fear everyone laughs when I show it'

ii)??das [Bild], von dem alle lachen, < wenn ich es zeige>.
the picture of which all laugh if I it show
lit.: 'the picture that everyone laughs when I show it'

This suggests to some extent that there is a certain sensitivity to lexical restrictions. However, possibly, these examples have the same status as some of the previous subsection, which also sound somewhat marginal to many speakers but are acceptable to others. Unfortunately, I have not been able to find any naturally-occurring examples. Interestingly, these examples are impeccable if the preposition *bei* 'at' is used instead. See 3.9.3 for another case where *bei* 'at' is more compatible than *von* 'of'.

(517) a) [Welchen Jungen]$_1$ hast du **(*ihn)$_1$** gesehen?
which boy have you him seen
'Which boy did you see?'

b) [Welchen Jungen]$_1$ hast du gesagt, dass du **(*ihn)$_1$** gesehen hast?
which boy have you said that you him seen have
'Which boy did you say that you saw?'

This even holds for extraction from islands (in most cases), a fact I will come back to in 3.8.1.3 and 3.8.2.1.

3.5 Interpretation

In this section, I will discuss the interpretation of the proleptic construction. While it is semantically very similar to regular A'-movement, there are certain systematic differences that will prove important later on: the proleptic object is obligatorily individual-denoting and is necessarily specific/referential/D-linked. Furthermore, we do not find scope reconstruction of the proleptic object into the embedded clause.

While these properties seem to be unconnected, they can all be reduced to scope: non-individual-denoting interpretations require narrow scope at LF, and the same holds for properties such as non-referential/non-specific/intensional: a constituent would have to take narrow scope with respect to the matrix verb (Heycock 1995, Fox 1999). Scope reconstruction into the complement clause, however, is apparently not possible in the proleptic construction and this leads to semantic restrictions.

Even though all properties can be reduced to the same phenomenon and overlap to a certain extent, I will discuss them separately for ease of presentation. I will first discuss the semantic type of the proleptic object, then the D-linking requirement and then classical instances of scope reconstruction. In subsection four and five, I will show that the absence of scope reconstruction explains further restrictions: superlative adjectives do not allow the low construal in the proleptic construction and comparatives are downright incompatible with it.

This section therefore presents further evidence against movement from the embedded clause.

3.5.1 The semantic type of the proleptic object

In this section, I present data that show that the proleptic object has to be individual-denoting. Manners, amounts and predicates are incompatible with the proleptic construction. I use examples where there is a corresponding proform for the non-individual type to rule out ungrammaticality just because there is no appropriate coreferring element.

Relative clauses require more care: the external head is not identical to the proleptic object, it is related to (part of) the relative operator phrase. Crucially since the quantificational properties of the external head located in the external determiner are never reconstructed into the relative clause (cf. footnote 96, 100),

the semantic restrictions do not affect it. Instead, the semantic restrictions only directly affect the proleptic object, which indeed has to be individual denoting. By using a proform that refers to a non-individual antecedent, we can make sure that the proleptic object is interpreted as non-individual-denoting to get the desired test scenario.

I will first present the data and discuss whether individual-denoting is the right generalization. In the last subsection, I will argue that the generalization can be subsumed under the absence of scope reconstruction.

3.5.1.1 Manners

The following examples show that the proleptic object cannot be a manner expression.

(518) a) *Ich glaube von [**vorsichtig**], dass Peter immer **so** fährt.
I believe of careful that Peter always thus drives
lit.: 'I believe of careful that Peter always drives.'

b) *Von [**vorsichtig**] glaube ich, dass Peter immer **so** fährt.
of careful think I that Peter always thus drives
'Very carefully I believe that Peter always drives.'

c) *Von [**wie vorsichtig**] glaubst du, dass Peter immer **so** fährt?
of how important think you that Peter always thus drives
'How carefully do you believe Peter always drives?'

d) **Sehr vorsichtig$_i$** – **so$_i$** fährt Peter immer.
very careful thus drives Peter always
'Very carefully – Peter always drives like that.'

(518)a–c illustrate different variants of resumptive prolepsis. Importantly, (518)d) shows that the proform *so* 'thus' can refer to manners. The ungrammaticality of the first three examples is therefore not to be linked to a putative incompatibility between antecedent and pronoun. With relative clauses, the only way of constructing an equivalent example with a manner interpretation is to use a head noun such as *Art* 'way'. By using a proform that refers to a manner, one can make sure that the proleptic object is interpreted as such. The result is ungrammatical:

(519) *die [**Art**], von der Peter sagte, dass er seine Probleme **so** löst
the way of which John said that he his problems thus solves
'the way Peter said he solves his problems'

3.5.1.2 Predicates

The following examples illustrate that the proleptic object cannot be a predicate:[162, 163]

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[162] The same holds for the naming and painting contexts discussed in Munn (2001: 379) and Postal (1998), they are all non-individual-denoting.

(520) a) *Ich glaube von [**einem Arschloch**] nicht, dass du **das** bist
I believe of an asshole not that you that are
lit.: 'I don't believe of an asshole that you are.'

b) *Von [**einem Arschloch**] glaube ich nicht, dass du **das** bist.
of a asshole believe I not that you that are
'An asshole I don't believe that you are.'

c) *[**Wovon**] glaubst du nicht, dass du **das** bist?
where.of believe you not that you that are
'What don't you think that you are?'

d) *Du bist immer noch das [**gleiche Arschloch**], von dem
you are still the same asshole of which
meine Mutter früher schon sagte, dass du **das** seist.
my mother before already said that you that were
'You are still the same asshole my mother always said you were.'

e) Du **ein Arschloch**$_i$? Nein, **das**$_i$ bist du nicht.
you an asshole no, that are you not
'You an asshole – no, I don't think you are one.'

(520)a–d show that the proleptic object must not be a predicate. (520)e shows that the proform *das* 'that' can refer to predicates, implying that the ungrammaticality of the first examples can't be due to incompatibility.

As mentioned at the beginning of this section, one should not be confused by external heads of a non-individual-denoting type as in the following example:

(521) Der Peter ist ein [**Mann**], von dem jede Frau hofft,
the Peter is a man of whom every woman thinks
dass **er** sie heiratet.
that he her marries
'Peter is a man who every woman hopes will marry her.'

The crucial point is that the external head is not identical to the proleptic object. The fact that it is a predicate in the matrix clause has no effect on its interpretation inside the relative clause where it is interpreted as an individual. The sentence can be paraphrased as follows: every woman hopes of an X that X marries her. Therefore, such sentences are no counterexamples.

3.5.1.3 Amounts

The following examples show that the proleptic object cannot be an amount:

(522) a) *Ich glaube von [**achtzig Kilos**], dass Peter **das/so viel** wiegt.
I believe of eighty kilos that Peter that/that.much weighs
lit.: 'I believe of eighty Kilos that Peter weighs.'

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[163] For reasons that are unclear to me, some speakers find the relative clause-variant not quite as bad as the other proleptic constructions.

b) *Von [**achtzig Kilos**] glaube ich, dass Peter **<u>das/so viel</u>** wiegt.
of eighty kilos believe I that Peter that/that.much weighs
'Eighty Kilos I believe Peter weighs.'

c) *Von [**wie vielen Kilos**] glaubst du, dass Peter **<u>das/so viel</u>** wiegt?
of how many kilos believe you that Peter that/that.much weighs
'How many kilos do you believe Peter weighs?'

d) **achtzig Kilo$_i$**, **das$_i$** habe ich tatsächlich noch nie gewogen
eighty kilos that have I indeed still never weighed
'Eighty kilos, that much I have never weighed.'

(522)a–c show that the proleptic object cannot express an amount. (522)d shows that the incompatibility cannot be due to the proform: *das* 'that' can readily refer to amounts.

Relativization patterns the same: using the proform *das* 'that', forces an amount interpretation, which leads to ungrammaticality:

(523) *die [**60 Kilos**], von denen ich nicht glauben will,
the 60 kilos of which I not believe want
dass du **<u>das/so viel</u>** wiegst
that you that/that.much weigh
'the 60 kilos I don't want to believe that you weigh'

Amount phrases do, however, allow a referential/wide-scope interpretation where they refer to a pre-established set of entities (e.g. Cinque 1990, Heycock 1995). Such an interpretation is readily available, but only if a pronoun is used that is compatible with individual-denoting antecedents. Personal pronouns are of that type. The following examples illustrate the referential interpretation:

(524) a) Ich glaube nur von [**zwei Patienten**],
I believe only of two patients
dass der Doktor **<u>sie</u>** morgen sehen will.
that the doctor them tomorrow see wants
'I believe of only two patients that the doctor will examine them tomorrow.'

b) Nur von [**zwei Patienten**] glaube ich,
only of two patients believe I
dass der Doktor **<u>sie</u>** morgen sehen will.
that the doctor them tomorrow see wants
'Only two patients I believe the doctor wants to examine tomorrow.'

c) Von [**wie vielen Patienten**] denkst du,
of how many patients think you
dass der Doktor **<u>sie</u>** morgen sehen will?
that the doctor them tomorrow see wants
'How many patients do you believe that the doctor wants to examine tomorrow?

d) die [**zwei Patienten**], von denen ich glaube,
the two patients of who I believe
dass der Doktor **sie** sehen will
that the doctor them see wants
'the two patients I believe the doctor wants to see'

In all these examples, the amount phrase is interpreted as referential:[164] there are two specific patients that the doctor wants to examine out of a set of patients, e.g. patients that have called to make an appointment. The doctor has selected two of them, e.g. because their injuries seem most serious. An amount reading would imply that the doctor has decided on a particular number (of patients) that he wants to examine; for instance, because he has other obligations on that day and doesn't have time for more than just two. In that case, there is no pre-established set, an amount reading would also be felicitous if no patient has called to make an appointment. The doctor can still, in principle, decide to examine a certain number of patients. Such a reading, is, however, not available.

I pointed out in (2.2.2) that certain DPs (e.g. those referring to substances) can be interpreted as an individual or as an amount. We expect only the individual interpretation to be possible in the amount reading, and this prediction is borne out:

(525) der [**Champagner**], von dem ich sagte,
the champagne of which I said
dass wir **ihn** gestern verschwendet hätten
that we it yesterday spilled had.SUBJ
'the champagne I said we spilled yesterday'

The proleptic object does not denote an amount but rather a particular bottle of champagne that was spilled.[165]

3.5.1.4 Ruling out other options

In this section, I will show that "individual-denoting" is indeed the right characterization for the restrictions on the proleptic object and that alternative explanations invariably fail to account for some of the cases.

One alternative would be to explain them on the basis of "nominality". It is true that the proleptic object is always a DP, cf. 3.2.2. One could simply say that the restrictions mirror the selectional restrictions of the preposition. This automatically rules out manners[166] and predicates, which are either APs or NPs,

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[164] Importantly, the proleptic object is also an amount phrase in the relative clause in (524)d because the amount *zwei* 'two' quantifier is reconstructed into the relative clause like any other element in the complement of D, as will be discussed in 3.7.3.10.

[165] A similar situation obtains with certain idiomatic expressions which are actually amount relatives. *Fortschritte machen* 'make headway' is a case in point. In regular relativization, *Fortschritte* 'headway' allows an amount or a referential interpretation of the head noun. In the proleptic construction, however, only a referential interpretation is possible.

[166] German and Dutch do not have nominal manner expressions like English *the same way*.

as well as CPs, cf. 3.2.2. However, it fails to account for amounts, which certainly *are* nominal.

One could also argue that the proleptic object has to be linked to an argument position in the embedded clause. But that is certainly not correct. In the following example, it is linked to a straightforward adjunct, a pronoun inside comitative phrase:

(526) der [Mann], von dem ich glaube,
the man of who I believe
dass ich mit ihm zur Schule gegangen bin
that I with him to.the school went am
'the man who I believe I went to school with'

Finally, the nature of the pronoun also cannot be the source of the restriction because German has proforms for semantic types other than individual-denoting.[167, 168] Therefore, the restriction must be independent of the form of the proform; rather, the choice of proform depends on the nature of the proleptic object.

In sum, the characterization "individual-denoting" is superior to the alternatives. The fact that the proleptic object has to be individual-denoting does entail some of the other properties, though, such as nominality and the tendency for argumenthood (because arguments tend to be DPs).[169] It also accounts for the examples where the proleptic object denotes locations in space and time, introduced in (403)–(404). I repeat them for convenience:

(527) a) Von [**Zürich**] weiß ich, dass **da** das Wetter gut is.
of Zurich know I that there the weather good is
'In Zurich I know the weather is good.'

b) die [**Stadt**], von der ich weiß, dass die Mieten **da/dort** hoch sind
the city of which I know that the rents there high are
'the city where I know that the rents are high'

c) Ich will nach **Zürich$_i$**, **da$_i$/dort$_i$** ist das Wetter immer gut.
I want to Zurich there is the weather always good
'I want to go to Zurich; there, the weather is always good.'

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167 See the discussion on a similar issue in Engdahl (2001).

168 It might, however, be the case that proforms of a certain type are incompatible with antecedents in A'-positions. This would certainly be relevant if the coreferring pronoun is analyzed as a resumptive pronoun because they have been claimed to disallow non-individual-denoting antecedents, cf. e.g. Chao & Sells (1983), Boeckx (2003: 91ff.). In 3.7 I will indeed argue for a resumptive pronoun analysis and will come back to this issue.

169 As for the impossibility of CPs showed in 3.2.2, depending on one's analysis of CPs, they could be analyzed as individual-denoting. In the proleptic construction, they are simply out because the governing preposition *von* 'of' requires a DP complement. I will come back to this issue in 3.7.5.5.

(528) a) Vom [**Mittelalter**] weiß man,
of.the Middle.Age knows one
dass die Menschen **damals** gottesfürchtig waren
that the people then pious were
'In the Middle Age, one knows that people were pious.'

b) die [**Zeit**], von der Peter sagte,
the time of which Peter said
dass man **damals** die Eltern noch siezte
that one back.then the parents still saySie
'the time that Peter said one was still on formal terms with one's parents'

c) Das **Mittelalter**$_i$ war sehr anders,
the Middle.Age was very different
damals$_i$ waren die Menschen noch fromm.
back.then were the people still pious
'The Middle Age was very different. People were still pious back then.'

3.5.1.5 Scope and semantic types

In 1.4.1, I discussed reconstruction in A'-chains. One of the central ingredients was shown to be the Preference Principle, which minimizes the operator phrase and keeps the restriction of the *wh*-quantifier in the lower copy:

(529) [Which ~~picture of his$_i$ mother~~]$_1$ does **every boy**$_i$ like best
[x picture of **his**$_i$ mother]$_1$?

While the *wh*-quantifier always takes wide scope (it has to type the clause as a question), other quantifiers do not necessarily have to. Amount quantifiers were shown to lead to ambiguities depending on where they are interpreted. Interpretation in the operator position implies wide-scope and a D-linked interpretation, interpretation in the bottom copy corresponds to the amount reading:

(530) a) [How **many** people]$_1$ did Mary **decide** to hire [x]$_1$? wide-scope of *many*

b) [How ~~many people~~]$_1$ did Mary **decide** to hire [x many people]$_1$?
scope reconstruction

In other words, the non-individual-denoting interpretation corresponds to the reconstructed interpretation, while the individual-denoting interpretation corresponds to the non-reconstructed interpretation, cf. Cinque (1990), Heycock (1995), Fox (1999) etc. Since the proleptic construction does not allow for scope reconstruction (for whatever reason), the proleptic object can never denote an amount.

While a wide-scope interpretation of amount phrases is quite easy to construe, this is much more difficult with manners or predicates. It is not obvious in which sense they could be referential. It is therefore generally assumed that they have to be fully reconstructed to be properly interpreted (cf. Heycock 1995). However,

since scope reconstruction is not possible in the proleptic construction, the proleptic object cannot be a manner or a predicate.

I conclude therefore that the restriction that the proleptic object must be individual-denoting follows from the impossibility of scope reconstruction. Why scope reconstruction is banned in the proleptic construction while reconstruction of non-quantificational material is possible will be explained in 3.7.4.

3.5.2 The proleptic object is referential/D-linked

In this section, I will show that the proleptic object cannot be non-referential or non-specific. Instead, it has to be referential, specific or D-linked: it refers to a member of a presupposed set. These various descriptions, however, can be reduced to the notion wide-scope with respect to the matrix verb, as I will show below.

Again, we have to be careful with relatives. Since the quantificational properties of the external head are located in D and are not represented inside the relative clause, they are also not part of the proleptic object. The external head therefore does not count and can be a non-specific indefinite. A precise look at the semantics reveals, though, that the proleptic object *is* subject to the same restrictions in relativization as well.

3.5.2.1 Indefinites

Indefinites either get a specific or a generic interpretation (the following sentence is actually only acceptable with stress on the indefinite article):

(531) a) Ich weiß von [**einem Mädchen**], dass Peter es geküsst hat.
I know of a girl that Peter she kissed has
'I know of a girl that Peter kissed here.'

b) Von [**einem Mädchen**] weiß ich, dass Peter es geküsst hat.
of a girl know I that Peter she kissed has
'A girl I know that Peter kissed.'

c) Von [**wem**] weißt du, dass Peter ihn geküsst hat?
of who know you that Peter him kissed has
'Who do you know that Peter kissed?'

For the *wh*-case, I have used the *wh*-operator that is not necessarily specific. Still, in the proleptic construction, it is necessarily specific, it questions an entity of a pre-established set.

The semantic contribution of the proleptic construction is best illustrated with the following minimal pair: The proleptic construction only allows the specific interpretation of *girl* whereas in a normal complement clause construction, *girl* can be non-specific:

(532) a) Ich weiß von [**einem Mädchen**], dass Peter es geküsst hat.
I know of a girl that Peter her kissed has
'I know of one girl that Peter kissed her.'

b) Ich weiß, dass Peter **ein Mädchen** geküsst hat.
I know that Peter a girl kissed has
'I know that Peter kissed a girl.'

Whereas the proleptic construction implies that the speaker knows of a particular girl that Peter kissed, there is no such implication with normal complement clauses.

With bare plurals, the proleptic construction forces a generic interpretation, a non-specific interpretation is impossible. In normal complementation, however, a non-specific interpretation is available. The following pair illustrates the contrast:

(533) a) Ich weiß von [**Feuermännern**], dass sie verfügbar sind.
I know of firemen that they available are
'I know of firemen that they are available.'

b) Ich weiß, dass **Feuerwehrmänner** verfügbar sind.
I know that firemen available are
'I know that firemen are available.'

There is no point in testing the relative clause type because the indefinite determiner is not represented inside the matrix relative; as discussed in 1.2.2.3, the external D is not reconstructed in relative clauses. Therefore, the fact that the external head can be non-specific, as in the following examples, does not tell us anything:

(534) a) Es gibt [**Menschen**], von denen man nicht glauben würde,
there gives people of who one not believe would

dass sie jemanden umbringen können
that they someone kill can

'There are people that one wouldn't believe can kill someone.'

b) Ich suche [**einen Mann**], von dem ich weiß, dass er mir treu ist.
I look.for a man of who I know that he me faithful is
'I'm looking for a man who I know that he is faithful to me.'

The issue of non-specificity in relatives comes up again in the next subsection.

3.5.2.2 Intensional contexts

Intensional contexts are an interesting test case as well. If we put the coreferring pronoun in the scope of an intensional verb, we can only get a *de re* reading, never a *de dicto* reading (again, the indefinite is only acceptable with stress):

(535) a) Peter sagte von [**einer neuen Sekretärin**], dass er sie **suche**.
Peter said of a new secretary that he her seek
'Peter said about a new secretary that he is looking for her.' ∃ > seek;
*seek > ∃

b) Peter denkt von [**einem neuen Mantel**], dass er ihn **braucht**.
Peter thinks of a new coat that he him needs
'Peter believes of a new coat that he needs it.' ∃ > need;
*need > ∃

(536) a) Von [**einer neuen Sektretärin**] sagte Peter, dass er sie **suche**.
of a new secretary said Peter that he her seek
'A new secretary, Peter said he was looking for.' ∃ > seek;
*seek > ∃

b) Von [**einem neuen Mantel**] denkt Peter, dass er ihn **braucht**.
of a new coat thinks Peter that he him needs
'A new coat, Peter thinks he needs.' ∃ > need;
*need > ∃

The a-examples can only mean that Peter has a new secretary, and he said about that secretary that he is looking for her. This is the *de re* reading. Importantly, a *de dicto* reading under which Peter is simply looking for a new secretary and at the time of speaking has not found one yet is not available. The b-examples imply that there is a particular existing coat that is newly available and it is this coat that Peter needs. This is the *de re* reading. A *de dicto* reading would imply that Peter simply needs a new coat, but does not have a particular type I mind. Such a reading is unavailable. In both cases, the adjective *new* favors a *de dicto* interpretation, but still it is not available. With normal long topicalization, the sentences are ambiguous (even though a *de dicto* reading is strongly preferred):

(537) a) **Eine neue Sekretärin** sagte Peter, dass er **suche**.
a new secretary said Peter that he seek
'A new secretary Peter said he was looking for.' (∃ > need);
need > ∃

b) **Einen neuen Mantel** denkt Peter, dass er **braucht**.
a new coat thinks Peter that he needs
'A new coat Peter thinks that he needs.' (∃ > need);
need > ∃

With relativization, things are a little trickier. Consider the following sentence (after Sells 1987: 289, ex. 50):

(538) Peter wird die [**Sekretärin**] finden, von der er sagte,
Peter will the secretary find of who he said
dass er sie **suche**.
that he her seeks
'Peter will find the secretary that he said he was looking for.' ∃ > seek;
*seek > ∃

Only a *de re* reading seems available. There is an existing secretary about whom Peter said that he is looking for her. A *de dicto* reading, under which Peter does

not have a secretary yet but is rather looking for one with certain properties, is not possible.[170]

3.5.2.3 Quantified DPs

When the proleptic object is a universal or negative quantifier, we get a presuppositional effect, that is, there is a presupposed set that the quantifier quantifies over. The effect can be illustrated with the following minimal pair:

(539) a) Ich weiß von [**jedem Holländer**], dass er ein Fahrrad hat.
I know of every Dutchman that he a bike has
'I know about every Dutchman that he has a bike.'

b) Ich weiß, dass **jeder Holländer** ein Fahrrad hat.
I know that every Dutchman a bike has
'I know that every Dutchman has a bike.'

In the proleptic construction, the speaker has knowledge about every single Dutchman that he owns a bike. It is as if he actually went to every Dutchman's house to check. That reading is, of course, quite bizarre. No such effect is found in the normal complement clause construction. The speaker might have this knowledge from statistics etc. The following pair makes the same point with a negative quantifier:

(540) a) Ich weiß von [**keinem Mitarbeiter**], dass er katholisch ist
I know of no colleague that he catholic is
'I know of no colleague that he is catholic.'

b) Ich weiß, dass **kein Mitarbeiter** katholisch ist.
I know that no colleague catholic is
'I know that no colleague is catholic.'

The meaning of the proleptic construction can be paraphrased as follows: there is no colleague such that I happen to know about that colleague that he is catholic. This does not imply that there aren't any catholic colleagues, the speaker just does not know about any of his colleagues that they are catholic. In the regular complement clause, the implication is that there are no catholic colleagues altogether. The speaker might have gained this knowledge by looking at the statistics of his firm or because it is simply known that Catholics don't work in that company.

The effect cannot directly be tested with relativization because the quantifier (i.e. the external D) does not reconstruct into the matrix clause so that the proleptic object does not contain a quantifier. Still, the semantics of the entire relative clause are very similar because the proleptic object is interpreted as specific etc. as in the following example:

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[170] The lack of a *de dicto* reading may turn out to be little surprising if the coreferring pronoun is analyzed as a resumptive pronoun as I will in 3.7 and 3.8: there is quite some literature on the interpretation of resumptive pronouns in intensional contexts, see Sells (1987), Prince (1990), Erteshik-Shir (1992), Sharvit (1999). It is generally assumed that they lack a *de dicto* interpretation, except under certain conditions such as modal subordination.

(541) Es gibt **keinen** [**Mitarbeiter**], von dem ich weiß,
there is no employee of who I know
dass er katholisch ist
that he catholic is
'There is no colleague who I know is catholic.'

The meaning is best paraphrased as follows: there is no X such that I know of X that X is catholic. Consequently, this sentence does not imply that there are no catholic colleagues, the speaker just happens not to know any.

3.5.2.4 Oblique Relations

For reasons that will become clear in 3.7.4.4, it is important to test whether different grammatical relations, especially oblique ones, have an influence on the interpretation of the proleptic object. The following examples show, that this is not the case. Oblique relations are subject to the same semantic restrictions as direct relations.

First, amount quantifiers only have a referential interpretation:

(542) Von [**wie vielen Patienten**] denkst du,
of how many patients think you
dass der Doktor **mit ihnen** reden will?
that the doctor with them talk wants
'How many patients do you believe that the doctor wants to talk to tomorrow?'

What is questioned here is not simply a number (amount reading) but members of a pre-established set: such a question would be felicitous in a context where several people have called and asked to see the doctor, and the question would ask for those that the doctor has selected.

Indefinite proleptic objects are obligatorily specific:

(543) Von [**einem Mädchen**] weiß ich, dass Peter **mit ihm** getanzt hat.
of one girl know I that Peter with her danced has
'A girl, I know that Peter danced with.'

(543) can only refer to a specific girl about whom the speaker knows that Peter kissed her.

Quantified proleptic objects get a presuppositional interpretation:

(544) a) Von [**keinem Kollegen**] weiß ich, dass der Chef stolz **auf ihn** ist.
of no colleague know I that the boss proudon him is
'No colleague do I know that the boss is proud of.'

b) Ich weiß, dass der Chef **auf keinen Kollegen** stolz ist.
I know that the boss on no colleague proud is
'I know that the boss isn't proud of any colleague.'

Whereas (544)a) does not exclude that there are colleagues the boss is proud of, such an interpretation is explicitly ruled out in (544)b).

Finally, in the following intensional context only a *de re* interpretation is possible with the proleptic construction whereas the regular complement clause construction also allows a *de dicto* interpretation:

(545) a) Von [**einer neuen Sekretärin**] hat Peter gesagt,
of one new secretary has Peter said
dass er **mit ihr** ausgehen *möchte*
that he with her go.out wants
'A new secretary, Peter said he would like to go out with.'
∃ > want; *want> ∃

b) Peter hat gesagt,
Peter has said
dass er **mit einer neuen Sekretärin** ausgehen *möchte*.
that he with one new secretary go.out wants
'Peter said that he would like to go out with a new secretary'
∃ > want; want> ∃

In (344)a, there is a particular new secretary that Peter would like to go out with. In (344)b, there is an additional reading according to which Peter simply wants to go out with a new secretary, but it does not matter to him which one that is.

It is safe to conclude then, that the proleptic object is subject to the same semantic restrictions when the coreferring pronoun bears an oblique relation.

3.5.2.5 Scope and referentiality/D-linking

Notions like referentiality, specificity or D-linking can be used to describe the semantic properties of the proleptic object in the various examples of the previous subsections. Unfortunately, these notions are notoriously vague and often used with different interpretations. For instance, it is not clear whether a non-specific DP is still referential or not. Furthermore, all these notions are not so easily applicable to quantifiers, especially negative quantifiers. It does not make much sense to qualify quantified expressions like *kein Mitarbeiter* 'no colleague' as either referential, specific or D-linked.

Still, all the properties reviewed in this section seem to have something in common. I would like to argue that these are all different sides of the same coin: the proleptic object necessarily has wide-scope with respect to the matrix verb. This explains why indefinites must not be existential: when they are interpreted with scope over a propositional attitude verb they become specific. Consider again the following sentence:

(546) Ich weiß von [**einem Mädchen**], dass Peter es geküsst hat.
I know of a girl that Peter her kissed has
'I know of a girl that Peter kissed it.' ∃ > know; *know > ∃

The notion wide scope precisely derives the right interpretation: there is a girl such that I know about her that Peter kissed her. Similar things hold for the intensional contexts: for an *de dicto* reading to be possible, the proleptic object would have to be reconstructed below the modal in the complement clause. But since it has wide-scope, a *de re* reading results. Consider again an example from above:

(547) Peter sagte von [**einer neuen Sekretärin**], dass er sie **suche**.
Peter said of a new secretary that he her seek
'Peter said about a new secretary that he is looking for her.' ∃ > seek; *seek > ∃

The proleptic object has scope over the matrix verb and therefore also over the modal (therefore: ∃ > say > seek). The interpretation can therefore be paraphrased as follows: there is a new secretary such that Peter said about that new secretary that he is looking for her. The quantifiers, finally, are also easily captured in these terms: the notion wide-scope with respect to the propositional attitude verb derives exactly the right interpretation. When the quantifier occurs in the complement clause, however, it scopes under the propositional attitude verb. Consider the following example repeated from above:

(548) Ich **weiß** von [**keinem Mitarbeiter**], dass er katholisch ist
I know of no colleague that he catholic is
'I know of no colleague that he is catholic.' ¬∃ > know; *know > ¬∃

The interpretation can be paraphrased as follows: there is no colleague such that I know about that colleague that he is catholic.

Capturing the restriction in terms of scope has clear advantages over using somewhat fuzzy and overlapping notions like referentiality, specificity and D-linking: there is a clear generalization and the various labels used to describe the proleptic object are purely epiphenomenal.

I already established in 3.5.1.5 that the requirement that the proleptic object be individual-denoting can be subsumed under wide-scope: amounts, predicates, degrees and manners all require reconstruction to be properly interpreted and are therefore out. The properties reviewed in this section can be seamlessly added to this. The various semantic restrictions therefore turn out to be different sides of the same coin: the absence of scope reconstruction.

3.5.3 Absence of scope reconstruction

The previous subsections have shown that the proleptic object always has wide-scope with respect to the matrix verb, in other words, there is no scope reconstruction. This is remarkable because we saw abundant evidence for reconstruction for idiom interpretation, anaphor binding and variable binding in 3.3. In this section, I would like to discuss classical instances of scope reconstruction, namely distributive readings and amount readings.

The pattern we get is quite straightforward: quantifier interaction, i.e. distributive readings, are possible in the matrix clause, but not in the embedded clause: the proleptic object's quantificational properties are never interpreted in the complement clause. The first pair illustrates the in-situ variant of the proleptic construction:[171]

(549) a) **Jeder Lehrer** glaubt von [**einer Band**],
every teacher believes of a band
dass die Studenten sie am besten finden.
that the students it the best find
'Every teacher believes of a band that the students like it best.'
∀ > ∃; ∃ > ∀

b) Ich glaube von [**einer Band**],
I believe of a band
dass **jeder Student** sie am besten findet .
that every student it the beste likes
'I believe of a band that every student likes it best.' * ∀ > ∃; ∃ > ∀

In (549)a, a distributive reading is possible because the universally quantified DP is located in the matrix clause. In (549)b, however, the QP is located in the complement clause. Since the quantificational properties of the proleptic object have to be interpreted in the matrix clause, it cannot interact with the universal QP. The following pair illustrates the same with topicalization:

(550) a) Von [**einer Band**] glaubt **jeder Lehrer**,
of a band believes every teacher
dass die Studenten sie am besten finden.
that the students it the best like
'One band every teacher believes that the students like best.'
∀ > ∃; ∃ > ∀

b) Von [**einer Band**] glaube ich,
of one band believe I
dass **jeder Student** sie am besten findet.
that every student it the best finds
'One band I believe every student likes best.' *∀ > ∃; ∃ > ∀

Again, quantifier interaction is only possible if the universal QP is located in the matrix clause. The next pair shows the same for *wh*-movement:

[171] The English translations of the ex-situ cases show that there is no such restriction in normal A'-movement.

(551) a) Von [**welcher Band**] glaubt **jeder Lehrer**,
of which band thinks every teacher
dass die Studenten sie am besten finden?
that the students it the best find
'Which band does every teacher think that the students like best?'
∀ > wh; wh > ∀

b) Von [**welcher Band**] glaubst du,
of which band think you
dass **jeder Student** sie am besten findet?
that every student it the best finds
'Which band do you think every student likes best?' *∀ > wh; wh > ∀

Relativization, finally, shows the same pattern:

(552) a) die [**Band**], von der **jeder Lehrer** glaubt,
the band of which every teacher thinks
dass die Studenten sie am besten finden
that the students her the best find
'the band that every teacher thinks the students like best'
∀ > ∃; ∃ > ∀

b) die [**Band**], von der ich glaube,
the band of which I believe
dass jeder Student sie am besten findet
that every student her the best finds
'the band I believe every student likes best' *∀ > ∃; ∃ > ∀

The same can be shown for amount readings. As was discussed in 3.5.1.3, amount phrases only receive a referential interpretation, but never an amount reading (Sauerland 1998: 64, 68). This implies that they are never reconstructed below the matrix verb. The contrast can be made even more drastic by using verbs that strongly force a reconstructed interpretation. As discussed in 1.4.1, verbs of creation like *build* or *write* take an object that still has to come into existence (if used in a non-past tense), which implies that a referential interpretation is impossible. Those verbs are incompatible with the proleptic construction as the following set illustrates for the different variants (the data are inspired by Heycock 1995 and Fox 1999):[172]

(553) a) *Ich denke von [**vielen** Häusern], dass man sie *bauen* sollte.
I think of many houses that one them build should
lit.: 'I think of many houses that one should build them.'
*many > think; *think > many

[172] The English translations show again that regular A'-movement is not subject to these restrictions.

b) *Von [**vielen** Häusern] denke ich, dass man sie *bauen* sollte.
of many houses think I that one them build should
'Many houses I think one should build.'
*many > think; *think > many

c) *Von [wie **vielen** Häusern] denkst du, dass man sie *bauen* sollte?
of how many houses think you that one them build should
'How many houses do you think one should build?'
*many > think; *think > many

d) *die [**vielen** Häuser], von denen ich denke,
the many houses of which I think
dass man sie *bauen* sollte
that one them build should
'the many houses that I think one should build'
*many > think; *think > many

These examples cannot mean that one would like a certain number of houses to be built, rather the proleptic object can only refer to existing houses, which is, however, incompatible with *build*. The only possible interpretation would require a set of plans for houses, and in such a context it could be felicitous to utter one of the above-mentioned sentences.

The following quadruple makes the same point with *schreiben* 'write':

(554) a) *Ich denke von [**vielen** Büchern], dass Peter sie 2006 *schreiben* wird.
I think of many books that Peter them 2006 write will
lit.: 'I think of many books that Peter will write them 2006.'
*many > think; * think > many

b) *Von [**vielen** Büchern] denke ich, dass Peter sie 2006 *schreiben* wird.
of many books think I that Peter them 2006 write will
'Many books I think Peter will write 2006.'
*many > think; * think > many

c) *Von [**wie vielen** Büchern] denkst du,
of how many books think you
dass Peter sie 2006 *schreiben* wird?
that Peter them 2006 write will
'How many books do you think Peter will write 2006?'
*many > think; * think > many

d) *die [**vielen** Büchern], von denen ich denke,
the many books of which I think
dass Peter sie 2006 *schreiben* wird
that Peter them 2006 write will
'the many books I think Peter will write 2006'
*many > think; * think > many

Using *schreiben* 'write' in the future tense forces an amount reading since the books do not exist yet. Under the intended reading, the speaker thinks that Peter

will write a large number of books. This reading is blocked, however, in the proleptic construction as it requires wide-scope. Under a wide-scope reading, there would be a set of already existing books, but this in turn is incompatible with *schreiben* 'write'. We therefore get a clash and since there is no possible reading, the sentence is ungrammatical.

Once we use a different embedded verb that does not longer require scope reconstruction, things are different. A verb such as *zerstören* 'demolish' is in principle compatible with both a wide-scope and a narrow-scope reading of the amount quantifier. In the proleptic construction, only the wide-scope interpretation is possible:

(555) a) Ich denke von [**vielen** Häusern], dass man sie *zerstören* sollte.
I think of many houses that one them destroy should
'I think of many houses that one should destroy them.'
many > think; *think > many

b) Von [**vielen** Häusern] denke ich, dass man sie *zerstören* sollte.
of many houses think I that one them destroy should
'Many houses I think one should destroy.'
many > think; *think > many

c) Von [**wie vielen** Häusern] denkst du, dass man sie *zerstören* sollte?
of how many houses think you that one them destroy should
'How many houses do you think one should destroy?'
many > think; *think > many

b) die [**vielen** Häuser], von denen ich denke, dass man sie
the many houses of who I think that one them
zerstören sollte
destroy should
'the many houses I think one should destroy'
many > think; *think > many

A narrow-scope reading would imply that the speaker thinks a certain number of houses should be destroyed, e.g. to make room for newer, better buildings. That reading is unavailable. Rather, only a wide-scope reading is possible where there is a set of existing houses, and the speaker thinks about many of them that they should be destroyed.

To sum up this subsection: The proleptic object is interpreted with wide-scope with respect to the matrix verb when it comes to its quantificational properties. There is no scope reconstruction into the complement clause. These facts therefore constitute further evidence against movement from the embedded clause.

3.5.4 No low construal of superlative adjectives

Another interesting test concerns the interpretation of superlative adjectives, discussed in 1.3.2 and 2.2.4. In the proleptic construction, the low construal of the adjective is impossible:

(556) das [**erste** Buch], von dem Peter sagte,
the first book of which Peter said
dass Tolstoj es geschrieben habe
that T. it written has
'the first book Peter said that Tolstoj wrote'

This example can only have the high reading whereby the adjective applies to the matrix verb, i.e. it applies to the sequence of saying, but not writing. In other words, it cannot be paraphrased as "the first book that Tolstoj wrote – according to John", which would correspond to the low reading. The contrast can be made clearer by adding a negative polarity item in either the matrix or the embedded clause to disambiguate the readings (cf. 1.3.2). Only an NPI in the matrix clause is acceptable; with an NPI in the embedded clause, ungrammaticality results:

(557) a) das [**erste** Buch], von dem Peter **je** *sagte*,
the first book of which Peter ever said
dass Tolstoj es geschrieben habe
that T. it written has
'the first book Peter said that Tolstoj wrote'

b) *das [**erste** Buch], von dem Peter sagte,
the first book of which Peter said
dass Tolstoj es **je** *geschrieben* habe
that Tolstoj it ever written has
'the first book Peter said that Tolstoj ever wrote'

The descriptive generalization is then that there is no reconstruction into the embedded clause for adjectival readings. Since superlative adjectives are scopal elements, it is little surprising that they fail to undergo scope reconstruction since the data in this section have amply demonstrated that there is no scope reconstruction into the embedded clause. This is yet another argument against movement from the embedded clause.

3.5.5 Comparatives are incompatible with the proleptic construction

I have shown so far that the proleptic construction is compatible with three types of A'-movement in German and Dutch: relativization, topicalization, and *wh*-movement. I have not discussed one remaining type, though, namely comparatives. Interestingly, they are incompatible with resumptive prolepsis:

(558) *Es sind [**mehr Patienten**] gekommen,
there are more patients come
als der Arzt von ihnen dachte, dass sie kommen würden.
than the doctor of them thought that they come would
'There came more patients that the doctor thought would come.'

Comparatives involve abstractions over a degree variable and therefore basically represent an amount reading. The amount reading, as I have shown several times in this section, corresponds to scope reconstruction. Since the proleptic

object cannot be reconstructed for scope, as discussed in the previous subsections, the incompatibility with comparatives does not come as a surprise, but is in fact expected.

3.6 Intermediate summary/overview

The properties reviewed in this section present us with a paradox. There is strong evidence that the proleptic object is base-generated in the matrix clause, both syntactically and semantically: There is an in-situ construction with the proleptic object in a non-derived position (3.4.1): anaphors can be bound in that position, and since such binding is impossible in derived A'-positions, the position of the proleptic object must be non-derived. I repeat the relevant example:

(559) dass **Peter$_i$** von [**sich$_i$**] denkt , dass er der Größte ist
that Peter of self believes that he the greatest is
'that Peter$_i$ believes of himself$_i$ that he is the greatest'

Furthermore, there is no movement operation in German that could move the proleptic object from the embedded clause into a matrix middlefield position. All options would violate the ban against Improper Movement. In addition, the proleptic object behaves like a main clause constituent with respect to Superiority: it can be freely preceded or followed by another *wh*-phrase. This would not be possible if the proleptic object originated in the complement clause because German otherwise shows long-distance Superiority effects; here are the relevant examples from above:

(560) a) Von [*welchem Knaben*] glaubt *welcher Lehrer*,
of which.DAT boy thinks which.NOM teacher
dass jemand ihn verführt hat?
that someone him seduced has
'Of which boy does which teacher believe that someone seduced him?'

b) *[*Welchen Knaben*]$_1$ glaubt *welcher Lehrer*,
which.ACC boy thinks which.NOM teacher
dass gestern jemand __$_1$ verführt hat?
that yesterday someone seduced has
lit.: 'Which boy does which teacher believe that someone seduced yesterday?'

There is even direct evidence that the CP complement behaves like an island in that extraction from it is not possible if there is a proleptic object (3.4.1.5), I repeat the examples from above:

(561) a)??**Welchem Schüler**$_1$ glaubst du vom [Lehrer Müller],
which .DAT student think you of.the teacher M.
dass er __$_1$ eine gute Note gibt?
that he a good grade gives
'Which student do you think teacher Müller will give a good grade?'

b) ***Warum**$_1$ glaubst du vom [Lehrer Müller],
why think you of.the teacher M.
dass er $___1$ Hans eine gute Note gibt?
that he John a good grade gives
'Why do you think teacher Müller will give John a good grade?'
➔ matrix construal only

Furthermore, with respect to its quantificational properties, the proleptic object is interpreted in the matrix clause (3.5). The following examples repeat this for distributive readings and negative quantifiers:

(562) a) Von [**welcher Band**] glaubst du,
of which band think you
dass **jeder Student** sie am besten findet?
that every student it the best finds
'Which band do you think every student likes best?' *$\forall > \exists$; $\exists > \forall$

b) Ich weiß von [**keinem Mitarbeiter**], dass er katholisch ist
I know of no colleague that he catholic is
'I know of no colleague that he is catholic.' $\neg\exists$ > know; *know > $\neg\exists$

The fact that the proleptic construction is insensitive to the kind of matrix predicate suggests that movement is not involved (3.4.2): not all verbs allow long-distance A'-movement in German and Dutch; if the proleptic construction were to involve long A'-movement, it would also be expected to be subject to lexical restrictions, but this is not borne out. The fact that the proleptic construction can void any kind of island also strongly argues against movement (3.4.3). And finally, German/Dutch not being languages with resumptive pronouns, the absence of a gap is unexpected under a movement approach (3.4.4).

One is therefore tempted to resort to an approach that assumes base-generation of the proleptic object in the matrix clause and a binding relationship that links it with the coreferring pronoun. This captures the matrix clause properties of the proleptic object (semantics, non-derived position, no long-distance superiority). For the A'-variants of the proleptic construction, the proleptic object simply undergoes short A'-movement in the matrix clause. Since it would be an adjunct, the absence of lexical restrictions on the proleptic construction comes as no surprise. The fact that the construction is insensitive to locality and features a pronoun instead of a gap falls out nicely from a binding approach: under standard assumptions, a binding relationship is not subject to locality constraints; furthermore, since movement is not involved, a gap is not expected.

However, despite this almost overwhelming evidence, there are a number of properties that remain unaccounted for under a base-generation cum binding approach: The first aspect is the obligatoriness of the coreferring element (3.2.5), here is an example from above:

(563) *Von [**Computern**] glaube ich, dass jeder einen PC kaufen sollte.
of computers.DAT believe I that everyone a PC buy should
lit.: 'I believe of computers that everyone should buy a PC.'

Under the assumption that there is local A'-movement in the matrix clause, the proleptic object acts as an operator and binds a variable in the trace position. It does not have any further quantificational properties that would require a variable or a bound pronoun in the complement clause. The obligatoriness of a coreferring pronoun therefore cannot be derived from the ban against vacuous quantification.

The opacity of the CP is also unexpected, at least with matrix verbs that normally count as bridge verbs (3.4.1.5). The addition of some adjunct to the matrix clause should not have an effect on the transparency of the complement.

The strongest argument against a binding approach comes from the reconstruction effects (3.3). The predominant approach to reconstruction within the last thirty years of Generative Grammar has been to correlate it with (some kind of) movement, and more recent versions of the Principle & Parameters framework model reconstruction in terms of interpreting a lower copy of a movement chain, cf. 1.4.1. Since I have adopted these assumptions in this thesis, the reconstruction effects have important repercussions for the analysis of the proleptic construction: the fact that the proleptic object *is* interpreted with respect to certain aspects in a different, lower position suggests that the proleptic object has occupied such a position at some point in the derivation.

There are alternative, semantic approaches to reconstruction (cf. 3.7.4.2; 3.8.3.1 below). Reconstruction is not mediated via a copy but rather via the chain formed through binding: a constituent that binds a certain position can be interpreted in that position. This trivial form of semantic reconstruction, however, does not seem to be applicable to the data at hand for two reasons: it was shown that at least some speakers allow reconstruction into intermediate positions (3.3.9.2). This cannot follow under a semantic approach because the position where the proleptic object would have to be interpreted can only come about via successive-cyclic movement. Semantic reconstruction of the type described here, however, can only target the position that is occupied by the bound element. Furthermore, the intricate pattern of reconstruction for Principle C (3.3.5) could not easily follow from a semantic approach that links the proleptic object directly with the coreferring pronoun: reconstruction is expected to be as systematic as with variable binding or Principle A, contrary to fact.[173, 174]

The following table provides an overview over the properties of the proleptic construction. I compare the binding approach with semantic reconstruction outlined above with a naïve movement approach that involves direct A'-movement from the embedded clause and where the trace position is realized as a pronoun.

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[173] The same problem arises for a direct A'-movement relationship, of course.

[174] However, I will discuss in 3.8.3.1 a somewhat different implementation of semantic reconstruction that might indeed be the correct analysis for certain types of speakers.

(564)

property	*long A'-movement*	*binding*
free orientation: 3.2.3	+	+
unboundedness: 3.2.4	+	+
obligatoriness of coreferring pronoun: 3.2.5	+	–
reconstruction effects in the matrix clause 3.3.9.1	+/–	+
reconstruction into the complement clause 3.3	+	+
no reconstruction for Principle C: 3.3.5	–	–
reconstruction into intermediate positions in the complement 3.3.9.2	+	–
the in-situ construction: 3.4.1.1	–	+
the proleptic object is in non-derived position in the in-situ construction: 3.4.1.2–3.4.1.4	–	+
the CP complement is a barrier: 3.4.1.5	–	–
absence of lexical restrictions: 3.4.2	–	+
insensitivity to islands: 3.4.3	–	+
overt coreferring element: 3.4.4	–	+
no scope reconstruction: 3.5	–	–

Let me briefly explain the plusses and minuses in the table: free orientation (3.2.3) and unboundedness (3.2.4) follow under both accounts: regular A'-movement as well as binding do not restrict these possibilities. The obligatory link with the coreferring pronoun (3.2.5) follows under A'-movement since the fronted constituent has to bind a variable; without coreference there would be vacuous quantification. Under the binding approach, the obligatoriness of the coreferring pronoun is not expected as discussed above: there is only local A'-movement of an adjunct in the matrix clause; vacuous quantification cannot be at stake. Reconstruction effects into the matrix clause (3.3.9.1) tend to favor the binding approach: there is local A'-movement, and this can be readily reconstructed. With long A'-movement, this is less clear because as pointed out in that section, the binding effects are more readily available than intermediate binding. Reconstruction into the complement clause (3.3) can be captured by both approaches assuming that semantic reconstruction is applied in the binding approach. The absence of Condition C effects (3.3.5) is unexpected under either approach: if there normally is reconstruction, there should also be Condition C effects. Reconstruction into intermediate positions in the complement clause (3.3.9.2) slightly favors long A'-movement since the binding approach does not generate the relevant positions for interpretation, as discussed above. The fact that there is an in-situ construction where the proleptic object clearly occupies a non-derived position (3.4.1.1–3.4.1.4) is completely unexpected under long A'-movement. It can only target the matrix Spec, CP position, and there is no licit cross-clausal movement operation in German or Dutch that would terminate in such a position. Under a binding approach, the in-situ construction is not surprising: the proleptic object is an adjunct that is simply base-generated there and can be A'-moved but does not have to. Neither approach can explain why the

CP-complement behaves like a barrier (3.4.1.5). Under long A'-movement, this leads to a contradiction. Under the binding approach, it remains unclear why the addition of an adjunct should affect the transparency of the CP. The absence of lexical restrictions (3.4.2) is expected under the binding approach: binding relationships of that kind are never sensitive to lexical restrictions. They are, however, completely unexpected under long A'-movement because it is normally thought to be restricted to a certain class of predicates, bridge-verbs. The insensitivity to locality constraints (3.4.3) is expected under a binding approach but represents a serious problem for a long A'-movement analysis: regular A'-movement does not void locality constraints. The same holds for the overt coreferring element (3.4.4): it is expected under binding, but not under movement: German and Dutch are languages where A'-chains normally do not terminate in resumptive pronouns, but instead leave a gap. Finally, the absence of scope reconstruction (3.5) is in principle unexpected under both approaches: if reconstruction is the default elsewhere, nothing rules out scope reconstruction a priori.

Even though the binding approach has many advantages, there are still a number of important aspects it fails to cover so that I conclude that both approaches are insufficient. In the next section I will present an analysis of the proleptic construction that in a sense combines both approaches and thereby reconciles the conflicting properties.

3.7 Analysis

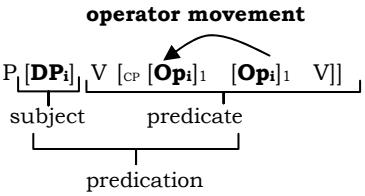
I would like to propose an analysis of the proleptic construction that takes its conflicting properties seriously and thereby provides a deeper understanding of them. I propose to solve the movement non-movement paradox by assuming a *tough*-movement style analysis that involves operator movement in the complement clause. This movement licenses an extra argument, the proleptic object, which can undergo further A'-movement in the matrix clause. The proleptic object is linked to the operator in Spec, CP of the complement clause via ellipsis, which makes an alternative strategy available for reconstruction, thereby resolving the reconstruction paradox. Like other (null) operator movement chains, the chain established in the complement clause is shown to be specific, which has consequences for scope interpretation and the construal of adjectival modifiers.

In the first subsection, I will introduce operator movement in the complement clause, and in subsection two I will show that this captures a number of important properties of the proleptic construction. Subsection three discusses the ellipsis operation and its implications for Principle C effects. In subsection four, I will deal with the nature of the chain established by operator movement. Subsection five, finally, describes the parallels between the proleptic construction and *tough*-movement.

3.7.1 Movement in the complement clause creates a predicate

The first part of the analysis concerns the licensing of the proleptic object. I propose that there is operator movement in the complement clause.[175, 176] This operator movement turns the CP into an open sentence. Thereafter, the CP composes with the matrix verb and forms a complex predicate. This predicate is still unsaturated. It is the proleptic object, more precisely the DP within the PP, that saturates it. Operator movement can therefore be thought to license an extra argument. The proleptic object is thematically licensed, but not Case-licensed.[177] It is therefore case-marked by a preposition, the default preposition *von/van* 'of'.[178, 179] The derivation is illustrated in the following figure:

(565)



The entire complex plus the little v, which inherits the external theta-role of the verb, is finally predicated of the matrix subject.

The constituency facts from 3.4.1.1 nicely confirm this approach: The lower clause forms a constituent together with the matrix verb, to the exclusion of the proleptic object (566). The latter is introduced higher, but below the subject as the variable binding facts show (567):

(566) a) [Geglaubt, dass **er** intelligent ist]$_1$, habe ich von [**Peter**] schon __$_1$.
believed that he intelligent is have I of Peter indeed
Lit.: 'Believed that he is intelligent I have indeed of Peter.'

b) *[Von [**Peter**] geglaubt] habe ich schon, [CP dass **er** intelligent ist].
of Peter believed have I indeed that he intelligent is
Lit.: 'Of Peter believed have I indeed that he is intelligent.'

---

175 As we will see in 3.7.3 below, I actually assume that what moves is a full copy of the proleptic object.

176 The mechanism adopted here closely follows Cinque (1990: 153) and den Dikken & Mulder (1992: 305ff.).

177 The proleptic object cannot be licensed by semantic Case. There are only very few examples where this is possible in German or Dutch. Such constituents denote either temporal extension (accusative in German) or some point in time (genitive in German).

178 *Von/van* 'of' can generally be used as a substitute for genitive case in both languages. Even in German, where genitive is still common, the *of*-construction is frequent. In certain configurations where genitive cannot be realized, it is even obligatory. Its function is therefore very similar to English *of*. See Gallmann (1998) for discussion.

179 As mentioned in 3.2.1, there is another option in German, the preposition *bei* 'at'. It is not a default preposition in the narrow sense, but it is the preposition that governs constituents expressing corollary circumstance. That choice could therefore be made to follow for semantic reasons. Chapter 4 on Zurich German discusses this issue in some detail. See also 3.9.3.

(567) weil wahrscheinlich [$_{vP}$ **keiner$_i$** von [**seinem$_i$** Sohn] denkt,
because probably no.one of his son thinks
dass er intelligent ist]
that he intelligent is
'because probably no one$_i$ thinks of his$_i$ son that he is intelligent'

It was further noted that the DP c-commands out of the PP: an NPI in the complement clause can be licensed by a negative quantifier inside the PP:

(568) Ich glaube von [**keinem** Holländer],
I believe of no Dutchman
dass er **auch nur einen einzigen Euro** verschwenden würde.
that he even only a single Euro squander would
'I believe of no Dutchman that he would squander even a single euro.'

This fact is important because c-command is a necessary prerequisite for predication, as shown in the following pair from Dutch secondary predication, cf. Neeleman (1994: 217):

(569) a) dat **Jan$_i$** **Marie$_j$** **naakt$_{i/j}$** ontmoette
that John Mary nude met
'that John$_i$ met Mary$_j$ nude$_{i/j}$'

b) dat **Jan$_i$** [met **Marie$_j$**] **naakt$_{i/*j}$** sprak
that John with Mary nude talked
'that John$_i$ talked with Mary$_j$ nude$_{i/*j}$'

If the theme c-commands the secondary predicate as in (569)a, it can be its subject. If, however, it is embedded in a PP as in (569)b, the secondary predicate can only relate to the subject. Whereas lexical preposition like *met* 'with' block c-command, functional/grammatical prepositions do not, as shown by the following example, which is thus similar in that respect to the proleptic construction (Williams 1980: 204):

(570) John thinks of **Bill$_i$** as **silly$_i$**.

The next section shows that this operator movement approach captures some of the major properties of the proleptic construction.

3.7.2 The explanatory force of the operator movement approach

As we will see presently, the operator movement approach accounts for a large number of the semantic and syntactic properties of the proleptic construction.

3.7.2.1 Obligatoriness of the coreferring element

As discussed in 3.6, the fact that the proleptic object requires a coreferring element in the complement clause is one of the major reasons why a pure binding approach was rejected. Consider again an example from 3.2.5:

(571) *Von [**Computern**] glaube ich, dass jeder einen PC kaufen sollte.
of computers.DAT believe I that everyone a PC buy should
lit.: 'I believe of computers that everyone should buy a PC.'

This obligatoriness is a mystery under a base-generation approach because the proleptic object is an independently licensed adjunct. Neither does it have any quantificational properties that would require a bound pronoun in the complement clause.

Under an operator movement approach, however, the obligatoriness follows immediately. Operator movement creates an open slot, and this slot needs to be filled. Since the filler is merged outside the complement CP, it will necessarily be related to a position inside the CP, and this is the coreferring pronoun, which marks the tail of the operator chain and thereby the variable.[180] If there is no coreference, there is no operator movement, so that the proleptic object cannot be licensed as in the example above.

3.7.2.2 Opacity

The extraction data in 3.4.1.5 show that the CP is an island for extraction. I repeat the relevant contrast between argument extraction from the proleptic construction and argument extraction from a regular complement clause:

(572) a)??[**Welchem Schüler**]$_1$ glaubst du vom [Lehrer Müller],
which.DAT student think you of teacher Muller
dass er $___1$ eine gute Note gibt?
that he a good grade gives
'Which student do you think teacher Müller will give a good grade?'

b) [**Welchem Schüler**]$_1$ glaubst du,
which.DAT student think you
dass der Lehrer $___1$ eine gute Note gibt?
that the teacher a good grade gives
'Which student do you think that the teacher will give a good grade?'

The opacity follows straightforwardly from operator movement, which turns the CP into an island. The question is whether this actually derives the right degree of ungrammaticality given that operator movement sets up a *wh*-island, which is normally considered a weak island. However, things are not that straightforward when it comes to weak islands, even in English. It is only the infinitival ones that are really weak, the finite ones leading to stronger ungrammaticality, a fact that is difficult to capture theoretically (cf. e.g. Sternefeld 1991). But since operator movement also takes place in a finite clause, a stronger degradedness is not surprising. *Wh*-islands in German and Dutch, which only occur in finite clauses, lead to pretty much the same deviance as the examples in 3.4.1.5 (see also Sabel 2002):

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[180] In 3.8 I will discuss why that link has to be overt.

(573) a)??[**Welchem Mann**]$_1$, wunderst du dich,
which man wonder you self
< warum Maria immer __$_1$ Geld gibt >?
why Mary always money gives
Lit.: 'To which man do you wonder why Mary always gives money?'

b) ***Warum**$_1$ wunderst du dich,
why wonder you self
< wann Maria __$_1$ den Hans heiraten will >?
when Mary the.ACC John marry wants.to
Lit.: 'Why do you wonder when Mary wants to marry John?'
√ matrix construal
* embedded construal

Argument extraction is degraded and adjunct extraction clearly impossible. Actually, the difference between strong and weak *wh*-islands is almost impossible to draw in German and Dutch. It seems that *wh*-islands are generally stronger than other weak islands such as negative islands or factive islands and are probably closer to strong islands. Operator movement thus gives us the desired result.

There is an alternative that has to be ruled out, though. It has been claimed (Lühr 1988: 83) that a similar opacity effect obtains if the subcategorization frame of a verb is altered and thereby its semantics are changed. She gives the following example:

(574) ***Wer**$_1$ glaubte Hans *ihm*, dass __$_1$ gekommen ist?
who believed John he.DAT that come is
lit.: 'Who did John believe him came?'

She goes on to argue that if changing the categorization frame does not alter the semantics, extraction is still possible. The following example illustrates this:

(575) **Was**$_1$ sagte der Chef (zu ihm), dass sofort __$_1$ erledigt werden müsse?
what said the boss to him that at.once done become must
'What did the boss say to him that had to be done immediately?'

Adding an overt addressee does not change the meaning because telling always involves an addressee whether implicit or overt.

With this in mind, one might therefore try to subsume the deviance of extraction from the proleptic construction under the general category of subcategorization change. However, I don't think that this leads to the right result. First, it is not so clear what semantic change means. The proleptic construction does have a semantic effect, but it is not clear whether it would be strong enough to count as different. Furthermore, it is highly unlikely that the proleptic object is an argument of the matrix verb. Given the fact discussed in 3.4.2 that the proleptic construction is not subject to any lexical restrictions, one would have to claim that it is an argument that can be added to any verb. This would mean stretching the notion of 'argument' a little too far. Lastly, it is not so clear whether the observation is correct at all. The examples Lühr uses are not minimal pairs. The

first one certainly presents parsing difficulties because the pronoun is somewhat low in the matrix clause and because it could be mistaken as coreferential with the *wh*-word so that we would get an SCO effect. If we take that into account and modify the example somewhat to facilitate parsing, the result is much improved (the corresponding English sentence seems quite degraded, though):

(576) ?**Wer**$_1$ wolltest du ihr nicht glauben,
who wanted you her.DAT not believe
dass $___1$ gestern vorbeigekommen ist?
that yesterday dropped.by is
(?)'Who couldn't you believe her dropped by yesterday?'

More would have to be said about this issue, but since it is orthogonal to my concerns, I will leave it at this.

There is one issue that calls the operator movement analysis into question. Jutta Hartmann (p.c.) pointed out to me that the proleptic construction is possible with embedded questions (577)a and possibly even with the scope marking construction (577)a:[181]

(577) a) Ich weiß von [Peter], **was** er mag.
I know of Peter what he likes
lit.: 'I know of Peter what he wants.'

b) *Was* glaubst du von [Peter], **wen** er heiraten möchte?
what think you of Peter who he marry would.like
'Who do you believe Peter would like to marry?'

This would imply that a question must be turned into a predicate if the approach advocated here is on the right track. To derive these cases, one would have to have operator movement across an embedded *wh*-element, i.e. one would have to assume multiple specifiers in German and Dutch. While this is a natural solution for a language like Bulgarian that has overt multiple *wh*-movement (cf. e.g. Pesetsky 2000), it is certainly less obvious in languages without this property.

However, there is one set of data first discussed in Takahashi 1994 (and later in Cresti 1995) that suggest that a second specifier position might be necessary even in Germanic languages. He observed that a matrix subject can bind an anaphor contained in a *wh*-phrase extracted from a weak island as in the following example:

(578) ??[Which pictures of **himself$_i$**]$_1$ does **John$_i$** wonder where Mary $___1$ bought?

Such examples only have the flavor of a *wh*-island violation, the binding seems to be fine. This implies that the reflexive is in a local configuration with the matrix subject at some point of the derivation. Both Takahashi (1994) and Cresti (1995) assumed that this position would be one adjoined to CP. However, since the introduction of multiple specifier positions, adjunction is no longer necessary in these cases, movement into a second Spec, CP position does the same job.

[181] Similar data were already presented in (509)g and (510)d/f.

Similar examples can be constructed in German and Dutch, but only to the extent that anaphor binding in an intermediate position is acceptable (cf. the remarks in 2.1.4 and 2.2.10):[182, 183]

(579) #[Welches Foto von **sich$_i$**]$_1$ weiß **Hans$_i$**,
which picture of self knows John
warum du __$_1$ so toll findest?
why you so cool find
'Which picture of himself$_i$ does John$_i$ know why you find so cool?'

Intermediate variable binding was shown to be more straightforward (2.2.10) and the following example shows that there must be movement through a second specifier of the *wh*-island:

(580) ??[Welche der Bücher, um die *er$_j$* **Frau Braun$_i$** vergeblich
which the.GEN books for who he Ms. Brown in.vain
gebeten hatte]$_1$ fragtest du *jeden Studenten$_j$*
asked had asked you every student
[$_{CP}$__$_1$ warum **sie$_i$** ihm nicht gegeben habe]?
why she he.DAT not given has
'Which of the books that he$_j$ asked Ms. Brown$_i$ for in vain did you ask every student$_j$ why she$_i$ didn't give to him?'

The *wh*-phrase has to reconstruct below the QP *jeden Studenten* 'every student' to ensure variable binding. At the same time, it must not reconstruct to a position below the coreferential pronoun *sie* 'she' to avoid a Condition C effect. Since both is possible in this sentence, reconstruction must target an intermediate position, and the only one that is available is a second specifier of the embedded CP. Admittedly, this sentence is certainly not perfect, but I would like to argue that this is only due to the *wh*-island and not because of Condition C or variable binding. A structurally identical sentence that avoids any Condition C problems is about equally acceptable:

(581) ??[Welche der Bücher, um die *er$_j$* **sie$_i$** vergeblich gebeten hatte]$_1$
which the.GEN books for who he her in.vain asked had
fragtest du *jeden Studenten$_j$*
asked you every student
[$_{CP}$ warum **Frau Braun$_i$** ihm __$_1$ nicht gegeben habe]?
why Ms. Brown he.DAT not given has
lit.: 'Which of the books that he$_j$ asked her$_i$ for in vain did you ask every student$_j$ why Ms. Brown$_i$ didn't give to him?'

---

[182] Munn (2001: 387ff.) assumes a somewhat similar type of operator movement for Parasitic Gaps in adverbial clauses. In his account, the operator crosses temporal (with *before*) or negative (with *without*) operators. Depending on one's analysis of these adverbial clauses, one might also want to assume multiple specifiers for C (which Munn does not, however).

[183] Sabel (2002) actually assumes that languages like German and English systematically project multiple Spec, CP positions and uses this device to account for a large range of phenomena.

I therefore conclude that A'-movement through a second specifier of C must be an option in German and Dutch.[184]

This possibility is even less surprising in the proleptic construction given that it is quite generally insensitive to locality constraints, cf. 3.4.3. As will be shown in 3.8.1.3 even those apparently non-local movements involve successive-cyclic movement and allow for reconstruction.

The result of this subsection is important because it shows that the operator movement analysis is superior to a pure base-generation cum binding analysis. The opacity of the CP complement only follows under the former.[185]

3.7.2.3 The main clause properties of the proleptic object

The fact that the proleptic object is base-generated in the matrix clause directly accounts for its main clause properties described in (3.4.1.2–3.4.1.4): First, it can contain a reflexive that is bound by the matrix subject (cf. 3.4.1.2):

(582) dass **Peter$_i$** von [**sich$_i$**] denkt , dass er der Größte ist
that Peter of self thinks that he the greatest is
'that Peter$_i$ thinks of himself$_i$ that he is the greatest'

Second, it can undergo A-movement, cf. (583)a, or A'-movement, cf. (583)b, because there is no previous movement step that would limit its movement options (cf. 3.4.1.3).[186]

(583) a) dass von [**jedem Politiker$_i$**]$_1$ **sein$_i$** Übersetzer __$_1$ denkt,
that of every politician his interpreter thinks
dass er kein Talent für Fremdsprachen hat
that he no talent for foreign.languages has
'that every politician$_i$ is considered to have no talent for foreign languages by his$_i$ interpreter'

b) omdat van [**zijn$_i$** zoon]$_1$ **geen vader$_i$** __$_1$ zou denken
because of his son no father would think
dat hij stom ist
that he stupid is
'because no father$_i$ would think of his$_i$ son that he is stupid' NL

Third, since it is a clause-mate of the other *wh*-phrase, no Superiority effects are expected (3.4.1.4).[187, 188]

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[184] Importantly, the example above rules out an alternative explanation for (578): anaphor binding could also be due to an intermediate position in Spec, vP, cf. e.g. Fox (1999). In the example at hand, however, reconstruction into Spec, vP would fail to ensure variable binding (the landing site would be above the QP) and would lead to a crash.

[185] More precisely, it does not follow if there is no operator and the proleptic object is directly linked to the pronoun. If, alternatively, the operator would be base-generated and linked to the coreferring pronoun via binding, the locality effects would follow as well.

[186] It is difficult to tell whether an extra argument licensed by operator movement necessarily occupies an A-position. If it were an A'-position, its ability to scramble (cf. 3.4.1.3) would be somewhat surprising as the existence of adjunct-scrambling is contested in German, cf. Haider & Rosengren (1998).

(584) Von [*welchem Knaben*] denkt *welcher Lehrer*,
of which.DAT boy thinks which.NOM teacher
dass jemand ihn verführt hat?
that someone him seduced has
'Of which boy does which teacher thinks that someone him seduced?'

3.7.2.4 Reconstruction effects in the matrix clause

Since the proleptic object is base-generated in the matrix clause and later A'-moved in the ex-situ construction, we expect it to show movement effects. This accounts for the reconstruction effects in the main clause discussed extensively in 3.3. and especially 3.3.9.1: there is a normal A'-chain which is interpreted according to the Preference Principle (cf. 1.4.1): Only the operator is retained in Spec, CP while the restriction is interpreted in the base position. The following pair gives the surface structure and the LF interpretation of an example with reconstruction for anaphor binding:[189]

(585) a) Von [welchem Gerücht über **sich$_i$**] denkt **Peter$_i$**,
of which rumor about self thinks Peter
dass es ein Skandal ist?
that it a scandal is
'Which rumor about himself$_i$ does Peter$_i$ think is scandalous?'

b) [~~Von~~ welchem ~~Gerücht über **sich$_i$**~~]$_1$ denkt **Peter$_i$**
of which rumor about self thinks Peter
[von x Gerücht über **sich$_i$**]$_1$, [$_{CP}$ dass es ein Skandal ist]?
of rumor about self that it a scandal is
'Which rumor about himself$_i$ does Peter$_i$ think is scandalous?'

By interpreting the restriction of the lower copy of the proleptic object, binding by the matrix subject is possible. I pointed out in 3.3.9.1 that binding in these cases was much more straightforward than in those cases where reconstruction targeted an intermediate position of A'-movement. This asymmetry follows under the approach advanced here: since the proleptic object is base-generated in the matrix clause, anaphor binding by the matrix subject does not involve intermediate binding and is therefore correctly predicted to be unproblematic. The same explanation can be given for the asymmetry with respect to Principle B between the proleptic construction and regular A'-movement, cf. 3.3.9.1, repeated here:

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187 A popular account of the absence of local superiority effects involves scrambling of one *wh*-phrase over the other so that it becomes closer to the attracting C-probe (see Fanselow 1997). This is only possible if the two *wh*-phrases are clause-mates because as shown in 3.4.1.3 there is no scrambling across clauses in German.

188 Needless to say, all these properties follow under a pure base-generation cum binding approach as well.

189 A more articulate LF would probably also involve movement of the *wh*-operator out of the PP, cf. Munn (1994). I will ignore this complication because it is orthogonal to my concerns.

(586) a) *Von [**ihm**$_i$] denkt **Peter**$_i$ immer, dass alle Menschen ihn toll finden.
of him thinks Peter always that all people him great find
'Him$_i$ Peter$_i$ always thinks all people find great.'

b) [**Ihn**$_i$] denkt **Peter**$_i$ immer, dass alle Menschen __ toll finden.
him thinks Peter always that all people great find
'Him$_i$ Peter$_i$ always thinks all people find great.'

While intermediate binding is – apparently – not forced in regular A'-movement, the ungrammaticality of (586)a shows that the pronoun must be interpreted in the matrix clause. This is exactly what is expected if the proleptic object is base-generated in the matrix clause. The sentence is therefore expected to be just as ungrammatical as the following in-situ variant:

(587) *__Peter__$_i$ denkt von [**ihm**$_i$], dass alle Menschen ihn toll finden.
Peter thinks of him that all people him great find
lit.: 'Peter thinks of him that all people find him great.'

The picture is somewhat more difficult with relativization in the matrix clause. I will come back to reconstruction in 3.7.3 where I discuss relatives and reconstruction for Principle C into the matrix clause.

3.7.2.5 Absence of lexical restrictions

The absence of lexical restrictions (3.4.2) is predicted by the predication analysis. Since operator movement is in principle free, one does not expect it to be limited to particular verbs.[190]

3.7.2.6 Makes an alternative strategy for reconstruction available

One of the crucial advantages of the predication analysis is that it provides a means of getting to grips with reconstruction into the embedded clause. By binding the predicate variable, the proleptic object can be interpreted in the complement clause. However, it is not yet clear how the content of the proleptic object is transferred to the operator in Spec, CP. The following subsection explains how the two are linked.

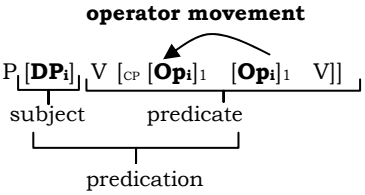
3.7.3 The operator and its link to the proleptic object

3.7.3.1 Introduction

While the operator movement approach proposed in this section has already accounted for a number of important properties of the proleptic construction, two aspects are still unclear: What exactly is the nature of the operator and how is it linked to the proleptic object? I would like to argue that these two issues are intimately connected. An obvious possibility would be to adopt the classical GB-

[190] Again, this also follows if the proleptic object is considered an adjunct that is independently licensed. Even if there were lexical restrictions, this would still not necessarily argue against a *tough*-movement-style analysis because there are selection effects in that construction, cf. Rezac (2004: 6, ex. 12i).

style analysis (see e.g. Browning 1991) where there is a null operator that is coindexed with whatever saturates the predicate, e.g. the head of a relative clause or the subject of the *tough*-movement construction. The derivation would then be exactly as illustrated in (565), repeated here:

(588)


Such an analysis would be essentially identical to the Head External Analysis of relative clauses, cf. 1.1.1:

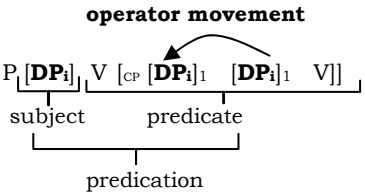
(589) the [book]$_i$ [$_{CP}$ [Op$_i$/which$_i$]$_1$ John likes __$_1$]

I will not adopt such an approach, however, mainly for two reasons, both related to reconstruction: Section 3.3 has provided a lot of evidence in favor of reconstruction into the embedded clause, as e.g. the following example with variable binding:

(590) Von [welcher Periode **seines$_i$** Lebens] denkst du,
of which period his.GEN life.GEN think you
dass **keiner$_i$** gerne dran denkt?
that no.one likes.to there.on think
'Which period of his$_i$ life do you think no one$_i$ likes to remember?'

This implies the same difficulties for such an operator-analysis as the reconstruction effects in relative clauses caused for the HEA (cf. the discussion in 1.4.2): All there would be inside the relative clause or the CP-complement in the proleptic construction is an empty operator. This is, however, not sufficient to model reconstruction effects: in accordance with the literature of the last decade, I have been assuming that reconstruction is handled by means of interpreting the lower copy of a movement chain. I therefore rejected the HEA to model reconstruction effects in relative clauses and will also not apply such an analysis to the proleptic construction.

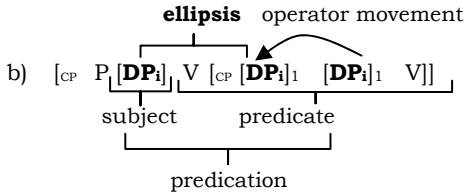
Instead, I assume that the operator inside the complement clause is a full copy of the proleptic object. The (partial) derivation must therefore look as follows:

(591)


While predicate abstraction will guarantee that the proleptic object and the operator are coindexed, this still does not explain how the link between the proleptic object and the operator is established in syntax.

I would like to propose to extend the Matching Analysis of relative clauses to the proleptic construction: A full copy of the proleptic object inside the complement clause is linked to the external occurrence by means of ellipsis.[191] The following figures compare the two derivations:

(592) a) the [**book**]$_i$ [$_{CP}$ [Op/which **book$_i$**]$_1$ John likes __$_1$]



So far one could argue that preferring a Matching Analysis over the HEA is purely theory-internal since there may still be a way of dealing with reconstruction under the HEA (recall the discussion in 1.4.2). However, as we will presently, they are not just notational variants. In fact, the same argument that was used in the discussion of relative clause can be advanced here as well: Reconstruction is not found across the board: This is particularly evident in the case of Condition C effects, which are completely absent in relativization and crucially, also to a large extent in the proleptic construction. The HEA (or its variant applied to the proleptic construction) cannot derive this difference. The Matching Analysis, however, can, as we will see below: Since ellipsis is involved, we expect Vehicle Change to be possible, and this is exactly the mechanism that alleviates Condition C effects in the proleptic construction as well.

In addition to the ellipsis operation, I also adopt the same principles for the interpretation of the MA: Inside the complement clause, the Preference Principle applies so that the restriction is only contained in the lower copy. The proleptic object (which in a sense corresponds to the external head in relatives) is in principle retained. The following pair illustrate a simple example together with its schematic LF:

(593) a) Ich denke von [dieser Frau], dass <u>sie</u> intelligent ist.
I think of this woman that she intelligent is
'I believe of this woman that she is intelligent.'

b) Ich denke von [dieser Frau]$_i$, [$_{CP}$ [diese ~~Frau~~]$_{1/i}$
I think of this woman this woman
dass [~~diese~~ Frau]$_{1/i}$ <u>sie</u> intelligent ist].
that this woman she intelligent is
'I believe of this woman that she is intelligent.'

[191] Actually, as the figure shows, the operator is linked to the DP within the PP.

The LF-representation requires some comments: nothing so far indicates that there is operator movement in the complement clause, I only indicated a full copy of the proleptic object, but neither the operator nor the variable. This is certainly not sufficient. I will assume that the D-head is actually an empty operator. Its occurrence in the lower position is converted into a variable.[192]

I have also indicated the lower copy together with the coreferring pronoun. This is strictly speaking not correct because the coreferring pronoun is just the surface realization of it (see 3.8.4.4 for a more precise statement). But for reasons of legibility, I will indicate both. The following example indicates the revised LF-structure:

(594) Ich denke von [dieser Frau]$_i$, [$_{CP}$ [Op ~~Frau~~]$_{1/i}$
I think of this woman woman
dass [x Frau]$_{1/i}$ sie intelligent ist].
that woman she intelligent is
'I believe of this woman that she is intelligent.'

While this is the default LF-structure, there are cases of exceptional deletion as in the MA proposed for relative clauses in 2.2.4: While the external head is retained in the default case, we will shortly see instances where it must not be retained. This holds whenever it contains elements that are not licensed in that position such as anaphors, bound variables or idiom chunks, i.e. elements with a positive licensing requirement.

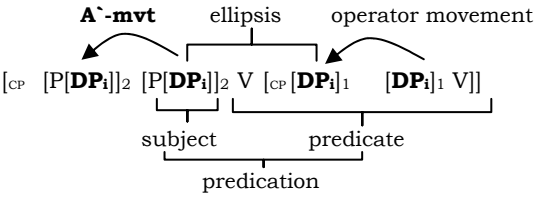
Conversely, there are cases where the lower copy in the complement cannot be retained, namely when it contains anaphors, bound pronouns or idiom chunks that cannot be interpreted in that position because they are not in the right configuration with their licensers.

The derivation of the ex-situ constructions is more complex. Consider first the following example with *wh*-movement (topicalization patterns the same):

(595) Von [welcher Frau] denkst du, dass sie intelligent ist?
of which woman think you that she intelligent is
'Which woman do you think is intelligent?'

The derivation is illustrated schematically in the following figure:

(596)

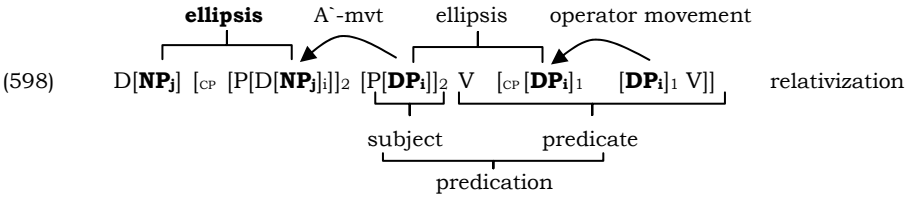


[192] Note also that the proleptic object is coindexed with the entire operator phrase. I will show in 3.7.3.10 below that the proleptic construction differs from relative clauses in that the entire proleptic object is related to the operator, i.e. that the ellipsis operation involves a DP, and not an NP as in relatives. Since the D-elements are different, there will always be a certain mismatch, which, however, ellipsis is argued to be able to handle. In the figures below, I will always coindex the entire proleptic object with the entire operator phrase.

The LF inside the complement clause remains unchanged. However, due to local A'-movement, there are differences in the matrix clause (as already illustrated in 3.7.2.4): the A'-chain is interpreted according to the Preference Principle so that only the operator is retained in Spec, CP while the restriction is interpreted in the base position of the proleptic object:

(597) [~~Von~~ [welcher ~~Frau~~]$_i$]$_2$ denkst du [Von [x Frau]$_i$]$_2$,
of which woman think you of woman
[$_{CP}$ [Op ~~Frau~~]$_{1/i}$ dass [x Frau]$_{1/i}$ sie intelligent ist]?
woman that woman she intelligent is
'Which woman do you think is intelligent?'

Relative clauses involve an even more complicated derivation since there is an additional ellipsis operation in the matrix clause: the proleptic object (rather: the NP-part) is deleted under identity with the external head as in normal relatives. This is schematically illustrated below:



The following pair illustrates a simple example with its LF:

(599) die [Frau], von der ich glaube, dass sie intelligent ist
the woman of who I believe that she intelligent is
'the woman who I believe is intelligent'

(600) die [Frau]$_j$, [$_{CP}$ [~~von~~ [der [~~Frau~~]$_j$]$_i$]$_2$ ich [von [x [Frau]$_j$]$_i$]$_2$ glaube,
the woman of which woman I of woman believe
[$_{CP}$ [Op ~~Frau~~]$_{1/i}$ dass [x Frau]$_{1/i}$ sie intelligent ist]]
woman that woman she intelligent is

Again we have two A'-chains which are interpreted according to the Preference Principle. In addition, there is another occurrence of *Frau* 'woman', namely the external head.

I will first discuss reconstruction into the complement clause. Thereafter, I will discuss cases where the lower copy in the complement must not be retained; this involves cases of non-reconstruction and cases where there is only reconstruction into the matrix clause. Then I discuss different aspects of Condition C including specific evidence in favor of Vehicle Change. Additionally, I will provide explicit evidence that ellipsis targets a DP. Finally, I discuss a number of mismatches between the proleptic object and the operator phrase.[193]

[193] Since the proleptic construction patterns to a large extent like regular relatives, the subsequent discussion will be quite parallel to 2.4 and 2.5 where some of the arguments are discussed in more detail.

3.7.3.2 Reconstruction into the complement clause

Consider again two examples where there is reconstruction into the complement clause:

(601) a) das [Bild von **sich$_i$**], von dem ich glaube,
the picture of self of which I believe
dass **Peter$_i$** es am besten findet
that Peter it the best finds
'the picture of himself$_i$ that I think Peter$_i$ likes best'

b) Von [welcher Periode **seines$_i$** Lebens] denkst du,
of which period his.GEN life.GEN think you
dass **keiner$_i$** gerne dran denkt?
that no.one likes.to there.on think
'Which period of his$_i$ life do you think no one$_i$ likes to remember?'

In both cases, the proleptic object contains an element, namely an anaphor or a bound variable that is only licensed in the lower copy inside the complement. Since the Preference Principle applies to the chain in the complement clause, it will have the desired format, retaining the restriction in the bottom copy. However, there is still the occurrence of the proleptic object in the base position and in the relative clause-case there is still the external head. In accordance with the principles for deletion adopted in this thesis, the copy containing the unlicensed element is exceptionally deleted. Therefore, the copy in the base-position of the proleptic object and the external head are exceptionally deleted. The following pair illustrates the LFs for the examples above:

(602) a) das [~~Bild von **sich$_i$**~~]$_k$, [$_{CP}$ [~~von~~ [dem [~~Bild von **sich$_i$**~~]$_k$]$_j$]$_2$ ich
the picture of self of which picture of self I
[von [x [~~Bild von **sich$_i$**~~]$_k$]$_j$]$_2$ glaube, [$_{CP}$ [Op ~~Bild von **sich$_i$**~~]$_{1/j}$ dass
of picture of self believe picture of self that
Peter$_i$ [x Bild von **sich$_i$**]$_{1/j}$ es am besten findet]]
Peter picture of self it the best finds

b) [~~Von~~ [welcher ~~Periode **seines$_i$** Lebens~~]$_j$]$_2$ denkst du
of which period his.GEN life think you
[Von [x ~~Periode **seines$_i$** Lebens~~]$_j$]$_2$ [$_{CP}$[Op ~~Periode **seines$_i$** Lebens~~]$_{1/j}$
of period his.GEN life period his.GEN life
dass **keiner$_i$** gerne [x Periode **seines$_i$** Lebens]$_{1/j}$ dran denkt]?
that no.one likes.to period his.GEN life there.on thinks

3.7.3.3 Exceptional deletion of the lower copy

While the previous section addressed cases where the proleptic object or the external head contained material that was not licensed in that position, I will now discuss the reverse case: There are configurations where the lower copy in the complement contains an element that is not licensed in that position. The first type involves the cases of non-reconstruction discussed in 3.3.7: These are

examples where the external head has to be interpreted because it contains an anaphor that is bound by a relative-clause-external antecedent or because it contains an idiomatic NP that forms an idiom with the matrix verb. I repeat two examples for convenience:

(603) a) Er **schwingt** [**große Reden**], von denen ich weiß,
he swings grand speeches of which I know
dass sie keiner hören will.
that them no.one hear wants
'He gives grand speeches that I know no one wants to hear.'

b) **Peter$_i$** hat mir ein [Bild von **sich$_i$**] gegeben,
Peter has me.DAT a picture of self given
von dem ich fürchte, dass es niemandem gefällt.
of which I fear that it no.one pleases
'Peter$_i$ gave me a picture of himself$_i$ that I fear no one will like.'

Clearly, the anaphor and the idiomatic NP must only be retained inside the external head of the relative clause. As a consequence, their occurrence in the bottom copy of the relative clause but also in the base position of the proleptic object must be exceptionally deleted. The following example illustrates the LF of the idiom case:[194]

(604) Er **schwingt** [**große Reden**]$_j$, [$_{CP}$ [~~von~~ [denen [~~großen Reden~~]$_j$]$_i$]$_2$ ich
he swings grand speeches of which grand speeches I
[von [x [~~großen Reden~~]$_j$]$_i$]$_2$ weiß, [$_{CP}$ [Op ~~große Reden~~]$_{1/i}$ dass
of grand speeches know grand speeches that
keiner [x ~~große Reden~~]$_{1/i}$ sie hören will]].
no.one grand speeches them hear wants

A comparable situation obtains where there is reconstruction into the matrix clause for anaphor binding (cf. 3.3.9.1 and 3.7.2.4). I repeat an example from above:

(605) Von [welchem Gerücht über **sich$_i$**] denkt **Peter$_i$**,
of which rumor about self thinks Peter
dass es ein Skandal ist?
that it a scandal is
'Which rumor about himself$_i$ does Peter$_i$ think is scandalous?'

The anaphor must only be interpreted in the base position of the proleptic object, but crucially not in the embedded clause. Consequently, the lower copy in the complement clause may be exceptionally deleted. The LF then looks as follows:

---

[194] Notice that there is a slight difference in form between the adjective inside the external head and the one occurring inside the relative clause. This has to do with the fact that in one case the determiner is zero, which triggers a strong inflection, whereas in the other case it is overt and has an ending and therefore triggers a weak inflection; cf. 2.3.3. I will argue in 3.7.3.11 below that such mismatches can be handled by ellipsis.

(606) [~~Von~~ welchem ~~Gerücht über **sich**$_i$~~]$_1$ denkt **Peter**$_i$
of which rumor about self thinks Peter
[von x Gerücht über **sich**$_i$]$_1$, [$_{CP}$ [Op ~~Gerücht über **sich**$_i$~~]
of rumor about self rumor about self
dass [x ~~Gerücht über **sich**$_i$~~] es ein Skandal ist]?
that rumor about self it a scandal is

So far, I have only dealt with reconstruction of elements with a positive licensing requirement. In the next subsections, I will address the Condition C pattern.[195]

3.7.3.4 Principle C effects in the embedded clause

Recall from 3.3.5 that there are no Condition C effects in the proleptic construction if the coreferential pronoun is inside the complement clause, neither with relativization nor with *wh*-movement (or topicalization):

(607) a) das [Bild von **Peter**$_i$], von dem ich glaube,
the picture of Peter of which I believe
dass **er**$_i$ es am besten mag
that he it the best likes
'the picture of Peter$_i$ that I think he$_i$ likes best'

b) Von [welchem Bild von **Peter**$_i$] glaubst du,
of which picture of Peter believe you
dass **er**$_i$ es am besten mag?
that he it the best likes
lit.: 'Which picture of Peter$_i$ do you think he$_i$ likes best?'

The lack of Condition C effect with relativization is not so surprising given that Condition C effects were shown to be generally absent in regular relativization, cf. 2.2.6. However, the absence of such effects with *wh*-movement is somewhat unexpected given that they are found in regular A'-movement. The following pair illustrates the contrast in regular A'-movement:

(608) a) das [Bild von **Peter**$_i$], das ich glaube,
the picture of Peter which I believe
dass **er**$_i$ __ am besten findet
that he the best finds
'the picture of Peter$_i$ that I think he$_i$ likes best'

---

[195] The cases with conflicting requirements discussed in 3.3.8 will be treated like their counterparts in regular relativization (2.4.7): The elements with a positive licensing requirement will only be retained in the position where they are licensed. This results in partial deletion in the external head and the lower copy in the complement clause. Furthermore, the occurrence in the base position of the proleptic object will be deleted as well.

b) *[Welches Bild von **Peter$_i$**]$_1$ glaubst du,
which picture of Peter believe you
dass **er$_i$** __$_1$ am besten findet?
that he the best finds
lit.: 'Which picture of Peter$_i$ do you think he$_i$ likes best?'

Why does this asymmetry disappear in the proleptic construction? I would like to argue that this follows from the Matching Analysis I have proposed here: the proleptic object is related to the operator in Spec, CP via ellipsis. As in relatives, this makes Vehicle Change possible. Every R-expression contained in the proleptic object is turned into a personal pronoun. As a consequence, there will be no R-expression anymore in the c-command domain of the coreferential pronoun as the following LF of the *wh*-case shows:

(609) [~~Von~~ [welchem ~~Bild von **Peter$_i$**~~]$_j$]$_2$ glaubst du
of which picture of Peter believe you
[Von [x Bild von **Peter$_i$**]$_j$]$_2$, [$_{CP}$ [Op ~~Bild von **ihm$_i$**~~]$_1$
of picture of Peter picture of he.DAT
dass **er$_i$** [x Bild von **ihm$_i$**]$_1$ es am besten mag]?
that he picture of he.DAT it the best likes

The Preference Principle applies in both chains, retaining the restriction in the lower copy. The base position of the proleptic object cannot be deleted because the R-expression is an element with a negative licensing requirement, which must always be retained. But since there is Vehicle Change, the Condition C effect is alleviated. The sentence is just as grammatical as the following simple one with a coreferential pronoun inside the picture NP:

(610) **Peter$_i$** mag dieses Bild von **ihm$_i$** am besten.
Peter likes this picture of him the best
'Peter$_i$ likes this picture of him$_i$ the most.'

The fact that the type of A'-movement in the matrix clause does not affect the Condition C effects in the embedded clause, i.e. that there is no asymmetry between material contained in the operator phrase and material inside the external head strongly argues in favor of a MA. The ellipsis operation in the proleptic construction neutralizes the asymmetry. In the next subsection, we will see that the Condition C asymmetry between relatives and *wh*-movement re-emerge in the proleptic construction if the coreferential pronoun is located in the matrix clause.

3.7.3.5 Principle C effects in the matrix clause

While Condition C effects are systematically absent in the complement clause, the situation is different in the matrix clause (cf. 3.3.5): With relativization, there are no Condition C effects, but with *wh*-movement and topicalization there are:

(611) a) das [Bild von **Peter$_i$**], von dem **er$_i$** glaubt,
the picture of Peter of which he believes
dass es das schönste ist
that it the most.beautiful is
'the picture of Peter$_i$ that he$_i$ thinks is the most beautiful one'

b) *Von [welchem Bild von **Peter$_i$**] denkt **er$_i$**,
of which picture of Peter thinks he
dass es das schönste ist?
that it the most.beautiful is
lit.: 'Which picture of Peter$_i$ does he$_i$ believe is the most beautiful one?'

In other words, we find the contrast as in regular A'-movement:

(612) a) das [Bild von **Peter$_i$**], das **er$_i$** __ am besten findet
the picture of Peter which he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) *[Welches Bild von **Peter$_i$**]$_1$ findet **er$_i$** __$_1$ am besten?
which picture of Peter finds he the best
lit.: 'Which picture of Peter$_i$ does he$_i$ like best?'

This is exactly what my proposal predicts: In the *wh*-case in (611)b, there is short A'-movement. After applying the Preference Principle, the R-expression will be retained in the lower copy and triggers a Condition C effect as the LF shows:

(613) *[~~Von~~ [welchem ~~Bild von **Peter$_i$**~~]$_k$]$_2$ denkt **er$_i$**
of which picture of Peter thinks he
[Von [x Bild von **Peter$_i$**]$_k$]$_2$, [$_{CP}$ [Op ~~Bild von **ihm$_i$**~~]$_{1/j}$
of picture of Peter picture of he.DAT
dass [x Bild von **ihm$_i$**]$_{1/j}$ es das schönste ist]?
that picture of he.DAT it the most.beautiful is

Importantly, the copy of the proleptic object in its base position is retained. This is in accordance with the assumptions about deletion made in this thesis. Only elements with a positive licensing requirement can exceptionally be deleted. Examples like this provide direct evidence for this assumption. Vehicle Change affects only the copies inside the complement and therefore cannot alleviate the Principle C effect.

The absence of Condition C effects in the relative in (611)a follows from the fact that there is an additional ellipsis operation in the matrix clause: the A'-moved proleptic object is deleted under identity with the external head. As a consequence, Vehicle Change can turn the R-expression into a pronoun so that the Condition C effect vanishes as the following LF shows:

(614) das [Bild von **Peter$_i$**]$_k$, [~~von~~ [dem [~~Bild von **ihm$_i$**~~]$_k$]$_j$]$_2$ **er$_i$**
the picture of Peter of which picture of him he
[von [x [Bild von **ihm$_i$**]$_k$]$_j$]$_2$ glaubt, [$_{CP}$ [Op ~~Bild von **ihm$_i$**~~]$_{1/j}$, dass
of picture of he.DAT believes picture of he.DAT that
[x Bild von **ihm$_i$**]$_{1/j}$ es das schönste ist
picture of he.DAT it the most.beautiful is

The difference between (611)a and (611)b therefore reduces to the same difference found in normal A'-movement: Relativization involves an ellipsis operation, which makes Vehicle Change possible, *wh*-movement does not. The relevant difference for the proleptic construction is again illustrated in the schematic derivations repeated from above:

(615) a) [$_{CP}$ [P[**DP$_i$**]]$_2$ [P[**DP$_i$**]]$_2$ V [$_{CP}$ [**DP$_i$**]$_1$ [**DP$_i$**]$_1$ V]] *wh*-movement/ topicalization

A`-mvt ellipsis operator movement

subject predicate

predication

b) D[**NP$_j$**] [$_{CP}$ [P[D[**NP$_j$**]$_i$]]$_2$ [P[**DP$_i$**]]$_2$ V [$_{CP}$ [**DP$_i$**]$_1$ [**DP$_i$**]$_1$ V]] relativization

ellipsis A`-mvt ellipsis operator movement

subject predicate

predication

I observed in 3.3.5.3 that there are argument-adjunct asymmetries with R-expressions contained inside the operator phrase:

(616) a) *Von [welchen Nachforschungen über **Kohl$_i$**] denkt **er$_i$**,
of which investigations about Kohl thinks he
dass sie unnötig sind?
that they unnecessary are
lit.: 'Which investigations about Kohl$_i$ does he$_i$ think are unnecessary?'

b) Von [welchen Nachforschungen nahe **Kohls$_i$** Haus] denkt **er$_i$**,
of which investigations near Kohl's house thinks he
dass sie unnötig sind?
that they unnecessary are
'Which investigations near Kohl's$_i$ house does he$_i$ think are unnecessary?'

This asymmetry nicely falls into place: Since there is local A'-movement in the main clause, we find the same asymmetry as in regular A'-movement: arguments reconstruct, adjuncts do not (have to) because they can be merged late, cf. the following contrast with normal *wh*-movement:

(617) a) *[Gegen welche Nachforschungen über **Kohl$_i$**]$_1$
against which investigations about Kohl
hat **er$_i$** sich __$_1$ gewehrt?
has he self objected
lit.: 'Which investigation about Kohl$_i$ did he$_i$ object to?'

b) [Gegen welche Nachforschungen nahe **Kohls$_i$** Haus]$_1$
against which investigations near Kohl's house
hat **er$_i$** sich __$_1$ gewehrt?
has he self objected
'Which investigations near Kohl's$_i$ house did he$_i$ object to?'

In other words, with respect to the matrix clause, the proleptic construction behaves like their regular A'-counterparts.

I would like to present further evidence that the proleptic object is in principle retained. A case in point are the Condition B effects discussed in 3.3.9.1, repeated here:

(618) *Von [**ihm$_i$**] denkt **Peter$_i$** immer, dass alle Menschen ihn toll finden.
of him thinks Peter always that all people him great find
'Him$_i$, Peter$_i$ always thinks all people find great.'

No such effect was found with regular A'-movement:

(619) [**Ihn$_i$**]$_1$ denkt **Peter$_i$** immer, dass alle Menschen __$_1$ toll finden.
him thinks Peter always that all people great find
'Him$_i$, Peter$_i$ always thinks all people find great.'

If there were only reconstruction into the complement clause, this asymmetry would be surprising. However, since the proleptic construction additionally involves a copy of the proleptic object in the matrix clause, in the c-command domain of *Peter*, a Condition B effect is expected, as the following LF shows:[196]

(620) *[~~Von [**ihm$_i$**]$_j$~~]$_2$ denkt **Peter$_i$** immer [Von [**ihm$_i$**]$_j$]$_2$,
of him thinks Peter always of him
[$_{CP}$ [Op ~~ihn~~] dass alle Menschen [x ihn] ihn toll finden].
him that all people him him cool find

The following case is even more interesting: What happens if the proleptic object additionally contains an element that has to be reconstructed to be properly interpreted as in (468) from 3.3.6? I repeat an example for convenience:

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[196] It is not so clear what the LF of this example and topicalization in general looks like. There should be an operator component that remains in the operator position to type the clause, but topicalized constituents just look like ordinary DPs. Perhaps, the D-head carries an operator feature that will eventually bind a variable. In the case at hand, things are even more complicated because the fronted constituent is a single word corresponding to a DP. Separating operator and restriction will be even more arbitrary. I have still done it in the complement clause, but a representation where there is only an operator that binds a variable in the base position would be equivalent as well.

(621) *Von [welcher Meinung von **Hans**$_i$ über *ihren*$_j$ Aufsatz] denkt **er**$_i$,
of which opinion of John about her essay thinks he
dass *jede Schülerin*$_j$ sie ernst nimmt?
that every student it seriously takes
lit.: 'Which opinion of John$_i$ about her$_j$ essay does he$_i$ thinks every student$_j$ takes seriously?'

One might expect there to be no Condition C effects in this example because the proleptic object has to be interpreted in the embedded clause and because Vehicle Change could avoid the Condition C effect. However, this is obviously not correct. Since the sentence is ungrammatical, we know that the R-expression inside the proleptic object must be retained. At the same time, the bound variable must not since it can only be interpreted in the complement clause. The LF of this sentence will therefore involve partial deletion in the base position of the proleptic object (cf. 2.4.7): While it is in principle retained, elements that are not licensed there are deleted. This is shown by the following LF:

(622) *[~~Von~~ [welcher ~~Meinung von **Hans**$_i$ über *ihren*$_j$ Aufsatz~~]$_k$]$_2$ denkt **er**$_i$,
of which opinion of John about her essay thinks he
[Von [x Meinung von **Hans**$_i$ über ~~*ihren*$_j$ Aufsatz~~]$_k$]$_2$,
of opinion of John about her essay
[$_{CP}$[Op ~~Meinung von **ihm**$_i$ über *ihren*$_j$ Aufsatz~~]$_{1/k}$ dass *jede Schülerin*$_j$
opinion of he.DAT about her essay that every student
[x Meinung von **ihm**$_i$ über *ihren*$_j$ Aufsatz]$_{1/k}$ sie ernst nimmt?
opinion of he.DAT about her essay it seriously takes

3.7.3.6 Asymmetries with semi-idiomatic cases

In 3.3.5.4, I observed an interesting pattern with the semi-idiomatic cases. While they were shown to be ungrammatical when the coreferential pronoun is located in the embedded clause, only the *wh*-case was ungrammatical if the pronoun is in the matrix clause:

(623) a) *die [Meinung von **Peter**$_i$], von der ich glaube, dass **er**$_i$ sie hat
the opinion of Peter of which I believe that he it has
lit.: 'the opinion of Peter$_i$ that I believe he$_i$ has'

b) *Von [was für einer Meinung von **Peter**$_i$] denkst du,
of what kind.of opinion of Peter think you
dass **er**$_i$ sie hat?
that he it has
lit.: 'What kind of opinion of Peter$_i$ do you think he$_i$ has?'

(624) a) die [Meinung von **Peter**$_i$], von der **er**$_i$ glaubt,
the opinion of Peter of which he believes
dass jedermann sie habe
that everyone it has
lit.: 'the opinion of Peter$_i$ that he$_i$ thinks everyone has'

b) *Von [welcher Meinung von **Peter$_i$**] glaubt **er$_i$**,
of which opinion of Peter believes he
dass jedermann sie habe?
that everyone it has
lit.: 'Which opinion of Peter does he$_i$ think everyone has?'

As argued in 2.4.5.5 for regular A'-movement, the ungrammaticality of the first pair can be linked to an implicit PRO inside the proleptic object. This PRO has to be bound and therefore has to be represented in the lower copy inside the complement clause (recall the discussion in 1.3.3). Even if there is Vehicle Change, there will still be a coreferential pronoun that is bound by the implicit PRO, thereby triggering a Condition B effect as the following LF shows for the *wh*-example:

(625) *[~~Von~~ [was für einer ~~**PRO$_i$** Meinung von **Peter$_i$**~~]$_j$]$_2$ denkst du
of what.kind.of opinion of Peter think you
[Von [x **PRO$_i$** Meinung von **Peter$_i$**]$_j$]$_2$, [$_{CP}$ [Op ~~**PRO$_i$** Meinung von **ihm$_i$**~~]$_{1/j}$
of opinion of Peter opinion of he.DAT
dass **er**$_i$ [x **PRO$_i$** Meinung von **ihm$_i$**]$_{1/j}$ sie hat?
that he opinion of he.DAT it has

The sentence is correctly predicted to be just as bad as the following simple sentence:

(626) **Peter$_i$** hat eine gute Meinung von ***ihm$_i$**.
Peter has a good opinion of him
'Peter$_i$ has a good opinion of him$_i$.'

What about the cases in (624) with the coreferential pronoun in the matrix clause? As discussed in 2.4.5.5, those cases do not contain an implicit PRO (it is no longer Peter's opinion). As a consequence, we expect the sentences to behave like normal cases with Condition C, and this is exactly the case. We find the same asymmetry between relatives and *wh*-movement: relatives avoid Condition C effects due to Vehicle Change, *wh*-movement does not, as e.g. in (611).

3.7.3.7 Evidence for Vehicle Change: embedding effects

So far, the evidence for Vehicle Change has been indirect. In principle, the absence of Condition C effects in the complement clause could also follow if it were possible to exceptionally delete the lower copy in the complement – along the lines of Munn (1994) and Citko (2001). However, I have restricted exceptional deletion to elements with a positive licensing requirement. R-expressions and pronouns do not belong to this group and therefore may not be deleted. That this derives the right result was shown in several examples in subsection 3.7.3.5 where there were Condition C effects in the matrix clause. These effects only obtain if the base-position of the proleptic object is retained. Since exceptional deletion is not possible with R-expressions, something else must be responsible for the absence of Condition C effects in the complement clause.

In this subsection, I would like to provide direct evidence for Vehicle Change. The first piece of evidence involves embedding effects with semi-idiomatic expressions, introduced in 3.3.5.4 (and discussed for normal relatives in 2.4.5.5). Consider again the following contrast:

(627) a) *der [**PRO$_i$** Streit über **Peter$_i$**], von dem ich sagte,
the fight about Peter of which I said
dass **er$_i$** ihn vom Zaun gebrochen hat
that he it off.the fence broken has
lit.: 'the fight about Peter$_i$ that I said he$_i$ started'

b) der [**PRO$_i$** Streit über Marias Kritik an **Peter$_i$**], von dem
the fight about Mary's criticism of Peter of which
ich sagte, dass **er$_i$** ihn vom Zaun gebrochen hat
I said that he it off.the fence broken has
lit.: 'the fight about Mary's criticism of Peter$_i$ that I said he$_i$ started'

Both cases involve the (semi)-idiomatic expression *einen Streit vom Zaun brechen* 'start a fight'. I showed in 2.2.7.2 that there must be an implicit PRO because a pronoun is not possible inside the picture NP

(628) **Er$_i$** hat einen Streit über ***ihn$_i$/sich$_i$*** vom Zaun gebrochen.
he has a fight about her/self off.the fence broken
'He$_i$ started a fight about *him$_i$/himself$_i$.'

Against this background, the asymmetry in (627) is surprising. Obviously, the depth of embedding plays a role. The same level of embedding that lead to an improvement in the proleptic construction also improves the base sentence:

(629) **Er$_i$** hat einen [**PRO$_i$** Streit über Marias Kritik an **ihm$_i$**]
he has a fight about Mary's criticism of him
vom Zaun gebrochen.
off.the fence broken
'He$_i$ started a fight about Mary's criticism of him$_i$.'

In other words, the R-expression behaves like a pronoun in that it is sensitive to embedding. This is, of course, exactly what Vehicle Change predicts: It turns every R-expression inside the proleptic object into a pronoun, which will be sensitive to Principle B. (627)a thus represents a Principle B violation, just like (628). Here are the resulting LFs:

(630) a) *der [~~**PRO$_i$** Streit über **Peter$_i$**~~]$_k$,
the fight about Peter
[$_{CP}$[~~von~~ [dem [~~**PRO$_i$** Streit über **Peter$_i$**~~]$_k$]$_j$]$_2$ ich
of which fight about Peter I
[von [x[~~**PRO$_i$** Streit über **Peter$_i$**~~]$_k$]$_j$]$_2$ sagte, [$_{CP}$[Op ~~**PRO$_i$** Streit über **ihn$_i$**~~]$_{1/j}$
of fight about Peter said fight about him
dass **er$_i$** [x **PRO$_i$** Streit über **ihn$_i$**]$_{1/j}$ ihn vom Zaun gebrochen hat]]
that he fight about him it off.the fence broken has

b) der [~~**PRO$_i$** Streit über Marias Kritik an **Peter$_i$**~~]$_k$,
the fight about Mary's criticism of Peter
[~~von~~ [dem [~~**PRO$_i$** Streit über Marias Kritik an **Peter$_i$**~~]$_k$]$_j$]$_2$ ich
of which fight about Mary's criticism of Peter I
[von [x [~~**PRO$_i$** Streit über Marias Kritik an **Peter$_i$**~~]$_k$]$_j$]$_2$ sagte,
of fight about Mary's criticism of Peter said
[$_{CP}$[Op ~~**PRO$_i$** Streit über Marias Kritik an **ihm$_i$**~~]$_{1/j}$ dass **er$_i$**
fight about Mary's criticism of him that he
[x **PRO$_i$** Streit über Marias Kritik an **ihm$_i$**]$_{1/j}$ ihn
fight about Mary's criticism of him it
vom Zaun gebrochen hat]]
off.the fence broken has

The external head is only retained in the lower copy inside the complement clause because this is the only position where the PRO is licensed. All other occurrences have to be deleted, which is possible since PRO is another element with a positive licensing requirement.

3.7.3.8 Evidence for Vehicle Change: the correlation with variable binding

The second piece of evidence comes from the correlation with variable binding. I showed in 3.3.6 that Principle C effects do not re-emerge even if reconstruction is necessary for variable binding. This is irrespective of the type of A'-movement in the matrix clause:

(631) a) ?[die Briefe von **Hans$_i$** an *ihre$_j$* Eltern], von denen ich vermute,
the letters of John to her parents of which I suspect
dass **er$_i$** *jeder Schülerin$_j$* gedroht hat,
that he every student threatened has
sie in der Klasse vorzulesen
them in the class read.out
lit.: 'the letters by John$_i$ to her$_j$ parents that I suspect he$_i$ threatened every female student$_j$ to read out in class'

b) Von [welcher Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz] denkst du,
of which opinion of John about her essay think you
dass **er$_i$** *jeder Schülerin$_j$* rät, sie ernst zu nehmen?
that he every student advises it seriously to take
lit.: 'The opinion of John$_i$ about her$_j$ essay I think he$_i$ advises every student$_j$ to take seriously.'

In this case, one certainly cannot argue that the lower copy inside the complement can be deleted to avoid the Condition C effects since that copy is required for variable binding. The alleviation of Principle C effects must therefore have a different source. Vehicle Change derives the correct result as the following LF of the *wh*-example shows:

(632) [~~Von~~ [welcher ~~Meinung von **Hans**$_i$ über *ihren*$_j$ Aufsatz~~]$_k$]$_2$ denkst du
of which opinion of John about her essay think you
[Von [x ~~Meinung von **Hans**$_i$ über *ihren*$_j$ Aufsatz~~]$_k$]$_2$,
of opinion of John about her essay
[$_{CP}$[Op ~~Meinung von **ihm**$_i$ über *ihren*$_j$ Aufsatz~~]$_{1/k}$ dass **er**$_i$
opinion of he.DAT about her essay that he
jeder Schülerin$_j$ rät, [x Meinung von **ihm**$_i$ über *ihren*$_j$ Aufsatz]$_{1/k}$
every student advises opinion of he.DAT about her essay
sie ernst zu nehmen]?
it seriously to take

3.7.3.9 SCO effects

I showed in 3.3.5.5 that (S)SCO effects were systematically found in the proleptic construction, with both relatives and *wh*-movement and both in the matrix as well as in the embedded clause. I will start with the effects in the main clause:

(633) a) *der Mann, von [**dem**$_i$] **er**$_i$ glaubt, dass er intelligent ist
the man of who he believes that he intelligent is
lit.: 'the man$_i$ who$_i$ he$_i$ thinks is intelligent'

b) *der Mann, von [**dessen**$_i$ Mutter] **er**$_i$ glaubt, dass sie intelligent ist
the man of whose mother he believes that she intelligent is
lit.: 'the man$_i$ whose$_i$ mother he$_i$ thinks is intelligent'

(634) a) *Von [**wem**$_i$] glaubt **er**$_i$, dass er intelligent ist?
of who thinks he that he intelligent is
lit.: 'Who$_i$ does he$_i$ think is intelligent?'

b) *Von [**wessen**$_i$ Mutter] glaubt **er**$_i$, dass sie intelligent ist?
of whose mother thinks he that she intelligent is
lit.: 'Whose$_i$ mother does he$_i$ think is intelligent?'

These effects are not very surprising because this is exactly what we find in regular A'-movement (cf. 2.2.6.5):

(635) a) *der Mann$_i$, [**den**$_i$]$_1$ **er**$_i$ __$_1$ mag
the man whom he likes
lit.: 'the man who$_i$ he$_i$ likes'

b) *der Mann$_i$, [**dessen**$_i$ Vater] **er**$_i$ __$_1$ mag
the man whose father he likes
lit.: 'the man whose$_i$ father he$_i$ likes'

(636) a) *[**Wen**$_i$]$_1$ mag **er**$_i$ __$_1$?
who likes he
lit.: 'Who$_i$ does he like?'

b) *[**Wessen**$_i$ Vater] mag **er**$_i$ __$_1$?
whose father likes he
lit.: Whose$_i$ father does he$_i$ like?'

The *wh*-cases are unproblematic because there is local A'-movement across a coreferential pronoun, which triggers a Condition C effects. The relatives are somewhat more interesting because the Matching Analysis leads to a somewhat different representation where it is not only the relative operator, but rather the variable left by the operator together with the copy of the external head that leads to a violation, as the following structure shows for regular relatives (cf. 2.4.5.3):

(637) *der [Mann]$_j$, [$_{CP}$ [den ~~Mann$_j$~~]$_{1/i}$ er$_i$ [x Mann]$_{1/i}$ mag]
the man which man he man likes

Vehicle Change was argued to be inapplicable because the external head is just an NP and not a DP. The following pair illustrates the LFs for (633); for possessive relativization, I continue to use an abstract analysis of *dessen* 'whose':

(638) a) *Der [Mann]$_k$, [$_{CP}$ [~~von~~ [dem [~~Mann~~]$_k$]$_i$]$_2$ **er$_i$** [von [x [Mann]$_k$]$_i$]$_2$ glaubt,
the man of which man he of man believes
[$_{CP}$[Op ~~Mann~~]$_{1/i}$ dass [x Mann]$_{1/i}$ er intelligent ist]].
man that man he intelligent is

b) *Der [Mann]$_k$, [$_{CP}$ [~~von~~ [[Op+[~~Mann~~]$_k$]$_i$ ~~-GEN Mutter~~]$_j$]$_2$ **er$_i$**
the man of man's mother he
[von [[x+[Mann]$_k$]$_i$-GEN Mutter]$_j$]$_2$ glaubt, [$_{CP}$ [[Op ~~Mann~~]$_i$ ~~-GEN Mutter~~]$_{1/j}$
of man's mother believes man's mother
dass [[x Mann]$_i$-GEN Mutter]$_{1/j}$ sie intelligent ist.
that man's mother she intelligent is

Again, wat causes the (S)SCO violation is a copy containing the operator plus its restriction.

The attentive reader will have noticed that the representation of the proleptic object inside the relative clause raises interesting questions that are directly connected to the SSCO effects found in the complement clause, repeated here:

(639) a) *der Mann, von [**dessen$_i$** Vater] ich glaube, dass **er$_i$** ihn nicht mag
the man of whose father I believe that he him not likes
lit.: 'the man whose$_i$ father I think he$_i$ does not like'

b) *Von [**wessen$_i$** Mutter] denkst du, dass **er$_i$** sie mag?
of whose mother think you that he her likes
lit.: 'Whose$_i$ mother do you think he$_i$ likes?'

All the cases with reconstruction into the complement clause discussed so far involved elements in the complement of D. In the examples above, however, the SCO is due to the operators in D. The question is therefore how D-related elements are represented inside the embedded clause in the proleptic construction. So far I simply postulated an empty operator in the D-position to trigger the operator movement and only the NP complement was transferred from the proleptic object. However, this would not be sufficient to account for the SSCO effects in (639). It must be an operator that is additionally coreferent with the subject pronoun of the embedded clause. One could assume that we find the same *wh*-quantifier plus its restriction as in the matrix clause. However, this

would probably not be compatible with the fact that the DP should also function as a more general operator that moves to turn the complement clause into a predicate, arguably triggered by a feature like [pred]. Having two different A'-features on the D-head seems undesirable.

Instead, I will assume that ellipsis can relate the operator in the complement clause to a different operator in the matrix clause. The index will be taken over, but not the quantificational part. The operator in the complement clause will not become a relative operator or a *wh*-operator, but will remain of the more general type. But since the index is taken over, we wil still get an SSCO violation in the complement clause as the following LFs show:

(640) a) *der [Mann]$_k$, [$_{CP}$ [~~von~~ [[Op-[~~Mann]$_k$~~]$_i$~~-GEN Vater~~]$_j$]$_2$ ich
the man of man's father I
[von [[x-[Mann]$_k$]$_i$]-GEN Vater]$_j$]$_2$ glaube, [$_{CP}$ [[Op-~~Mann]$_i$~~-GEN Vater]$_{1/j}$
of man's father believe man's father
dass **er$_i$** [**[x-Mann]$_i$**-GEN Vater]$_{1/j}$ ihn nicht mag]]
that he man's father him not likes

b) *[~~Von~~ [wessen$_i$ ~~Mutter~~]$_j$]$_2$ denkst du [Von [x$_i$ Mutter]$_j$]$_2$,
of whose mother think you of mother
[$_{CP}$[Op$_i$-GEN Mutter]$_{1/j}$ dass **er$_i$** [**x$_i$**-GEN Mutter]$_{1/j}$ sie mag]?
mother that he mother her likes

In both examples, the operator of the matrix clause corresponds to the general operator of the complement clause. On other words, there is a certain mismatch between the proleptic object and the operator phrase. Such a mismatch would be a serious problem if movement were involved but not if the two constituents are related by ellipsis. We have already seen that ellipsis tolerates mismatches with respect to R-expressions, which can correspond to pronouns inside the operator.

I would like to argue that ellipsis can also handle mismatches between operators. More mismatches will be discussed in 3.7.3.11 below. Importantly, Vehicle Change cannot apply to avoid the SSCO effect: it would have to turn the *wh*-operator of the proleptic object into a (possessive) pronoun. If that were possible, these sentences should be as grammatical as the following, contrary to fact:

(641) Er$_i$ mag seinen$_i$ Vater.
he likes his father
'He$_i$ likes his$_i$ father.'

Fortunately, Vehicle Change was shown to target only R-expressions but not quantifiers, cf. 1.5.3.7 so that the ungrammaticality of (640) is correctly predicted.

3.7.3.10 Ellipsis targets a DP in the proleptic construction

I have been assuming that the entire operator is related to the proleptic object, or more precisely, the DP within the *von*-PP. While most of the reconstruction effects discussed in this section were related to elements in the complement of the operator, the previous section already showed that information related to the D-

layer of the proleptic object is also required inside the complement clause. The point can be made stronger by the following example where a bound pronoun is reconstructed into the complement clause for variable binding:

(642) Von [**seiner**$_i$ Mutter] denke ich, dass **kein Teenager**$_i$ sie toll findet.
of his mother think I that no teenager her great finds
'His$_i$ mother I believe every teenager$_i$ finds great.'

This will imply for the case at hand that the operator phrase looks as follows: The possessive pronoun occupies Spec, CP, the empty operator the D position and the NP *Teenager* the NP-complement.

3.7.3.11 Case-Mismatches

Next to the mismatches in operator features discussed in 3.7.3.9, there are also mismatches in case, exactly as in normal relatives, cf. 2.3.2. In German, the proleptic object is always assigned dative case by the preposition *von* 'of' whereas the operator can be assigned any case. The following example shows mismatch between dative and nominative case:

(643) Ich glaube von **dir**, dass **du** intelligent bist.
I believe of you.**DAT** that you.**NOM** intelligent are
'I believe of you that you are intelligent.'

Such a mismatch would be incompatible with movement, but is not unheard of in the domain of ellipsis as was pointed out in footnote 116. I repeat the relevant example from sluicing (Jeroen van Craenenbroeck p.c.):[197]

(644) They told **me** to go, but I didn't know when I should go

3.7.3.12 Summary

Applying a Matching Analysis to the proleptic construction has desirable consequences: It not only provides a means of modeling reconstruction by means of the Copy Theory, but also correctly predicts that one gets nearly the same reconstruction effects as in normal relatives. Apart from straightforward reconstruction for Principle A and variable binding and cases of non-reconstruction, the intricate Condition C pattern follows as well. The type of A'-movement that takes place in the matrix clause does not make a difference except with respect to Condition C in the matrix clause: Since only relativization involves another ellipsis operation, it is the only one where Condition C effects are absent altogether. I also presented explicit evidence vor Vehicle Change: The absence of Condition C effects under variable binding and the embedding effects with semi-idiomatic expressions only follow if R-expressions inside the proleptic object are turned into a personal pronoun. The re-emergence of Condition C effects in the context of SSCO effects follows as well because Vehicle Change cannot target quantifiers.

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[197] Another case of mismatch involves adjectival inflection. This was already discussed for relatives in 2.3.3 and extends to the proleptic construction.

3.7.4 Non-reconstruction: the specific chain

While reconstruction is systematic for variable binding and Principle A, we have seen that there is no reconstruction whatsoever for scope, under which all semantic restrictions on the proleptic object can be subsumed (cf. 3.5). I repeat three relevant examples for convenience:

(645) a) Von [**welcher Band**] glaubst du,
of which band think you
dass **jeder Student** sie am besten findet?
that every student it the best finds
'Which band do you think every student likes best?' *∀ > wh; wh > ∀

b) *Von [wie **vielen** Häusern] **denkst** du, dass man sie *bauen* sollte?
of how many houses think you that one them build should
'How many houses do you think one should finally build?'
*many > think; *think > many

c) Ich weiß von [**keinem Mitarbeiter**], dass er katholisch ist.
I know of no colleague that he catholic is
'I know of no colleague that he is catholic.' ¬∃ > know; *know > ¬∃

The asymmetry between variable binding and Principle A on the one hand and scope on the other seems surprising. However, I will show that this division is principled and can be given a straightforward explanation: Like other (null) operator movement chains, the proleptic construction features a specific chain. Such chains have been shown to prohibit scope reconstruction. I will first discuss parallels with another specific chain, the one established through extraction from weak islands. Then, I will very briefly review what can be found in the literature on such reconstruction asymmetries. In the third subsection, I will deal with the precise interpretation of variable binding. In the fourth subsection, I will try to derive the specificity of the chain from independent properties of the proleptic construction.

3.7.4.1 Specific chains disallow scope reconstruction

In recent years, there has been quite some work on (null) operator movement and the nature of chains in general. It has been repeatedly pointed out that (Null) operator movement chains are different from other chains in that they are specific/referential (Rizzi 2001, Bianchi 2004), pronominal (Browning 1987, Cinque 1990, Safir 1996, Postal 1998), leave a trace of type <e> (Cresti 1995, Munn 2001, Rezac 2004).[198] Setting the correct characterization aside for a moment, the crucial property of such chains in the present context is that they disallow scope reconstruction, but do allow reconstruction for Principle A and variable binding (Cinque 1990, Cresti 1995, Bianchi 2004: 85).

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[198] Given that I assume a full copy instead of an empty operator, the label „null operator" is strictly speaking inadequate. I retain it to be able to make reference to the constructions as a class.

The specificity or referentiality of a chain has also been shown to be crucial to explain the possibility to extract from weak islands (Cinque 1990, Szabolcsi 2003, etc.): Only referential or D-linked elements can be extracted from weak islands whereas non-referential ones cannot. Furthermore, extractions from weak islands show exactly the same reconstruction possibilities as the proleptic construction: reconstruction for binding is possible, but not reconstruction for scope (van de Koot 2004: 15ff.):[199]

(646) a) ?[**Which picture of himself$_i$**]$_1$ do you wonder *whether* **John$_i$** likes____$_1$?

b) [**Which picture**]$_1$ do you wonder *whether* **every student** likes __$_1$?
wh > ∀; *∀ > wh

c) [**How many books**]$_1$ do you wonder whether John read __$_1$?
√referential; *amount

Reconstruction for Principle A is possible, cf. (646)a), whereas reconstruction for scope, for both distributive and amount readings (646)b/c, is not possible.

Importantly, scopal interaction outside the weak island is possible as in the proleptic construction, cf. also Cresti (1995: 113f.):

(647) a) **What**$_1$ do you wonder *whether* **everyone** read __$_1$? *∀> wh; wh > ∀

b) **What**$_1$ does **everyone** wonder *whether* to read __$_1$? ∀ > wh; wh > ∀

(648) a) Von [**welcher Band**] glaubst du,
of which band think you
dass **jeder Student** sie am besten findet?
that every student it the best finds
'Which band do you think every student likes best?' *∀ > wh; wh > ∀

b) Von [**welcher Band**] glaubt **jeder Lehrer**,
of which band thinks every teacher
dass die Studenten sie am besten finden?
that the students it the best find
'Which band does every teacher think that the students like best?'
∀ > wh; wh > ∀

Distributive readings are possible if the universal QP is located outside the island. The following triple makes the same point with negative islands ((649)a/b are from van de Koot 2004: 17):

(649) a) [**Which car**]$_1$ did **every teacher** expect that the girl *wouldn't* choose __$_1$?
(i) The red one.
(ii) Mr. Johnson expected that she wouldn't choose the red one and Mr. Spinck that she wouldn't choose the green one.

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[199] See Cinque (1990: 13, ex. 36) for an example with variable binding across a weak island.

b) [**Which car**]$_1$ *didn't* **every teacher** expect that the girl would choose __$_1$?
   (i) The red one.
   (ii)* Mr. Johnson didn't expect that she would choose the red one and Mr. Spinck didn't expect that she would choose the green one.

c) [**How many**]$_1$ books *don't* you **think** that John read __$_1$?
   (i) This one, that one, the one over physics etc.
   (ii)*20

Interaction outside the island is possible as in (649)a, but not if the element with which the *wh*-phrase could interact is located inside the weak island, cf. (649)b/c.

The notion specific chain is also the key to understand the incompatibility between the proleptic construction and comparatives (3.5.5): Comparative deletion involves explicitly non-specific chains (cf. Postal 1998, Bianchi 2004, there is abstraction over a degree) which are known to require scope reconstruction (Bianchi 2004). These properties are obviously directly incompatible with a construction that features a specific chain.[200]

The interpretation of adjectival modifiers also follows from the approach suggested here. I pointed out in 3.5.4 that superlative adjectives, being scopal elements, are expected not to allow the low construal in the proleptic construction because scope reconstruction is independently blocked. Here I would like to show that the low construal is generally blocked where scope reconstruction is blocked, i.e. in specific chains. The following triples show the parallels between the construal of adjectives, reconstruction for distributive readings and reconstruction for amount readings: They are all blocked in weak islands:

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[200] The fact that the operator chain in the complement clause of the proleptic construction is specific is probably not quite sufficient to explain all the semantic properties discussed in section 3.5. The absence of scope reconstruction in a specific chain means that the quantificational properties of an A'-moved phrase must be interpreted in the operator position and may not reconstruct to the bottom copy. However, when applied to the proleptic construction, this implies that the quantificational properties of the proleptic object are interpreted in Spec, CP of the complement clause. If that is the case, it is no longer clear whether this derives the desired effect since it is now c-commanded by the matrix verb over which it has scope.

It would probably be sufficient to explain the absence of distributive readings because the proleptic object would still outscope the subject QP. It would probably also account for the semantic type and the incompatibility with comparatives because non-individual-denoting phrases require reconstruction all the way down, cf. 3.5.1.5. In all the other cases, this is much less clear especially where the proleptic object interacts with the matrix verb as with quantifiers and indefinites (cf. 3.5.2.1 and 3.5.2.3), the amount readings (3.5.3) and the low construal of adjectives (3.5.4). Interpreting the proleptic object in the c-command domain of the matrix verb should lead to narrow scope, contrary to fact.

There are two possibilities I can think of at this point: Perhaps the proleptic object can scope out of Spec, CP across the matrix verb. Alternatively, the fact that the proleptic object is linked to a definite pronoun may be sufficient to explain why it always takes wide-scope. This aspect will be discussed in 3.7.4.4.

(650) a) This is the [**first** book] that John did *not* say that Antonia wrote __.
(Bhatt 2002)

b) This is the [**first** book] that John *denied* that Antonia wrote __.

c) This is the [**longest** book] that *few people* said that Tolstoy wrote __.
(Heycock 2003: 5)

(651) a) [**Which book**]$_1$ *didn't* you say that everyone read __$_1$? wh > ∀; *∀> wh

b) [**Which book**]$_1$ did you *deny* that everyone read __$_1$? wh > ∀; *∀> wh

c) [**Which book**]$_1$ did *few people* think that everyone read __$_1$?
wh > ∀; *∀> wh

(652) a) [How **many** books]$_1$ *didn't* you say that John read __$_1$?
√referential;*amount

b) [How **many** books]$_1$ did you *deny* that John read __$_1$?
√referential;*amount

c) [How **many** books]$_1$ did *few people* think that John read __$_1$?
√referential;*amount

Unsurprisingly, ordinary *wh*-islands also block the low reading:

(653) This is the [**first** book] that John wondered *whether* Tolstoy wrote __$_1$.

The match between scope reconstruction and the possible readings of adjectives is very neat and argues in favor of the approach advanced here. Even though a precise (semantic) understanding of the interpretive possibilities of adjectives and the observed correlation with scope reconstruction is partially missing (cf. the discussion in Bhatt 2002 and Heycock 2003), the fact that this parallel is predicted by the specific chain approach lends further support to it.[201]

3.7.4.2 The lack of correlation

There has been a long debate in the literature over correlations between different types of reconstruction. There are basically two positions, one that claims that reconstruction effects always go together: i.e. once there is reconstruction for e.g. scope, there will also be reconstruction for anaphor binding or Condition C effects. A moved phrase is interpreted in only one (reconstructed) position. Proponents of this group are e.g. Lebeaux (1991), Cresti (1995: 89), Heycock (1995), Romero (1998: 88f.), Fox (1999), Bhatt (2002), Heycock (2003: 17) and Fox & Nissenbaum (2004: 479/481). The other camp argues that scope

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[201] Heycock (2003: 6f.) argues that there is no perfect match between the availability of low readings of adjectives and amount readings of *how-many* phrases. She cites a number of verbs that allow amount readings, but disallow the low construal. This includes verbs like *decide, concede, prove, be willing* and *agree*. She then argues that the correct generalization is that the low construal is blocked by verbs that disallow neg-raising. I have nothing much to say about this complication except that it seems to me that scope reconstruction for distributive readings is not particularly felicitous with these predicates:

i) Which book did they decide that everyone should read? wh > everyone; ??everyone > wh
ii) Which book did they agree that everyone should read? wh > everyone; ??everyone > wh

reconstruction is in principle independent from other types of reconstruction. Proponents of this group are e.g. Cinque (1990), Lechner (1998), Cecchetto (2001) and van de Koot (2004). Whereas the first group takes the correlation between different types to be an argument in favor of a syntactic approach, the second group argues that reconstruction for binding is handled syntactically whereas reconstruction for scope is handled by semantic reconstruction.[202]

It is generally difficult to determine which approach is superior (see Sternefeld 2001 for an overview) because there are contradictory judgments in the literature and because in some cases, different types of reconstruction seem to go together whereas in others they do not.

As for the judgments: While Cresti (1995: 89), Romero (1998: 88) and Fox & Nissenbaum (2004: 479ff.) argue that scope reconstruction also forces anaphors to be interpreted in that position, Sportiche (2003: 73ff.) and Sternefeld (2000: 10ff. ex. 23f.) do not. With anaphors, one can always argue that Principle A is checked during the derivation; however, the same divergence seems to occur (sometimes) between scope reconstruction and variable binding: Lechner (1998: 294ff.) argues that short scrambling in German leads to scope ambiguities, but does not allow reconstruction for binding and variable binding. He argues that this follows if scope reconstruction is independent from syntactic reconstruction and is handled in the semantic component.

As for the constructions, it is almost unanimously agreed upon that there is a difference between scope and binding with extraction from weak islands (but see Romero 1998: 86 for some critical evaluation): Scope reconstruction is blocked, but not reconstruction for (variable) binding.

All specific chains have these properties. It seems therefore reasonable to attribute the divergence between scope and binding to the specific chain. Whether this is possible in other, non-specific chains, is, as mentioned above, a matter of some debate and still an empirical issue.

At any rate, due to the fact that we get this divergence in specific chains, one supposedly problematic aspect of the interpretation of adjectival modifiers falls into place: Both Bhatt (2002) and Heycock (2003) are concerned about the fact that the interveners that block the low construal of adjectives do not block reconstruction for idioms or anaphor binding. In the following example, the low construal of the adjective is blocked, but not the reconstruction of the anaphor, cf. Heycock (2003: 6, ex. 17):

(654) This is the [*only* picture of **himself**$_i$] that Mary said that **John**$_i$ *didn't* show $___1$ to his mother.

To cross a weak island, a specific chain is necessary. A specific chain, on the other hand, does not allow scope reconstruction. As a consequence, the low construal of the adjective is blocked, but not the reconstruction of the anaphor.

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[202] Sternefeld (2000) is a third type because he argues for correlations (to some extent) yet accounts for them by semantic reconstruction.

The fact that we get a divergence is therefore not a problem but rather exactly as predicted given the properties of specific chains.[203, 204]

In other words, the example is parallel to the following, which has wide scope of the *wh*-quantifier but reconstructs for binding:

(655) [**Which picture of himself$_i$**]$_1$ do you *wonder* whether **everyone$_i$** likes __$_1$? wh > ∀; *∀> wh

The following example with resumptive prolepsis illustrates the same configuration (even though the judgment is a little delicate):

(656) das [*erste* Bild von **sich$_i$**], von dem ich sagte,
the first picture of self of which I said
dass **Peter$_i$** es verkaufen sollte
that Peter it sell should

Even though the adjective can only be interpreted in the matrix clause, reconstruction of the anaphor is still possible. Again, the proleptic construction shows exactly the same behavior as constructions involving a specific chain.

A question I will not pursue is whether this divergence between scope and binding implies that scope reconstruction must be handled by semantic reconstruction. I do not think that this is necessarily the case. I will instead continue to handle scope reconstruction syntactically (even though I would in principle be just as happy with a semantic approach).

3.7.4.3 No reconstruction for Scope but variable binding

Now that we have established that there is no scope reconstruction, it may seem surprising that we get reconstruction for variable binding in the proleptic construction as this involves interpreting a pronoun in the scope of a quantifier. However, this confuses two things. Being bound by a quantifier is independent from the scope of a given phrase. This can be easily illustrated by the following contrast (cf. also van de Koot (2004: 17, footnote 8):

(657) a) [Which picture of **his$_i$** mother]$_1$ does **every student$_i$** like __$_1$ best?
i) the nude picture
ii) a: the one with a teddy bear; b: the one he took himself; c: the one in front of a mountain etc.

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[203] Bhatt (2005. ex. 47) argues that the grammaticality of the example could also be due to the fact that the anaphor does not reconstruct below negation. He constructs examples that avoid this complication, but does not report any judgments.

[204] Heycock's (2003: 6: 18a) is more interesting in this regard because it does not involve a specific chain and still shows that adjective and anaphor must be interpreted in different positions.

b) [Which pictures of **his$_i$** mother]$_1$ do you wonder *whether* **every boy$_i$** likes __$_1$ best?
   i) the nude picture
   ii)* a: the one with a teddy bear; b: the one he took himself; c: the one in front of a mountain etc.

In (657)a, we have no specific chain, and the question is ambiguous between a functional and a distributive reading: Either every student likes a different picture or on the functional reading, every student likes the same type of picture, even though it is not the same object. In (657)b, which involves a specific chain, only the functional reading is possible: What is questioned is the type of picture that every boy likes best, not individual preferences. Importantly, these interpretive differences are independent from variable binding, which is still possible. In the proleptic construction, we get exactly the same interpretation:

(658) [Von welchem Foto von **seiner$_i$** Mutter] denkst du,
of which picture of his mother think you
dass **jeder Junge$_i$** es am schönsten findet?
that every boy it the most.beautiful finds
'Which picture of his$_i$ mother do you think every boy$_i$ finds most beautiful?'

A possible answer can only involve a certain (type of) picture, but not a different picture per boy. The proleptic construction thus behaves exactly as predicted under an analysis that posits a specific chain.

3.7.4.4 What causes a chain to be specific?

Under the assumption that the operator movement chain in the complement clause of the proleptic construction is a specific chain, most of the results fall out nicely. However, it must be admitted that there is a certain danger of circularity both with the argument presented here and quite generally the notion of specific chain as used in the literature: A chain is often simply declared specific if it imposes certain restrictions on its antecedent or does not allow for scope reconstruction. This is certainly not sufficient because one would like to know what causes the chain to be specific. However, in many cases, finding the cause for the nature of the chain is often very difficult if not impossible. I will review a few possibilities below and discuss them with respect to operator chains and the proleptic construction.

One quite secure test for specific chains are weak islands: Only elements of a certain semantic type can be extracted from weak islands. This involves primarily referential or D-linked phrases, cf. Cinque (1990), Rizzi (1990) and the more precise characterization in Szabolcsi (2003). Constructions like comparatives, which necessarily involve non-referential quantifiers, fail to escape weak islands and therefore count as non-specific. Other chains such as *wh*-chains can involve referential or non-referential quantifiers and therefore may be either specific or non-specific. So far, this is just a correlation and not an explanation. It still needs to be explained why only elements of a certain kind can escape weak

islands. I will refrain from doing so here because the issue is controversial and strictly speaking orthogonal to my concerns. See Szabolcsi (2003) for an overview over the relevant proposals. But whatever the ultimate cause, we know that there is a need for a specific chain if the extraction site is inside a weak island.

When applied to (null) operator chains, there is only one case that to my knowledge manages to motivate the specificity of the chain, Munn's (2001) analysis of parasitic gaps. As indicated in footnote (182), the null operator has to move across downward entailing elements such as negation or temporal operators like *before* or *after*. Such elements create weak islands so that any chain that escapes them has to be referential/specific. Since Parasitic Gaps are nearly limited to adverbial clauses with negation or temporal operators, the specificity of the chain follows to a large extent.[205]

However, what happens once the weak island test is unavailable? We have seen (cf. 3.4.3) that the proleptic construction is insensitive to any kind of island. In case this involves movement (something I will argue for in 3.8.1.3 below), the fact that it can also skip weak islands is irrelevant. Even worse, since the proleptic construction often occurs with bridge verbs, the syntactic context is fully transparent and therefore does not require a specific chain:

(659) der [Mann], von dem ich glaube, [$_{CP}$ dass du *denkst*,
the man of who I believe that you think
[$_{CP}$ dass Maria <u>ihn</u> mag]]
that Mary him likes
'the man who I believe you think Mary likes'

Since motivating some covert downward entailing operator in the complement clause seems impossible, the specificity of the operator chain in the proleptic construction cannot be linked to the presence of a weak island.[206]

Perhaps, one cannot do better than simply dividing construction into specific ones and non-specific ones. That is basically what Bianchi (2004) does. She investigates resumptive relatives and observes that they also have the reconstruction properties of specific chains. However, she does not derive these properties from any deeper principle, but merely states the facts.

Deriving the specificity from the semantic properties of the antecedent is circular because it is not clear why the antecedent has to have those properties in the first place.

Another possible source for the semantic properties of the proleptic object could be its status as an "extra" element. It is not an argument of a verbal predicate

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[205] Parasitic Gaps inside complements will require a different explanation. However, it is disputed whether that type really exists, cf. Contreras (1993).

[206] Even the weak island test might ultimately fail. As originally pointed out in Kroch (1989) and stressed again in Levine (2001: 153f., 169f.) there are instances where clearly non-referential elements such as degree expressions are extracted from weak islands. The notion of specific chain remains, but its existence can no longer straightforwardly be derived from the syntactic context. Perhaps, one will eventually simply have to assume that there are different types of chains.

but licensed externally to the CP that contains a position it is related to. Such extra arguments always tend to take wide-scope as far as I know. This is particularly clear for dislocated elements, cf. e.g. Cinque (1990) or non-agreeing clause-external topics. Why such "extra" arguments have the properties they do can be linked to two possibilities: First: Extra arguments are merged outside the clause and since lowering is not an option they automatically take wide-scope.[207] Second: they are often resumed, mostly by definite pronouns so that they are expected to take wide-scope.[208] Only the second option is relevant for the proleptic construction, and this is the last possibility I will discuss.

An approach by Postal (1998) is relevant in this context: He also posits specific chains in the constructions under discussion. He observes that certain types of A'-movement are incompatible with what he calls an anti-pronominal context, a context that does not allow a definite pronoun. He observes that certain A'-movement types like *wh*-movement are possible in such a context whereas others like topicalization are not. The following contrast is supposed to make that point (Bianchi 2004: 100, ex. 78):

(660) a) **What** did they name him $___1$?

b) *__Raphael__, I wouldn't name anybody $___1$.

c) *They named him **it**.

The naming construction constitutes an anti-pronominal context as (660)c shows. While *wh*-movement is possible in such a context, topicalization is not. On the basis of such distributional facts, Postal divides constructions into specific or non-specific (he actually uses different labels, but that is irrelevant here). Topicalization will count as specific, *wh*-movement as non-specific. Postal concludes from the distributional facts that specific chains involve an empty resumptive pronoun in their extraction site whereas non-specific ones do not.

Applied to the proleptic construction, it is clear that we are not dealing with an anti-pronominal context because the lower link of the operator chain is realized as a definite pronoun. In fact, it is rather an anti-anti-pronominal or simply pronominal context. This will automatically rule out constructions that cannot involve a resumptive pronoun in Postal's system such as comparatives and more generally constructions where a non-individual-denoting phrase is extracted. The pronominal context may further rule out non-referential antecedents quite generally so that the semantic properties of the proleptic object could be covered to a large extent.

The question is, however, whether this explains anything because all we know is that the proleptic construction constitutes a pronominal context. But why should this be so? Postal's system does not provide much more than a diagnostic to divide constructions into different classes and assign them a label. The crucial

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[207] This explanation fails once we find reconstruction effects: As soon as there is a mechanism to relate the extra constituent to a lower position, scope reconstruction should be an option as well.

[208] However, in German Contrastive Left-Dislocation, the resuming element can be non-individual-denoting. See footnote 253 for more discussion.

assumption that specific constructions involve an empty resumptive pronoun is almost impossible to test. It is indeed the case that the proleptic object involves an overt definite resumptive pronoun so that it is clear that we are dealing with a pronominal context. Even if the presence of the resumptive pronoun leads to a specific chain, we would still want to know why we only find personal pronouns and not proforms for non-individual-denoting types: As discussed at length in 3.5, German has proforms for such types so that the restriction to personal pronouns and therefore referential antecedents does not follow from the inventory of pronouns. So far, Postal's approach just keeps triggering new questions and only provides new labels.[209]

The fact that only definite pronouns can be used as resumptives in the proleptic construction might, however, follow from independent principles: it seems to be a general property of resumption that it is limited to referential chains. Boeckx (2003: 91) notes that resumption is incompatible with what he calls true adjuncts. This includes manner or reason adverbials. I am also not aware of resumptive chains that involve a predicate. There are a few counterexamples. McCloskey (1990: 239) gives an example with comparative deletion, which certainly involves a non-referential chain. Choueiri (2002) has examples where the resumptive pronoun is coindexed with an idiomatic NP. However, in both cases, there may be independent factors at play. McCloskey's data involve oblique relations which Bianchi (2004) shows to be compatible with non-referential antecedents quite generally. As for Choueiri's data, they are from a different type of language (Lebanese Arabic) where what is called a resumptive pronoun may be closer to agreement. I will therefore assume for the moment that the generalization is essentially correct.

But why should there be such a limitation? Most languages have proforms to refer to non-individual-denoting phrases and use them frequently in cross-clausal anaphora. In other words, they are proper anaphoric elements just like definite pronouns. The correct generalization therefore seems to be that non-individual-denoting proforms may not be A'-bound. This restriction is poorly understood (but see Boeckx 2003: 91ff. for an explanation within his system that does, however, not extend to predicates) and I do not have anything new to offer. I will assume that the restriction to definite pronouns is a property of resumption in general. Once we accept this, the semantic effects found in the proleptic construction and in resumptive chains quite generally is little surprising. They have been observed in many languages, cf. e.g. Doron (1982), Cinque (1990), Sharvit (1999), Boeckx (2003), Bianchi (2004) etc.

It seems that we have come somewhat closer to an explanation for why the operator chain in the proleptic construction must be specific: because it is a resumptive chain. This raises one last question: Why does the chain have to

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[209] Postal's approach is confronted with a number of empirical difficulties, especially what concerns topicalization, which is supposed to involve a specific chain. As Levine (2001: 149ff.) points out: topicalization is easily possible in anti-pronominal contexts, once the sentences are constructed carefully. Non-DP contexts such as PP-extraction are particularly telling, because English does not have PP pronouns. The notion pronominal chain is therefore quite problematic.

involve a resumptive pronoun? Why is a gap impossible? Since this is a very complex issue I will discuss it later in a separate section, in 3.8.

3.7.5 The parallels with *tough*-movement

I said at the beginning of the analysis section that the account I am proposing is similar to *tough*- movement. I will spell out the symmetries with *tough*-movement in this subsection and will show that some of the assumptions made for the proleptic construction can be fruitfully applied to *tough*-movement, thereby providing new solutions to some long-standing problems of that construction.[210]

3.7.5.1 The *tough*-subject is not independently licensed.

The licensing mechanism is the same as in resumptive prolepsis: Operator movement turns the CP into a predicate. The predicate then composes with the adjective to form a complex predicate. This procedure licenses an extra constituent, the tough subject, which binds the predicate variable.[211] Crucially, and this is one of the differences between the proleptic construction and *tough* movement, the trace of operator movement in *tough*-movement must be silent. If the trace is realized, ungrammaticality results:

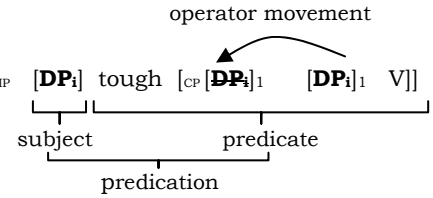
(661) [This book] is tough to read **e/*it**.

In the following example, there is no gap and the *tough* subject is not even thematically related to the filler. In such a case, there is no operator movement, and therefore, no extra argument can be licensed, leading to ungrammaticality:

(662) *This book is tough for the students to pass the exam.
(Cinque 1990: 153)

The following figure schematizes the derivation:

(663)



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[210] I only discuss English *tough*-movement because the German (or Dutch) translational equivalent has a completely different structure, namely that of coherent infinitives.

[211] There are different implementations of this idea. Den Dikken & Mulder (1992: 306) assume that the operator movement actually does not stop at the edge of the infinitival CP, but rather moves across the adjective. Rezac (2004: 4, his ex. 7b/c) provides some arguments against that. Eventually, this difference is orthogonal to my concerns and therefore I will not pursue this issue.

3.7.5.2 Opacity

Operator movement turns the CP into a (weak) island so that extraction becomes degraded. Adjunct extraction is straightforwardly bad (Rezac 2004: 19, his ex. 50a):

(664) *[How intelligent]$_2$ is John$_1$ easy [Op$_1$ to think of/regard __$_1$ as __$_2$]?

As for argument extraction, things are somewhat involved, the pattern differing somewhat from normal weak islands. With crossing dependencies, the sentences are completely out ((665)a, a worse degradation than with crossing *wh*-dependencies according to Rezac 2004). With nested dependencies, they are much better (665)b. But as soon as the extraction site is more deeply embedded, the result is as expected (665)c (Rezac 2004: 19, his ex. 49a/b, 51a):

(665) a) *[Which sonatas]$_2$ are [the violins]$_1$ easy [Op$_1$ to play __$_2$ on __1]?

b) ?[Which violins]$_2$ are [the sonatas]$_1$ easy [Op$_1$ to play __$_1$ on __$_2$]?

c) *[Which violin]$_2$ is [that sonata]$_1$ hard [Op$_1$ to imagine (anyone) playing __$_1$ on __$_2$]?

See Rezac (2004) for further insightful discussion.[212]

3.7.5.3 Reconstruction

Tough-movement displays robust reconstruction effects for Principle A and variable binding (den Dikken & Mulder 1992: 310n8):

(666) a) [Pictures of **himself$_i$** nude] are tough for me [to think that **any man$_i$** would like __].

b) [Pictures of **his$_i$** wife nude] are tough for me [to think hat **any man$_i$** would show his friends __].

It is sometimes (wrongly) claimed (Rezac 2004a: 189, n214/b: 14) that there is no reconstruction into the operator movement clause. It is indeed the case that most of the examples in the literature (cf. e.g. Den Dikken & Mulder 1992: 308) only show binding by the experiencer, but as the examples in (666) show, this is basically accidental. The tendency to use cases where the experiencer is the binder has to do with the fact that the deep embeddings needed to construct examples like (666) are disfavored in *tough*-movement, see Rezac (2004: 18f., ex. 46, 48) for discussion.

3.7.5.4 Ellipsis effects

I would like to propose extending the Matching Analysis to *tough*-movement to link the *tough* subject with the operator. Ellipsis not only gives us a handle on

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[212] One may object that the opacity effects merely result from the fact that the CP is an adjunct. This is surely incorrect; see Rezac (2004: 3, ex. 5, 5, ex. 11) for evidence that the CP is a complement of the adjective.

the reconstruction effects just mentioned, it also accounts for the lack of Principle C effects and certain case/form mismatches.

The reconstruction effects of the previous subsection can be modeled straightforwardly once we adopt the version of the Matching Analysis proposed in this thesis. Ellipsis makes a full copy of the *tough*-subject available inside the operator clause and therefore makes an account in terms of the Copy Theory possible. The following pair repeats an example with reconstruction and its LF:[213]

(667) a) [Pictures of **his$_i$** wife nude] are tough for me [to think hat **any man$_i$** would show his friends __].

b) [~~Pictures of **his$_i$** wife nude~~]$_j$ are tough for me
[$_{CP}$ [Op ~~Pictures of **his$_i$** wife nude~~]$_{1/j}$ to think hat **any man$_i$** would show his friends [x Pictures of **his$_i$** wife nude]$_{1/j}$].

Tough-movement always involves a mismatch in case between the *tough*-subject and the position of the gap: The *tough*-subject is always assigned nominative whereas the position of the gap is assigned accusative. As discussed for the proleptic construction (cf. 3.7.3.11), ellipsis is known to handle such mismatches. It was noted in Wilder (1991: 123) that apart from mismatches in structural case, there are more drastic mismatches as in the following pair:

(668) a) [**For him to be top of the class**] is hard to believe __.

b) *I cannot believe **for him to be top of the class**.

In this case the *tough*-subject is a PP. However, since the position of the gap requires a DP, as the ungrammaticality of cf. (668)b shows, there cannot be a direct movement relationship. Instead, two constituents differing in syntactic category have to be related to each other. The *tough*-subject is a PP while its representation in the operator chain must be a DP like *him to be top of the class*. With ellipsis, such a mismatch is possible:

(669) [For him to be top of the class]$_j$ is hard [$_{CP}$[Op ~~him to be top of the class~~]$_{1/j}$ to believe [x him to be top of the class]$_{1/j}$].

Second, we find the same absence of reconstruction for Principle C as in relatives and in the proleptic construction (Munn 1994: 403):

(670) [Pictures of **John$_i$**] are hard for **him$_i$** to like __.

This follows if there is Vehicle Change between the *tough*-subject and the operator in Spec, CP of the operator clause as the following simplified LF shows:

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[213] I assume that the Preference Principle applies inside the operator chain. As we will see below, the entire proleptic object must be related to the *tough*-subject since elements in Spec, DP can reconstruct. I assume that there is an empty operator in D that triggers movement inside the complement. As in the proleptic construction, cf. 3.7.3.9, this will imply that there is a certain mismatch between the D-element of the *tough*-subject and the operator that heads the operator phrase.

Furthermore, I make the same assumptions about deletion. This means for the case at hand that the *tough*-subject is deleted because it contains a bound variable that is not licensed in that position.

(671) [Pictures of **John**$_i$]$_j$ are hard for **him**$_i$ [$_{CP}$ [Op ~~pictures of **him**$_i$~~]$_{1/j}$ to like [x pictures of **him**$_i$]$_{1/j}$.

Munn argues that we do find reconstruction for Principle C once reconstruction is forced for other reasons such as idiom interpretation. He gives the following example:

(672) *[Pictures of **John**$_i$] are hard for **him**$_i$ to take __.

However, this does not show anything because we are dealing with an semi-idiomatic expression that contains an implicit PRO inside the picture NP, cf. (59)ff. As a consequence, there will be a PRO inside the *tough*-subject that already triggers a Principle C violation. Furthermore, even though Vehicle Change can turn the R-expression into a pronoun, we will still get a Principle B violation inside the infinitival clause:

(673) *[~~**PRO**$_i$ Pictures of **John**$_i$~~]$_j$ are hard for him$_i$ [$_{CP}$[Op ~~**PRO**$_i$ Pictures of **him**$_i$~~]$_{1/j}$ to take [x **PRO**$_i$ Pictures of **him**$_i$]$_{1/j}$].

The sentence is ungrammatical for the same reason the following base sentence is:

(674) *It is tough for him$_i$ to take [**PRO**$_i$ pictures of **him**$_i$].

One can even show that Munn is wrong. The following example involves reconstruction for variable binding into the operator clause. Still, there is no Principle C effect according to my informants:

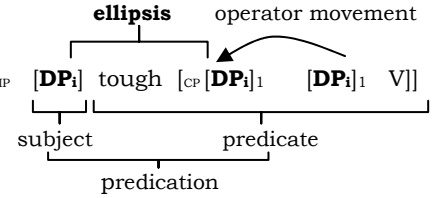
(675) [Letters by **John**$_i$ to *her*$_j$] are difficult for **him**$_i$ to believe that *any woman*$_j$ would like __.

The LF must therefore look as follows:

(676) [Letters by **John**$_i$ to *her*$_j$]$_k$ are difficult for **him**$_i$ [$_{CP}$ [Op ~~Letters by **him**$_i$ to *her*$_j$~~]$_{1/k}$ to believe that *any woman*$_j$ would like [x Letters by **him**$_i$ to *her*$_j$]$_{1/k}$.

Tough-movement is therefore similar to German relatives and the proleptic construction in that the Principle C pattern does not change if reconstruction is forced. This is an important result because otherwise, the ellipsis approach would be insufficient. The following figure illustrates the entire derivation:

(677)



Importantly, as in resumptive prolepsis (cf. 3.7.3.10), ellipsis must involve a full DP. As the following example shows, possessors are reconstructed as well (adapted from Den Dikken & Mulder 1992: 308)

(678) [**His**$_i$ car] is tough for me to believe that **any German**$_i$ would be willing to part with __.

3.7.5.5 Interpretive aspects

The parallels between the proleptic construction and *tough*-movement (and Copy Raising, cf. Rezac 2004) extend to interpretive aspects: First, *tough*-subjects have to be individual-denoting. Non-individual-denoting phrases such as predicates or amounts are impossible:[214, 215]

(679) a) *[**An asshole**] is difficult for John to be __.

b) *[**Two pounds**] are difficult for John to lose __.

Second, indefinite *tough* subjects cannot get an existential reading, rather, they have to be generic (or specific), cf. Lasnik & Fiengo (1974: 546):

(680) a) [**Beavers/a beaver**] is hard to kill __.

b) *[**A bunch of bananas**] was a pleasure to eat __; there are their skins.[216]

Third, *tough*-subjects cannot scope under the *tough*-movement trigger (i.e. the adjective) or a scopal element in the operator clause (cf. also Epstein 1989):

(681) a) [**Few** girls] would be **difficult** for Jim to talk to __. few > difficult; *difficult > few
(Postal 1974: 224)

b) [**Many** patients] are difficult to introduce __ to **each doctor**.
many > each; *each > every
(Rezac 2004, after Cinque 1990: 194, n39)

I submit that these properties follow from the notion *specific chain*. The quantificational properties of the proleptic object are not reconstructed so that non-individual-denoting subjects and scope reconstruction in general are ruled out.[217, 218]

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[214] Since many non-individual-denoting constituents are not nominal, they will be out for independent reasons as the subject position only tolerates DPs. But amounts, and perhaps also certain predicates are syntactically DPs. CPs are possible subjects and are therefore found in *tough*-movement as shown in (668). I will assume that they are individual-denoting.

[215] Levine (2001: 151, ex. 12–14) claims that one does get cases with non-individual-denoting *tough*-subjects. However, I have not been able to find speakers that agree with his judgment. At first sight, at least his 13a and 14 are completely incomprehensible and do not improve even after careful reassessment.

[216] Reconstruction of idiom chunks seems to be possible to some extent, even though the picture is badly understood, cf. Rezac (2004: 190, ex. 236; 2004b: 4, ex. 6).

[217] The last argument probably only goes through if the operator movement goes across the adjective as in den Dikken & Mulder (1992). Otherwise, it will be interpreted in the c-command domain of the adjective so that at least the scope with respect to the adjective in (681)a would be predicted to be the reverse. The problem would then be essentially the same as in the proleptic construction as discussed in footnote 200.

[218] Admittedly, the specificity of the chain is not independently motivated in *tough*-movement. There is neither a weak island nor a resumptive pronoun that would trigger a specific chain.

Summing up, except for the phonetic overtness of the trace of operator movement, *tough*-movement and the proleptic construction converge on a striking number of properties. Extending the Matching Analysis together with the notion 'specific' chain to *tough*-movement accounts for a number of hitherto ill-understood properties of the construction.

3.8 Resumption

3.8.1 Introduction

One of the most obvious differences between *tough*-movement and the proleptic construction is the fact that there is no gap in the latter, but instead a resumptive pronoun or some other resumptive element.[219] This asymmetry becomes even more problematic given the fact that regular A'-movement in German always leaves a gap as shown in 3.4.4:

(682) a) [Welchen Jungen]$_1$ hast du **(*ihn)**$_1$ gesehen?
which boy have you him seen
'Which boy did you see?'

b) [Welchen Jungen] hast du gesagt, dass du **(*ihn)**$_1$ gesehen hast?
which boy have you said that you him seen have
'Which boy did you say that you saw?'

Once such sentences are transformed into the proleptic construction, a resumptive pronoun is required:

(683) [Von welchem Jungen] hast du gesagt, dass du ***(ihn)** gesehen hast?
of which boy have you said that you him seen have
'Which boy did you say that you saw?'

This raises serious questions about the movement approach advocated here. If A'-movement normally leaves a gap, why does it not in the proleptic construction? Does this not suggest that we are *not* dealing with a movement dependency in the complement clause?

3.8.1.1 The argument for movement

The argument for movement has largely been based on the reconstruction facts described in this chapter. Given that I have been assuming that reconstruction is modeled in terms of the Copy Theory, a representation of the proleptic object inside the complement clause is necessary. However, a direct movement relationship between the proleptic object and the reconstruction site was shown

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[219] I will henceforth refer to the coreferring element as a resumptive pronoun. The term is used in different and sometimes incompatible senses in the literature. I will use it as a purely descriptive term which refers to a pronoun that is bound by an antecedent in an A'-position. I do not mean to imply a particular implementation of resumption with this term, e.g. whether this involves a base-generated dependency or a movement dependency or if this pronoun is a real pronoun or just the phonetic realization of a copy. These are questions of implementation which will be addressed in 3.8.3 and 3.8.4.

to be impossible (cf. 3.4.1–3.4.2). I therefore proposed a Matching Analysis where the proleptic object is related to the operator in the complement clause via ellipsis. This makes a representation of the proleptic object inside the complement clause available while still being compatible with the opacity of the complement CP. In other words, the proleptic object is indirectly related to its reconstruction site. Inside the complement there is operator movement, which is a type of A'-movement, and which is expected to behave like regular A'-chains. This expectation is met with respect to reconstruction effects, which are very similar to those in relativization. However, as (682) and (683) show, there is a major difference with respect to the phonetic properties of the extraction site: While the lower copy in regular A'-movement is phonetically deleted, one finds a resumptive element in the proleptic construction.

3.8.1.2 Does resumption imply base-generation?

It is clear that we are dealing with an A'-dependency whose properties are quite exceptional within German. A large part of the (mostly earlier) literature indeed assumes that whenever we find a resumptive pronoun, we are not dealing with a movement dependency, cf. Chao & Sells (1983), Sells (1984/1987), McCloskey (1990), Shlonsky (1992), Suñer (1998), Rouveret (2002), and Adger & Ramchand (2005).

Further support for this position comes from the fact that the proleptic construction is completely insensitive to locality constraints: As pointed out in 3.4.3, the coreferring element can be embedded inside strong and weak islands. I repeat one relevant example:

(684) der [Mann], von dem ich denke, dass Marie
the man of who I think that Mary
< jedes Buch liest, das er schreibt>
every book reads which he writes
lit.: 'the man who I think Mary reads every book that he writes'

It was also shown in 3.4.3 that other kinds of A´-dependencies in German and Dutch do respect these island constraints. Consider the *wh*-equivalent:

(685) *[Welcher Mann]$_1$ denkst du, dass Marie
which man think you that Mary
< jedes Buch liest, das __$_1$ schreibt >?
every book reads that writes
lit.: 'Which man do you think that Mary reads every book which writes?'

Once we are dealing with base-generation resumption and island-sensitivity are a logical consequence. However, instead of adopting that conclusion, I would like to

pursue the more interesting option which adheres to movement and links the insensitivity to locality to the presence of a resumptive pronoun.[220]

3.8.1.3 Reconstruction into islands

I therefore follow recent work that has argued that resumptive pronouns are not incompatible with movement, cf. Demirdache (1991), Pesetsky (1998), Aoun et al. (2001), Boeckx (2003), Grohmann (2003), Bianchi (2004). Reconstruction is a central argument in most of these approaches and I would like to make the same point: Since it has proved to be fruitful to correlate reconstruction with movement I will assume that resumptive constructions involve movement if there is reconstruction.

What about the derivation of sentences where the resumptive occurs inside an island as in (684)? Since regular A'-dependencies respect locality constraints, it seems that movement is not involved in these cases. However, I would like to argue for a different perspective (to be discussed in more detail below): Island-sensitivity is not a constraint for A'-movement in general, but only for A'-movement types that leave a gap. A'-movement that terminates in a resumptive pronoun is exempt from this constraint. This sounds like a stipulation, but I believe that there is evidence for this position: reconstruction into islands.

Even though this is normally thought to be impossible, reconstruction into islands seems in principle possible in the proleptic construction.[221] In certain cases the tests become a little delicate because the structures quickly become excessively complex. But many speakers I have consulted find reconstruction possible even where the resumptive occurs inside a strong island. I will discuss various island contexts in order of increasing complexity/strength.

There is one relatively easy case that can be discussed first, namely resumptives inside PPs which show reconstruction effects:

(686) a) das [Bild von **sich**$_i$], von dem ich glaube,
the picture of self of which I believe
dass **Peter**$_i$ zufrieden da-mit ist.
that Peter satisfied there-with is
'the picture of himself$_i$ that I think Peter$_i$ is satisfied with'

---

[220] There is a strong crosslinguistically well-established correlation between island-insensitivity and the presence of resumptive pronouns. However, in some languages, resumptives cannot appear inside islands. Cf. Boeckx (2003: 108ff.) for discussion.

[221] Reconstruction into islands is explicitly argued for by Demirdache (1991) and Shlonsky (2004) for Hebrew. Zaenen et al. (1981) provide an exaple from Swedish. Boeckx (2003) does not explicitly deal with reconstruction but assumes that movement out of islands is possible under resumption. Aoun et al. (2001) on the other hand and Choueiri (2002) explicitly point out that there is no reconstruction into islands in Lebanese resumptive constructions.

b) das [Bild von **seiner**$_i$ Mutter], von dem ich glaube,
the picture of his mother of which I believe
dass **jeder Schüler**$_i$ sehr zufrieden da-mit ist.
that every student very satisfied there-with is
'the picture of his$_i$ mother that I think every student$_i$ is very satisfied with'

The following example illustrates reconstruction into a prenominal possessor position:

(687) das [Nacktbild von **seiner**$_i$ Frau], von dem ich glaube,
the nude.picture of his wife of which I believe
dass **kein Mann**$_i$ dessen Urheber kennen lernen will
that no man its originator get.to.know wants
'the nude picture of his$_i$ wife whose originator no man$_i$ wants to get to know'

Even though PPs are islands for A'-extractions that leave a gap, reconstruction is possible with resumption even into a PP inside another PP:

(688) das [Nacktfoto von **seiner**$_i$ Frau], von dem ich glaube, dass
the nude.picture of his wife of which I believe that
kein Politiker$_i$ <mit dem Geschwätz **dar**-über > glücklich sein kann
no politician with the gossip there-about happy be can
lit.: 'the nude picture of his$_i$ wife I think no politician$_i$ can be happy with the gossip about'

Reconstruction into *wh*-islands is unproblematic as well as the following pairs show: It does not make a difference whether the complement is a *that*-clause or a *wh*-clause. Reconstruction is equally acceptable:[222]

(689) a) de [foto van zichzelf$_i$] waarvan ik weet
the picture of self whereof I know
waarom Piet$_i$ er zo trots op is
why Peter there so proud on is
'the picture of himself$_i$ that I know why Peter$_i$ is so proud of'

b) de [foto van zichzelf$_i$] waarvan ik weet *dat* Piet$_i$ er zo trots op is
the picture of self whereof I know that Peter there so proud on is
'the picture of himself$_i$ that I know that Peter$_i$ is so proud of' NL

(690) a) de [periode van z'n$_i$ leven] waarvan ik weet *waarom* niemand$_i$ er
the period of his life whereof I know why no.one there
graag aan terugdenkt
likes.to at remember
'the period of his$_i$ life that I know why no one$_i$ likes to remember'

---

[222] Notice that this shows that C must indeed have a second specifier position, cf. the discussion in 3.7.2.2.

b) de [periode van z'n$_i$ leven] waarvan ik weet *dat* niemand$_i$ er
the period of his life whereof I know that no.one there
graag aan terugdenkt
likes.to at remember
'the period of his$_i$ life that I know that no one$_i$ likes to remember' NL

Strong islands are next. Though acknowledging the danger of the complexity of these examples, reconstruction seems to be possible. The first pair illustrates reconstruction for Principle A into an adjunct island (691)a and a relative clause (691)b:

(691) a) ?das [Buch über **sich$_i$**], von dem ich glaube, dass du dich freuen
the book about self of which I think that you self be.happy
würdest, <wenn **Peter$_i$** es veröffentlichen würde >.
would if Peter it publish would
lit.: 'the book about himself$_i$ that I think you would be happy if Peter$_i$ sold it'

b) ?Das ist das [Buch von **sich$_i$**], von dem ich denke,
this is the book of self of which I think
dass <die Art, wie **Peter$_i$** es vermarktet >, widerlich ist.
that the way how Peter it promotes disgusting is
lit.: 'This is the book about himself$_i$ that I think that the way John$_i$ promotes it is disgusting.'

The next pair shows reconstruction for variable binding, again both into an adjunct island and a relative clause:

(692) a) [Die Periode **seines$_i$ Lebens**], von der ich denke,
the period his.GEN life of which I think
dass man ganz froh ist, <wenn beim Stammtisch
that one quite glad is if at.the piss-up
keiner$_i$ darüber redet >, ist die Pubertät.
no.one there.about talks is the puberty
lit.: 'The period of his$_i$ live that I think one is quite relieved if no one$_i$ talks about it at a piss-up is puberty.'

b) ?Die [Periode **seines$_i$ Lebens**], von der ich denke, dass
the periode his.GEN life of which I think that
< die Erfahrungen, die **jeder Junge$_i$** dabei macht >,
the experiences that every boy there.at makes
ganz unterschiedlich sind, ist die Pubertät.
very different are is the puberty
Lit.: 'The periode of his$_i$ life that I think that the experiences every boy$_i$ makes with it are very different is puberty.'

One can even find evidence for successive-cyclicity: There is reconstruction for Principle A into intermediate positions (for those speakers who accept intermediate binding, cf. 2.2.10:

(693) a) das [Bild von **sich$_i$**], von dem ich glaube, dass **Peter$_i$** denkt, dass
the picture of self of which I believe that Peter believes that
jeder begeistert davon sein muss
everyone excited there.of be must
'the picture of himself$_i$ that I believe Peter$_i$ thinks everyone must be exited about.

b) das [Buch von **sich$_i$**], von dem ich glaube, dass **Hans$_i$**
the book of self of which I think that Hans
< die Art, wie **Peter$_i$** es vermarktet>, widerlich findet …
the way how Peter it promotes disgusting finds
'the book about himself$_i$ that I think Hans$_i$ finds the way Peter$_i$ promotes it disgusting'

These examples show that extraction from islands proceeds via intermediate positions, just like regular A'-movement.

I conclude from these facts that movement is always involved and that resumption makes movement out of islands possible. Interestingly, the corresponding *wh*-extractions are sharply ungrammatical even if a resumptive pronoun is used:

(694) a) *[Welches Buch über **sich$_i$**]$_1$ glaubst du, dass ich mich freuen
which book about self think you that I me be.happy
würde, < wenn **Peter$_i$** (es)$_1$ veröffentlichen würde >
would if Peter it publish would

b) *[Welches Buch von **sich$_i$**]$_1$ denkst du, dass <die Art,
which book of self think you that the way
wie **Peter$_i$** (es)$_1$ vermarktet>, widerlich ist?
how Peter it promotes disgusting is

This seems to contradict the claim that resumption voids locality constraints. However, I would like to argue that (694) is not ungrammatical due to a violation of the Binding Theory, but rather because resumption is not available in this context. I will come back to this in 3.8.2.1.

Even though I believe that there is strong evidence in favor of movement and even if it can be shown that resumption voids locality, it still needs to be explained why there is resumption in the first place. The following subsections address this question. I will first show that there are independent reasons for the scarcity of resumption in languages like German or Dutch and that the proleptic construction is almost the only context where these independent factors are not at work. I will then briefly discuss a number of proposals from the literature most of which account for the pattern we find in the proleptic construction at least to some extent. I will eventually not be able to fully explain why there is resumption in the proleptic construction but will instead argue that there is resumption because it is simply not ruled out in this particular context.

After discussing the motivation for resumption, I will evaluate possible implementations of resumption in the proleptic construction both with respect to island-insensitivity as well as with respect to the properties of the resumptive itself.

As several aspects of the syntax of resumptive pronouns are still poorly understood, the discussion will be tentative and inconclusive at certain points. Due to speaker variation in one crucial area, reconstruction into intermediate positions, I will conclude that it is eventually necessary to entertain more than one analysis of resumption in the proleptic construction.

3.8.2 Motivating resumption

3.8.2.1 Only one chain link may be overt

The distribution of resumptives in German and Dutch can be narrowed down quite easily by assuming a (reasonable) constraint that prohibits the realization of more than one chain link.[223, 224] This will correctly rule out resumption with *wh*-movement (682), topicalization, relativization and free relatives because those constructions all involve overt operators. Support for this position comes from the fact that some varieties of German that do not have phrasal relative operators *do* allow (in fact sometimes require) resumptive pronouns as shown in the following example from Zurich German (which will be the topic of chapter 4):

(695) de [Maa], won i ***(em)** es Buech ggëë han
the man that I he.DAT a book given have
'the man who I gave a book'

---

[223] Even though I speak of phonetic realization here, this does not imply that I adopt a spell-out approach to resumption. The same is in principle possible to state with a Big-DP approach even though not as directly. I will come back to the issue in 3.8.4.4 below.

[224] The constraint I have postulated here reflects a general crosslinguistic tendency: Resumption is found most frequently in A'-chains without an overt phrasal operator (cf. Boeckx 2003, Merchant 2004 etc.). It is most common in relatives that have a relative complementizer instead of relative pronouns. It is much rarer with *wh*-movement. In many of the languages where resumption is possible with *wh*-operators, we are actually dealing with a cleft structure, e.g. Irish (McCloskey 1990) or Palauan (Georgopulos 1991). Some Slavic languages (see Szczegielniak 2004 for Polish) have both a gap and a resumptive strategy in relativization where the gap co-occurs with a relative pronoun and the resumptive with a relative complementizer.

It is disputed, however, how this tendency should be captured. Some (e.g. Sharvit 1999) relate this to the semantics of the resumptive: A definite pronoun requires a referential antecedent. This is normally the case in relatives (not in amount relatives, cf. Bianchi 2004) but often not in *wh*-movement, at least not with non-D-linked operators. The Hebrew resumption pattern mirrors exactly this difference: resumptives are possible with D-linked *wh*-operators but not with non-D-linked ones. The same is found in languages like Romanian or Albanian where only D-linked *wh*-phrases can be doubled by a clitic (cf. Boeckx 2003: 30, 36). Further support for this position comes from the fact that left-dislocated elements resumed by a pronoun or a clitic are referential as well, cf. Cinque (1990). For other languages like German and Dutch where even D-linked *wh*- and relative operators are incompatible with resumption (cf. also Boeckx 2003: 157ff.), a more formal constraint is needed, arguably along the lines of the one proposed in the text. See Merchant (2004) for a related proposal.

Assuming a Matching Analysis, the relative clause internal representation of the external head will undergo movement to Spec, CP where it is deleted. Since there also is no overt operator, a resumptive pronoun is therefore no longer ruled out.

Since most types of A'-movement in Standard German and Dutch involve overt operators, resumption will necessarily be very limited in these languages. The only types of A'-movement in Standard German without an overt operator are comparatives and the proleptic construction.[225] In both cases, the operator is not overt (i.e. it is silent). Consequently, these are the only candidates for resumption.

As a consequence of this, the locality-voiding property of resumptives will also be limited to comparatives and the proleptic construction. Since a resumptive is not possible with *wh*-movement, locality violations cannot be avoided in (694).

3.8.2.2 Realizing oblique case

Bayer (2002: 15) was the first one to point out that resumptives are not completely absent in Standard German. There is a strong general requirement to realize oblique case overtly (Bayer et al. 2001, see also 4.8.3.2). In A'-movement this is easily met with an overt phrasal antecedent. However, if the operator is empty or deleted the requirement can only be satisfied by means of a resumptive. This is exactly what happens in comparatives. The following pair shows the contrast between a structural argument and an oblique one. The A'-chain assigned a structural case can remain without overt expression whereas one that is assigned dative requires a resumptive:

(696) a) [Mehr Patienten] sind gekommen als [$_{NOM}$ __]
more patients are come than
behandelt werden konnten.
treated become could
'More patients showed up than could be treated.'

b) Es kamen [mehr Patienten] als
there came more patients than
der Arzt [$_{DAT}$ ***(ihnen)**] Medikamente geben konnte.
the doctor they.DAT medicine give could
'More patients showed up than the doctor could give medicine to.'

I assume that comparatives involve a derivation very similar to the Matching Analysis: There is A'-movement of the compared constituent to an operator position where it is deleted under identity with an external constituent of the same form; cf. Kennedy (2002) for a recent implementation along these lines. Since the operator is deleted, the A'-chain has no phonetic realization. This has no consequences for structural cases, since they do not require overt realization.

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[225] I do not discuss Parasitic Gaps because their status is highly contested in German. It is perhaps a completely different phenomenon, cf. Kathol (2001). The same may apply to Dutch, cf. Bennis & Hoekstra (1985), Huybregts & van Riemsdijk (1985).

But in the case of the dative, which is an oblique case, the derivation fails unless the trace of operator movement is realized.[226]

This requirement is insufficient to account for the distribution of resumptives in the proleptic construction. While it covers oblique objects and (presumably) complements of prepositions, it fails to account for resumptives for structural arguments as in the following example:

(697) der [Mann], von dem ich glaube, dass Maria **ihn** heiratet
the man of who I believe that Mary him marries
'the man who I believe Mary will marry'

Since resumptives are found across the board in the proleptic construction, the requirement must be more general.

3.8.2.3 Resumptives to alleviate locality violations

I have mentioned several times that the resumptives in the proleptic construction can occur inside islands. I repeat one example for convenience:

(698) der [Mann], von dem ich denke, dass Marie
the man of who I think that Mary
< jedes Buch liest, das er schreibt>
every book reads which he writes
lit.: 'the man who I think Mary reads every book that he writes'

One crosslinguistically frequent function of resumptives is to repair locality violations. They occur instead of gaps when extraction takes place from an island. Resumptives with this function are often referred to "intrusive pronouns", cf. Chao & Sells (1983). English is often described as a language that only has intrusive pronouns, cf. Kroch (1981), Chao & Sells (1983) because resumptives do not occur outside islands (unless deep embedding causes parsing difficulties, cf. Erteshik-Shir 1992).

In similar vein, Aoun et al. (2001) make a distinction between resumptives that occur in transparent configurations, so-called "apparent resumptives", and those that occur inside islands, referred to as "true resumptives". Sentences with apparent resumptives involve movement while those with true resumptives contain a base-generated A'-dependency.

Could the same be claimed for resumptives like those in (698)? I think not. Analyzing resumptives inside islands as intrusive pronouns or true resumptives is undesirable: While intrusive pronouns often have a repair flavor and are hardly ever judged fully grammatical by native speakers,[227] this is certainly not the case for the resumptives in the proleptic construction. Sentences like (698) are impeccable and free of any repair flavor. Furthermore, as shown in 3.8.1.3 above,

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[226] Resumptives inside islands with comparatives are discussed in 3.8.3.4.

[227] This is not the case for Aoun et al's (2001) true resumptives. They are not modeled as a form of repair but as a less economical version of resumption that only applies if movement is ruled out.

reconstruction is possible even if the resumptive is inside an island. It seems therefore wrong to make a distinction between resumptives inside islands and those outside islands. They behave the same in the proleptic construction, sound equally natural and should therefore be given the same analysis.

3.8.2.4 Specific chains require phonetic realization

Another option would be to assume that specific chains require phonetic realization. This is pretty much what Bianchi (2004) proposes. She discusses resumptive relatives in Italian dialects and several other languages and shows that resumptives are only found in specific chains but not e.g. in amount relatives. As mentioned already in 3.7.4.4 and footnote 224, there is indeed a very strong crosslinguistic tendency for resumptives to occur only with specific chains so that this seems a reasonable assumption.[228]

While such a constraint would give us the right result for the proleptic construction, we would be dealing with a constraint that in fact only applies to one construction: Resumptives are ruled out for independent reasons in most A'-dependencies (cf. 3.8.2.1). Since comparatives certainly do not involve specific chains, the resumptives that are found there must occur for purely formal reasons as argued in 3.8.2.2. We are therefore left with the proleptic construction. It would effectively be the only construction where the principle could apply. In the absence of independent evidence, this amounts to a restatement of the problem. Furthermore, it begs the question of why this does not apply to *tough*-movement in English, which was argued to involve a specific chain but does not allow resumptives.[229, 230]

3.8.2.5 Boeckx (2003): too many strong occurrences

Boeckx (2003) is one of the very few approaches that actually tries to predict under which circumstances resumptive pronouns occur. At the heart of Boeckx' system lies a general constraint on Chains:

(699) *Principle of Unambiguous Chains* (Boeckx 2003:13):
a Chain may contain at most one Strong Occurrence
(a position where a strong/EPP feature is checked)

Chains with more than one Strong Occurrence are frequent. They obtain for instance when a *wh*-object also undergoes movement for case checking. The kind of Case checking Boeckx has in mind is best understood as encompassing all short A-movements, including scrambling. According to Boeckx such chains

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[228] In the Italian dialects Bianchi discusses and several other languages, resumptives are often optional in structural positions; therefore, resumption is merely a possibility, a possibility restricted to specific chains. The situation in the proleptic construction is different in this regard.

[229] The constraint also runs into difficulties when applied to Zurich German (see next chapter): In non-restrictive relatives, which arguably involve specific chains (cf. Postal 1998, Bianchi 2004), there are no resumptives for structural arguments.

[230] Furthermore, if we adopt this requirement, we have no motivation for the specific chain anymore since the presence of a resumptive was taken to be a potentially crucial factor for the semantic restrictions in 3.7.4.4.

must be disambiguated in order to comply with (699). There are two strategies of disambiguation: The first consists in establishing an Agree relation between Strong Occurrences, the second in resumption, which is modeled as a Big-DP.

As for the Agree relation between Strong Occurrences (cf. Boeckx 2003:76), the concept is not fully made clear; it is certainly of a very abstract type. Not all C-probes can establish such an Agree relation. There are agreeing and non-agreeing ones, the former largely corresponding to phrasal operators, the latter to head-like/zero operators.

The second disambiguation strategy is more straightforward: By forming a Big-DP and extracting the operator-phrase from its specifier, no ambiguous chain obtains: Case is checked by the whole Big-DP whereas the operator feature is checked by the operator phrase that is base-generated in the Spec of the Big-DP and moves to the operator position:

(700) $[_{CP}$ **DP$_{op}$** C$_{op}$ V $[_{DP:Case}$ **__$_{op}$** [D' D$_{case}$]]]

There are two chains altogether, one trivial chain consisting only of the Big-DP, and a non-trivial chain consisting of the copy inside the Big-DP and the copy in the operator position. Both chains satisfy (699) because they have only one Strong Occurrence each.

Applied to the proleptic construction, there is at least one Strong Occurrence, namely the operator feature on the C head of the complement clause. But is there another Strong Occurrence? There is probably no movement for Case checking in German, but arguments with the semantic properties of the proleptic object normally undergo scrambling so that there is a second Strong Occurrence.[231] Whether there is a Case checking position in Dutch is controversial, cf. e.g. Vanden Wyngaerd (1989) vs. Neeleman & Weerman (1999), but there is scrambling so that there is also a second Strong Occurrence.

As a consequence, there are too many Strong Occurrences, so that the chain has to be disambiguated. The first option, an Agree relationship between the Strong Occurrences, is instantiated in normal D-linked *wh*-questions: Since the *wh*-operator would arguably count as an agreeing complementizer, it could establish an agreement relationship with the other Strong Occurrence. In the proleptic construction, however, this option would probably not be available because the operator is not overt/not phrasal. Boeckx (2003) tends to categorize these types as non-agreeing complementizers. Consequently, The Big-DP strategy has to be applied: The Big-DP checks whatever feature triggers scrambling whereas the operator inside the Big-DP moves to Spec, CP to check the operator feature.

Boeckx' approach therefore makes the right predictions for German: resumption is not found with *wh*-movement, relativization and topicalization because they all (presumably) involve agreeing complementizers. The only instances of non-agreeing complementizers would be the one in the proleptic construction and arguably also the one in comparatives where it is deleted under identity with the

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[231] Importantly, something similar also holds for subjects: Only if they are referential/specific do they move out of the vP. That position will consequently count as a Strong Occurrence.

external compared constituent, cf. 3.8.2.2. In comparatives, however, a non-referential phrase is moved, a degree expression. Non-referential phrases normally do not undergo scrambling in German so that there is no second Strong Occurrence in comparatives. We therefore do not expect resumptives, contrary to fact: As shown in 3.8.2.2, resumptives are possible in comparatives for oblique arguments, but not for structural arguments. But since Boeckx (2003: 79ff.) assumes that inherent/oblique case always constitutes a Strong Occurrence, he would also predict resumptives in this case so that the entire resumption pattern in German is accounted for.

Even though the distribution of resumptives in German can be described quite reasonably with Boeckx' system I refrain from fully endorsing it: Many aspects of the theory do not seem to be independently motivated such as the limitation of one Strong Occurrence per chain and the agreement relationship between Strong Occurrences. The distinction between agreeing and non-agreeing complementizers becomes quite arbitrary once one looks at languages other than Irish. What counts as an agreeing complementizer in Boeckx' system will often depend on whether there is resumption, but independent evidence is usually lacking. Most parts of the theory are tailored around the facts so that in the end, it does derive the right generalizations, but at the expense of incorporating principles that are not used anywhere else in the grammar. I will come back to Boeckx' theory in 3.8.3.3 below when discussing his account of the movement and locality properties of resumptive chains.

3.8.2.6 Resumptive chains are simply an option

With the exception of Boeckx' system, predicting the distribution of resumptives in German is quite difficult. I would therefore like to propose a different perspective on it: There is a resumptive strategy because nothing rules it out. This may seem somewhat ad hoc, but in my view it is the most honest position and it may provide a fresh look at hitherto unnoticed constructions. Resumption might therefore be more wide-spread than assumed so far.

Once it is accepted that a language like German can make use of resumption, one may find further cases where movement is disguised by resumption. An obvious case is Copy Raising: A recent approach by Fuji (2005) treats English Copy-Raising in terms of movement. He strongly relies on reconstruction effects to make his point:[232]

(701) a) [Stories about **each other**$_i$] seem like *they* have frightened **John and Mary**$_i$ __.

b) [Pictures of **his**$_i$ mother] seem as if *they* will make **every boy**$_i$ __ aggravated.

While he assumes that there is direct movement from the finite complement clause into the (non-thematic) matrix subject position, I would rather propose the

[232] He assumes that only subjects can raise. To test reconstruction, he therefore uses unaccusative psych-verbs whose subject originates below the experiencer. This is the reconstruction site indicated by the underline.

same operator movement plus ellipsis analysis as for the proleptic construction (see chapter 2 of Rooryck 2000 for an earlier proposal based on operator movement). It can be shown that Copy Raising shares some of the core properties of the proleptic construction. First, there is no reconstruction for scope (Potsdam & Runner 2001) and Principle C:

(702) a) [**Two** women] **seem** like <u>they</u> have won the lottery. 2 > seem; *seem > 2

b) [This picture of **John$_i$**] seems like <u>it</u> pleases **him$_i$** __.

Second, the *like/as if*-clause is a barrier for extraction (see also Rooryck 2000, chapter 2, ex. 43b):

(703) *Who$_1$ does [this picture] seem like <u>it</u> pleases __$_1$?

Third, related to the absence of scope reconstruction, the subject must be individual-denoting and cannot be an existential indefinite (Rezac 2004: ex. 40a):

(704) a) *[**Two kilos**] seem like <u>they</u> are enough.
(unless interpreted referentially)

b) [**Snow**] sounds/seems like <u>it</u> is falling on the mountain. (only generic)

Fourth, a coreferring pronoun is obligatory:

(705) *[**The Dutch**] seem like football is the most important thing on earth.

The parallelism clearly asks for a unified treatment. German and Dutch Copy Raising has the same properties. First is reconstruction: There is reconstruction for anaphor binding and variable binding but not for Principle C and scope:[233]

(706) a) [Dieses Foto von **sich$_i$**] sieht aus,
this picture of self looks
als ob **Peter$_i$** <u>es</u> schon lange auf sich trägt.
like Peter it already long on self carries
'This picture of himself$_i$ looks like Peter$_i$ has been carrying it on him for quite some time.'

b) [**Seine$_i$** eigenen Worte] klingen immer so,
his own words sound always thus
als ob <u>sie</u> **jedem** **Politiker$_i$** __ gefallen.
as if they every.DAT politician please
'His own words always sound like they please every politician.'

c) [Dieses Foto von **Peter$_i$**] sieht aus, als ob <u>es</u> **ihm$_i$** __ gefällt.
this picture of Peter looks as if it he.DAT pleases
'This picture of Peter$_i$ seems like it pleases him$_i$.

d) [**Zwei** Frauen] **sehen aus**, als ob <u>sie</u> gewonnen haben. 2 > look;
two women look as if they won have *look > 2
'Two women look like they have won.'

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[233] For reasons that are unclear to me, some speakers cannot get reconstruction at all in the German Copy-Raising construction.

Extraction is impossible:

(707) *[**Welches Buch**]$_1$ sieht [Peter] aus, als ob er __$_1$ mag?
which book looks Peter PRT as if he likes
lit.: 'Which book does Peter seem as if he likes?'

Third, the subject has to be individual-denoting (regardless of the proform) and cannot be a non-specific indefinite:

(708) a) *[**Zwei Kilos**] scheinen als ob sie/das genug sind/ist.
two kilos seem as if they/that enough are/is
lit.: 'Two Kilos seems as if they/that are/is enough.'

b) [**Eine Kuh**] sieht *(immer) aus, als ob sie einen vollen Bauch hat.
a cow looks always as if she a full stomach has
'A cow always looks like she has a full stomach.' (generic only)

Finally, a coreferring pronoun is obligatory:

(709) *[Die Holländer] tönen, als ob Fußball das Wichtigste im Leben wäre.
the Dutch sound as if football the most.important in live was
lit.: 'The Dutch seem as if football is the most important thing in life.'

It is in principle possible to come up with an elaborate theory to explain why there is phonetic realization of the trace in the copy-raising construction (see Fuji 2005), but given that it patterns in crucial respects with resumptive constructions in general (especially concerning the absence of scope reconstruction), it seems more promising to simply subsume it under the latter.[234]

There is another construction in English that could be subsumed under the resumption structure, even though it is usually analyzed in terms of base-generation: *such that*-relatives (Pullum 1985, Heim & Kratzer 1998: 107ff.):

(710) the [**book**] such that John bought **it**

As in resumptive prolepsis they are insensitive to locality constraints. In the following example, the coreferring pronoun is located inside a CNPC island (Heim & Kratzer 1998: 108):

(711) the [**man**] such that Mary reviewed < the book **he** wrote >

While nobody has ever tested this, it seems quite easy to get reconstruction effects for Principle A and variable binding in *such that*-relatives:

(712) a) the [book about **himself$_i$**] such that **John$_i$** likes it

b) the [picture of **his$_i$** mother] such that **every boy$_i$** likes it

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[234] Another similarity concerns the types of resuming elements. Different types of pronouns and epithets are possible as well with Copy-Raising:

i) [Hans] sieht aus, als ob der arme Kerl wieder nicht geschlafen hat.
John looks as if the poor bastard again not slept has
'John looks like the poor bastard again hasn't slept.'

Interestingly, scope reconstruction is impossible. The external head always has wide-scope:

(713) a) the [**two** books] such that **every student** read <u>them</u> (2 > every; *every > 2)

b) the [**wine**] such that we drank <u>it</u> yesterday (✓referential, * amount)

A coreferring element is obligatory (Pullum 1985: 291):[235]

(714) *the [**man**] such that I saw Mary

The parallelism with other resumptive structures is striking and makes it appear less exotic that there should be resumptive structures in languages where this is normally taken to be impossible. I will simply conclude from this that the resumptive strategy is a possibility, and that it is more widespread in familiar languages than was previously thought.

Notice that nobody ever asks why there should be a resumptive strategy in e.g. Hebrew. It is simply taken for granted that resumption is an option and Hebrew uses it. Languages hardly use resumptives in all types of A'-movement. As mentioned in footnote 224, many languages disallow resumptives with (non-D-linked) *wh*-movement so that there is often going to be a mix between structures leaving a gap and those leaving a resumptive. This is not much different from the position I have taken here: Resumption is an option for German, but for independent reasons it is very limited.

From this perspective, a resumption analysis of the proleptic construction seems quite straightforward. In the next subsection, I will discuss possible ways of accounting for island-insensitivity.[236]

3.8.3 Implementing movement effects

3.8.3.1 Base-generation

As mentioned in the introduction, much of the earlier literature on resumption assumes that it always involves a base-generated dependency, cf. McCloskey (1990), Shlonsky (1992), Suñer (1998), Rouveret (2002), and Adger & Ramchand (2005). The first three deal with Irish, Hebrew and Spanish, where resumptives are not sensitive to islands. The argument for base-generation rests solely on this fact. Reconstruction is not tested but apparently taken to be unavailable. Possible movement effects such as SCO or WCO effects receive a representational account in McCloskey (1990) and Shlonsky (1992). Rouveret (2002) and Adger &

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[235] The issue is contested, see the discussion in Pullum (1985), Higginbotham (1985) and van Riemsdijk (to appear). I will come back to some of these cases later on in 3.8.4.1 and in chapter 4 on ZG in 4.9.3.8.

[236] Needless to say, all this does not explain why there can't be resumptives in English *tough*-movement. Other types of complement object deletion allow the gap to be phonetically realized. See Browning (1987), Cinque (1990), den Dikken & Mulder (1992). It has not been tested to my knowledge whether reconstruction is still possible in that case. But that might shed some new light on the issue. I will leave this for further research.

Ramchand (2004) on the other hand are confronted with a very different problem: In Welsh and Scottish Gaelic, the following paradoxical situation obtains: While resumptives are sensitive to strong islands, there is otherwise no unequivocal evidence for movement (no reconstruction for binding, idioms and [sometimes] scope). These paradoxical properties are captured by the assumption that the A'-dependencies are established via Agree, which is sensitive to locality constraints, but that there is no subsequent overt movement.

Since these approaches are geared towards resumptive constructions with partly very different properties the arguments mostly do not hold for the proleptic construction where we have found straightforward reconstruction effects, even into islands.

Clearly, if a base-generation approach is to be successful one has to find a way of modeling reconstruction without movement, i.e. via semantic reconstruction. A very simplified version would handle reconstruction via the chain between a base-generated operator and a coindexed resumptive pronoun. Material contained in the operator could then be interpreted in the position of the resumptive, cf. e.g. Barss (1986). This would work relatively well for the proleptic construction; nothing much would change except that the operator in Spec, CP is base-generated. A base-generated operator is sufficient to explain the licensing of the proleptic object and the opacity. Importantly, the ellipsis operation would have to be retained to be able to deal with the Condition C pattern. The operator would therefore have to be a full copy of the proleptic object. The notion of specific chain can also be incorporated. With these assumptions, most of the properties of the proleptic construction can be captured.

There is one case that semantic reconstruction cannot capture, reconstruction into intermediate positions: The content of the base-generated operator is only available in the position of the resumptive but for intermediate binding it will be too far away. The data discussed in (693) above therefore represent a problem. However, this holds only for speakers who accept intermediate anaphor binding. As pointed out in (cf. 2.2.10), many speakers reject intermediate binding. For those, base-generation with reconstruction would still work. More aspects of a base-generation approach will be discussed in 3.8.4.2 below.[237]

3.8.3.2 Demirdache (1991): LF-movement

Demirdache (1991) is the first approach to resumption that assumes that movement is involved, in fact LF-movement in the traditional sense: She reanalyzes resumptives as operators in-situ that undergo covert movement.

At first sight, this is a very attractive approach because it reconciles movement effects with insensitivity to islands: There is movement involved so that reconstruction is possible. And since LF-movement is traditionally thought to be subject to weaker locality constraints than overt movement, it is not so surprising that the resumptive can occur inside islands.

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[237] See Boeckx (2003: 21ff.) for general criticism of base-generation analyses of resumptive structures.

However, both aspects are problematic: The idea that LF-movement can void any kind of locality constraint is not so innocuous. It also depends on what kind of LF-movement one has in mind. Traditionally, LF-movement was thought to be exempt from Subjacency (Huang 1982). But since resumptive pronouns are easily found inside adjunct islands, LF-movement would also have to void CED and ECP violations in the proleptic construction. This, however, is thought to be impossible for *wh*-in-situ in a number of languages (Aoun & Li 1993). Once one looks at *wh*-in-situ in languages like English or German, it has become less clear whether there is LF-movement at all (Reinhard 1998) with *wh*-in-situ so that it is hard to tell to what extent it is sensitive to locality constraints. If one follows Dayal (2002/2003), only pair-list readings will count as evidence for LF-movement of a *wh*-in-situ; according to her, such readings are subject to much stricter locality requirements than previously thought and have to obey most of the traditional locality constraints for overt movements. That type of LF-movement, if it exists at all, would then not be of the required type. So while the LF-movement idea is in principle attractive, it is quite unclear whether it has any solid empirical basis in general.

Reconstruction into intermediate positions, cf. (693), is another potential problem for the LF-movement approach. It is not clear whether LF-movement proceeds successive-cyclically. It is sometimes assumed that movement takes place in one fell swoop. For speakers who do not allow intermediate binding, this will be less of a problem.

While the previous counterarguments were empirical, there are also technical problems. First, it is probably no longer possible to handle reconstruction by means of the Copy Theory since all there is in the theta-position is a pronoun/an operator. The only option I can think of would consist in generating the pronoun together with a silent NP-complement that contains a copy of the proleptic object, in principle as in a Big-DP analysis, cf. 3.8.4.4 below. This is technically feasible even though somewhat unorthodox. The second problem is more severe: If operator movement takes place at LF, it will occur too late to license the proleptic object, which is already present before spell-out. Furthermore, LF-movement is also too late to turn the complement CP into an island for extraction that takes place before spell-out, cf. 3.4.1.5.

I conclude that Demirdache's approach is not only insufficient to deal with reconstruction and island-insensitivity in resumption in general, it also fails to account for a number of central properties of the proleptic construction. I will come back to Demirdache's approach in 3.8.4.3 below.

3.8.3.3 Boeckx (2003): Move without Agree

Boeckx (2003: 97ff.) develops a theory of locality that is based on the assumption that movement is in principle unbounded and there is nothing inherently wrong about extracting from an island. However, the Agree operation that normally takes place between a Probe and a Goal is sensitive to locality. This is because Agree involves phi-features (Boeckx 2003: 100ff.): it probes for a constituent with matching phi-features. Adjuncts, however, have inert phi-features (they never

agree with a verb or a noun, for instance) and block Agree. Weak islands also block Agree due to the Minimal Link Condition (Chomsky 1995). Locality constraints can be avoided exactly in those cases where movement is possible without Agree (Boeckx 2003: 109ff.). This is a departure from the standard assumption according to which movement is always preceded by Agree. Movement without Agree is possible if the phi-features of the operator phrase are not activated. This, Boeckx argues, is possible if some other element checks the phi-features of the operator phrase. Resumption is such a case: the resumptive pronoun heads the Big-DP and checks the case- and phi-features. Importantly, movement under Match is only possible if the C-Probe is of the non-agreeing type. With these assumptions, island-insensitivity is directly linked to the presence of a resumptive pronoun and correlates it with the type of C-probe.

One of the major advantages of Boeckx' system is that it does not make a difference between resumptives inside and outside islands. Both have the same function, namely to disambiguate a chain with too many Strong Occurrences and therefore involve the same derivation; island-insensitivity is just a side-effect; resumption does not occur to save an island violation but to repair an ambiguous chain. This is very desirable for the proleptic construction where reconstruction is available in both cases and both sound equally natural. The theory also correctly predicts that derivations involving agreeing C-probes will be sensitive to islands. Since interrogative and relative pronouns in German would qualify as agreeing, potential ambiguous chains are disambiguated via an agreement relation and not by means of resumption. As a consequence, Agree will be involved in the establishment of the relationship between Probe and Goal so that we correctly predict such A'-chains to be sensitive to locality.

A final aspect concerns reconstruction into intermediate positions, cf. (693). Since Boeckx assumes that movement under Match proceeds no differently than under Agree, effects of successive cyclicity are expected in resumptive structures as well.

Again, as in 3.8.2.5, Boeckx system seems to make the right predictions. However, I think that this is actually illusory for the same reasons discussed above: the theory is again tailored around the facts. The crucial distinction between agreeing and non-agreeing complementizers does not seem to have an independent basis. There is a great danger of circularity: Whenever one encounters a resumptive construction where there is no sensitivity to locality, one will conclude that a non-agreeing complementizer is involved. In other words, the distribution seems to be the only really reliable diagnostic to distinguish the complementizers, but then the theory just restates the facts. Another problem concerns the role of phi-features: It is unclear to me why phi-features should be important when an C-head probes for a matching Goal. A C-head will bear at least one operator feature that has to be matched, but it is not so clear to me whether this should always involve phi-features as well. Phi-agreement of a complementizer with e.g. a subject is not impossible in the languages of the world, especially in Dutch and Flemish dialects, cf. e.g. van Koppen (2005). However, many languages with resumption do not have complementizer agreement so that it seems unlikely that the C-Probe will have phi-features that

need to be checked as well. But once this is no longer necessary, the theory of islands breaks down and the crucial difference between Agree and Match vanishes. It is for these reasons that I do not adopt Boeckx' approach.

3.8.3.4 Why resumption voids islands

Even though I think that there are good reasons to remain skeptical about Boeckx' approach, I would like to propose an account that adopts some if its ingredients: I assume that movement is compatible with resumption. Island-sensitivity is not the prime reason for the occurrence of the resumptive, but rather a side effect. This side effect, I argue, has to do with the fact that certain aspects of locality are checked at PF and that a resumptive pronoun repairs an otherwise illicit chain (to be spelled out below).

The fact that A'-movement is normally sensitive to locality constraints should not be taken as an argument against this proposal. I would rather like to argue that this sensitivity is just a side effect of the scarcity of resumption in German. As pointed out in 3.8.2.1, resumptives are impossible in most types of A'-movement because they involve an overt phrasal operator. There are only two A'-dependencies in Standard German that do not have an overt antecedent, comparatives and the operator movement in the proleptic construction. That resumption voids islands in the proleptic construction has been demonstrated in 3.8.1.3. Of course we expect the same with comparatives.

However, this cannot be tested very easily because resumptives in comparatives are disfavored for semantic reasons. I have pointed out several times, cf. e.g. 3.7.4.4 and footnote 224, that resumption always requires referential/D-linked/individual-denoting antecedents. Comparatives, however, involve abstraction over degrees, and a degree variable is expected to be incompatible with a resumptive pronoun. Bianchi (2004: 95f.) has argued that these semantic constraints can be overridden by purely formal constraints, such as the requirement to realize oblique case. We have seen in 3.8.2.2 that this happens indeed in German comparatives. Therefore, it should be possible to construct examples with oblique resumptives inside islands. The following pairs show this for both a *wh*-island and a CNPC island. Both sentences are marginally acceptable, their deviance is at least partly to be attributed to semantic anomaly (which is often the case when comparatives involve embeddings):

(715) a) Es sind [**mehr Patienten**] gekommen, als der Arzt wusste,
it are more patients come than the doctor knew
< womit er ***__/**?**<u>ihnen</u>** helfen könnte >.
where.with he they.DAT help could
Lit.: 'There came more patients than the doctor knew with what he could help them.'

b) Es kamen [**mehr Kinder**], als der Weihnachtsmann Geschenke
there came more children than they Santa.Claus presents
hatte, die er ***/__?<u>ihnen</u>** geben konnte.
had which he they.DAT give could
'There came more children that Santa Claus had presents he could give to them.'

(716) a) Sie suchen [**mehr Autos**] als sie wissen,
they look.for more cars than they know
was sie mit ***__/?<u>ihnen</u>** anfangen sollen. (after Levine 2001:
what they with they.DAT do should 156, ex. 26a)
'They are looking for more cars than they know what to do with.'

b) Es sind [**mehr Patienten**] gekommen als der Arzt
it are more patients come than the doctor
< Medikamente kannte, mit denen man ***__/?<u>ihnen</u>** helfen könnte >.
medicines knew with who one they.DAT help could
'There came more patients than the doctor knew medicines with which one could help them.'

Importantly, resumptives cannot help void islands with structural arguments:

(717) Ich habe [**mehr Bücher**] von Hans geborgt, als ich ihn fragte,
I have more books of John borrowed than I him asked
ob ich ***__/*<u>sie</u>** borgen könne.
whether I them borrow could
'I borrowed more books from John that I asked him whether I could borrow.' (after Levine 2001: 169, ex. 44b)

There is a clash between the pronoun and the semantic type of the operator, resumption is not possible. Since we are dealing with a structural argument, the formal constraint that overrides the semantic incompatibility cannot apply and the derivation crashes.

It seems, therefore, that the ameliorating effect of resumptives is also found outside the proleptic construction.[238] Importantly, these resumptives are not to be understood as intrusive pronouns, cf. 3.8.2.3. They do not occur to alleviate an island violation and thereby save a derivation, but for some other reason. Island-insensitivity is therefore only a side-effect of the type of resumption discussed here, but not its cause. I will now present a tentative proposal to account for the island-voiding effect of resumptives.

What I would like to propose is in fact not radically different from an old idea going back to Ross (1967). He argues that there are two types of movement rules, copying rules and chopping rules. Only the latter are sensitive to island constraints. Chopping rules correspond to the normal movement operations that

[238] Unfortunately, reconstruction effects are a diagnostic that cannot be easily applied to comparatives so that these facts do not necessarily prove that movement is involved.

leave behind a trace/a non-pronounced copy. Copying rules, on the other hand, correspond to resumptive structures. Similarly, Perlmutter (1972) makes locality sensitive to the overtness of the trace: Movement as such is unbounded, what is sensitive to locality is the deletion of the resumptive pronoun it leaves behind: It only applies if the trace is in a transparent domain.

These are pure stipulations and as such merely restate the problem. There are at least two fundamental questions that need to be addressed: First, why does the overtness of a link of a chain have an influence on locality, or in other words, which PF-aspect of grammar interacts with locality? Second, the resumptive pronoun always realizes[239] the lowest chain link even though this is not necessarily the offending copy. The second aspect has only become problematic since unbounded A`-dependencies are assumed to proceed successive-cyclically. The problem is briefly illustrated by means of the following example (I use English words, but the example is supposed to represent a language with true resumptive pronouns):

(718) This is the [**guy**] I was wondering < why Jane said that she liked **him** >.

On standard assumptions about *wh*-movement, the *wh*-island will contain several copies, at least one in the theta-position and one in the intermediate Spec, CP. Crucially, realizing an intermediate copy instead of the lowest one leads to ungrammaticality:

(719) *This is the [**guy**] I was wondering < why Jane said [$_{CP}$ **him**$_1$ that she liked $___1$]>.

This is actually surprising because under relatively orthodox assumptions about locality, it is not the lowest copy that violates a locality constraint (in traditional terminology, it is theta-governed); rather, it is the intermediate one that does not have a sufficiently local antecedent. If realizing an offending copy would somehow remove the offending properties, one would expect the (un)grammaticality of (718) and (719), respectively, to be the other way around. Since it seems unreasonable to give up successive-cyclic movement I will assume that the offending property is not simply located in the copy from where an illicit movement step takes place. Rather, such a movement step makes the entire chain deficient. Since realizing the bottom copy is always preferred over spelling out intermediate copies (see e.g. Minimize Mismatch in Bobaljik 2002), it is not so surprising that this option is chosen for the repair. Suppose that this handles the location of the spell-out, we need to explain why PF should be relevant in the repair.

PF-theories of locality are not unheard of. In the domain of ellipsis, there has been some discussion of the rescuing influence of sluicing on island violation, going back to the original observation in Ross (1967). Consider the following example (from Merchant 2001b: 4, his ex. 8):

(720) a) They want to hire someone who speaks a Balkan language, but I don't remember **which**.

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[239] Even though I speak of "realizing" I do not mean to imply a spell-out analysis of resumption. In principle, the same is possible with a Big-DP even though things are slightly more difficult.

b) *I don't remember [**which** (Balkan language)]$_1$ they want to hire someone [who speaks __$_1$]

The sluiced example is impeccable whereas extraction from the underlying non-elliptical structure involves a CNPC violation. A classical approach to account for this contrast is to assume that movement across an island is in fact possible, but will assign a PF-uninterpretable feature to it, call it * (cf. Chomsky 1972). In the case at hand, the relative clause CP will receive a *. In the non-elliptical cases, this feature survives and the derivation crashes. Under sluicing, however, the whole structure is PF-deleted, the offending feature is gone and the derivation converges. Something along those lines might be applied to resumption. The offending * would somehow have to be assigned to the chain, and by assumption, a resumptive would help delete *.[240] Admittedly, this does not go much beyond Ross (1967). Still, I will not pursue this any further and leave it for further research. Rather, I would like to point out that the repair strategy approach is more easily implemented by means of Spell-out than by means of a Big-DP. If a resumptive is the phonetic realization of a copy, it is part of the chain that needs to be repaired. With a Big-DP, the pronoun is only in a Spec-head relationship with an element of a deficient chain. It seems more difficult to describe the ameliorating function of resumptives in this configuration. I will come back to these two approaches in 3.8.4.4 below.[241, 242]

3.8.3.5 Why not movement out of the complement clause?

Gereon Müller (p.c.) has pointed out to me that the fact that movement in resumptive prolepsis can void all islands endangers the conclusion reached in 3.4.1 that the CP is a barrier and the explanations of various facts based on that assumption: If movement is completely unbounded, there seems to be no reason why it should not be able to void that CP island as well.

There are two aspects that need to be considered separately. First: is it desirable to avoid that objection, and second, is it possible within the given system to actually rule out movement out of the island? The answer to the first question is certainly yes: The predication analysis would have to be given up and the major similarities with *tough*-movement would be lost. Considering the explanatory force of the operator movement analysis, this seems very undesirable. The role of

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[240] Unfortunately, Merchant (2001: 10, ex. 39) points out (as have others before) that the simple deletion story does not quite work because vP-deletion does not have the same ameliorating effect. He concludes that this asymmetry is due to another vP-external copy that is deleted under sluicing, but not by vP-ellipsis. In other words, the deficiency is not due to the island or the chain but rather the copies left outside the island. Fox & Lasnik (2003) and Lasnik (2005) come to similar conclusions.

[241] At the same time one has to explain why the ameliorating effect is still found if the resumptive is moved away from its theta-position.

[242] It seems tempting to try to handle the rescuing effects of resumptives by means of the theory of locality in Fox & Pesetsky (2003/2004) because it makes crucial use of phonology. However, upon closer inspection, it becomes clear that there are principled reasons why this is not possible: They assume the remerger theory of movement, which means that there are no copies and no chains that could be targeted by spell-out to repair a certain deficiency. Furthermore, in their system, the offending elements are contradictory ordering requirements in the ordering tables. Spelling out a link (in case this were possible) would not affect that.

the preposition would also be completely unclear. The DP receives case in its base position and is therefore properly case-licensed.[243] Extra case-marking by a preposition seems superfluous.

But can such a movement step be prevented and if yes, how? I think that the way the system is set up movement out of the CP is impossible. I have been assuming that the C-head of the complement clause may optionally bear a feature [pred]. This feature requires an operator in its specifier, and this is what leads to the proleptic construction: There is operator movement in the complement clause up to Spec, CP. Once that has taken place, the operator phrase is frozen. The Spec counts as a criterial position in Rizzi's (1997) sense. Further movement is also ruled out by some version of Improper Movement (cf. Müller & Sternefeld 1993).[244]

In the absence of the feature [pred] there is no operator movement in the complement and the CP-complement will be transparent. This is the derivation for the non-proleptic construction.[245]

3.8.4 Implementing resumption

3.8.4.1 Introduction

Any implementation of resumptive pronouns must address the question what kind of element the resumptive is. Is it an ordinary pronoun or is it something else? I believe that an account of the resumptive in the proleptic construction has to provide an explanation for three aspects: The syntactic behavior of the pronoun, its semantic contribution and the fact that not only personal pronouns but all kinds of anaphoric elements can occur as resumptive element.

I will start with the syntactic behavior. I showed in 3.2.1 that the resumptive behaves like a regular personal pronoun: it undergoes pronoun fronting if it is weak, it can scramble if it is part of a pronominal adverb, and if it is focused or coordinated,[246] it is strong. I repeat the relevant examples:

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[243] However, the opacity effects in 3.4.1.5 would follow if the operator were to move out of the CP because operator movement is sufficient to create opacity. See Hicks (2003) for a similar approach to *tough*-movement.

[244] This seems to hold for other types of operator movement as well. In some cases, further movement is not possible because the operator phrase has reached the edge of an adjunct (as with some PGs), but there are cases, among them *tough*-movement and certain cases of PGs inside complements (cf. Contreras 1993) where the final landing site is an operator position of an otherwise transparent CP.

[245] The cases where there is only partial reference between antecedent and resumptive discussed in 3.8.4.1 below provide further evidence that a direct movement relationship is impossible.

[246] If movement is involved in the coordination case, it would violate the Coordinate Structure Constraint (CSC). It is well-known that resumptives can alleviate CSC-violations, cf. Munn (1993).

(721) a) der [**Ring**], von dem ich hoffe,
the ring of which.DAT I hope
dass du < **ihn** > morgen < ***ihn*** > kaufst
that you it tomorrow it buy
'the ring that I hope you will buy tomorrow'

b) Ich hoffe, dass du < **ihn** > morgen < ***ihn*** > kaufst.
I hope that you it tomorrow it buy
'I hope you will buy it tomorrow.'

(722) a) ein [**Resultat**], von dem ich weiß,
a solution of which I know
dass du **da**$_1$ nicht zufrieden $___1$ mit bist
that you there not satisfied with are
'a result that I know you are not satisfied with'

b) **Dieses Resultat**$_i$ – ich weiß,
this result I know
dass du **da**$_i$ nicht zufrieden $___1$ mit bist.
that you there not satisfied with are
'That result – I know that you are not satisfied with it.'

(723) a) der [**Mann**], von dem ich glaube,
the man of who.DAT I believe
dass Maria wahrscheinlich **nur IHN** liebt
that Mary probably only HIM loves
'probably the only man who I think that Mary loves'

b) dass Maria wahrscheinlich nur **IHN** liebt
that Mary probably only him loves
'that Mary probably loves only him'

(724) a) der [**Mann**], von dem ich vermute,
the man of who I suspect
dass ich **IHN und seine Frau** schon gesehen habe
that I him and his wife already seen have
'the man such that I suspect that I have seen him and his wife before'

b) Ich vermute, dass ich **IHN und seine Frau** schon gesehen habe.
I suspect that I him and his wife already seen have
'I suspect that I have seen him and his wife before.'

As for the semantic contribution, we have seen in 3.5 that the proleptic object is always referential/D-linked/individual-denoting. As argued in 3.7.4.4, this property falls into place if one assumes that the resumptive pronoun imposes the same semantic restrictions on its antecedents as a regular personal pronoun. Of course, this follows trivially if the resumptive is just a regular pronoun.

The last aspect that is relevant is the inventory of resumptive elements. I have already provided examples with weak and strong versions of the pronoun. In 3.2.1, I pointed out that one also finds demonstratives and epithets:

(725) a) der [**Typ**], von dem ich vermute, dass **der** Maria heiraten will
the guy of who I suspect that DEM Mary marry wants
lit.: 'the guy that I suspect HE wants to marry Mary'

b) der [**Typ**], von dem ich weiß,
the guy of who I know
dass **der Idiot** sein Vermögen verprasst hat
that the idiot his fortune squandered has
lit.: 'the guy who I know the idiot squandered his fortune'

This is actually not a peculiarity of the proleptic construction but a crosslinguistically widespread phenomenon, cf. e.g. Shlonsky (1992) for Hebrew and Aoun & Choueiri (2000) for Lebanese Arabic.

Upon closer inspection, it turns out that the inventory of resumptive elements is much wider. While the previous elements constituted more or less a closed class, practically any expression that can be used anaphorically is a felicitous resumptive element.[247] It is somewhat more difficult to construct natural expressions because it is simply unusual to use an anaphoric form with much descriptive content when it is very close the antecedent. That is why I added a level of embedding in the following example where *Schweinchen* 'piglet' is resumed by *das putzige Tierchen* 'the sweet little animal':

(726) Das ist ein [**Schweinchen**], von dem ich glaube, dass alle hoffen,
this is a piglet of which I believe that all hope
dass niemand **das putzige Tierchen** essen will.
that no.one the sweet little.animal eat wants
'This is a piglet such that I believe everyone hopes that no one wants to eat the sweet little animal.'

So far there has always been agreement in phi-features between antecedent and resumptive element. This is, however, not necessarily the case, as the following examples show:

(727) a) eine [**Brücke**], von der ich finde, dass man **solche Dinge**
a bridge of which I find that one such thing**s**
nicht mehr bauen sollte
not anymore build should
'a bridge such that I think one should not build such things anymore'

[247] The following types of resuming elements are in principle no different in nature from epithets, but since such cases are normally not discussed I chose to highlight them. Furthermore, the term epithet is used with a restricted meaning in the literature so that it is important to point out that anaphoric elements with a non-derogatory meaning can also be used.

b) der [**Mann**], von dem ich glaube,
the.**MSC** man of who I believe
dass **<u>das Arschloch</u>** mich betrogen hat
that the.**NTR** asshole me betrayed has
'the man such that I believe that the asshole betrayed me'

In (727)a, the antecedent is singular, the resuming element plural. In (727)b, there is disagreement in gender: the antecedent is masculine, the epithet is neuter.[248]

There are even more spectacular mismatches: In some cases the resuming element only partially refers to the antecedent. Consider the following examples:[249]

(728) a) Ich habe eine [**Frau**] kennen gelernt, von der ich glaube,
I have a woman got.to.know of who I believe
dass **<u>wir</u>** ein gutes Paar wären.
that we a good match would.be
'I met a woman such that I think we would be a good match.'

b) Das ist das [**einzige Mädchen**] in meiner Klasse, von dem ich weiß,
that is the only girl in my grade of who I know
dass **<u>sie</u>** zuhause noch mit Holz heizen.
that they at.home still with wood heat
'This is the only girl in my class such that I know that they still use wood to heat at home.'

c) ein [**Ehepaar**], von dem ich glaube, dass **<u>sie</u>** die Hosen anhat,
a couple of which I believe that she the pants wears
<u>er</u> aber das Geld verdient
he but the money earns
'a couple such that I think that she wears the pants, but he earns the money'

In all three examples, there is some anaphoric reference back to the antecedent, but the antecedent is just part of what is referred to by the pronoun in (728)a/b whereas in c there are two resuming elements that by referring together back to the antecedent exhaust its reference. To my knowledge, such cases of resumption have not been documented before, except for English *such that*-relatives, cf. Pullum (1985). This may lend further support to my reanalysis in 3.8.2.6. I suspect that such cases are more frequent in the languages of the world and simply have not been investigated because people were too focused on resumptive *pronouns*.

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248 Such mismatches are frequent in regular anaphora in texts:
i) Siehst du **den** Mann da? **Das** Arschloch hat mich jahrelang betrogen.
see you the.MSC man there that.NTR asshole has me many.years betrayed
'Do you see the man over there? That asshole betrayed me for many years.'

249 The c-example is inspired by Pullum (1985: 292, ex. 1a/c).

In the following subsections, I will discuss which analysis of resumptive pronouns captures the facts presented in this introduction most adequately.

3.8.4.2 Base-generation

The facts described in the introduction are exactly as predicted under a base-generation approach: the resumptive behaves like a normal pronoun. Since the binding relationship established by base-generation is in principle similar to coreference relationships in discourse, we expect the resumptive to show all the properties of an anaphoric pronoun. Being an independent element, it will undergo the types of fronting a normal pronoun will undergo and will appear in weak or strong form as required by the syntactic context and the discourse context. Being a pronoun, the resumptive will impose semantic restrictions on its antecedent as it does in discourse. Finally, since the base-generated A'-dependency is like an anaphoric dependency it is little surprising that we find the whole range of anaphoric expressions in discourse. All examples above would be impeccable if translated into cross-sentential anaphora.

There is one more aspect of a base-generation approach that needs to be looked at: How can base-generation be restricted to the proleptic construction? Why doesn't it occur with *wh*-movement or topicalization? I believe that a constraint like the one against realization of more than one chain link (3.8.2.1) could be adapted for base-generated dependencies for instance along the lines of Merchant (2004). He assumes that A'-binding relationships are restricted by case: Since there is only one case available, such dependencies are only possible if the antecedent is either silent or case-unmarked. This would automatically rule out base-generated resumptive dependencies with *wh*-movement, topicalization and relativization in Standard German. Under these assumptions, the scarcity of such base-generated dependencies would cease to be surprising.

I conclude from this that a base-generation approach is indeed well-suited to capture the properties of the resumptive element.

3.8.4.3 Demirdache (1991)

Demirdache's (1991) LF-movement approach is confronted with serious problems when applied to the data introduced in 3.8.4.1: The resumptive element behaves more like a pronoun rather than like an operator. Pronoun fronting in the proleptic construction seems to be similar to resumptive fronting in Hebrew. However, in Hebrew, the resumptive can be fronted successive-cyclically so that it really behaves like an operator. In the proleptic construction, however, pronoun fronting is clause-bound.

As for the inventory of resumptive elements, while resumptive personal pronouns could perhaps be reinterpreted as operators in-situ, this becomes highly unlikely with epithets and full-blown DPs like *solche Dinge* 'such things' and the cases of partial reference.

Finally, analyzing the resumptive as an operator seems incompatible with its semantic contribution. If it is not a definite pronoun it is unclear why it should impose that kind of semantic restrictions on its antecedent.

These facts therefore provide more evidence against Demirdache's LF-movement approach which together with the problems discussed in 3.8.3.2 shows that it is generally undesirable to apply it to the proleptic construction.

3.8.4.4 Spell-out vs. Big-DP

Among the movement approaches, there remain the Spell-out and the Big-DP approaches. Under a Spell-out approach, the resumptive is interpreted as the phonetic realization of a copy. The fact that the copy is realized as a personal pronoun is normally explained with reference to economy: It is the smallest element that contains nothing but the phi-features of the copy. Spell-out approaches have been proposed by Pesetsky (1998), Grohmann (2003) and Bianchi (2004).

Under a Big-DP approach, the antecedent is generated together with the pronoun. The antecedent is either analyzed as the complement of the pronoun or as ist specifier. Resumption is the result of stranding: the antecedent undergoes A'-movement and leaves the pronoun behind. Big-DP approaches have recently been proposed by Cecchetto (2000), Aoun et al. (2001), Choueiri (2002), Grewendorf (2002), and Boeckx (2003).

Even though the proponents of the respective analyses tend to claim that the two approaches are completely different, it seems to me that they are actually quite difficult to tease apart. The Big-DP analysis is probably more flexible and therefore compatible with a wider range of data than the Spell-out approach, but this depends to a large extent on one's interpretation. As we will see, certain facts probably cannot be handled by any of them.

In the earlier literature, one of the important arguments in the discussion was the semantic contribution of the pronoun (Doron 1982, Boeckx 2003): Since resumptive structures normally restrict the interpretive possibilities of their antecedents, it was argued that it cannot simply be viewed as the spell-out of certain phi-features because that would not explain the semantic contribution of the pronoun. Boeckx (2003) took this to be the major argument against a Spell-out approach. However, once one works with a somewhat more elaborate notion of chain, e.g. as in Bianchi (2004), where features like [specific] might differentiate the different types, this objection seems to be out of the way.

The data in (721)–(724) showing that the resumptive behaves like a pronoun are more problematic for a Spell-out approach than for a Big-DP approach:

Under a spell-out approach, pronoun fronting would be difficult to cover: Under the assumption that these movements are syntactic, a Spell-out approach would have to assume that there is an intermediate movement step to the position occupied by weak pronouns/scrambled R-pronouns, and this is where the pronoun is realized. This leads to a few technical problems:

First, it is not so clear why this movement step would occur in the first place. Referring to the specific chain would not be sufficient because at least in the case of the R-pronoun fronting is optional. And as (723) shows, fronting does not always occur. Since the pronoun is not an independent element, its independent behavior is difficult to capture. Second, the proposed derivation arguably violates some form of Improper Movement. Scrambling (which they analyze as A'-movement) followed by A'-movement is explicitly ruled out in Müller & Sternefeld (1993) to prevent long-distance scrambling in German (recall the discussion in 3.4.1.3). As for pronoun fronting, if it is analyzed as A'-movement, subsequent A'-movement would also be ruled out by the same constraint.

With a Big-DP analysis, these difficulties can be avoided to some extent. Since the pronoun is a separate element, it can be assumed to carry certain features of its own. If it is focal, it does not move, if it is topical, it is fronted. The same can be argued for the R-pronoun. Needless to say, even this is not trivial because one has to avoid both a violation of cyclicity and the CED: Pronoun and antecedent have to be separated at the very beginning, otherwise, there would be a CED violation later on. Since the pronoun is the head of the DP, the antecedent has to extract first, it moves to an intermediate position, below the ultimate landing site of the pronoun (for reasons of cyclicity). The Big-DP containing the pronoun then undergoes remnant movement to a position above the antecedent. Thereafter, the antecedent moves across the Big-DP. In the case of pronoun fronting, this looks as follows (the landing site of the pronouns is referred to as π-phrase):

(729) $[_{\pi P}\ \mathbf{[}_{DP}\ ___1\ \mathbf{[}_{D'}\ \mathbf{D}\ \mathbf{]]}_2\ \ [_{XP}\ \text{Ant}_1\ \ ___2\ ]]$

However, the force of these facts depends on the nature of the fronting operation. It is relatively difficult to prove that pronoun fronting is actually syntactic (even though this seems to be the standard assumption). One of the arguments in favor of a syntactic treatment is the licensing of parasitic gaps:

(730) a) die [Arbeit], von der ich glaube, dass der Lehrer sie$_{1/i}$
the paper of which I believe that the teacher her
[ohne **pg$_i$** zu lesen] $___1$ akzeptierte
without to read accepted
'the paper which I think that the teacher accepted without reading'

b) Er hat **sie**$_{1/i}$ [ohne **pg$_i$** zu lesen] $___1$ akzeptiert.
he has her without to read accepted
lit.: 'He accepted it without reading.'

A pronoun in the proleptic construction licenses PGs just like pronoun fronting in normal sentences.[250] The force of the argument is limited, however, because the status of PGs in German (and to a lesser extent also Dutch) is very controversial. It is often assumed instead that they rather represent some kind of Left Node Raising, cf. Huybregts & van Riemsdijk (1985) and Kathol (2001).

[250] Of course, in the proleptic construction, PG-licensing could be due to A'-movement of the antecedent as well.

As for the movement of R-pronouns, it has been sufficiently documented that they can undergo A'-movement (van Riemsdijk 1978). However, testing this in the proleptic construction is difficult. The R-pronoun has to undergo topicalization to test locality. But if one topicalizes the R-pronoun, the proleptic construction has to take a V2-complement, which I showed in 3.4.1.6 to be strongly degraded unless in the subjunctive. Even if this is taken into account, there is another conflicting factor: the fronted pronoun *da* 'there' can also be interpreted as a deictic locative pronoun, which is in fact the most prominent interpretation in this context. Relating it to the stranded preposition is difficult. It is for these reasons that the following pair, the first with the pronoun extracted across an island, does not give a conclusive result; both sentences sound rather bad, arguably for the above-mentioned reasons:

(731) a) *die [Aufgabe], von der ich dachte, **da**$_1$ könne doch keiner
the task of which I thought there could PRT no.one
< den Agenten kennen, den ich __$_1$ mit beauftragt habe >
the agent know who I with charged have
lit.: 'the task that I believed no one could know the agent that I assigned (it) to'

b)??die [Aufgabe], von der ich dachte, **da**$_1$ denke doch keiner,
the task of which I thought there thought PRT no.one
dass ich __$_1$ mit zufrieden sei
that I with satisfied am
'the task that I thought no one would think I am satisfied with'

The result seems too unstable to actually use these facts as an argument against the Spell-out approach and in favor of a Big-DP analysis. Since it is not so clear that these fronting operations are syntactic – at least not in the proleptic construction – they might as well occur after syntax, which would be compatible with a spell-out approach.

Another argument that tends to prefer a Big-DP approach are resuming elements other than personal pronouns such as the demonstratives and the epithets in (725). Under a spell-out approach anything larger than a personal pronoun is unexpected. Furthermore, cases of phi-feature disagreement and partial reference as in (727)–(728) are completely impossible.

A Big-DP approach fares somewhat better because anything that can be used as a coreferring element can arguably also be used as part of a Big-DP. However, once we look at epithets and strong pronouns and demonstratives, it is no longer clear what the structure would be. These are full DPs so that there is no space for the antecedent anymore. Aoun et al. (2001) treat them as appositive modifiers adjoined to the A'-constituent. This is quite unsatisfactory because many of the elements found in resumption are not straightforward appositive modifiers, especially demonstratives and strong pronouns. If a Big-DP approach should be applied at all, one would have to adopt a very general Big-DP as in Kayne (2002) which handles all kinds of anaphoric relationships, according to Kayne even cases with phi-feature mismatch and partial reference as in (727)–(728).

Admittedly, the complexity of the solution would come very close to a restatement of the facts.

Before I conclude that both approaches face difficulties with the large inventory of resumptive elements there is one aspect that needs to be clarified first: Resumptive structures with resuming elements other than pronouns have to be shown to involve movement. If there is no evidence for movement, a different analysis may be possible both under a Spell-out and a Big-DP approach: The mismatch between proleptic object and resuming element could be handled by ellipsis: Suppose that we do not have a representation of the proleptic object inside the complement clause but just the resuming element, e.g. *solche Dinge* 'such things'. This undergoes operator movement to Spec, CP where it is related to the proleptic object. Since it was shown that ellipsis can handle certain cases of mismatch (cf. 3.7.3.9–3.7.3.11), it is conceivable that it can also reconcile mismatches in phi-features and perhaps even cases of partial reference.

Unfortunately, reconstruction is somewhat difficult to test in these cases. It is certainly impossible with cases of partial reference. For the other cases, some examples seem relatively acceptable.[251] The following triple shows reconstruction with a demonstrative, an epithet and a normal anaphoric expression:

(732) a) das [Bild von **sich$_i$**], von dem ich glaube, dass **Peter$_i$** <u>das</u>
the picture of self of which I believe that Peter that
endlich verkaufen sollte
finally sell should
(lit.:) 'the picture of himself$_i$ such that I believe Peter$_i$ would finally sell it'

b) das [Bild von **sich$_i$**], von dem ich glaube, dass **Peter$_i$** <u>den Scheiß</u>
the picture of self of which I believe that Peter the shit
endlich verkaufen sollte
finally sell should
(lit.:) 'the picture of himself$_i$ such that I believe that Peter$_i$ should finally sell the shit'

b) das [Bild von **sich$_i$**], von dem ich glaube, dass **Peter$_i$**
the picture of self of which I believe that Peter
<u>das Kunstwerk</u> endlich verkaufen sollte
the piece.of.art finally sell should
(lit.:) 'the picture of himself$_i$ such that I believe that Peter$_i$ should finally sell the piece of art'

The following example shows reconstruction under a phi-feature mismatch:

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[251] I pointed out above that anaphoric expressions with descriptive content sound better when more deeply embedded. When this factor is taken into account in reconstruction, we are faced with the problem that reconstruction is now more difficult to get because the reconstruction site is more distant from the antecedent. Since there is no way of reconciling these contradictory requirements, such examples will be invariably degraded.

(733) Die [Fotos von **sich$_i$**], von denen ich sagte, dass ich nicht gedacht
the pictures of self of which I said that I not thought
hätte, dass **Peter$_i$** mir so_was zeigt, waren ganz schön gruselig.
had that Peter me such.a.thing shows were quite scary
(lit.:)'The pictures of himself$_i$ such that I said that I would not have thought that Peter$_i$ would show me something like that were quite scary.'

Consequently, the alternative suggested above that the mismatch should be handled by ellipsis will not work for these cases since there must be a representation of the proleptic object inside the complement clause. A spell-out approach will consequently fail for all cases where the resuming element is larger than a personal pronoun.[252] A Big-DP approach fares somewhat better, at least if a very general type of Big-DP is assumed that handles all anaphoric relations as in Kayne (2002).

To conclude this section, it has become clear that movement approaches run into difficulties when the whole range of resuming elements found in resumptive prolepsis is taken into account. A Big-DP approach is generally somewhat more successful than a Spell-out approach, but requires very powerful assumptions to capture mismatches between proleptic object and resuming element.

3.8.5 Summary

Accounting for the resumptive pronoun in the proleptic construction has turned out to be difficult. I have proposed a new perspective based on the idea that resumptive pronouns are in principle an option in the languages. This is certainly surprising since neither German or Dutch have ever been thought of as languages with productive resumptive pronoun strategies. However, I have shown that there is a reasonable independent explanation for the scarcity of resumptives: A typologically well-motivated constraint against realizing more than one chain link rules out resumption in most types of A'-movement. The observation that resumptives are found in comparatives, whose derivation is partially similar the that of the proleptic construction, lends support to this approach. Once the possibility of resumption is no longer ruled out, this new perspective provides a fresh look at other constructions such as Copy-Raising and *such that*-relatives.

The movement effects follow from the assumption that there is regular successive-cyclic A'-movement in all cases. Movement as such is taken to be unbounded, but only resumptive constructions can void islands. This rescuing effect is not taken to be the cause for the resumptive but rather just a side effect.

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[252] There is perhaps a way of getting a grip on some of these cases with spell-out (Gereon Müller, p.c.) if one adopts a late-insertion approach to Morphology: Suppose that the syntax only manipulates features, even of lexical items. When lexical insertion takes place after syntax, one could assume that there may be mismatches between LF and PF. At LF, one would have a copy of the antecedent in the reconstructed position, but at PF, one could insert basically anything that is compatible with the phi-feature set and possible other features (such as specificity).

Some of the properties of the resumptive are difficult for movement approaches. Especially the mismatches between proleptic object and resumptive element make a Spell-out approach impossible in many cases. A Big-DP approach fares better but requires a very powerful concept of what can be merged together in such a Big-DP. For the cases with partial reference, an alternative was proposed whereby the mismatch was not handled by spell-out or the Big-DP but rather by the ellipsis operation that links operator and proleptic object. All in all, it has become clear that the resumptive pattern found in the proleptic construction pushes movement approaches to the limit.

This is why I also discussed an alternative with base-generation. Base-generation is superior in that it has no problems with island-insensitivity and non-pronominal resumptive elements. However, base-generation normally implies absence of movement effects. One therefore has to adopt some form of semantic reconstruction that makes the content of the operator available in the position of the pronoun. There is in principle nothing that rules this out. Semantic reconstruction cannot account for intermediate binding as in (693), but otherwise should be able to handle the reconstruction pattern. And since intermediate binding is degraded for many speakers, that is not such a serious defect.

The validity of a base-generation approach mainly depends on whether one really wants to accept semantic reconstruction. Once semantic reconstruction is possible we would be dealing with a hybrid system that normally makes use of syntactic reconstruction but applies semantic reconstruction in one area namely the proleptic construction. This seems very undesirable. Extending semantic reconstruction to all cases of reconstruction in German or Dutch would be a possibility but would undermine the research of the last decade that has shown the advantages of syntactic reconstruction, cf. Heycock (1995), Romero (1998), Fox (1999), Sportiche (2003), Fox & Nissenbaum (2004) etc.

I will therefore continue to assume a movement approach for the proleptic construction. Further research is needed to tease apart the predictions by syntactic and semantic reconstruction in general. An important role will be played by constructions like the proleptic construction and (specificational) pseudoclefts where reconstruction is more indirect. See Heycock & Kroch (1999), den Dikken et al. (2000), den Dikken (2001), Sternefeld (2000) for discussion. [253]

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[253] It is also tempting to try to unify the proleptic construction with Contrastive Left-Dislocation in German which at first sight shares many of the crucial properties. For instance, it is an indirect A'-dependency in that the dislocated constituent is – arguably (but see Grohmann 2003) – not directly related to the position where it is interpreted as the following reconstruction effects show:

i) [Dieses Buch über sich$_i$], das findet Peter$_i$ __ am besten.
this book aboutself that finds Peter the best
'This book about himself$_i$, Peter$_i$ likes best.'

ii) [Seine$_i$ Mutter], die mag jeder$_i$ __.
his mother she likes everyone
'His$_i$ mother, everyone$_i$ likes.'

At least on the surface, reconstruction is somehow mediated by the fronted pronoun.

There are also similar semantic restrictions (cf. Grewendorf 2002: 35). For instance, the dislocated constituent cannot be a non-specific indefinite:

3.9 Problems with in-situ construction

One of the important arguments in favor of a matrix-clause-internal base-position for the fronted proleptic object was the fact that there is a base-construction (3.4.1.1). Together with the reconstruction effects, this is one of the major motivations for a *tough*-movement style analysis. Interestingly, the in-situ construction differs from the ex-situ construction in a number of respects according to some speakers, perhaps even the majority:

First, with a number of verbs, the in-situ construction is markedly worse than the ex-situ construction. Second, it does not seem to allow reconstruction effects. Third, there is a strong preference for subject orientation and a certain limit of embedding.

This is unexpected given that A'-movement in the matrix clause does not affect the fundamental ingredients of the proleptic construction, namely operator movement in the complement clause and ellipsis. The central properties of *tough*-movement also do not depend on whether the *tough*-subject occupies its base-position or is A'-moved. I will discuss these issues in the following subsections and will suggest a few tentative proposals.

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iii)*Niemanden, den hat er getroffen.
nobody him has he met
lit.: 'Nobody, he met.'

And there is no scope reconstruction (Grewendorf 2002: 76):

iv) [Zwei Sprachen], die muss jeder Student __ können. 2 > ∀; *∀ > 2
two langauges them must every student know
'Two languages, every student must know.'

However, there are also crucial differences. For instance, there are robust Condition C effects (Grewendorf 2002: 39):

v)*[Das Buch über Chomsky$_i$], das hat er$_i$ gestern __ in den Papierkorb geworfen.
the book about Chomsky this has he yesterday into the paper.basket thrown
lit.: 'The book about Chomsky, he threw into the paper basket.'

Furthermore, the semantic restrictions do not extend to the semantic type. Predicates and amounts are fine (pace Grewendorf 2002: 71ff.):

vi) [Ein Arschloch], **das** ist er __ nicht.
an asshole that is he not
'An asshole, he isn't.'

vii)[20 Franken], **das** würde ich dafür nie __ zahlen.
20 franks that would I for.it never pay
'20 franks, I would never pay for this.'

Contrastive Left-Dislocation is also sensitive to locality (only if the pronoun is fronted), cf. Grohmann (2000: 143):

viii)* [Seinen Vorgarten], den hasst Maria < die Tatsache, dass jeder __ mag>.
his front.lawn that hates Mary the fact that everyone likes
lit.: 'His front lawn, Mary hates the fact that everyone likes.'

This is intuitively unsurprising because movement of the demonstrative pronoun seems to be involved. If the pronoun is left in-situ, the sentence is fine, but then it is no longer clear that movement is involved, cf. Grohmann (2000).

In view of these asymmetries, it seems premature to subsume one of the constructions under the other. The syntactic differences are quite fundamental so that both phenomena will eventually have to receive a (at least partially) different treatment.

3.9.1 Deviating properties of the in-situ construction

3.9.1.1 Markedness of the in-situ construction

There is only a small number of verbs with which the in-situ construction sounds perfect. Examples would be: *glauben* 'believe', *wissen* 'know', *vermuten* 'suspect', *sagen* 'say', *wollen* 'want'. With a large range of other verbs, the in-situ construction is only marginally acceptable (around 20-50 % acceptability, which corresponds to ?-??). With some it is downright unacceptable. According to my informants, there is a cline from *glauben* 'believe' over *ahnen* 'suspect', *hoffen* 'hope', *bezweifeln* 'doubt' and *fürchten* 'fear' up to reflexives where the in-situ construction seems completely unacceptable. Dutch patterns similarly.

A shown in 3.4.2, the ex-situ construction is not sensitive to lexical restrictions, at least not with relativization. In all the cases where the corresponding in-situ construction seems degraded, the ex-situ construction seems fine. The following pairs show the contrasts (author's judgments):

(734) a) Hier ein [Rezept], von dem ich **annehme**, daß es keiner kennt.
here a recipe of which I assume that it no.one knows
'Here is a recipe that I assume nobody knows.'

b)??Ich **nehme** von [diesem Rezept] **an**, dass es keiner kennt
I assume of this recipe on that it no.one knows
'I assume about that recipe that nobody knows it.'

(735) a) Das ist der [Teil], von dem ich **ausgehe**,
this is the part of which I assume
dass er nicht verändert wird.
that it not changed becomes
'This is the part that I assume will not be changed.'

b) *Ich **gehe** von [diesem Teil] **aus**, dass er nicht verändert wird.
I assume of this part PRT that he not changed becomes
'I assume about this part that it will not be changed.'

(736) a) Dieses Resignieren der Bundesregierung, meine Damen und
this resignation the.GEN federal.government my ladies and
Herren, bedeutet das Wirksamwerden einer Progression, die
gentlemen means the become.effective a.GEN progression which
dazu führt, daß das [gegenwärtige Steuersystem], von dem ich
there.to leads that the current tax.law of which I
zugebe, daß es keineswegs von der derzeitigen sozialistisch
admit that it certainly.not by the current socialist
geführten Regierung eingeführt worden ist,
lead government introduced was
zu Ungerechtigkeiten im Bereich der sozial Schwachen führt.
to injustice in.the area the.GEN social weak leads
'This resignation of the federal government, ladies and gentlemen means that a progression becomes effective so that the current tax system which I admit was certainly not introduced by the current socialist lead government, will lead to injustice in the area of the socially weak.'

b) *Ich **gebe** von [diesem Steuersystem] **zu**, dass es keineswegs
I admit of this tax.system PRT that it certainly.not
von der sozialistischen Regierung eingeführt wurde.
by the socialist government introduced was
'I admit concerning this tax system that it was certainly not introduced by the socialist lead government.'

Another good example was suggested to me by Sjef Barbiers (p.c.):

(737) a) de [man] waarvan ik **tegensprak** dat ie intelligent is
the man whereof I disagree that he intelligent is
'the man that I disagreed is intelligent'

b) *Ik **sprak** van [die man] **tegen** dat ie intelligent is.
I disagree of this man PRT that he intelligent is
'I disagreed concerning this man that he is intelligent.' NL

This contrast is puzzling and entirely unexpected under a *tough*-movement style analysis because operator movement is freely available in any complement so that the proleptic object should be licensed in any case. Further A'-movement should not be necessary.

3.9.1.2 No reconstruction in the in-situ construction

Interestingly, reconstruction seems clearly less acceptable for some speakers when the PP remains in-situ.

(738) a) Ich glaube von [diesem Buch über **#sich$_i$/ihn$_i$**]$_j$,
I believe of this book about self/him
dass **Peter$_i$** es verkaufen möche
that Peter it sell would.like
lit.: 'I believe of this book about himself$_i$/him$_i$ that Peter would like to sell it.'

b) #Ich glaube von [dieser Periode **seines$_i$ Lebens**],
I believe of this period his.GEN life
dass **keiner$_i$** gerne dr-an denkt.
that no.one likes.to there-at remember
lit.: 'I believe of this period of his$_i$ life that no one$_i$ likes to remember it.'

This is utterly surprising given a *tough*-movement-like analysis. In *tough*-movement, reconstruction is fine with the *tough* subject in-situ, further A'-movement is not necessary to license reconstruction. This is, however, exactly, what seems to be necessary in the cases at hand.

3.9.1.3 Preference for subject orientation and locality

For many speakers, there is a strong preference for subject orientation in the in-situ construction:[254]

(739) a) Ich will/glaube/hoffe von [**Peter**], dass **er** Maria heiratet.
I want/believe/hope of Peter that he Mary marries
'I want/believe/hope of Peter that he will marry Mary.'

b) #Ich will /glaube/hoffe von [**Peter**], dass Maria **ihn** heiratet.
I want/believe/hope of Peter that Mary him marries
lit.: 'I want/believe/hope of Peter that Mary marries him.'

c) #Ich will/glaube/hoffe von [**Peter**], dass **seine** Mutter gesund wird.
I want/believe/hope of Peter that his mother healthy becomes
lit.: 'I want/believe/hope of Peter that his mother will recover.'

This preference is completely absent in the ex-situ construction. Furthermore, with the in-situ construction, it is preferred to have the coreferring pronoun in the immediately embedded clause:

(740) #Ich glaube von [**Peter**], dass du dich freust,
I believe of Peter that you yourself be.happy
dass **er** Antialkoholiker ist.
that he teetotaler is
lit.: 'I believe of Peter that you are happy that he is a teetotaler.'

In the next subsections, I will discuss possible explanations of these facts, but will eventually remain non-committal because the empirical pattern is too vague and too graded as to allow a precise analysis that would apply to all speakers.

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[254] In earlier work (Salzmann 2005a/b) I took this to be the regular case, but larger surveys showed that for many speakers this is not correct.

3.9.2 Possible explanations

3.9.2.1 No reconstruction for independent reasons?

It is tempting to relate these properties to each other. But first, I would like to briefly mention a few arguments why reconstruction might be dispreferred with the in-situ construction:

First, as already mentioned, the in-situ construction as such is marked already. Second, the reconstruction facts above involve coreferring objects, but since subject orientation is preferred, this will lead to further deviance. This second factor could be alleviated by using an unaccusative verb like *gefallen* 'like' where the subject originates below the experiencer. The result seems to be somewhat better (except for those speakers that do not allow reconstruction below experiencers in the first place):[255]

(741) a) Ich glaube von [diesem Buch über **#sich$_i$/ihn$_i$**],
I believe of this book about self/him
dass es **Peter$_i$** __ gefällt.
that it Peter pleases
lit.: 'I believe of this book about himself$_i$/him$_i$ that Peter$_i$ likes it.'

b) Ich glaube von [diesem Bild von **?-sich$_i$/ihm$_i$**],
I believe of this picture of self/him
dass es **Peter** __ gefällt.
that it Peter pleases
lit.: 'I believe of this picture of himself$_i$/him$_i$ that Peter$_i$ likes it.'

c) #ich glaube von [dieser Periode **seines$_i$** Lebens],
I believe of this period his.GEN life
dass sie **keinem$_i$** __ behagt.
that it no.one.DAT make.comfortable
lit.: 'I believe of this period of his$_i$ life that it pleases no one$_i$.'

d) #Ich glaube/weiß von [einer Periode **seines$_i$** Lebens],
I believe/know of one period his.GEN life
dass sie **jedem$_i$** __ gefällt.
that it everyone pleases
lit.: 'I believe/know of one period of his$_i$ life that everyone$_i$ likes it.'

For quite a few speakers, this might be the correct analysis, yet it leaves other aspects of the in-situ/ex-situ contrast such as lexical restrictions and subject orientation unexplained. I will discuss further options in the next subsection.

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[255] The reconstruction site is not the position of the resumptive but rather the direct object position below the experiencer indicated by the underline.

3.9.2.2 In-situ construction as a kind of Control

For those speakers for whom the in-situ construction is degraded in most cases, one could entertain a Control-like analysis: Since the construction is only possible with certain verbs, one could claim that those verbs optionally take an extra argument, which acts as a controller. This would give us the subject orientation, the locality and the lack of reconstruction since no movement is involved in Control (under conservative assumptions). Admittedly, the type of Control needed here would be different from the regular type, which is limited to non-finite clauses. Similar facts have been observed for the corresponding English construction in Khalaily (1997):

(742) a) I believe of [**John**] that **he** in intelligent.

b) *I believe of [**John**] that nobody likes **him**.

c) *I believe of [**John**] that Mary thinks that **he** is intelligent.

As in obligatory Control, the reference of the embedded subject is exclusively determined by a matrix constituent.

This is not the case if a Control verb takes a finite complement as the following example shows:

(743) I promised Mary that my mother would bake a cake for her.

The matrix subject does no longer control the reference of the embedded subject; it must not even be thematically related to an element in the embedded clause. We are therefore no longer dealing with a real Control construction. In the proleptic construction, however, finiteness does not affect the requirement that there be a coreferring pronoun. I conclude therefore that the in-situ construction does have properties of Control for some speakers.

There is one major aspect of the in-situ construction which the Control-approach does not explain: the opacity of the CP-complement (3.4.1.5). Furthermore, for those speakers, one would have to assume that they also have the operator movement analysis for the ex-situ cases. However, once the operator movement analysis is available, it should also be applicable to the in-situ construction and predict it to behave exactly like the ex-situ construction.

While it seems possible to come up with an analysis for the in-situ construction, it remains difficult to make it compatible with the ex-situ construction.

3.9.2.3 A Parasitic Gap-style analysis

The observation that the proleptic construction improves once the proleptic object is A'-moved is highly reminiscent of Parasitic Gaps, which also cannot be licensed by an in-situ DP:

(744) a) *I bought **a book**$_i$ [without reading **pg**$_i$].

b) [**Which book**]$_{1/i}$ did you buy $___1$ [without reading **pg**$_i$]?

It seems therefore tempting to adopt such an analysis for the proleptic construction. However, upon closer inspection, numerous difficulties come up:

First, such an analysis only really works for speakers for whom the in-situ construction is completely ungrammatical. This certainly does not work for the vast majority which accepts it at least with a number of verbs. The fact that there is an in-situ construction at all remains unexplained. Second, the licenser of the Parasitic Gap is an argument; this is certainly not the case in the proleptic construction. Third, the necessity for A'-movement in PGs follows from an anti c-command condition: the gap must not be A-bound, otherwise, a Principle C violation ensues. As shown in (490) in 3.4.1.1, however, the proleptic object c-commands into the complement clause. Fourth, the fact that we get reconstruction effects in the proleptic construction is problematic given the fact that reconstruction into Parasitic Gaps is largely absent and generally poorly understood, cf. Munn (1994), Nissenbaum (2000).

I conclude from this that while attractive at first sight, a Parasitic Gap-style analysis leads to undesirable results.

3.9.3 Conclusion

Since the contrasts one gets are not clear-cut but rather quite graded, I prefer to stick to my analysis without the Control or Parasitic-Gap amendments suggested in the previous sections. I will assume instead that the deviating behavior of the in-situ construction that holds for many (but not all!) speakers is best attributed to non-grammatical factors:

The ex-situ construction is much more grammaticalized and much more frequent than the in-situ construction. This holds predominantly for relativization, but all speakers find ex-situ constructions with topicalization and *wh*-movement better than the in-situ construction. As discussed above, the degradedness of reconstruction may have other sources.

Finally, the in-situ construction improves markedly, probably to full grammaticality in German, if the preposition *bei* 'at' is used instead of *von* 'of'. The following pairs illustrate the contrast:

(745) a) Ich nehme *bei* [diesem Rezept] an, dass es keiner kennt.
I assume at this recipe PRT that it no.one knows
'I assume concerning this recipe that no one knows it.'

b)??Ich nehme *von* [diesem Rezept] an, dass es keiner kennt.
I assume of this recipe PRT that it no.one knows

(746) a) Ich gehe *bei* [diesem Teil] davon aus,
I assume at this part there.of PRT
dass er nicht verändert wird.
that he not changed becomes
'I believe about this part that it will not be changed.'

b) *Ich gehe *von* [diesem Teil] aus, dass er nicht verändert wird.
I assume of this part PRT that he not changed becomes

(747) a) Ich gebe *bei* [diesem Steuersystem] zu, dass es keineswegs
I admit at this tax.system PRT that it certainly.not
von der sozialistischen Regierung eingeführt wurde.
by the socialist government introduced was
'I admit concerning this tax system that it was certainly not introduced by the socialist government.'

b) *Ich gebe *von* [diesem Steuersystem] zu, dass es keineswegs
I admit of this tax.system PRT that it certainly.not
von der sozialistischen Regierung eingeführt wurde.
by the socialist government introduced was

(748) a) Ich freue mich *bei* [Peter], dass er so erfolgreich ist.
I am.happy at Peter that he so successful is
'I am happy concerning Peter that he is so successful.'

b) *Ich freue mich *von* [Peter], dass er so erfolgreich ist.
I am.happy of Peter that he so successful is

I have not discussed the distribution of *bei* 'at' yet; for the moment, I will assume that *bei* is in principle always possible so that these examples show that the in-situ construction is in principle possible. The asymmetry between *bei* and *von* will be briefly addressed in 4.10.6.

3.10 Conclusion

I would briefly like to summarize the major aspects of the analysis: I have proposed a *tough*-movement style analysis to the proleptic construction. This reconciles many of the contradictory properties of the construction: There is evidence for a matrix clause-internal base position of the proleptic object (3.4.1). At the same time, reconstruction effects provide evidence for a representation inside the complement clause (3.3). A direct movement relationship is ruled out by the opacity of the CP (3.4.1.5), Improper Movement (3.4.1.3), and also cases of partial reference (3.8.4.1)

An operator movement analysis resolves this paradox: Operator movement in the complement clause turns the CP into a predicate. An extra argument is licensed thereby, the proleptic object (3.7.1). This accounts for the opacity, the obligatoriness of the coreferring pronoun, its matrix clause-properties as well as the absence of lexical restrictions (3.7.2). Most importantly, a *tough*-movement style analysis also provides a handle on reconstruction effects, although only with the Matching Analysis proposed here (3.7.3). The proleptic object is related to a full representation of itself inside the operator via ellipsis. This not only makes copies of the proleptic object available inside the complement clause and thereby accounts for reconstruction effects by means of the Copy Theory. It also accounts for the Vehicle Change effects that lead to alleviation of Principle C effects (3.7.3.7–3.7.3.8). The notion specific chain accounts for the lack of scope

reconstruction (3.7.4). The specificity of the chain is linked to the presence of a resumptive pronoun (3.8.). The motivation for resumption is certainly the trickiest aspect of the analysis. Since an independent motivation is not so easy to find I have proposed a new perspective that treats resumption simply as a possibility in languages like German or Dutch (and English). At the same time, I have shown that there are plausible independent reasons for the scarcity of resumptive structures in German. Though controversial, I think that this position is very fruitful because it opens up the possibility to discover more cases of resumption in these languages, e.g. such as Copy-Raising. I have shown that a Big-DP approach is the best movement approach for the data at hand in that it not only accounts for the movement effects but also manages to handle many the properties of the resumptive (3.8.4.4). In the final section I have addressed some deviating properties of the in-situ construction and have argued that these follow from non-grammatical factors (3.9).

Despite some unresolved issues, a *tough*-movement style analysis to the proleptic construction captures most of its relevant properties; some of the extensions proposed here (such as the MA) in turn help understand hitherto ill-understood properties of *tough*-movement. The following table compares the movement approach proposed here with the naïve long A'-movement approach and the simple binding approach discussed in 3.6:

(749)

property	*operator movement*	*long A'-movement*	*binding*
free orientation: 3.2.3	+	+	+
unboundedness: 3.2.4	+	+	+
obligatoriness of coreferring pronoun: 3.2.5	+	+	–
reconstruction effects in the matrix clause: 3.3.9.1	+	+/–	+
reconstruction into the complement clause: 3.3	+	+	+
non-reconstruction for Principle C: 3.3.5	+	–	–
reconstruction into intermediate positions in the complement 3.3.9.2	+	+	–
the in-situ construction: 3.4.1.1	+	–	+
the proleptic object is in a non-derived position in the in-situ construction: 3.4.1.2–3.4.1.4	+	–	+
the CP complement is a barrier: 3.4.1.5	+	–	–
absence of lexical restrictions: 3.4.2	+	–	+
insensitivity to islands: 3.4.3	+/–	–	+
why resumptive pronoun: 3.4.4	+/–	–	+
no scope reconstruction: 3.5.2–3.5.3	+	–	+
no low construal of superlative adjectives: 3.5.4	+	–	+

While the operator movement approach advanced here covers practically all aspects, a simple binding approach with semantic reconstruction, the second best solution, fails in a number of respects.

4 Resumptives in Zurich German relative clauses

4.1 Introduction

In this chapter, I will analyze the syntax of resumptive pronouns in restrictive relatives in Zurich German (ZG).[256] Restrictive relatives in Zurich German are interesting for three reasons. First, ZG and Southern Alemannic dialects more generally are different from other Germanic dialects in that they use resumptive pronouns (ignoring Yiddish, cf. Lowenstamm 1977) to identify grammatical functions. Second, resumptive pronouns in ZG only occur in relativization, but not in *wh*-movement or topicalization. Third, the distribution of resumptive pronouns in ZG produces a pattern that is crosslinguistically intriguing (although not unique).

Particularly interesting are a number of asymmetries between local and long-distance relativization: While resumptives in local relativization are restricted to oblique positions, they appear across the board in long-distance relativization. This asymmetry correlates with an asymmetry in matching effects: resumptives in local relativization can be dropped if the external D bears the same case information whereas they are obligatory in long-distance relativization. Furthermore, while there is robust evidence for movement in both cases, long-distance relativization fails to reconstruct for scope in certain cases.

I will take these asymmetries to indicate that we are effectively dealing with two different constructions. While local relativization is basically relativization in the classical sense (with phonetic realization of the traces of certain grammatical relations), I will adapt a proposal by van Riemsdijk (to appear) to reanalyze long-distance relativization as an instance of resumptive prolepsis, in fact, as a somewhat more abstract form of the construction discussed for Standard German in the previous chapter. I will show that the properties are strikingly similar so that a unification is called for.

I will first briefly give some background on the language and the general form of relative clauses including the distribution of resumptive pronouns. Thereafter, I will discuss movement properties such as locality, reconstruction and Crossover effects. In section five, I will discuss matching effects. Section six is devoted to the interpretation of the constructions, especially the influence of the resumptives is taken into account. After an intermediate summary in section seven, I provide an account of local relativization and contrast it with a previous one by van Riemsdijk (1989). Section nine analyzes long-distance relativization in terms of resumptive prolepsis. Section ten addresses a number of remaining issues and concludes the chapter.

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[256] I do not explicitly discuss non-restrictive/appositive relative clauses. With respect to matching and the distribution of resumptive pronouns they pattern like restrictive relatives. They probably behave differently with respect to reconstruction, but this is a delicate issue I leave for further research.

4.1.1 The language

ZG is the dialect spoken in the greater Zurich area, more or less corresponding to the canton (state) of Zurich. There are approximately one million speakers. I will assume that there are no microparametric syntactic differences within the dialect even though nothing is really known about this. There used to be very clear phonetic differences, many of which are still noticeable nowadays. A traditional, but still very informative source about Zurich German is Weber (1964).

As far as the syntax of relative clauses is concerned, ZG is very similar to other Swiss German dialects. They all show practically the same pattern for resumptive pronouns, the only area of variation being the dative where some dialects do not use resumptives, especially the (north-)eastern ones.

4.1.2 General form of relative clauses

ZG relatives are postnominal and head external, which is little surprising for a Germanic language. More interestingly, there are no relative pronouns (except for certain adverbial relations like *the reason why* and *the manner how,* cf. 4.1.4), but instead an invariant complementizer *wo* (*won* before vowel-initial clitics)[257] is used to introduce relative clauses. The use of an invariant complementizer is an inconspicuous property of many varieties of German, bare *wo* is used in all Alemannic dialects, cf. Fleischer (2003: 227). In certain grammatical relations, a resumptive pronoun appears instead of a gap. In the default case those resumptives are formally identical to weak personal pronouns and tend to occur relatively high in the clause, in the Wackernagel position between the subject and the middle field (cf. e.g. Müller 1999) or cliticized onto C.[258]

4.1.3 Distribution of resumptive pronouns

There is an intriguing asymmetry between local and long-distance relativization: In local relativization, resumptives are found only for oblique relations such as datives, complements of prepositions and possessors. In long-distance relativization, however, resumptives are found across the board. The indirect object presents additional complications in that some verbs disallow resumptives for that position in local relativization.

4.1.3.1 Local relativization

The local pattern nicely follows the Comrie & Keenan (1977) hierarchy: all relations from the dative object on downwards require resumptives while subjects and direct objects do not, cf. Weber (1964), van Riemsdijk (1989: 343, 345; to appear):[259, 260, 261]

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[257] This is an instance of the more general process of *n*-epenthesis in ZG.

[258] As I will discuss in 4.9.3.8 and 4.10.3 below, other resuming elements such as epithets are possible as well.

[259] ZG – and Swiss dialects in general – is merely a spoken language and has no strict orthography. In my transcription, I follow basically the spelling guidelines of Dieth (1938), and

(750) a) d [Frau], wo **(*<u>si</u>)** immer z spaat chunt (subject)
the woman C (she) always too late comes
'the woman who is always late'

b) es [Bild], wo niemert **(*<u>s</u>)** cha zale (direct object)
a picture C nobody (it) can pay
'a picture that nobody can afford'

c) de [Bueb], wo mer ***(<u>em</u>)** es Velo versproche händ
the boy C we (he.DAT) a bike promised have.1PL
'the boy we promised a bike' (indirect object)

d) d [Frau], won i von ***(<u>ere</u>)** es Buech überchoo han
the woman C I from (she) a book got have.1S G
'the woman from whom I got a book' (P-object)

e) d [Frau], won i mit ***(<u>ere</u>)** is Kino ggange bin
the woman C I with her in.the movie went am
'the woman that I went to the movies with' (P-adjunct)

Dieth & Cadalbert (1986) respectively. Dieth's (1938: 13) key principle "schreibe so, wie du sprichst, wie du es hörst und empfindest" 'write like you speak, like you hear and feel' has been widely adopted. This is particularly true for vowel and consonant lengths. I chose, however, not to use diacritics as proposed in the above-mentioned guidelines. This is because such phonetically close transcriptions are not necessary for the purposes pursued here. Moreover, many of the sounds at issue are in (near-)allophonic variation with sounds that correspond to graphemes present in the ordinary alphabet. This is particularly true for the – virtually nondistinctive – lengths of the palatal and the velar fricatives as well as for some vowel qualities. Some problems arise with the several e-sounds: The letter <e> is used for [e], as well as for Schwa, which exclusively appears in reduced syllables predominantly at the end of the word, and for [ɛ] while <ä> exclusively corresponds to [æ]. Again, there is little need to use diacritics to distinguish [e] from [ɛ] in my data set especially since the contrast is neutralized in certain contexts. The only word where I explicitly mark the vowel quality is (g)gëë 'give(n)'. Here, <ë> corresponds to [ɛ].

In deviation of Dieth & Cadalbert (1986) past particples with the *g*-prefix are written as <gg> before vowels and liquids, but as <g> before fricatives and nasals because /g/ and /k/ are only distinct in the former environments so that graphic distinction can be limited to that case.

There are further minor deviations from the spelling guidelines that are mostly due to better recognition of the etyma with regard to the (by far more familiar) spelling conventions of Standard German. For obvious reasons, I graphically distinguish the complementizer <dass> from the relative pronoun <das>, disregarding their actual homophony. Another case where I use Standard German spelling is the verb *glaube* 'believe' which would be [gläube] in Zurich German. Since Swiss dialects differ phonetically and since the spelling directly reflects the phonetics, there may be variation in the spelling across dialects.

260 I will use the same notational conventions as in the previous chapters, cf. footnote 2 for detail. As in the relatives and in the proleptic construction, the external head appears enclosed in brackets. The gap/the resumptive it is related to is marked by underline. In order not to anticipate the analysis, no indices are used so that the representation is to be interpreted as neutral between a movement or a non-movement relationship.

261 I am deeply grateful to the following people who provided judgments for the data in this chapter: Barbara Bächli, Silvio Bär, Kathrin Büchler, Petrea Bürgin, Martin Businger, Peter Gallmann, Martin Graf, Beatrice Hartmann, Maja Hermann, Andreas Henrici, Roland Litscher, Michael Mente, Heinz Moser, Marlys Moser, Franziska Näf-Vosnjak, Christian Rapold, Didier Ruedin, Etienne Ruedin, Marianne Ruedin, Michel Ruedin, Claudia Schmellentin, Charlotte Schweri, Guido Seiler, Roman Sigg, Benjamin Stückelberger, Rafael Suter, Kathrin Würth, Martina Würth, Lukas Zaugg, Silvia Zaugg-Coretti, Tobias Zimmermann, Regula Zimmermann-Etter, Hans-Jürg Zollinger, Serena Zweimüller.

f) Das deet isch de [Typ],
that there is the guy
won i geschter ***(sini)** Fründin verfüert han.
C I yesterday (his) girlfriend seduced have.1SG
'That's the guy whose girlfriend I seduced yesterday.'
(possessor)[262, 263]

I should mention at this point that Standard German influence is visible in the idiolect of many speakers. It can be frequently observed that oblique relations are not constructed with resumptive pronouns anymore but rather with relative pronouns (and pied-piping in the case of PPs) and without *wo,* as in the standard language. This looks as follows:

(751) a) de [Bueb], **dem**$_1$ mer $___1$ es Velo versproche händ
the boy who.DAT we a bike promised have.1PL
'the boy we promised a bike' (indirect object)

b) d [Frau], [**vo dere**]$_1$ ich $___1$ es Buech überchoo han
the woman of who I a book got have.1SG
'the woman from whom I got a book' (P-object)

Importantly, relative pronouns are never used for subjects and direct objects where only *wo* is possible. In what follows, I will only describe the "pure" ZG system, which is still the dominant one for a large number of speakers.

4.1.3.2 Long-distance relativization

The following examples illustrate long-distance relativization. Resumptives appear in all grammatical functions, gaps are impossible:

(752) a) D [Frau], wo t gsäit häsch, dass ***(sie)** kän Fründ hät,
the woman C you said have.2SG that she no boyfriend has
han i hütt mit emene Maa gsee.
have.1SG I today with a man seen
'Today I saw the woman who you said has no boyfriend with a guy.'
(subject)

b) s [Bild], wo t gsäit häsch,
the picture C you said have.2SG
dass ***(es)** de Peter wett verchauffe
that it the Peter wants sell
'the picture that you said Peter wants to sell' (direct object)

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[262] Alternatively, possessors can also be rendered as complements of the preposition *von* 'of' in which case they are constructed like argument or adjunct PPs:

i) de [Typ], won i geschter d Fründin von **em** verfüert han.
the guy C I yesterday the girlfriend of he.DAT seduced have.1SG
'the guy whose girlfriend I seduced yesterday'

[263] Possessor relativization in West Flemish is syntactically very similar, cf. Haegeman (2003).

c) de [Bueb], won I glaube,
the boy C I believe.1SG
dass ***(em)** de Vatter es Velo versproche hät
that he.DAT the father a bike promised has
'the boy who I think the father promised a bike'

d) d [Frau], won i gsäit han,
the woman C I said have.1SG
dass i von ***(ere)** es Buech überchoo han
that I from she a book got have.1SG
'the woman that I said I got a book from' (P-argument)

e) Das deet isch d [Frau], won i dr gsäit han,
that there is the woman C I you said have.1SG
dass i emaal mit ***(ere)** in Uusgang wett. (P-adjunct)
that I once with (her) in exit want.1SG
'That is the woman who I told you I would like to go out with.'

f) s [herzige Chind], won i glaub,
the cute child C I believe.1SG
dass i geschter ***(sini)** Muetter gsee han
that I yesterday his mother seen have.1SG
'the cute child whose mother I believe I saw yesterday'

4.1.3.3 Datives

Resumptives for dative objects are not completely robust in local relativization. There are speakers of ZG who don't use resumptives at all for indirect objects and therefore seem to follow the pattern of north-eastern Swiss German dialects. This group will be ignored in what follows. In addition, there are two configurations where resumptives for indirect objects are strongly dispreferred, even by those who otherwise use resumptives for indirect objects.

In both of these cases, there seems to be no completely felicitous way of constructing the example. No such restrictions are found with long-distance relativization. However, in some cases, dative pronouns are even degraded with long-distance relativization. Those cases can be shown to involve an incompatibility in animacy between the pronoun and the antecedent.

The first case where dative resumptives lead to degradation are ditransitive verbs with an accusative > dative base order (cf. e.g. Müller 1999):

(753) a) *di [böös Tante], wo mer mich **(ire)** uusggliferet hät
the mean aunt C one me she.DAT put.at.the.mercy.of has
'the mean aunt at whose mercy one put me'

b) di [böös Tante], won i gsäit han,
the mean aunt C I said have.1SG
dass mer mich ***(ire)** uusgglifert hät
that one me she.DAT put.at.mercy.of has
'the mean aunt at whose mercy I said one put me'

Interestingly, the example with local relativization remains bad if the resumptive is dropped. There seems to be no perfect way of expressing the content whereas there are no problems with long-relativization as long as a resumptive is used.

The second case where resumptives are bad with an indirect object in local relativization concerns unaccusative verbs with dative-nominative order, many of them psych-verbs:

(754) a) *de [Maa], won i **(em)** gfale
the man C I he.DAT please.1SG
'the man who likes me'

b) de [Maa], won i hoff, dass i ***(em)** gfale
the man C I hope.1SG that I he.DAT please
'the man that I hope likes me'

Again, dropping the resumptive in local relativization does not lead to an improvement. It does not seem to be possible to construct a grammatical sentence. The sentence is impeccable with a resumptive in long-distance relativization.

Resumptives for datives are only robust in local relativization with animate objects of ditransitive verbs with dative > accusative base order as in the examples above and animate objects of transitive verbs such as the following:

(755) de [Maa], wo t ***(em)** geschter ghulffe häsch
the.NOM man C you (he.**DAT**) yesterday helped have.2SG
'the man who you helped yesterday'

This also shows that the distribution of dative resumptives cannot be predicted on the basis of the structural/inherent division that is sometimes argued to distinguish different datives: those that do make the distinction – e.g. Gallmann (1992), Wegener (1985, 1991) etc. – regard those as structural whose structural position is absolutely predictable. This only holds for those datives that appear structurally higher than either the direct object or in the case of unaccusatives the subject. But as we have seen, while resumptives are robust in the former , cf. (750)c, they are absolutely impossible in the second case, cf. (754)a. This is not to say that the structural/inherent distinction is irrelevant for datives, it simply shows that the distribution of resumptives in local relativization is not governed by this distinction. I will come back to this issue in the section on matching effects, cf. 4.5.2.4 and in the analysis part in 4.8.3.2.

As mentioned at the beginning, there are cases where a dative resumptive is even impossible in long-distance relativization. Consider again an example with a

ditransitive verb with an accusative > dative base order, this time with an inanimate head noun:

(756) a) *d [Gfaar], won ich **(ire)** de Hansli uusgsetzt han
the danger C I it.DAT the little.John exposed have.1SG
'the danger to which I exposed little John'

b)??d [Gfaar], won I glaube,
the danger C I believe.1SG
dass mer **(ire)** de Hansli uusgsetzt händ
that we it.DAT the little.John exposed have.1PL
'the danger to which I believe we exposed little John'

This arguably has to do with the fact that the dative pronouns used in resumption are incompatible with inanimate antecedents. This is illustrated by the following example where the pronoun is understood as referring to something like *Gfaar* 'danger':

(757) *Ich het de Hansli **ire** nöd söle uussetze.
I had.SUBJ the little.John it.DAT not should put.at.mercy.of
'I should not have put little John at her mercy.'

This explains why there is hardly any contrast in (756).[264]

If the resumptive is neuter and governed by a preposition, it is realized as an R-pronoun inside a pronominal adverb. In that case, it is compatible with inanimate antecedents:

(758) s [Grücht], won i **de**voo ghöört han
the rumor C I there.of heard have.1SG
'the rumor I heard about'

This parallels its non-resumptive use. In the following example, the R-pronoun is to be interpreted as referring to *Grücht* 'rumor':

(759) Ich han nüüt **de**voo ghöört.
I have.1SG nothing there.of heard
'I have heard nothing about it.'

R-pronouns are obligatory if the antecedent is neuter and inanimate as in the previous case. R-pronouns are quite rare if the antecedent is human and non-neuter but they are not completely impossible. With non-neuter inanimates, both R-pronouns and NP-pronouns are in principle possible, with a certain preference for the R-pronoun:[265]

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[264] While *Gfaar* 'danger' is non-neuter and does not lead to complete ungrammaticality for all speakers, sentences with neuter antecedents are completely out, both in normal anaphoric relationships and in resumption.

[265] The distribution is arguably still more fine-grained; but crucially, it is identical to the use of R-pronouns vs. NP-pronouns in ordinary syntax. The situation in ZG seems pretty much identical to the Standard German situation, cf. 3.2.1.

(760) di [einzig Lööisg], won i zfride bin **mit** **<u>ere</u>**/**<u>de</u>mit**
the only solution C I satisfied am with it/there.with
'the only solution that I am satisfied with'

These examples show that the felicity of resumptives also depends on the compatibility of personal pronouns/R-pronouns with the animacy/humanness of the antecedent. The resumptive elements therefore behave like their normal pronominal counterparts. I will come back to this point in 4.8.3.3 and 4.9.3.8.

To summarize, resumption with dative objects is restricted to certain classes of verbs in local relativization but not in long-distance relativization. Additionally, a clash in animacy between pronoun and antecedent invariably leads to ungrammaticality, even in long-distance relativization.

4.1.3.4 No resumptives in *wh*-movement

Resumptive pronouns are not found in all types of A'-movement in ZG. In fact, they are almost restricted to relative clauses.[266] *Wh*-movement and topicalization leave gaps, both in local and long-distance movement and both in direct and oblique relations:[267]

(761) a) **Wer**$_1$ hät de Peter $___1$/*<u>**en**</u> küsst?
who has the Peter him kissed
'Who did Peter kiss?'

b) **Wem**$_1$ hät de Peter $___1$/*<u>**em**</u> es Buech ggëë?
who.DAT has the Peter he.DAT a book given
'Who did Peter give a book?'

(762) a) **Wer**$_1$ häsch gsäit, dass de Peter $___1$/*<u>**en**</u> küsst hät?
who have.2SG said that the Peter him kissed has
'Who did you say that Peter kissed?'

b) **Wem**$_1$ häsch gsäit,
who.DAT have.2SG said
dass de Peter $___1$/*<u>**em**</u> es Buech ggëë hät?
that the Peter he.DAT a book given has
'Who did you say that Peter gave a book?'

These are straightforward instances of A'-movement. I will discuss in 4.8.3.2 why resumption is impossible with these A'-movement types.

4.1.4 Adverbial relatives

Next to resumptive relatives, there is one type where relative adverbs are employed. They all express adverbial notions, similar to English *the reason why*, *the manner how*, *the place where*. Importantly, no resumptive appears, neither in

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[266] They marginally also occur in comparatives, as in Standard German (cf. 3.8.2.2). I will come back to this in 4.8.3.2 and footnote 297.

[267] The question word *wer* 'who' can be used in nominative and accusative. Nowadays, however, many speaker have adopted Standard German *wen* 'whom' for accusative.

local nor in long-distance relativization. Here are examples for manner and reason relatives:

(763) a) De [Grund], [**werum**] er z spaat __ choo isch,
the reason why he too late come is
hät er ois nöd wele verratte.
has he us not wanted tell
'He didn't want to tell us the reason why he was late.'

b) D [Art], [**wie**] de Peter s Probleem __ gglööst hät,
the reason how the Peter the problem solved has
hät mi seer beiidruckt.
has me very impressed
'The way Peter solved the problem impressed me a lot.'

(764) a) de [Grund], [**werum**] i glaube, dass er z spaat __ choo isch
the reason why I believe.1SG that he too late come is
'the reason why I believe he was late'

b) d [Art], [**wie**] t glaubsch,
the manner how you believe.2SG
dass mer s Probleem __ sött lööse
that one the problem should solve
'the way you think one should solve the problem'

There is another type one can broadly call locative relatives even though the precise semantic properties are not always locative in the strict sense. Those relatives seem to involve a relative adverb *wo* which happens to be identical to the relative complementizer found elsewhere. There are no resumptive pronouns either. The first two pairs involve locative or temporal[268] relations (see also van Riemsdijk to appear):

(765) a) s [Huus], [**wo**] de Peter __ wont
the house where the Peter lives
'the house where Peter lives'

b) d [Ziit], [**wo**] d Wält __ no in Ornig gsii isch
the time where the world still in order been is
'the time when the world was still in order'

(766) a) s [Huus], [**wo**] t gsäit häsch, dass de Peter __ wont
the house where you said have.2SG that the Peter lives
'the house where you said Peter lives'

[268] Some speakers prefer the relative adverb *wänn* 'when' for temporal relations.

b) d [Ziit], [**wo**] t gsäit häsch,
the time when you säid have.2SG
dass d Wält __ no in Ornig gsii isch
that the world still in order been is
'the time when you said the world was still in order'

Van Riemsdijk (to appear) observes that there is a further use of locative relatives: so-called aboutness relatives. Such relatives have a vague locative meaning (similar to English expressions *with this weather*) and express corollary circumstances. Neither in short nor long-distance relativization are there resumptives:

(767) a) es [Wätter], [**wo**] s sich __ nöd loont, de Raase z määje
a weather where it self not is.worthwhile the lawn to mow
'a weather where there is no point in mowing the lawn'

b) es [Wätter], [**won**] I find, dass es sich __ nöd loont,
a weather where I find that it self not is.worthwhile
de Raase z määje
the lawn to mow
'a weather where I think there is no point in mowing the lawn'

I will argue in 4.9.3.4 below that all locative relatives should be reanalyzed as regular relatives. Furthermore, it is not entirely true that locative relatives are completely incompatible with resumptive elements. One can construct examples with long-distance relativization where a locative proform resumes the antecedent:

(768) e [Stadt], **wo** mer säit, dass **deet** d Mietene seer hööch sind
a city where one says that there the rents very high are
'a city where one says the rents are very high'

I will come back to this fact first in 4.2.2 and then in 4.10.2 where I will argue that locative relatives are structurally ambiguous and allow two different derivations.

4.2 Locality

One of the possibilities of testing whether movement is involved in ZG relatives are locality effects. As we will see, with resumptive relatives this is not so straightforward whereas with adverbial relatives, locality effects provide relatively clear evidence for movement.

4.2.1 Resumptive relatives

In some languages, the distribution of resumptives provides direct evidence for movement: In English, for instance, a language that does not make productive

use of resumptives, resumptives only occur where extraction is impossible (the island appears in angled brackets):[269]

(769) This is the [man] that I don't know < why nobody likes *__/**him** >.

This suggests that normal relativization is sensitive to locality and that when locality principles are violated, resumption can rescue those violations as discussed in 3.8.2.3. The resumptive structures are then thought to involve base-generation. On the other hand, there are languages like Vata and Serbo-Croatian where resumptives are banned from all islands, cf. Boeckx (2003: 113ff.). This implies that these structures involve movement even in the presence of a resumptive.[270] In ZG – as in most languages with resumptives – the distribution of resumptives does not help because their distribution does not correlate with locality. Some resumptives appear in positions where regular A'-movement is possible, such as the dative object and subjects and direct objects of embedded clauses as shown above. The following sentences illustrate the corresponding *wh*-extraction:

(770) a) **Wem**$_1$ häsch es Velo __$_1$ versproche?
who.DAT have.2SG a bike promised
'Who did you promise a bike?'

b) [**Weli Frau**]$_1$ häsch gsäit, dass __$_1$ kän Fründ hät?
which woman have.2SG said that no boyfriend has
'Which woman did you say has no boyfriend?'

c) [**Weles Bild**]$_1$ glaubsch, dass de Peter __$_1$ wett verchauffe?
which picture believe.2SG that the Peter wants sell
'Which picture do you think Peter wants to sell?'

At the same time, one finds resumptives in positions where regular A'-movement is impossible. This holds for the PP and possessor cases mentioned at the beginning. The following examples show that A'-movement from these positions is impossible (islands appear in brackets):

(771) a) ***Wem**$_1$ häsch es Buch <vo __$_1$ > überchoo
who.DAT have.2SG a book from received?
'Who did you get a book from?' (P-stranding)

b) *[**Wem sini**]$_1$ häsch geschter <__$_1$ Frau> gsee?[271]
who.DAT his have.2SG yesterday wife seen
lit.: 'Whose did you see wife?' (left branch)

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[269] This statement is perhaps not fully correct because at least for some speakers, there is a certain optionality in weak islands, cf. Chao & Sells (1983).

[270] As Adger & Ramchand (2005) show for Scottish Gaelic, sensitivity to locality does not necessarily imply that movement is involved because there are no reconstruction effects in Gaelic.

[271] Possessive expressions in ZG look as follows:

i) em Peter sini Frau
the.DAT Peter his wife
'Peter's wife'

One also finds resumptives a) embedded inside a PP which is inside another PP, or b) inside a PP within the subject, c) inside a relative clause, and d) inside a noun complement clause:

(772) a) de [Maa], won i <mit de Schwöschter von ***(em)** i d Schuel bin>
the man C I with the sister of him in the school am
'the man with whose sister I went to school' (PP island)

b) de [Sportler], wo <d Biografie über ***(in)** > vil Erfolg ghaa hät
the athlete C the biography about him much success had has
lit.: 'the athlete that the biography about him had a lot of success'
(subject island)

c) de [Autor], wo d Marie < jedes Buech,
the author C the Mary every book
won ***(er)** schriibt >, sofort chauft
C he writes immediately buys
lit.: 'the author that Mary immediately buys every book he writes'
(CNPC: rel)

d) de [Sänger], won i < s Grücht, dass ***(er)** gar nöd cha singe >,
the singer C I the rumor that he PRT not can sing
nöd cha glaube
not can.1SG believe
lit.: 'the author that I cannot believe the rumor that he cannot sing'
(CNPC: comp.clause)

The first two are cases of local relativization, the others illustrate long-distance relativization. The following examples show that the PP and subject islands can also be voided in long-distance relativization:

(773) a) de [Maa], won i gsäit han,
the man C I said have.1SG
dass i < mit de Schwöschter von ***(em)** > i d Schuel bin
that I with the sister of he.DAT in the school am
lit.: 'the man that I said that I went with the sister of him to school'

b) de [Sportler], won i wäiss, dass < d Biografie über ***(in)** >
the athlete C I know.1SG that the biography about him
vil Erfolg ghaa hät
much success had has
lit.: 'the athlete that I know that the biography about him had a lot of success'

The possessor is in the Spec, the possessive pronoun is the head of the DP, cf. Lindauer (1994). It is therefore little surprising that they cannot be extracted together. Extracting only the specifier does not lead to an improvement, however, and shows that left branch effects are robust in ZG:

ii)*Wem häsch geschter <__ sini Frau> gsee?
who.DAT have.2SG yesterday his wife seen
'Whose wife did you see yesterday?'

This shows that resumption in ZG can void any kind of island. The following examples show that regular A'-extraction from such domains is impossible:[272]

(774) a) *[**Vo wem**]$_1$ bisch < mit de Schwöschter __$_1$ > i d Schuel?
of who.DAT are with the sister in the school
lit.: 'Who did you go with the sister of to school?' (PP-island)

b) *[**Über wen**]$_1$ hät <d Biografie __$_1$ > vil Erfolg ghaa?
about whom has the biography much success has
lit.: 'Who did the biography about have a lot of success?'
(subject island)

c) ***Wer**$_1$ chauft d Marie < jedes Buech, wo __$_1$ schriibt >?
Who buys the Mary every book C writes
lit.: 'Who does Mary buy every book that writes?' (CNPC: rel)

d) ***Wer**$_1$ chasch <s Grücht, dass __$_1$ nöd cha singe >, nöd glaube?
Who can.2SG the rumor that not can sing not believe
lit.: 'Who can't you believe the rumor that can't sing?'
(CNPC: comp. clause)

It is tempting to assume that movement is involved only in those cases where corresponding *wh*-movement is possible, but not where *wh*-extraction fails. However, in the absence of independent evidence, this is just a stipulation based on our knowledge about locality.

4.2.2 Adverbial relatives

With reason and manner relatives, things are quite straightforward: Extracting the relative adverb from an opaque domain leads to ungrammaticality, even if one uses proforms instead of gaps. The following examples illustrate this for extraction from relative clauses. This holds irrespective of the degree of embedding.

(775) a) *de [Grund], [**werum**] i < de Maa,
the reason why I the man
wo de Peter **(<u>deswäge</u>)** gschlage hät>, käne ggleert han
C the Peter therefore hit has got.to.kno have.1SG
lit.: 'the reason why I got to know the man whom Peter hit because of that'

[272] They are parallel to the Standard German data in (515); inserting a resumptive pronoun does not improve the examples, a fact I will come back to in 4.8.3.2.

b) *De [Grund], [**werum**] t gsäit häsch, dass t dich fröögsch,
the reason why you said have.2SG that you yourself ask.2SG
< öb de Peter sini Schwöschter **(<u>deswäge</u>)** umpracht hät >,
if the Peter his sister therefore killed has
hät mit sinere Chindhäit z tue.
has with his childhood to do
Lit.: 'The reason why you said that you are wondering if Peter killed his sister because of that has to do with his childhood.'

(776) a) *d [Art], [**wie**] t < de Maa, wo de Hans **(<u>so</u>)** gschlage hät >,
the way how you the man C the John thus hit has
net t findsch
nice finds.2SG
lit.: 'the way that you like the man that John hit that way'

b) *d [Art], [**wie**] t gsäit häsch, dass t < de Maa,
the way how you said have.2SG that you the man
wo de Hans **(so)** gschlage hät >, nett findsch
C the John thus hit has nice find.2SG
lit.: 'the way that you said that you like the man that John hit that way'

It seems safe to conclude that these relatives involve movement.[273]

With locative relatives, things are more complex. Van Riemsdijk (to appear: 4, ex. 8) argues that they are sensitive to locality and that inserting a locative proform only adds a repair flavor, but does not markedly improve the sentence. In other words, the proforms are argued to have the status of intrusive pronouns, cf. 3.8.2.3. Here are his examples:[274]

(777) a) s [Huus], **wo** < d Behauptig, dass de Hans **<u>deet</u>** wont >,
the house where the claim that the John there lives
nie bewise worden isch
never proven become is
'the house such that the claim that John lives there has never been proven'

b) s [Fäscht], **won** i < s Mäitli, wo mit em Hans
the party where I the girl C with the.DAT John
<u>deet</u> anegaat >, scho mal troffe han
there to.goes already once met have.1SG
'the party such that I have already once met the girl with whom John goes there'

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[273] The reason why resuming elements are impossible is arguably related to the fact that the antecedent is overt and that using a proform in the trace position would violate the constraint against realizing more than one chain link, introduced for Standard German in 3.8.2.1 and argued for ZG in 4.8.3.2. Furthermore, as pointed out in Boeckx (2003: 91ff.) there are crosslinguistically no attested cases where a causal adverb is resumed.

[274] Van Riemsdijk does not star the sentences.

I agree that these sentences do not sound all that good. However, I submit that this is not only due to the resumptive strategy. The following example illustrate normal relatives constructed in the same way, and it seems to me that they are also degraded – or rather: difficult to parse:

(778) a) de [Maa], wo <d Behauptig, dass de Hans **en** känt>,
the man C the claim that the John him knows
nie bewise worde isch
never proven become is
'the man such that the claim that John knows him was never proven'

b) de [Maa], won i < s Mäitli, wo mit **em** ggredt hät>,
the man C I the girl C with her talked has
scho mal troffe han
already once met have.1SG
'the man such that I have already once met the girl that talked to her'

Potential causes for this are the position of the relative, which makes parsing more difficult, and possibly semantic/pragmatic reasons. As already mentioned for (768), superficially locative relatives are compatible with proforms in certain cases. As will be argued for in 4.10.2, such locative relatives are actually no longer real locative relatives. The examples in (777) can also be improved to grammaticality by slight modifications that avoid the above-mentioned problems (anticipating a bit, I gloss *wo* as a complementizer):

(779) a) s [Huus], **wo** niemert < s Grücht glaubt,
the house C no.one the rumor believes
dass **deet** en Gäischt wont >
that there a ghost lives
'the house such that no one believes the rumor that a ghost lives there'

b) es [Fäscht], **won** i < niemert wett käne leere, wo **deet** anegaat >
a party C I no.one want.1SG get.to.know C there goes.to
'a party such that I don't want to meet anybody who goes there'

Both examples involve the same type of strong island as the examples in (777), but the relative clause is now extraposed and they are generally easier to parse.

The same holds for locative relatives with a temporal interpretation. Once the examples are constructed carefully, a proform inside an island can improve a sentence to full grammaticality:[275]

[275] Some speakers reject *damals* as Standard German. Henk van Riemsdijk (p.c.) informs me that for him, ZG *zu dere Ziit* 'then' is fine in this context.

(780) e [Ziit], **won** I glaub, dass < d Behauptig, dass **<u>damals</u>**
a time C I believe.1SG that the claim that then
alles besser gsii isch >, eifach nöd stimmt
everything better been is simply not be.true
'the time such that I believe that the claim that everything was better back then is simply not true'

The bottom line of this is that adverbial relatives are sensitive to locality and therefore involve movement. Locative relatives are special in that they normally do not take resumptive pronouns but can do so if the extraction site is located inside an island. However, I do not conclude from this that these cases represent intrusion. Rather, I assume that they are fully grammatical. I will argue in 4.10.2 that locatives are structurally ambiguous and that next to real locative relativization there is another option which accounts for the island-voiding examples.

4.2.3 Summary

Abstracting away from the complications with locative relatives just discussed, it seems clear that adverbial relatives involve movement. They are sensitive to locality constraints and do not employ resumptive elements, not even to save island violations. With resumptive relatives, things are much less clear since the distribution of resumptives does not correlate with locality. We therefore need independent evidence, which I will provide in the following sections that deal with reconstruction and Crossover effects.

4.3 Reconstruction

Reconstruction in ZG relatives is quite robust, both for those that involve gaps as well as those with resumptives. Reconstruction is systematic for idioms, Principle A and variable binding. As in Standard German, there is no reconstruction for Principles B and C. Both local and long-distance relativization pattern the same with respect to these reconstruction tests. For reasons that will become clear later on, reconstruction for scope and the interpretation of adjectival modifiers are discussed in the section on interpretation (4.6). After discussing reconstruction in local and long-distance relativization separately, I will discuss reconstruction into intermediate positions in the third subsection. The last subsection deals with reconstruction into islands. Since the ZG pattern is very close to the Standard German one, the discussion will be brief except where the two differ.[276]

[276] I do not discuss adverbial relatives because it is very difficult if not impossible to construct fully acceptable examples with reconstruction, a fact already pointed out for English and Standard German in footnotes 14, 73 and 124. Future research will have to determine their impact on the possible analyses of relative clauses.

4.3.1 Local relativization

Reconstruction is systematic for all tests except Principle C, as in Standard German relatives. There is no difference between gap-relatives and resumptive relatives.

4.3.1.1 Idioms

The following pair illustrates reconstruction for idiom interpretation:[277]

(781) a) D [**Reed**], won er geschter __ **gschwunge** hät, hät mi beiidruckt.
the speech C he yesterday swung has has me impressed
'The speech he gave yesterday impressed me a lot.'

b) S [**Fettnäpfli**], won i drii **trampet** bin,
the faux.pas C I there.in stepped am
hett i äigetli müese gsee.
should.1SG I actually must seen
'I should have noticed the faux pas I made.' [278]

4.3.1.2 Variable binding

The following examples illustrate reconstruction for variable binding, for both gap-relatives and resumptive relatives:

(782) a) S [Bild vo **sinen**$_i$ Eltere],
the picture of his parents
wo **jede Schüeler**$_i$ __ mitpraacht hät, hanget a de Wand.
C every pupil brought.with has hangs on the wall
'The picture of his$_i$ parents that every pupil$_i$ brought with him is hanging on the wall.'

b) De [Abschnitt vo **sim**$_i$ Läbe], wo **niemert**$_i$ gern drüber redt,
the period of his life C nobody likes.to there.about talks
isch d Pubertät.
is the puberty
'The period of his$_i$ life that nobody$_i$ likes to talk about is puberty.'

4.3.1.3 Principle A

Anaphor binding in ZG works essentially the same way as in Standard German. There is only an invariant anaphor *sich*, which cannot be used logophorically and

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[277] As pointed out in footnote 24, only relatively transparent collocations where the NP retains ist meaning can be used in relativization while opaque idioms cannot, as the following example shows:
i)* de **[Chorb]**, wo si mer __ ggëë hät, isch schrecklich gsii
the basket C she me.DAT given has is terrible been
(give somebody a basket = turn somebody down)

[278] The idiom *in es Fettnäpfli trampe* (lit.: to step into a fat bowl) means 'to put one's foot in one's mouth'.

is normally bound by the highest argument of a given predicate (cf. 2.1). Reconstruction for Principle A is unproblematic. Here are two examples that rule out a coreferential implicit PRO (cf. 2.1.3):[279]

(783) a) S [Bild vo **siich$_i$**], wo **de Peter$_i$** __ wett verchauffe,
the picture of self C the Peter wants sell
gfallt niemertem.
pleases nobody
'Nobody likes the picture of himself$_i$ that Peter$_i$ wants to sell.'

b) s [Grücht über **siich$_i$**], wo **de Peter$_i$** sich drüber uufregt
the gossip about self C the Peter self there.aboutgets.worked.up
'the gossip about himself$_i$ that Peter$_i$ is getting worked up about'

4.3.1.4 Principle B

As in Standard German (2.2.5), there are no Principle B effects in relativization. The reason for this is also the same: Zurich German shows the same free variation between pronouns and anaphors inside picture NPs:[280]

(784) a) **De Peter$_i$** hät es Bild vo **siich$_i$/im$_i$/*em$_i$** i de Ziitig gsee.
The Peter has a picture of self/him/him in the newspaper seen
'Peter$_i$ saw a picture of himself$_i$/him$_i$ in the newspaper.'

b) **De Peter$_i$** hät es böses Grücht über **siich$_i$/in$_i$/*en$_i$** ghöört.
the Peter has a bad rumor about self/him/him heard
'Peter$_i$ heard a malicious rumor about himself$_i$/him$_i$.'

This is why we find no Condition B effects under reconstruction as the following examples show:

(785) a) s [Bild vo **im$_i$**], wo de **Peter$_i$** __ nonig känt hät
the picture of him C the Peter not.yet known has
'the picture of him$_i$ that Peter$_i$ didn't know yet'

b) d [Siite vo **im$_i$**], wo de **Peter$_i$** __ nonig känt hät
the side of him C the Peter not.yet known has
'the side of him$_i$ that Peter$_i$ didn't know yet'

(786) a) s [Bild vo **im$_i$**], wo de **Peter$_i$** devoo verzelt hät
the picture of him C the Peter there.of told has
'the picture of him$_i$ that Peter$_i$ was talking about'

b) d [Siite vo **im$_i$**], wo de **Peter$_i$** devoo verzelt hät
the side of him C the Peter there.of told has
'the side of him$_i$ that Peter$_i$ was talking about'

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[279] In older stages of the dialect, the use of the reflexive was limited to direct objects. The personal pronoun was used instead for dative objects and all reflexive relations inside PPs, cf. Weber (1964, 162ff., § 175).

[280] As opposed to Standard German, there are three different pronominal forms in ZG, strong, weak and clitic. For reasons that are unclear to me, only the weak variant can be used as coreferential element bound by the local subject.

ZG also has semi-idiomatic cases where only a pronoun is possible, arguably due to an implicit PRO (cf. 2.1.3):

(787) **De Peter$_i$** hät [e **PRO$_i$** gueti Mäinig vo **siich$_i$/*im$_i$/*em$_i$**].
the Peter has a good opinion of self/him/him
'Peter$_i$ has a good opinion of himself$_i$/him$_i$.'

This implies that the ungrammaticality of the following relative is due to the PRO:

(788) d [PRO$_i$ Mäinig vo ***im$_i$**], wo de Peter __ hät
the opinion of him C the Peter has
lit.: 'the opinion of him$_i$ that Peter$_i$ has'

As pointed out in 1.3.3 such cases require reconstruction to control the PRO but strictly speaking do not provide evidence for reconstruction for Principle B.

4.3.1.5 Principle C

Principle C effects are as absent in ZG as in Standard German (cf. 2.2.6). The following examples illustrate this for gap and resumptive relatives (the R-expressions are contained inside arguments, cf. the discussion in 1.3.4.4, 1.4.1, 2.2.6.3):

(789) a) s [Bild vom **Peter$_i$**], won **er$_i$** __ am beschte findt
the picture of.the Peter C he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) d [Naaforschige über de **Peter$_i$**], won **er$_i$**
the investigations about the Peter C he
mer __ lieber verschwige het
me.DAT prefer conceal would.have
'the investigations about Peter$_i$ that he$_i$ would have rather concealed from me'

c) d [Siite vom **Peter$_i$**], won **er$_i$** __ nonig känt hät
the trait of.the Peter C he still.not known has
'the trait of Peter$_i$ he$_i$ didn't know yet'

(790) a) s [Bild vom **Peter$_i$**], won **er$_i$** gern demit aagit
the picture of.the Peter C he likes.to there.with brag
'the picture of Peter$_i$ that he$_i$ likes to brag with'

b) d [Naachforschige über de **Peter$_i$**], won **er$_i$** mer devoo verzelt hät
the investigations about the Peter C he me there.of told has
'the investigations about Peter$_i$ that he$_i$ told me about'

c) d [Siite vom **Peter$_i$**], won **er$_i$** mer nöd devoo verzelt hät
the trait of.the Peter C he me.DAT not there.of told has
'the trait of Peter$_i$ that he$_i$ didn't tell me about'

As mentioned above, ZG also possesses semi-idiomatic expressions with an implicit PRO. Unsurprisingly, these cases are ungrammatical as in Standard German (cf. 2.2.6.4):

(791) *S [Bild vom **Heiri$_i$**], won **er$_i$** __ gmaalet hät,
the picture of.the.DAT Henry C he painted has
isch seer unvortäilhaft.
is very unfavorable
lit.: 'The picture of Henry$_i$ that he$_i$ painted is very unfavorable.'

When reconstruction is independently required for variable binding (cf. 1.3.5) we get the same pattern as in Standard German: Condition C effects do not re-emerge (cf. 2.2.7). The following two pairs illustrate Condition C and variable binding, for both gap relatives and resumptive relatives:

(792) a) s [Buech vom **Peter$_i$** über *iri$_j$* Vergangehäit],
the book of.the Peter about her past
won **er$_i$** *jedere Politikerin$_j$* __ gschickt hät
C he every.DAT politician sent has
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every politician$_j$'

b) s [Spiegelbild vom **Peter$_i$** in *irere$_j$* Badwane],
the reflection of.the Peter in her bath.tub
won **er$_i$** *jedere Ggliebte$_j$* nach em Ässe __ stolz zäigt
C he every.DAT mistress after the dinner proudly shows
lit.: 'the reflection of Peter$_i$ in her$_j$ bath tub that he$_i$ proudly shows every mistress$_j$ after dinner'

(793) a) s [Buech vom **Peter$_i$** über *iri$_j$* Vergangehäit],
the book of.the Peter about her past
won **er$_i$** *jedere Politikerin$_j$* devoo verzelt hät
C he every.DAT politician there.of told has
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ told every politician$_j$ about'

b) s [Spiegelbild vom **Peter$_i$** in *irere$_j$* Badwanne], won **er$_i$**
the reflection of.the Peter in her bath.tub C he
jedere Gliebte$_j$ nach em Ässe stolz drüber verzelt
every.DAT mistress after the dinner proudly there.about tells
lit.: 'the reflection of Peter$_i$ in her$_j$ bath tub that he$_i$ proudly tells every mistress$_j$ about after dinner'

These examples show that the absence of Condition C effects in ZG relatives is not due to absence of reconstruction. Instead, there must be independent factors that alleviate Condition C effects.

4.3.2 Long-distance relativization

Reconstruction effects in long-distance relativization produce the same pattern. Reconstruction effects are found for idioms, anaphor binding and variable binding but not for Principle B and C.

4.3.2.1 Idioms

The following pair illustrates reconstruction for idiom interpretation:

(794) a) D [**Reed**], won i gsäit han, dass er si geschter **gschwunge**
the speech C I said have.1SG that he it yesterday swung
hät, hät mer gfale.
has has me pleased
'I liked the speech I said he gave yesterday.'

b) s [**Fettnäpfli**], won i gsäit han, dass i drii **trampet** bin
the faux.pas C I said have.1SG that I there.in stepped am
'the faux pas I said I made'

4.3.2.2 Variable binding

Reconstruction for Variable Binding is straightforward, both for direct and oblique relations:

(795) a) de [Abschnitt vo **sim$_i$** Läbe], won i glaub,
the period of his life C I believe.1SG
dass en **käne$_i$** so schnäll vergisst
that it no.one so quickly forgets
'the period of his$_i$ life that I believe no one$_i$ forgets so quickly'

b) De [Abschnitt vo **sim$_i$** Läbe], won i glaub,
the period of his life C I believe.1SG
dass **niemert$_i$** gern drüber redt, isch d Pubertät.
that no.one likes.to there.about talks is the puberty
'The period of his$_i$ live that I think no one$_i$ likes to talk about is puberty.'

4.3.2.3 Principle A

The following examples illustrate reconstruction for Principle A for both direct and oblique relations:

(796) a) s [Bild vo **siich$_i$**], wo t gsäit häsch,
the picture of self C you said have.2SG
dass de **Peter$_i$** s wett verchauffe
that the Peter it wants sell
'the picture of himself$_i$ that you said Peter$_i$ wants to sell'

b) De [Artikel über **siich$_i$**], wo t gsäit häsch,
the article of self that you said have.2SG
dass de **Urs$_i$** ständig mit em aagit, isch nöd objektiv.
that the Urs always with it.DAT boasts is not objective
'The article about himself$_i$ that you said that Urs$_i$ always boasts about is not objective.'

4.3.2.4 Principle B

Principle B effects are absent as in local relativization:

(797) a) s [Bild vo **im$_i$**], won i glaub,
the picture of him C I believe.1SG
dass de **Peter$_i$** s nonig känt hät
that the Peter it not.yet known has
'the picture of him$_i$ that I think Peter$_i$ didn't know yet'

b) d [Siite vo **im$_i$**], won i glaub,
the trait of him C I believe.1SG
dass de **Peter$_i$** si nonig känt hät
that the Peter it not.yet known has
'the trait of him$_i$ that Peter$_i$ didn't know yet'

(798) a) s [Bild vo **im$_i$**], won i glaub,
the picture of him C I believe.1SG
dass de **Peter$_i$** stolz druf isch
that the Peter proud there.on is
'the picture of him$_i$ that I think Peter$_i$ is proud of'

b) d [Siite vo **im$_i$**], won i glaub,
the trait of him C I believe.1SG
dass de **Peter$_i$** stolz druf isch
that the Peter proud there.on is
'the trait of him$_i$ that Peter$_i$ is proud of'

4.3.2.5 Principle C

Principle C effects are completely absent. This holds for both direct and oblique relations:

(799) a) s [Fotti vom **Peter$_i$**]$_j$, won i glaub,
the picture of.the Peter C I believe.1SG
dass **er$_i$** s am beschte findt
that he it the best finds
'the picture of Peter$_i$ that I think he$_i$ likes best'

b) d [Siite vom **Peter$_i$**], won i glaub,
the trait of.the Peter C I believe.1SG
dass **er$_i$** si nonig känt hät
that he it not.yet known has
'the trait of Peter$_i$ that I believe he$_i$ didn't know yet'

(800) a) s [Fotti vom **Peter$_i$**], won i glaub,
the picture of.the Peter C I believe.1SG
dass **er$_i$** stolz druf isch
that he proud there.on is
'the picture of Peter$_i$ that I think he$_i$ is proud of'

b) d [Siite vom **Peter$_i$**], won i glaub,
the trait of.the Peter C I believe.1SG
dass **er$_i$** stolz druf isch
that he proud there.on is
'the trait of Peter$_i$ that I believe he$_i$ is proud of'

Furthermore, Principle C effects do not re-emerge if reconstruction is forced for variable binding:[281]

(801) s [Buech vom **Peter$_i$** über *iri_j* Vergangehäit], won I glaube,
the book of.the Peter about her past C I believe.1SG
dass **er$_i$** s *jedere* *Politikerin$_j$* gschickt hät
that he it every.DAT politician sent has
lit.: 'the book by Peter$_i$ about her$_j$ past that I think he$_i$ sent every politician$_j$'

This shows again that the absence of Condition C effects cannot be due to the absence of reconstruction.

4.3.3 Reconstruction into intermediate positions

For reasons that will become clear later on, I will discuss two different configurations. I will first discuss reconstruction into the matrix clause of long-distance relativization. Then I will discuss reconstruction into lower intermediate positions in long-distance relativization.

4.3.3.1 Into the matrix clause of long-distance relativization

Since reconstruction of idiom chunks cannot be tested for obvious reasons and variable binding does not provide evidence for reconstruction into the matrix clause (since the pronoun can be arbitrarily distant from the quantifier), we are left with binding and scope. Since the latter will be discussed in 4.6, I will only provide examples with binding. The following example illustrates reconstruction for Principle A:

(802) s [äinzige Grücht über **siich$_i$**], wo de **Peter$_i$** findt,
the only rumor about self C the Peter finds
dass es unggrächt isch
that it unfair is
'the only rumor about himself$_i$ that Peter$_i$ thinks is unfair'

---

[281] Note that reconstruction targets a position that is lower than the fronted resumptive pronoun. The external head is interpreted in the theta-position of the resumptive.

Importantly, this sentence is impeccable. This is remarkable given that intermediate anaphor binding is degraded in ZG for many speakers, just like in Standard German (cf. 2.1.4, 2.2.10) as the following *wh*-movement example shows:

(803) #[Weles Fotti vo **siich$_i$**] tänkt de **Peter$_i$**,
which picture of self thinks the Peter
dass ich __ am beschte find?
that I the best find
'Which picture of himself$_i$ does Peter$_i$ think I like best?'

There are no Condition B and Condition C effects. This is little surprising given the previous discussion:

(804) a) s [Bild vo **im$_i$**], wo de **Peter$_i$** tänkt,
the picture of him C the Peter thinks
dass es s schönschten isch
that it the most.beautiful is
'the picture of him$_i$ that Peter$_i$ thinks is the most beautiful one'

b) s [Bild vom **Peter$_i$**], won **er$_i$** tänkt,
the picture of.the Peter C he thinks
dass es s schönschten isch
that it the most.beautiful is
'the picture of Peter$_i$ that he$_i$ thinks is the most beautiful one'

4.3.3.2 Into intermediate positions inside the complement clause

Reconstruction into intermediate positions in the complement clause is also difficult to test. Since the discussion of scope reconstruction is deferred to 4.6 and since the variable binding test from 2.2.10 cannot be applied due to the absence of Condition C effects, we are left with anaphor binding. The following examples show that intermediate anaphor binding is not acceptable to all speakers of Standard German:

(805) a) #s [Bild vo **siich$_{i/j}$**], won i glaube [$_{CP}$ dass de **Peter$_i$**
the picture of self C I believe.1SG that the Peter
z Unrecht tänkt, [$_{CP}$ dass d **Marie$_j$** s lässig findt]]
wrongly thinks that the Mary it cool finds
'the picture of him$_i$-/herself$_j$ that I believe Peter$_i$ wrongly thinks that Mary$_j$ likes'

b) #s [Grücht über **siich$_{i/j}$**], won i glaube,
the rumor about self C I believe.1SG
dass **de Hans$_i$** fürchtet, __ dass **d Maria$_j$** s gehöört hät
that the John fears that the Mary it heard has
'the rumor about him$_i$-/herself$_j$ that I think John$_i$ fears that Mary$_j$ heard'

The markedness of these examples seems similar to intermediate binding in *wh*-movement as in (803) and differs significantly from (802). I will come back to this important asymmetry in 4.9.3.1.

4.3.4 Reconstruction and locality

I showed in 4.2.1 that resumptive relatives are not sensitive to locality. Therefore, it is difficult to say whether they involve movement. Reconstruction provides an independent means to verify this. While a conclusive answer is marred by the fact that the examples become very complex in certain cases, it seems that reconstruction is indeed available into domains that are normally opaque for A'-extraction. I have already tested complements of prepositions quite extensively – the oblique relations in this section. Reconstruction was straightforward in all cases even though the corresponding *wh*-extraction was shown to be ungrammatical in (771)a. Other cases are somewhat more difficult to construct, but show the same result. The following examples show reconstruction of possessors, both for local and long-distance relativization. I only test variable binding since Condition A would lead to complications in these configurations:

(806) a) d [Fründin vo **sim**$_i$ Soon], wo **jede Vatter**$_i$
the girlfriend of his son C every father
iri Eltere wett käne leere
her parents wants get.to.know
'the girlfriend of his$_i$ son whose parents every father$_i$ wants to get to know'

b) d [Fründin vo **sim**$_i$ Soon], won i glaub,
the girlfriend of his son C I believe.1SG
dass **jede Vatter**$_i$ iri Eltere wett käne leere
that every father her parents wants get.to.know
'the girlfriend of his$_i$ son whose parents I believe every father$_i$ wants to get to know'

Recall that the corresponding *wh*-extractions are ungrammatical, cf. (771)b. The following examples show reconstruction into a PP that is embedded within another PP. Again only variable binding can be tested:

(807) a) s [Nacktfotti vo **sinere**$_i$ Frau], wo **kän Politiker**$_i$
the nude.picture of his wife C no politician
< mit em Gschwätz drüber > glücklich isch
with the gossip there.about happy is
lit.: 'the nude picture of his$_i$ wife that no politician$_i$ is happy about the gossip about'

b) s [Nacktfotti vo **sinere$_i$** Frau], won i glaub, dass
the nude.picture of his wife C I believe.1SG that
kän Politiker$_i$ < mit em Gschwätz drüber> glücklich isch
no politician with the gossip there.about happy is
lit.: 'the nude picture of his$_i$ wife that I believe no politician$_i$ is happy about the gossip about'

See (774)a/b for the corresponding *wh*-extractions. The following examples illustrate reconstruction into adjunct and CNPC (both relative clause and complement clause) islands. The first triple illustrates anaphor binding:

(808) a) S [Bild vo **siich$_i$**], wo all lached,
the picture of self C everyone laughs
< wänn de **Peter$_i$** s zäiget>, isch i de Stube.
when the Peter it shows is in the living-room
lit.: 'The picture of himself$_i$ that everyone laughs when Peter$_i$ shows it, is in the living-room.'

b) Das isch s [Buech über **siich$_i$**]$_j$, won I find, dass
that is the book about self C I find.1SG that
< d Art, wie de **Peter$_i$** s vermarktet>, gruusig isch.
the way how the Peter it promotes disgusting is
lit.: 'This is the book of about himself$_i$ that I find the way Peter$_i$ promotes it is disgusting.'

c) s [Bild vo **siich$_i$**], won i < s Grücht,
the picture of self C I the rumor
dass **de Presidänt$_i$** s nöd guet findt >, nöd cha glaube
that the president it not good finds not can.1SG believe
lit.: 'the picture of himself$_i$ that I cannot believe the rumor that the president$_i$ does not like it'

The second triple illustrates variable binding:

(809) a) De [Abschnitt vo **sim$_i$** Läbe], won i glaube,
the period of his life C I believe.1SG
dass mer ganz froo isch,
that one quite happy is
< wänn bim Stammtisch **käne$_i$** drüber redt > isch d Pubertät.
when at.the piss.up no.one there.about talks is the puberty
Lit.: 'The period of his$_i$ life that I think one is quite relieved if no one$_i$ talks about it at a piss-up is puberty.'

b) De [Abschnitt vo **sim$_i$** Läbe], won i glaub, dass
the period of his life C I believe.1SG that
< d Erfaarige, wo **jede Bueb$_i$** debii macht>
the experiences C every boy there.with makes
seer underschidlich sind, isch d Pubertät.
very different are is the puberty
lit.: 'The period of his$_i$ life that I think that the experiences that every boy$_i$ makes during it are very different is puberty.'

c) de Abschnitt vo **sim$_i$** Läbe], won i <d Behauptig,
the period of his life C I the claim
dass **jede Politiker$_i$** stolz druf isch > nöd cha glaube
that every politician proud there.on is not can.1SG believe
lit.: 'the period of his$_i$ life that I cannot believe the claim that every politician$_i$ is proud of'

See (774)c/d for the corresponding ungrammatical *wh*-extractions. Lastly, one can also construe examples where an anaphor is bound in an intermediate position. Like previous cases, such examples are degraded for some speakers. In the following example, the anaphor can be bound both by an R-expression inside and one outside the island:

(810) s [Buech über **siich$_{i/j}$**], won i glaub, dass de **Hans$_i$**
the book about self C I believe.1SG that the John
< d Art, wie de **Peter$_j$** s vermarktet>, gruusig findt, …
the way how the Peter it promotes disgusting finds
lit.: 'the book about himself$_{i/j}$ that I think that John$_i$ finds the way Peter$_j$ promotes it disgusting'

To conclude, under the assumption that reconstruction is a reliable test for movement, resumptive relatives in ZG involve movement in all cases even if the resumptive is located inside an island.

4.3.5 Overview

I would like to briefly summarize the reconstruction pattern I have found. Reconstruction for idiom interpretation, variable binding and Principle A is straightforward in both local and long-distance relativization. Condition B and C effects, however, are absent. Still, the fact that there is reconstruction in some cases provides strong evidence for movement. The following table summarizes the results:

(811)

Reconstruction for	local relativization	long-distance relativization
idiom interpretation	+	+
variable binding	+	+
Condition A	+	+
Condition B	–	–
Condition C	–	–
Condition C under variable binding	–	–

4.4 Crossover effects

Strong Crossover (SCO) Effects are another diagnostic for movement that is independent of locality. With relatives that leave gaps, Strong Crossover (SCO) effects are easy to test and obtain straightforwardly in ZG:

(812) *de [**Maa**]$_i$, won **er$_i$** __$_i$ gern hät
the man C he likes
lit.: 'the man$_i$ who$_i$ he$_i$ likes'

There is A'-movement across a coreferential pronoun, which leads to a straightforward violation. Once relatives involve resumptive pronouns, SCO effect tests need to be constructed with some care, as discussed in McCloskey (1990: 211f.) and Shlonsky (1992: 46). It is important to make sure that the first pronoun, which is supposed to be crossed, cannot be interpreted as the resumptive from where the A'-dependency originates (i.e. the variable). If that is possible, the second pronoun, which is supposed to mark the tail of the A'-dependency, can then be re-interpreted as a coreferential pronoun. As a consequence, there would be no crossing and no SCO effect anymore. Let me illustrate this by means of two examples:

(813) a) de [**Maa**]$_i$, won i **em$_i$** gsäit han, dass **er$_i$** en Tubel isch
the man C I he.DAT told have.1SG that he an idiot is
'the man$_i$ who$_i$ I told he$_i$ was an idiot'

b) de [**Maa**]$_i$, won i glaub, dass **er$_i$** tänkt,
the man C I believe.1SG that he thinks
dass **en$_i$** niemert gern.hät
that him no.one likes
'the man$_i$ who$_i$ I believe thinks no one likes him$_i$'

Both examples are grammatical. This is unexpected if there is A'-movement across the first pronoun. What happens in these examples, however, is exactly what I described above: The first pronoun is not crossed but marks the tail of the A'-dependency and functions as a variable (notice that the tail of the A'-dependency is marked by the underline). In other words, the second pronoun is not part of the A'-dependency, it is simply a pronoun that is coreferential with the first one, the actual resumptive. The ZG examples therefore show the same as the

English translation. Examples like those above are therefore structurally ambiguous between a short A'-dependency without crossing and a long one with crossing. It is the first parse that is crosslinguistically always preferred. That is why one does not find SCO effects with such examples.

The correct test case therefore involves examples where the first pronoun cannot be interpreted as the resumptive. This is the case when the pronoun is a subject or direct object, because resumptives are not found with those relations, cf. 4.1.3.1. And indeed, these sentences are strongly ungrammatical and therefore show an SCO violation:[282]

(814) a) *de [**Bueb**]$_i$, won **er$_i$** tänkt, dass d Marie **en$_i$** gern hät
the boy C he thinks that the Mary him likes
lit.: 'the boy$_i$ who$_i$ he$_i$ thinks that Mary likes'

b) *de [**Maa**]$_i$, won i **en$_i$** devoo überzüügt han,
the man C I him there.of convinced have.1SG
dass **er$_i$** tumm isch
that he stupid is
lit.: 'the man$_i$ who$_i$ I convinced him$_i$ is stupid'

In both examples, the real resumptive is located in the embedded clause because the higher pronouns cannot be part of an A'-dependency. They cannot function as local resumptive pronouns and therefore must be interpreted as coreferential pronouns. We therefore get an A'-dependency that crosses a coreferential pronoun leading to an SCO effect. Again, the ZG examples are parallel to their English translation, the only difference being that the tail of the A'-dependency contains a resumptive pronoun instead of a gap.

Constructing SCO violations with local relativization is somewhat difficult because many of the structures will be ruled out independently by Principle B like the following example:

(815) *de [**Maa**]$_i$, won **er$_i$** **em$_i$** es Buech ggëë hät
the man C he he.DAT a book given has
lit.: 'the man$_i$ who$_i$ he$_i$ gave a book'

---

[282] Henk van Riemsdijk (p.c.) asks whether it would not be possible to attribute the deviance of these examples to illicit realization of the subject and direct object resumptive, especially given the fact that the deviance vanishes once the first pronoun occurs in the embedded clause as in (813)b. I don't think that this would be sufficient: Nothing rules out independently merging a coreferential pronoun in the subject position across which there is A'-movement. It is exactly the same situation as with English *the man$_i$ who$_i$ he$_i$ likes* __ where nobody would argue that it is ungrammatical because the subject position is illicitly occupied by a resumptive pronoun even though English makes no use of such pronouns. The fact that the effect vanishes under embedding simply has to do with the structural ambiguity of such sentences and the preference to parse the first pronoun as the variable. Therefore, the only source for the deviance of these examples can be a Crossover Effect. Furthermore, even though SCO is normally assumed to involve crossing of a pronoun, the same effect obtains if an R-expression is crossed instead:

i)*Who$_i$ does John$_i$ like?

This shows that we are dealing with a Condition C violation (under which SCO effects are normally subsumed), illicit realization of a resumptive pronoun cannot be at stake anymore.

This can be avoided if either the second pronoun is more deeply embedded or is a possessive, which does not trigger a Condition B effect. Once this is taken care of we get a straightforward SCO violation:

(816) a) *de [**Bueb**]$_i$, won **er$_i$** mit emene Fründ vo **im$_i$** es Auto gschtole hät
the boy C he with a friend of him a car stolen has
lit.: 'the boy$_i$ who$_i$ he$_i$ stole a car with a friend of'

b) *de [**Bueb**]$_i$, won **er$_i$** **sini$_i$** Mueter gern hät
the boy C he his mother likes
lit.: 'the boy$_i$ whose$_i$ mother he$_i$ likes'

Again, the first pronoun cannot mark the tail of an A'-dependency because there are no resumptive relatives with matrix subjects. As a consequence, there is an A'-dependency from the lower pronoun, which is therefore the resumptive, across the higher pronoun.

In both examples, the resumptive is inside an island. Since I showed in the previous section that there is reconstruction into islands and therefore movement effects even with resumptives in opaque domains, it does not come as a surprise that SCO effects behave the same. The following example makes the same point with a resumptive inside a CNPC island:

(817) *de [**Maa**]$_i$, won **er$_i$** d Frau, won **en$_i$**
the man C he the woman C him
geschter verlaa hät, vertüüflet
yesterday left has condemns
lit.: 'the man$_i$ who$_i$ he$_i$ condemns the woman that left'

I conclude that SCO effects provide straightforward evidence in favor of movement in gap relatives and resumptive relatives in ZG.[283]

4.5 Matching effects

While the previous two sections have shown that resumptive relatives in ZG involve movement, this section will introduce a new aspect that will help us understand the distribution of resumptives and provide further evidence for structural differences between local and long-distance relativization. There is a property of Zurich German (and more generally Swiss German) relative clauses that so far has gone unnoticed, namely matching effects, governed by the following generalization:

[283] I do not discuss Weak Crossover (WCO) Effects because a) they are generally much weaker in relative clauses (Rouveret 2002) and b) they are not found in local A'-movement in German, cf. Grewendorf (2002). See Shlonsky (1992: 460ff.) and Demirdache (1997) for additional complications with WCO in resumptive relatives.

(818) The Zurich German Relative Clause Matching Generalization

Resumptives and prepositions within the relative clause are deleted if the head noun

i) bears the same case
ii) is selected by the same preposition.

I will first illustrate the basic generalization and will then discuss what happens if there are mismatches.

4.5.1 The basis of matching: identity in case/preposition

4.5.1.1 Prepositional relations and dative

Recall that oblique relations such as dative objects and complements of prepositions require resumptives in ZG relativization. I repeat two examples from the beginning:

(819) a) de [Bueb], wo mer ***(em)** es Velo versproche händ
the boy C we (he.DAT) a bike promised have.1PL
'the boy we promised a bike' (indirect object)

b) d [Frau], won i von ***(ere)** es Buech überchoo han
the woman C I from (she.DAT) a book got have.1SG
'the woman from whom I got a book' (P-object)

In matching configurations, the resumptive and (where applicable) the preposition can be deleted. Matching obtains if the head noun receives the same marking as the relative clause-internal extraction site:

(820) a) Ich han **em** [Bueb], [wo t **(*em)** es Buech
I have.1SG the.**DAT** boy C you (he.**DAT**) a book
versproche häsch], es schööns Exemplar ggëë.
promised have.2SG a beautiful copy given
'I gave the boy who you promised a book a beautiful copy.'

b) Ich ha **vo de** [Frau], [won i scho geschter
I have.1SG from the.**DAT** woman C I already yesterday
(*von ere) es Buech überchoo han], wider äis überchoo.
(from she.**DAT**) a book received have.1SG again one received
'I received from the woman from whom I had already received a book yesterday another one.'

Inside the relative clause there is an A'-dependency terminating in oblique positions, a dative or the complement of a preposition. Normally, this requires resumption. However, since the external head occupies the same type of oblique position in the matrix clause and therefore receives the same case marking, the

resumptive and (where applicable) the preposition inside the relative clause have to be deleted.[284, 285, 286]

4.5.1.2 Subjects and objects

Subjects and direct objects are systematically exempt from the matching requirement. In the following examples, there is a nominative/accusative mismatch but no resumptive is possible:

(821) a) **D** [Frau], [wo **(*si)** mi geschter küsst hät],
the.**ACC** woman C she.**NOM** me yesterday kissed has
han i gar nöd känt.
have.1SG I not.even known
'I did not even know the woman who kissed me yesterday.'

b) **D** [Frau], [wo t **(*si)** iigglade häsch], isch nett.
the.**NOM** woman C you her.**ACC** invited have.2SG is nice
'The woman who you invited is nice.'

At first sight, one might argue that these examples do in fact instantiate matching because the case form used for subjects and direct objects is identical in ZG (except for personal pronouns) and the case borne by the external element is that very case as well. However, this would incorrectly predict the occurrence of resumptives for subjects and direct objects if the head noun is assigned dative case or governed by a preposition. But in such configurations, resumptives are systematically absent as well:

(822) a) **De** [Frau], [wo **(*si)** geschter choo isch],
the.**DAT** woman C (she.**NOM**) yesterday come is
schulden i no Gält.
owe.1SG I still money
'I still owe the woman who came yesterday money.'

b) **Vo de** [Frau], [won i **(*si)** letschts Jahr in Kreta
from the.**DAT** woman C I (she.**ACC**) last year on Crete
troffe han], han i nie mee öppis ghöört.
met have.1SG have.1SG I never anymore something heard
'I've never heard again from the woman I met last year on Crete.'

---

[284] This probably overstates the case. For many speakers, deleting the resumptive is merely a (preferred) option. For reasons of clarity, I will nevertheless continue to mark matching as obligatory.

[285] For some speakers, the position of the relative clause and the resumptive (including the preposition) plays a role. Some do not get matching under extraposition of the entire relative clause and others prefer the resumptive and the preposition extraposed inside the relative clause.

[286] See Bayer (1984) for dative case matching in Bavarian relative clauses, Givon (1979: 40–41) for PP-matching in Hebrew and Hirschbühler & Rivero (1981) for PP-matching in Catalan. PP-matching seems more frequent in free relatives, cf. Larson (1987), Grosu (1996).

4.5.2 The precise conditions for matching

In this subsection, I discuss the precise conditions for matching. I will look at constructions that minimally violate the generalization in (818), i.e. examples that do not share the same preposition but the same case or vice versa. Then I will further investigate whether thematic relations play a role. Lastly, I will investigate to what extent different notions of case – like structural vs. inherent, abstract vs. morphological – play a role.

4.5.2.1 Mismatches in preposition, case, and case-assignment 1: 1 PP

I will first discuss mismatches where only one clause contains both a P and a DP whereas the other one only contains a DP. I will only discuss cases where there is case-matching. In examples where there is no case matching, there are (of course) always resumptives. The first case combines an external P assigning dative case with relativization of the dative object within the relative clause:

(823) Ich ha **vom** [Maa], [won i **(*em)** es Buech
I have.1SG from.the.**DAT** man C I (he.**DAT**) a book
ggëë han], geschter mis Gält überchoo.
given have.1SG yesterday my money got
'Yesterday I got my money from the man to whom I had given a book.'

Evidently, dative case on the external head licenses matching. In the reverse case with an external dative and a P + dative internally both the preposition and the resumptive are required in the relative clause:

(824) Ich han **em** [Maa], [won i ***(von em)** es Buech
I have.1SG the.**DAT** Man C I (from he.**DAT**) a book
überchoo han], zwänzg Stutz ggëë.
received have.1SG twenty bucks given
'I gave the man from whom I had received a book twenty bucks.'

4.5.2.2 Mismatches in preposition, case, and case-assignment 2: 2 PPs

The next class of mismatches involves PPs in both cases. In the first example, there is neither matching in case nor preposition. It is little surprising that both the resumptive and the preposition are required:

(825) Ich ha **für d** [Lüüt], [won i ***(mit ene)**
I have.1SG for the.**ACC** people C I (with they.**DAT**)
i d Schuel bin], ganz vil Schoggi kchauft.
in the school am very much chocolate bought
'I bought a lot of chocolate for the people with whom I went to school.'

In the next example, there is case-matching, but the prepositions are different. Again, both the resumptive and the preposition are required in the relative clause:

(826) Ich ha **vo de** [Lüüt], [won i ***(mit ene)**
I have.1SG from the.**DAT** people C I (with they.**DAT**)
i d Schuel bin], scho lang nüüt me ghöört.
in the school am already long nothing anymore heard
'I have not heard for a long time from the people with whom I went to school.'

A further logical possibility involves prepositions that can assign different cases. If one combines the two different uses of one preposition, both the resumptive and the preposition are required as shown in the following example that combines the local (dative) and the directional (accusative) use of the preposition *in* ('in', 'into')

(827) Ich han **i de** [Wonig], [won i morn ***(i si)**
I have.1SG in the.**DAT** apartment C I tomorrow into it.**ACC**
iizie], vil repparіert.
move.1SG much repaired
'I have fixed a lot in the apartment into which I will move tomorrow.'

4.5.2.3 Mismatches in thematic relation

The previous examples suggest that the matching effects are form- and case-based. The following examples are used to test whether thematic roles also play a role:

(828) Ich ha **vom** [Maa], [won i **(*von em)**
I have.1SG from.the.**DAT** man C I (from he.DAT)
gschlage worde bin], nüüt mee ghöört.
hit was am nothing anymore heard
'I haven't heard anything from the man by whom I was beaten.'

In this example, which combines a source and an agent relation, dropping both the resumptive and the preposition is obligatory. The same holds for the next example, which combines comitative with instrumental:

(829) De Hans hät sini Fründin **mit de** [Frau], [won i hütt
the John has his girlfriend with the.DAT woman C I today
Aabig **(*mit ere)** is Kino ga], scho hüüffig betroge.
evening (with she.DAT) into movie go.1SG already often cheated.on
'Hans has often cheated on his girlfriend with the woman that I will go to the movies with tonight.'

I conclude from this that the matching effect is not sensitive to thematic relations.[287]

[287] Even though this generalization is robust, there are cases where resumptives are strongly preferred to facilitate parsing. This is mostly the case with PPs that are not subcategorized for as in the following example:

4.5.2.4 Different kinds of datives

The previous sections suggest very strongly that the matching effects are based on formal identity. The next step is to test whether all datives pattern the same. It has been suggested for German and German dialects that datives should be divided into structural and inherent datives, cf. Gallmann (1992), Wegener (1985, 1991) etc.[288] Structural datives are those of ditransitive verbs with dative > accusative base and those of unaccusative verbs with dative > nominative order. Other dative objects are inherent. Since subjects and direct objects do not show matching effects one might expect structural datives to pattern the same. However, as discussed in 4.1.3.3, not all datives can be relativized and among those that can, some would be categorized as inherent and some as structural. The following example tests matching with a monotransitive and a ditransitive verb:

(830) Ich han **em** [Maa], [wo t **(*em)** ghulffe häsch],
I have.1SG the.**DAT** man C you (he.**DAT**) helped have.2SG
geschter vo dir verzelt.
yesterday of you told
'I told the man that you helped about you yesterday.'

The external verb *verzele* 'tell' takes a structural dative whereas the verb inside the relative clause *hälffe* 'help' assigns inherent dative. Still, dropping the resumptive is obligatory. These data thus show that datives do form a coherent group in the grammar of ZG relativization (to the extent that they can be relativized at all), which has implications for their general treatment.

4.5.2.5 The importance of the surface form

It is a well-known fact that it is often the exact morphological form rather than the abstract case that plays a role in matching phenomena such as those found in free relatives, cf. Groos & van Riemsdijk (1981). It seems that a similar fact holds for ZG:[289] Case is never formally marked on ZG nouns, but only on determiners and adjectives. Bare plurals without adjectives are therefore identical in all three morphological cases. If matching is purely form-based, it can be predicted that a matching constellation always obtains with such DPs, regardless of the exact grammatical relation/abstract case of the head noun. This prediction is borne out, as the following example shows:

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i) De Mörder hät **mit em** [Mäitli], wo de Hans ***(mit em)** i d Schuel gaat,
the murderer has with the girl C the John with her in the school goes
lang ploiderlet.
long chatted
'The murderer has talked strikingly long with the girl that our John goes to school with.'

I will nevertheless assume that the basic generalization is Case-based and that cases like i) are due to extragrammatical factors.

Preposition Matching in Free Relatives seems to be subject to tighter restrictions, often imposing full parallelism, cf. Grosu (1996).

[288] I will come back to the diverging views on the nature of the dative in 4.8.3.2.

[289] I am grateful to Kathrin Würth for drawing my attention to this fact.

(831) øD [**Mane**], [won i **(*ene)** es Buech gib],
D men(**NOM**) C I (they.**DAT**) a book give.1SG
müend intellektuell sii.
must.PL intellectual be
'Men to whom I give a book must be intellectual.'

The head noun is the subject of the main clause and thus assigned abstract nominative case. Inside the relative clause it functions as a dative object. The form *Mane* is underspecified morphologically, it can be used in all three morphological cases. The crucial thing here is: Since *Mane* can be interpreted as a dative, matching is possible, and no resumptive occurs.

4.5.2.6 Matching and movement

While non-matching configurations show unambiguous signs of movement, we still have to test whether this also holds for examples involving matching. In the following example, reconstruction occurs under matching:

(832) Mit jedem [Artikel über **siich**$_i$], [wo de **Peter**$_i$ (*mit em)
with every article about self C the Peter with it
aaggëë hät], hät sin Verleger au Erfolg ghaa.
boasted has has his publisher also success had
'His publisher has had success with every article about himself$_i$ that Peter$_i$ was boasting about.'

This shows that matching relatives are also derived via movement.

4.5.3 No matching in long-distance relativization

Matching is restricted to local relativization. With long-distance relativization, dropping the resumptive is clearly dispreferred by all speakers. This holds for direct as well as oblique relations:

(833) a) Ich ha s [Bild], [wo t gsäit häsch, dass ***(es)** de Peter
I have the picture C you said have.2SG that it the Peter
wett verchauffe], no nie gsee. (ext: object, int: object)
wants sell never seen
'I've never seen the picture that you said Peter wants to sell.'

b) D [Frau], [wo t gsäit häsch, dass ***(sie)** kän Fründ hät],
the woman C you said have.2SG that she no boy.friend has
hät defüür es Büsi (ext: subject; int: subject)
has instead a pussycat
'The woman that you said doesn't have a boyfriend has a pussycat instead.'

(834) a) Ich han **em** [gliiche Maa], [wo t gsäit häsch,
I have the.DAT same man C you said have.2SG
dass t ***(em)** es Buech versproche häsch],
that you he.DAT a book promised has.2SG
geschter zwänzg Stutz ggëë. (ext: DAT; int: DAT)
yesterday twenty bucks given
'Yesterday, I gave twenty bucks to the same man who you promised a book.'

b) Ich ha **vom** [Maa], [wo t gsäit häsch, dass t
I have from:the.DAT man C you said have.2SG that you
***(von em)** es Buech überchoo häsch], au äis überchoo.
from him a book got have also one got (ext: PP; int: PP)
'I also got a book from the man you said you had gotten one from.'

4.5.4 Summary

I have established in the previous subsections that matching effects are form-based: Identity of preposition and/or case is required while identity of thematic relation is not. I have furthermore shown that the difference between structural and inherent datives is irrelevant for matching, and that the matching generalization is sensitive to the actual surface form. Reconstruction effects under matching provide evidence for movement. The fact that long-distance relativization is not subject to matching suggests that its structure differs in significant ways from local relativization.

4.6 Interpretation

As pointed out in 3.7.4.4 and in footnote 224, there is a crosslinguistically well-established tendency for antecedents of resumptive pronouns to be subject to semantic restrictions. Such restrictions are absent when the A'-dependency terminates in a gap. Antecedents of resumptives are normally restricted to the individual-denoting type and take wide scope with respect to other scopal elements inside the relative clause.

Diagnosing those restrictions in resumptive relatives, however, requires some care (see also 3.5.1). The semantic restrictions cannot directly be read off the external head because its quantificational properties, which are located in the external determiner, are not reconstructed into the relative clause (cf. footnote 96, 100). In other words, there is no direct anaphoric relationship between the external head and the resumptive. The semantic restrictions only affect its relative clause-internal representation that is linked to the resumptive. Consider in this light the following example:

(835) S Susi isch e [Frau], wo jede Maa hofft, dass si in hüraatet.
the Susie is a woman C every man hopes that she him marries
'Susie is a woman that every man hopes will marry him.'

The external head is a predicate in the matrix clause and seems to suggest that the resumptive does not impose any restrictions. However, the external context is irrelevant. What counts is the relative clause-internal occurrence of the external head. It is linked to the resumptive *si* 'she' and is clearly individual-denoting in this case. To really detect the semantic restrictions, one has to construct a syntactic context *inside* the relative clause that only allows a non-individual-denoting interpretation. With resumptive relatives, this can also be forced by using a proform that refers to a non-individual-denoting antecedent. To test the wide-scope property, the clearest result obtains if another scopal element is put inside the relative clause. In the following subsections, I will test the following aspects: semantic type, reconstruction for distributive readings, amount readings and de dicto readings. As argued in 3.5, all these properties are related to each other so that we expect correlations. If e.g. non-individual-denoting types are possible, we also expect the possibility of scope reconstruction.

Another qualification concerns observations made in Bianchi (2004: 95f.). She claims that the semantic restrictions imposed by resumptive constructions can be overridden in oblique positions (as already mentioned in 3.8.3.4). I will therefore test both direct and oblique relations in both local and long-distance relativization.

The picture we get in ZG is somewhat involved. The data are very delicate and the judgments are sometimes fuzzy. One thing is crystal clear: There are no semantic restrictions in local relatives that leave a gap. Once resumption is involved, semantic restrictions become much more likely. Additionally, the direct-oblique contrast also plays a role. The restrictions are clearly weaker in oblique positions. Within oblique positions the type of resuming element also plays an important role: Semantic restrictions are stronger with ordinary personal pronouns than with R-pronouns. There are therefore very fine-grained differences, at least for some speakers. I will discuss local and long-distance relativization separately. Within the subsections, I will distinguish between direct and oblique relations. In the third subsection, I will discuss the interpretation of superlative adjectives.

4.6.1 Local relativization

4.6.1.1 Direct/gap relatives

Things are very straightforward with gap relatives. They allow non-individual-denoting external heads. The following examples illustrate predicates and amounts:

(836) a) Er isch de [**gliich Idiot**], wo scho sin Vatter __ gsii isch.
he is the same idiot C already his father been is
'He is the same idiot his father already was.'

b) Die [**20 Franke**], won er defüür __ zalt hät,
the 20 francs C he there.for paid has
sind minere Mäinig naa z vil.
are my opinion according too much
'The twenty francs he paid for it are too much in my view.'

c) Mer brüüchted de Rescht vo oisem Läbe, zum
we need the rest of our life to
de [**Champagner**] z trinke, wo mer geschter __ verschüttet händ.
the champagne to drink C we yesterday spilled have.1PL
'We would need the rest of our life to drink the champagne we spilled yesterday.'

The predicate example (836)a is straightforward. The first example with an amount reading, (836)b, means that the amount that was paid was too much; a referential reading is not possible here unless *20 Franke* 'twenty francs' is interpreted as the referential object of paying, but that is nearly impossible. In (836)c, we have the translation of the classical Heimian example, already discussed in 1.3.1, which only makes sense under an amount reading: If one needs the rest of one's life to drink the champagne spilled on an evening, this cannot involve an individual but only an amount. Furthermore, since that particular bottle of champagne no longer exists, it can no longer be drunk. A referential interpretation is therefore out. Manners and reasons are possible as well, but they are constructed with relative adverbs, as shown in 4.1.4.

Scope reconstruction is also robust. The following pair shows this for distributive readings, amount readings and de dicto readings:

(837) a) d Liischte mit de [**zwäi Lieder**],
the list with the two songs
wo **jede Schüeler** __ vorberäitet hät
C every student prepared has
'the list with two songs that every student has prepared' (2 > ∀); ∀ > 2

b) Kän Linguischt würd di [**vile** Büecher] läse,
no linguist would the many books read
wo de Hans fürs Medizinstudium __ **bruucht**. many > need;
C the John for.the med.school needs need > many
'No linguist would read the many books that John needs for med school.'

c) De Peter wird **d** [**Frau**] finde, won er __ **suecht**.
the Peter will the woman find C he looks.for
'Peter will find the woman he is looking for.' ∃ > seek; seek > ∃

(837)a can have an interpretation where each student prepared two different songs. A distributive reading is facilitated by the fact that there is a list of songs. An individual reading under which there are the same two songs that every student has prepared is unlikely in this context. One would not need a list for just two songs. (837)b allows a reading where the amount quantifier inside the

external head is interpreted in the scope of the modal in the relative clause. Under such a reading, which is the more salient one here, there is a large number of books that John needs for med school. Importantly, there is no reference to specific books in that case. This is quite probable in the context above because a linguist is unlikely to know which books exactly someone needs for med school. A linguist will only see the incredible amount of books that he could probably not cope with. (837)c can have an interpretation where there is no presupposed woman that Peter is looking for. Rather, he is looking for a type, a woman with certain properties. This is the narrow-scope or *de dicto* reading.

I observed in 4.3.1.5 that there are no Condition C effects under reconstruction for variable binding. The following pair shows the same with scope and Condition C. Principle C effects do not re-emerge:

(838) a) die [*vile* Büecher über **em** **Peter$_i$** sin Vatter], won **er$_i$**
the many books about the.DAT Peter his father C he
für d Prüefig __ *mues* läse must > many
for the exam must read
lit.: 'the many books about Peter's$_i$ father that he$_i$ must read for the exam'

b) die [*vile* schlächte Siite vom **Peter$_i$**], won **er$_i$** __ *sött* verberge
the many bad traits of.the Peter C he should conceal
lit.: 'the many bad traits of Peter$_i$ that he$_i$ should conceal'
should > many

4.6.1.2 Resumptive/oblique relatives

Local resumptive relatives also allow non-individual antecedents even though natural examples are somewhat difficult to come by since non-individual-denoting phrases mostly do not occur in oblique positions. I couldn't construct any examples with datives, but some complements of prepositions can be non-individual-denoting. The following example illustrates a predicate:

(839) Isch de Hans würkli de [**Trottel**], won en all **de**füür haltet?
is the John really the idiot C him all there.for hold
'Is John really the idiot everyone regards him as?'

The sentence may sound somewhat unnatural to the ZG ear because the expression *öppert für öppis halte* 'regard someone as something' has a rather Teutonic flavor. But to the extent that the expression can be used in ZG, the sentence is grammatical.

Amounts are possible as well. The following example, a variant of the champagne example used several times already, is grammatical under an amount interpretation:

(840) Mer würdet de Rescht vo oisem Läbe bruuche, zum
we would the rest of our life need to
de [**Champagner**] z trinke, wo mer geschter **de**mit
the champagne to drink C we yesterday there.with
oises Sofa ruiniert händ.
our couch ruined have.1PL
'We would need the rest of our lives to drink the champagne we ruined the sofa with yesterday.'

Since the champagne does not exist anymore, the matrix clause cannot mean that it will take very long to drink a particular bottle of champagne. Rather, a lot of champagne was spilled on the sofa, more than normal people would drink in a lifetime.

Manners and reasons are constructed with relative adverbs and thus do not appear in oblique positions.

The following triple shows reconstruction for distributive readings, amount readings and de dicto readings:

(841) a) d Liischte mit de [**zwäi** Fottene],
the list with the two pictures
wo **jede** **Schüeler** demit i d Schuel choo isch
C every student there.with in the school come is
'the list with the two pictures that every student came to school with'
(∃ > ∀); ∀ > ∃

b) Kän Linguischt würd di [**vile** Büecher] läse,
no linguist would the many books read
wo sich de Hans demit **sött** uf d Prüefig vorberäite.
C self the John there.with should on the exam prepare
'No linguist would read the many books that John should prepare with for the exam.' many > should; should > many

c) De Hans wird d [**Sekretärin**] scho finde,
the John will the secretary PRT find
won er denaa of de **Suechi** isch.
C he there.after on the search is
'John will find the secretary that he is looking for.' ∃ > seek; seek > ∃

(841)a allows a distributive reading under which there are two different pictures per student. This is actually the more prominent reading – an individual reading makes little sense: One would probably not use a list for just two pictures. (841)b allows a narrow-scope interpretation of the amount quantifier. There is a large number of books that John needs to prepare with for the exam. Importantly, there is no reference to specific books in that case. Again, this is quite probable in the context above because a linguist is unlikely to know which books exactly someone needs for the exam. A linguist will only see the incredible amount of books and realizes that he could probably not cope with it. (841)c allows a de

dicto reading: John is looking for a secretary with certain properties, but not one he is already employing or knows.

If we combine Condition C and scope reconstruction, we do not get any Condition C effects:

(842) a) di [*vile* Büecher über em **Peter$_i$** sin Vatter],
the many books about the.DAT Peter his father
won **er$_i$** sich demit uf d Prüefig *mues* vorberäite
C he self there.with on the exam must prepare
lit.: 'the many books about Peter's$_i$ father that he$_i$ must prepare with for the exam' must > many

b) di [*vile* schlächte Siite vom **Peter$_i$**],
the many bad traits of.the Peter
won **er$_i$** äim devoo *sött* warne
C he one there.of should warn
lit.: 'the many bad traits of Peter$_i$ that he$_i$ should warn one about' should > many

All examples allow a narrow scope reading of the amount quantifier and therefore show that the absence of Condition C effects cannot be due to absence of reconstruction.

Importantly, in all of the examples above, an R-pronoun is used. Once we use a regular personal pronoun instead, we suddenly get semantic restrictions. Consider again the champagne example from above, this time with a personal pronoun as resumptive:

(843) ??Mer würdet de Rescht vo oisem Läbe bruuche,
we would the rest of our life need
zum de [**Champagner**] z trinke,
to the champagne to drink
wo mer geschter mit em oises Sofa ruiniert händ.
C we yesterday with it our couch ruined have.1PL
'We would need the rest of our lives to drink the champagne we ruined the sofa with yesterday.'

This sentence only allows an individual interpretation of *champagne* which in turns leads to semantic anomaly because the champagne does not exist anymore. It is therefore to say it would take a long time to drink a particular bottle that has already been drunk.

The same holds for distributive readings. The examples in (841) suddenly only allow the wide-scope interpretation once a personal pronoun is used:

(844) a) d Liischte mit de [**zwäi** Fottene], wo **jede Schüeler**
the list with the two pictures C every student
mit ene i d Schuel choo isch
with them in the school come is
'the list with the two pictures that every student came to school with'
∃ > ∀; ***∀ > ∃**

b) Kän Linguischt würd di [**vile** Büecher] läse, many > should;
no linguist would the many books read *should > many
wo sich de Hans mit ene **sött** uf d Prüefig vorberäite.
C self the John with them should on the exam prepare
'No linguist would read the many books that John should prepare with for the exam.'

c) De Hans wird d [**Sekretärin**] scho finde,
the John will the secretary PRT find
won er nach ere of de **Suechi** isch.
C he after her on the search is
'John will find the secretary that he is looking for.' ∃ > seek; *seek > ∃

The same obtains with dative resumptives. The following example shows that there is no scope reconstruction:

(845) di [**zwäi Mäitli**], won ene **jede Bueb**
the two girls C they.DAT every boy
en Struuss muess bringe 2> ∀; *∀ > 2
a bunch.of.flowers must bring
'the two girls that every boy must bring a bunch of flowers'

A distributive reading is impossible here. The pattern is therefore quite straightforward. There are clear semantic restrictions with personal pronouns but none with R-pronouns.

4.6.2 Long-distance relativization

4.6.2.1 Direct relations

Resumptives in direct relations only seem to allow individual-denoting antecedents. Even if one uses a proform that is compatible with other semantic types, the sentences remain degraded for many speakers. For some speakers, the sentences improve markedly if no proform is used, but they still do not judge them fully grammatical. For a small minority, predicates are quite acceptable antecedents as in the following example:

(846) #De Hans isch immer no de [**gliich Idiot**], wo mini Muetter scho
the John is still the same Idiot C my mother already
vor 20 Jaar gsäit hät, dass er **(das)** seg.
before 20 years said has that he that be.SUBJ
'John is still the same idiot that my mother already said 20 years ago that he was.'

Amounts are less acceptable. Again, omission of the proform leads to a certain improvement for some, but they seem completely unacceptable with a proform. This holds regardless of whether personal pronouns are proforms for amounts are used.

(847) a) *Di [**20Franke**], won er gsäit hät, dass er **(si/das/so vil)**
the 20 franks C he said has that he them/that/so.much
defüür zalt hät, sind minere Meinig naa z vil gsii.
there.for paid has are my opinion after too much been
'The twenty francs that he said he paid for it were too much in my view.'

b) *Mer brüüchted de Rescht vo oisem Läbe, zum
we would.need the rest of our life to
de [**Champagner**] z trinke, won i fürchte,
the champagne to drink C I am.afraid
dass mer **(en/so vil)** geschter verschüttet händ.
that we it/that.much yesterday spilled have.1PL
'We would need the rest of our life to drink the champagne I am afraid we spilled yesterday.'

The champagne example leads to a nonsensical interpretation because it is only felicitous under an amount interpretation, but the sentence makes only a referential interpretation available. But since the champagne has been drunk, it is impossible to refer to it.

Scope reconstruction also seems to be prohibited. The following triple shows this for distributive readings, amount readings and *de dicto* readings:

(848) a) d Liischte mit de [**zwäi Lieder**], won i wett,
the list with the two songs C I want.1SG
dass **jede Schüeler** si vorberäitet
that every student them prepares (2> ∀); *∀ > 2
'the list with two songs that I want every student to prepare'

b) *di [**vile** Büecher], won i gsäit han,
the many books C I said have.1SG
dass de Peter si 2006 **sött** schriibe
that the Peter them 2006 should write
'the many books I said Peter should write in 2006'
*many > should; *should > many

c) De Hans wird d [**Frau**] scho finde, won er gsäit hät,
the John will the woman PRT find C he said has
dass er si **suecht**. ∃ > seek; *seek > ∃
that he her look.for
'John will find the woman he said he was looking for.'

(848)a) does not allow the reconstructed reading, where there are two different songs per student. Only an individual reading is possible, which, however, is very unnatural. It does not make sense to use a list if there are only two songs altogether. (848)b forces reconstruction by using a verb of creation. Since the event is located in the future, the books have not been written yet. A wide-scope/referential reading, which would be the only one available here, is therefore not possible so that the sentence is completely ungrammatical. In (848)c only a *de re* interpretation is possible. There is a presupposed woman about which John said that he is looking for her.

4.6.2.2 Oblique relations

Oblique relations in long-distance relativization provide the same pattern as in local relativization. Testing non-individual-denoting antecedents is again somewhat difficult because they normally do not occur in oblique relations. But the following examples show that such antecedents are in principle possible:

(849) Isch de Hans würkli de [**Trottel**], wo t gsäit häsch,
is the John really the idiot C you said have.2SG
dass en all **de**füür haltet?
that him all there.for hold
'Is John really the idiot that you said everyone regards him as?'

b) Mer würded de Rescht vo oisem Läbe bruuche, zum
we would the rest of our life need to
de [**Champagner**] z trinke, won t gsäit häsch,
the champagne to drink C you said have.2SG
dass mer geschter **de**mit oises Sofa ruiniert händ.
that we yesterday there.with our couch ruined have.1PL
'We would need the rest of our lives to drink the champagne that I said we ruined the sofa with yesterday.'

Scope reconstruction seems to be possible as well as the following triple shows even though narrow-scope seems somewhat more difficult to get for many speakers.

(850) a) d Liischte mit de [**zwäi** Fottene], wo mer abgmacht händ,
the list with the two pictures C we agreed have.1PL
dass **jede Schüeler** demit i d Schuel chunt
that every student there.with in the school comes
'the list with the two pictures that we agreed every pupil comes to school with' (2 > ∀); ∀ > 2

b) Kän Linguischt würd di [**vile** Büecher] läse, won i ghöört han,
no linguist would the many books read C I heard have.1SG
dass sich de Hans demit **sött** uf d Prüefig vorberäite.
that self the John there.with should on the exam prepare
'No linguist would read the many books that John should prepare with for the exam.' many > should; should > many

c) De Hans wird d [**Sekretärin**] scho finde, won er gsäit hät,
the John will the secretary PRT find C he said has
dass er denaa of de **Suechi** isch.
that he there.after on the search is
'John will find the secretary that he is looking for.' ∃ > seek; seek > ∃

(850)a allows a distributive reading under which there are two different pictures per student. In (850)b, an amount reading is available. In the example at hand, it is unlikely that the speaker knows the specific books that John has to read, most likely, he has heard about the incredible number and concludes that no linguist would be able to cope with that amount. (850)c, finally, allows a *de dicto* interpretation: John is looking for a type, but not a particular secretary. This reading is particularly natural if Peter does not have a secretary yet.

If we test Condition C effects under scope reconstruction, we get the same result as in the previous subsections: Condition C effects do not emerge:

(851) a) di [*vile* Büecher über em **Peter**$_i$ sin Vatter], won i glaube,
the many books about the.DAT Peter his father C I believe.1SG
dass **er**$_i$ sich demit uf d Prüefig *mues* vorberäite
that he self there.with on the exam must prepare
lit.: 'the many books about Peter's$_i$ father that I think he$_i$ must prepare with for the exam' must > many

b) di [*vile* schlächte Siite vom **Peter**$_i$], won I finde,
the many bad traits of.the Peter C I find.1SG
dass **er**$_i$ äim devoor *sött* warne
that he one there.of should warn
'the many bad traits of Peter$_i$ that I think he$_i$ should warn one about' should > many

In both examples, a narrow scope interpretation is possible, showing that a special mechanism is necessary to account for the absence of Condition C effects.

The previous examples all involved R-pronouns. If personal pronouns are used instead, the semantic restrictions re-emerge. The following triple shows this for the sentences in (850). Scope reconstruction is no longer possible:

(852) a) d Liischte mit de [**zwäi** Fottene], wo mer abgmacht händ,
the list with the two pictures C we agreed have.1PL
dass **jede Schüeler** mit ene i d Schuel chunt (2 > ∀); *∀ > 2
that every student with them in the school comes
'the list with the two pictures that we agreed every pupil comes to school with'

b) Kän Linguischt würd di [**vile** Büecher] läse, won i ghöört han,
no linguist would the many books read C I heard have.1SG
dass sich de Hans mit ene **sött** uf d Prüefig vorberäite.
that self the John with them should on the exam prepare
'No linguist would read the many books that John should prepare with for the exam.' many > should; *should > many

c) De Hans wird d [**Sekretärin**] scho finde, won er gsäit hät,
the John will the secretary PRT find C he said has
dass er naa ere of de **Suechi** isch.
that he after her on the search is
'John will find the secretary that he is looking for.' ∃ > seek; *seek > ∃

The pattern is straightforward: R-pronouns do not impose any semantic restrictions while personal pronouns do.

4.6.2.3 Scope reconstruction into the matrix clause with direct relations

I showed in 4.6.2.1 that there is no scope reconstruction into the embedded clause with direct relations. Interestingly, however, scope reconstruction into the matrix clause is possible in these cases:

(853) d Liischte mit de [**zwäi** Lieder], wo **jede Schüeler** versproche
the list with the two songs C every student promised
hät, dass er si vorberäitet
has that he them prepares (2 > ∀); ∀ > 2
'the list with two songs that every student promised to prepare'

4.6.3 Interpretation of adjectival modifiers

The interpretation of adjectival modifiers (cf. 1.3.2) also seems to be restricted under long-relativization. For the majority of speakers, only the high reading is available with direct relations:

(854) di [**erscht** Frau], wo de Hans *gsäit* hät, dass er sie ggliebt hät
the first woman C the John said has that he her loved has
'the first woman that John said that he loved'

The adjective can only modify *gsäit* 'said'. The effect becomes clearer if one uses an NPI to force a particular reading. An NPI is possible only in the matrix clause:

(855) di [**erscht** Frau], wo de Hans **je** gsäit hät,
the first woman C the John ever said has
dass er sie ***je** ggliebt hät
that he her ever loved has
'the first woman that John (ever) said that he (ever) loved'

For some speakers, the low construal is not completely out in this example. In oblique relations the low construal is acceptable to most speakers, at least with an R-pronoun:

(856) s [**eerschte** Auto], wo de Hans gsäit hät,
the first car C the John said has
dass er **je** demit 200 *gfaare* isch
that he ever there.with 200 driven is
'the first car that John said that he ever drove 200 with'

The pattern we get thus resembles scope reconstruction in long-distance relativization.

4.6.4 Generalization

The picture we get is intriguing: There are no semantic restrictions with gap-relatives. With resumptive relatives, direct relations behave as expected: Only individual-denoting antecedents are possible and scope reconstruction is impossible. Oblique relations, however, confirm Bianchi's (2004) observation to some extent. At least with R-pronouns, the semantic restrictions are absent.

4.7 Intermediate Summary

The following table provides an overview over the syntactic and semantic properties of local and long-distance relativization:

(857)		local relativization	long-distance relativization
resumptives for direct arguments		–	+
resumptives for oblique arguments		+	+
sensitive to locality constraints		–	–
reconstruction for idiom interpretation		+	+
reconstruction for variable binding		+	+
reconstruction for Principle A		+	+
reconstruction for Principle B		–	–
reconstruction for Principle C		–	–
Condition C under variable binding		–	–
scope reconstruction direct arguments		+	–
scope reconstruction oblique arguments	with personal pron.	–	–
	with R-pronouns	+	+
Condition C under scope reconstruction: direct arguments		–	n.a.
Condition C under scope reconstruction: oblique arguments (R-pronouns)		–	–
low construal of adjectival modifiers	direct relations	n.a.	–
	oblique relations	n.a.	+
reconstruction into islands		+	+
SCO effects		+	+
matching effects		+	–

Local and long-distance relativization are similar in that there is evidence for movement in both due to reconstruction and SCO effects. At the same time, there are also noteworthy asymmetries with respect to the distribution of resumptives and the sensitivity to matching effects. In the domain of scope, the differences do not cut along the local vs. long-distance divide. Rather, the difference between direct and oblique seems to play the crucial role, even though the judgments are very delicate. The next two sections will provide separate analyses of local and long-distance relativization respectively.

4.8 The syntax of local relativization

This subsection provides an account of ZG local resumptive relatives. I will first discuss a previous approach and point out its pros and cons, concluding that it is insufficient. I will then propose a new approach, a movement account that assumes a Matching Analysis and explains the distribution of resumptives as a result of the requirement to spell out oblique case.

4.8.1 A previous approach: van Riemsdijk (1989)

Van Riemsdijk assumes a base-generation approach to resumption in ZG. Resumptives are related to the external head via binding. This is supposed to explain the insensitivity to islands and the fact that in contrast with *wh*-movement there are no gaps. The fact that there are no resumptives for subjects and direct objects therefore requires a separate explanation. Van Riemsdijk argues that the distribution of resumptives follows from an independently available process of cliticization: subject, direct and indirect object pronouns often move to the left periphery in ordinary clauses. This very process, which van Riemsdijk terms "cliticization", brings resumptives "close enough to the head of the relative to permit deletion" (van Riemsdijk 1989: 347), which is what happens to subject and direct object pronouns. Deletion is subject to a strong locality requirement, essentially a requirement to be in Spec, CP. Importantly, the clitic-movement is obligatory in relatives while it is optional elsewhere. Van Riemsdijk appeals to the Avoid Pronoun Principle to capture this fact: movement is obligatory so that the pronoun can later be deleted and a more economical structure results. The notion clitic movement arguably (my interpretation, the text remains silent on this point) explains why resumptives governed by prepositions are obligatory: Cliticization targets the closest available head so that the pronoun cannot reach the left periphery where it could be deleted.[290] Deletion at a distance is argued to be impossible. The fact that the dative clitic must not be deleted in some dialects, van Riemsdijk argues, follows from the fact that indirect objects are actually PPs. Van Riemsdijk derives this from the phonological similarity between datives and locative expressions (p. 351):

(858) a) **e**m Maa vs. am Maa
the.DAT man at.the.DAT man

b) de Frau vs. a de Frau
the.DAT woman at the.DAT woman

The schwa-like element in the masculine dative form is argued to be the preposition-like element. It is absent in feminine forms. Van Riemsdijk reanalyzes all forms that show dative morphology – essentially only pronouns and determiners – as PPs, as amalgamations of the locative preposition *a* 'to, at' followed by an NP pronoun – he does not indicate which case that pronoun would bear. Deletion of the entire complex is prohibited by the ban on recoverability of deletion because the content of the preposition would not be recoverable. Moving only the pronominal NP-complement of the postulated preposition is impossible because it is in some way (which van Riemsdijk does not specify) not independent enough to move on its own. The same reason will have to account for why it cannot independently undergo deletion even though dative pronouns can front to the left periphery so that the NP-complement of the preposition would be in the right position to undergo deletion.

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[290] The fact that clitic movement is clause-bound accounts for the fact that resumptives are required for subjects and direct objects in long-distance movement. In Van Riemsdijk (to appear), a different analysis of long-distance movement is proposed that will be discussed in 4.9.1 below.

4.8.2 Problems for van Riemsdijk's approach

There are a number of problems with this proposal, one conceptual, and several empirical. The conceptual problem involves the obligatory cliticization in relatives, which is supposed to follow from the Avoid Pronoun Principle, a transderivational constraint. Movement takes place so that the pronoun can later be deleted. Clearly, this involves non-trivial look-ahead: the grammar somehow has to know that it first HAS to move the clitic so it can later be deleted. Such an approach is in contrast with the tendency within Generative Grammar to move away from transderivational evaluation.

The empirical problems can be divided into two large groups: A'-properties and the distribution of resumptives and will be discussed in turn.

4.8.2.1 The absence of A'-movement

Van Riemsdijk (1989: 344) explicitly states that Swiss German relatives – also those involving matrix subjects and direct objects – do not involve A'-movement. This seems to imply that clitic movement is not an A'-movement process. Consequently, there is no A'-dependency in relative clauses. All he assumes is some co-indexing mechanism between the resumptives and the head-noun (perhaps mediated by C or Spec, CP). Since there is no operator-variable relation, it is unclear why relativization has the semantics it has: It is normally assumed that movement inside the relative clause derives a predicate which combines with the head-noun via intersective modification. It is unclear to me how this can be achieved given van Riemsdijk's analysis – at least an operator-variable relation is necessary for predicate abstraction (but not necessarily movement, see Heim & Kratzer 1998).

Furthermore, we do not expect any movement properties. This second point has been shown to be incorrect: reconstruction effects and Strong Crossover effects are hallmarks of A'-dependencies and clearly argue in favor of movement. The fact that resumptives also occur in islands does not mean that movement is never involved, in fact sections 4.3.4 and 4.4 have shown that there is movement even out of opaque domains.

4.8.2.2 The dative as a PP

The explanation for the failure to delete the dative clitic does not stand up to scrutiny. The problems can be grouped as follows: First, the assumptions about the composition of datives is morphonologically implausible. Second, some Swiss dialects do use an extra prepositional element, but it has very different properties than the element postulated by van Riemsdijk. Third, there are technical problems with the fronting operation.

I will begin with the morphonological problems. It is not really clear how the surface form comes about. For instance, in the examples in (858) above, it is difficult to understand how *a* + *de* can give zero as in the feminine form while *a* + *de* give *a* + *de* in the locative. It is also not clear what form and case the second component has. It cannot be dative because otherwise we end up in infinite

recursion. It must be accusative case then. In the masculine example, we would then have *a + de = em*. This seems morphonologically implausible to say the least.

The postulated preposition-like element actually seems to exist in quite a few Swiss dialects: They express dative with the additional help of a preposition-like element, *a* 'at' or *i* 'in', cf. Seiler (2001):

(859) a) Ich han s Buech **i/a** de Muetter ggëë.
I have.1SG the book PRP the.DAT mother given
'I gave the book to the mother.'

b) Ich han s Buech **im/am** Vatter ggëë.
I have.1SG the book PRP.the.DAT father given
'I gave the book to the father.'

In the feminine form, the dative-marker is separate, in the masculine form *i/a + em* yield *im/am*, a straightforward morphonological process. For those dialects, it is highly unlikely that the dative pronoun also contains a preposition – it is hard to motivate two dummy prepositions. Since the extra preposition-like element is also possible for some speakers of ZG, van Riemsdijk's account runs into difficulties.

In addition, van Riemsdijk has to assume that it is possible to have a preposition governing prepositions e.g. when a preposition like *mit* 'with' assigns dative to a clitic: *mit em* 'with he.DAT'. According to him it would actually govern a PP headed by the dummy-preposition *a*. Interestingly, this is exactly what happens to be impossible in those dialects which unambiguously use a preposition-like element, the dummy dative preposition is impossible, only the dative pronoun occurs, cf. Seiler (2001: 251):

(860) *[mit [**i/a** de Frau]]
with PRP the.DAT woman
'with the woman'

Furthermore, if the dative resumptive were, say, [*a* + personal pronoun], the second part would arguably be a clitic since the whole complex cannot be separated. However, Seiler (2001: 251) shows that the real dummy prepositions require the strong version of the pronoun, the weak/clitic one is out:

(861) hëd=mer=em=s gsëid? vs. *hëd=mer=**i=em=**s gsëid? vs.
hëd=mer=s **i** **ímm** gsëid?
has=one=he.DAT=it told has=one=it PRP he.DAT told
'did they tell it to him?' (dialect of Lucerne)

To summarize, van Riemsdijk has to assume properties for the dummy element that are diametrically opposed to those of the dummy elements that actually exist in Swiss dialects.

Van Riemsdijk also has to assume for those dialects which do not use dative resumptives that the very same string *em* 'to him' does not have the status of a

PP. While not impossible, such a solution is ad hoc and in the absence of independent evidence a restatement of the facts.

Let me now discuss some technical problems: If dative clitics are indeed PPs, one has to explain how they can actually cliticize onto a head in the left periphery. It is unclear why this option does not exist for normal PPs. Van Riemsdijk seems to assume then that cliticization is rather phonological in nature, i.e. dative clitics are the only PP-elements that are light enough to undergo this process. But then, it is unclear why in the case of the other PPs it is impossible to move only the light clitic and strand the preposition. If the movement is phonological, then there is nothing like the ECP that rules out preposition stranding.[291] Furthermore, if this movement is phonological, it is no longer possible to establish a binding relation with the external head so that it is completely unclear how these structures should be interpreted.

Taken together, all these facts show that a new approach to ZG relatives is called for. This is the topic of the next subsection.

4.8.3 A new approach

I propose an approach to local relativization with the following ingredients: I assume a Matching Analysis of relative clauses with systematic Vehicle Change. As in Standard German, this accounts for the Condition C pattern. Furthermore, it accounts for all the movement effects. Resumption is assumed to help void locality constraints. The distribution of resumptives follows from a well-established constraint of ZG grammar to realize oblique case. This has the consequence that datives and complements of prepositions require resumptives.

4.8.3.1 A Matching Analysis for ZG relative clauses

I assume that ZG relative clauses are derived via the Matching Analysis (cf. 1.1.3). A full DP with an empty D moves to Spec, CP, and the complement of the relative-D is deleted under identity with the external head, as in Standard German relatives (2.4):[292]

(862) s [**Buech**]$_j$ [$_{CP}$ [Op [~~Buech~~]$_j$]$_1$ wo de Peter __$_1$ gern hät]
the book book C the Peter likes
'the book Peter likes'

I also make the same assumptions about the LF of such relatives (cf. (2.4): The Preference Principle applies (cf. 1.4.1) so that the copy inside the operator is reduced and retained only in the bottom copy. The silent relative operator is converted into a variable in the bottom copy. The external head is in principle retained but is deleted if it contains material that is not licensed there (cf. 2.4.3).

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[291] Perhaps, the cliticization rule only implies that the closest head is targeted, which would be the P for their complements whereas for structural arguments, it would be C. But this fails to explain those cases where the resumptive immediately follows the subject where it is not so clear which head (if at all) is targeted.

[292] Recall from footnote 2 that movement dependencies are marked by number indices while coreference is marked by letter indices.

This directly accounts for the reconstruction effects: A full copy of the external head is present inside the relative clause. The following examples illustrate this for anaphor binding. I give both the surface structure as well as a simplified LF:

(863) a) S [Bild vo **siich$_i$**], wo **de Peter$_i$** __ wett verchauffe,
the picture of self C the Peter wants sell
gfallt niemertem.
pleases nobody.DAT
'Nobody likes the picture of himself$_i$ that Peter$_i$ wants to sell.'

b) S [~~Bild vo **siich$_i$**~~]$_j$, [$_{CP}$ [Op [~~Bild vo **siich$_i$**~~]$_j$]$_1$ wo **de Peter$_i$**
the picture of self picture of self C the Peter
[x Bild vo **siich$_i$**]$_1$ wett verchauffe], gfallt niemertem.
picture of self wants sell pleases nobody.DAT

A full copy of the external head inside the relative clause also accounts for the SCO effects. I repeat an example from above and add its LF. The pronoun *er* 'he' c-commands a coreferential R-expression containing a variable and therefore triggers an SCO/Condition C effect:

(864) a) *de [**Maa**], won **er$_i$** __$_i$ gern hät
the man C he likes
lit.: 'the man$_i$ who$_i$ he$_i$ likes'

b) *de [Maa]$_j$, [$_{CP}$ [Op ~~Maa$_j$~~]$_{1/i}$ er$_i$ [x Maa]$_{1/i}$ gern hät]
the man which man he man likes

The absence of Principle C effects follows from systematic Vehicle Change that turns every R-expression inside the external head into a personal pronoun, as in the following example:

(865) a) s [Fotti vom **Peter$_i$**], won **er$_i$** __ am beschte findt
the picture of.the Peter C he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) s [Fotti vom **Peter$_i$**]$_j$, [$_{CP}$ [Op [~~Fotti vo **im$_i$**~~]$_j$]$_1$ won er$_i$
the picture of.the Peter picture of he.DAT C he
[x Fotti vo **im$_i$**]$_1$ am beschte findt]
picture of he.DAT the best finds

The possibility of having an R-expression inside the external head correlates with the possibility of having a coreferential pronoun inside the picture NP. Since ZG allows coreferential pronouns inside pictures NPs (cf. 4.3.1.4) the relatives are correctly predicted to be as grammatical as the following base sentence:

(866) **Er$_i$** findt [das Fotti vo **im$_i$**] am beschte.
he finds that picture of him the best
'He$_i$ likes this picture of him$_i$ best.'

Further evidence for Vehicle Change comes from examples that test variable binding with Condition C. As pointed out in 4.3.1.5, Condition C effects do not

re-emerge under reconstruction for variable binding. This can only come about vial Vehicle Change:

(867) s [Buech vom **Peter$_i$** über *iri_j* Vergangehäit],
the book of.the Peter about her past
won **er$_i$** *jedere Politikerin$_j$* __ gschickt hät
C he every.DAT politician sent has
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every politician$_j$'

Resumptive relatives are derived in essentially the same way, the only difference being that there is a resumptive instead of a gap. The next subsection discusses why this is the case and how it comes about.

4.8.3.2 The distribution of resumptive pronouns

I would like to argue that the distribution of resumptive pronouns in local relativization follows straightforwardly under two assumptions: First, there are resumptives for datives because dative is an oblique case and requires phonetic realization in German (dialects) as I will illustrate below. This constraint does not apply to subjects and direct objects. Secondly, resumptives in other oblique positions such as complements of prepositions and possessors also occur to realize oblique case and as a side effect make movement out of islands possible.

I will first focus on the contrast between direct arguments and datives. The division is, of course, reminiscent of the difference between structural and inherent case. This distinction correlates with a morphological distinction: While nominative and accusative are identical in ZG except for certain pronouns, the dative, which is the major (and almost only) case in oblique relations (some prepositions assign accusative), is clearly distinct. But is this correlation meaningful? While it is undisputed that there are different types of datives in German (dialects) and that some of them show certain properties reminiscent of structural arguments (predictability of their position, *get*-passive, cf. Wegener 1985, 1991, Gallmann 1992), all datives also differ systematically from nominative and accusative as shown convincingly in Vogel & Steinbach (1998) and Bayer et al. (2001). I will not review all of their arguments, but will simply mention two: datives cannot bind anaphors while direct objects can (868) (Vogel & Steinbach 1998: 73), and datives are barriers for extraction while direct objects are not (869), (Vogel & Steinbach 1998: 74f.):

(868) a) dass der Arzt$_i$ **den** Patienten$_j$ **sich$_{i/j}$** im Spiegel zeigte
that the.NOM doctor the.ACC patient self.DAT in.the mirror showed
'that the doctor$_i$ showed the patient$_j$ to himself$_{i/j}$ in the mirror.'

b) dass der Arzt$_i$ **dem** Patienten$_j$ **sich$_{i/*j}$** im Spiegel zeigte
that the.NOM doctor the.DAT patient self.ACC in.the mirror showed
'that the doctor$_i$ showed the patient$_j$ to himself$_{i/*j}$ in the mirror.'

(869) a) *[Über wen]$_1$ hat der Verleger [einem Buch __$_1$]
about whom has the editor a.**DAT** book
keine Chance gegeben?
no chance given
Lit.: 'Who did the editor give a book about no chance?'

b) [Über wen]$_1$ hast du [ein Buch__$_1$] gelesen?
about whom have you a book read
'Who did you read a book about?'

This oblique behavior correlates with special morphological licensing conditions. Like the oblique case genitive, dative requires overt case marking to be licensed as the following four asymmetries show: First, complement clauses in German cannot directly fill the slot of a dative argument (Bayer et al. 2001: 471):

(870) a) Wir bestritten, [dass wir verreisen wollten]. ACC
we denied that we travel.away wanted
'We denied that we wanted to go away.'

b) *Wir widersprachen, [dass wir verreisen wollten]. DAT
we objected that we travel.away wanted
'We denied that we wanted to go away.'

c) Wir widersprachen [**der Behauptung**,
we objected the.DAT claim
[dass wir verreisen wollten]].
that we travel.away wanted
'We rejected the allegation that we wanted to go away.' DAT

Since CPs cannot realize morphological case a DP has to be inserted to rescue the example. The structural cases nominative and accusative do not require this extra licensing, abstract case is sufficient. Second, certain indefinite quantifiers in German do not inflect for case. Interestingly, they can function as bare subjects or direct objects but not as datives (Bayer et al. 2001: 472):

(871) a) Wir haben genug/ nichts/ allerlei/ etwas/ wenig erlebt.
we have enough nothing a.lot something little experienced
'We have experienced enough/nothing/a lot/something/little.' ACC

b) *Feuchtigkeit schadet **genug/ nichts/ allerlei/ etwas/ wenig**.
humidity harms enough nothing a.lot something little
'Humidity harms enough/nothing/a lot/something/little.' DAT

Some of these adjectives have an inflected form, which is optional for the structural cases, but obligatory for datives (Bayer et al. 2001: 472):

(872) a) Wir haben schon viel-(es)/ nur wenig-(es) erlebt.
we have already much-**(ACC)** only little-**(ACC)** experienced
'We have experienced much already/only little.'

b) Das schadet/ gleicht/ ähnelt viel-***(em)/** wenig-***(em)**.
that harms equals resembles much-**(DAT)** little-**(DAT)**
'This harms equals/resembles much/little.'

Third, Topic Drop is only possible with direct arguments, but not with datives, cf. Bayer et al. (2001: 489):

(873) a) [ ] Hab' ich schon gesehen
have I already seen
'I have already seen (it).' ACC

b)* [ ] Würde ich nicht vertrauen
would I not trust
'I wouldn't trust (him)' DAT

Fourth, in comparatives, only direct arguments can be deleted, datives require resumptives, a fact already discussed in 3.8.2.2, cf. Bayer (2002: 15):

(874) a) [Mehr Patienten] sind gekommen als
more patients are come than
[NOM __] behandelt werden konnten.
treated become could
'More patients showed up than could be treated.'

b) Es kamen [mehr Patienten] als
there came more patients than
der Arzt [DAT ***(ihnen)**] Medikamente geben konnte.
the doctor they.DAT medicine give could
'More patients showed up than the doctor could give medicine to.'

All these observations hold for ZG as well. The comparative clauses are particularly interesting because they belong to another A'-movement construction and show the same pattern of resumption as local relativization. I give two ZG examples for completeness' sake:

(875) a) Es sind [mee Patiente] choo als
there are more patients come than
de Toker (***sie**) hät chöne behandle. ACC
the doctor (them) has could treat
'There came more patients than the doctor could treat.'

b) Es sind [mee Lüüt] choo als de Tokter ***(ine)**
there are more people come than the doctor (they.DAT)
hät chöne Medikamänt verschriibe. DAT
has could medicine prescribe
'There came more people than the doctor could prescribe medicine for.'

The fact that the dative is also special in ZG relativization thus comes as no surprise. It is simply another instance where morphological licensing requires an overt form. I conclude from all these facts that datives are indeed crucially different from nominative and accusative, and that what causes dative resumptives is a condition on the licensing of oblique case. The fact that dative resumptives can be dropped under matching suggests that under specific circumstances oblique cases can be recovered and that the general distribution is

subject to a recoverability requirement. The recoverability requirement can be satisfied either by realizing a resumptive or by making the case accessible via the external head under matching.[293, 294]

The fact that prepositions are required is not surprising because they are normally not recoverable when deleted.[295] They have in fact been grouped together with datives as oblique cases, cf. Bayer et al. (2001), where both oblique morphological case and prepositions license a KP layer on top of oblique DPs. Like datives, they are subject to special licensing conditions, require morphological expression as on CPs, under topic drop and in comparatives. Additional support for this position comes from the fact that prepositions (and their corresponding resumptives) can be dropped under matching (4.5.1.1). Clearly, the same recoverability principle is at work.[296]

As for the resumptives for complements of prepositions and those for possessors (e.g. (750)d–f), they can also be subsumed under the licensing requirement on oblique case, as it is normally assumed that they do represent oblique cases, cf. Bianchi (2004), Boeckx (2003).

It still needs to be explained why resumption is so limited in ZG. It is only found in relatives and residually in comparatives, but not in *wh*-movement (or topicalization) as the following example shows:

(876) *[**Welem Maa**] tänksch, dass t **(*<u>em</u>)**
which.DAT man think.2SG that you he.DAT
es Buch chönntsch schänke?
a book could.2SG give
'Which man do you think you could give a book?'

Of course, oblique case is already expressed on the *wh*-operator so that additional spell-out is not necessary. I will assume that ZG is also subject to the constraint against realizing more than one chain link that was introduced in 3.8.2.1 for Standard German. This will give us the right cut.[297] As a side-effect, it

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293 I will not formally implement matching here. In earlier work (Salzmann 2006), I presented a Head Raising Analysis of ZG relatives where matching was modeled as incorporation of relative clause internal material into relative clause external material. Since I believe that the HRA leads to many undesirable problems, that account is no longer possible.

294 I should mention that this does not cover the cases discussed in 4.1.3.3 where a resumptive is impossible for certain datives. I have no explanation for them.

295 See Joseph (1980) for such cases in Greek.

296 My proposal is thus eventually quite similar in spirit to van Riemsdijk (1989).

297 There seem to be residual cases where resumption is possible with overt antecedents. I have come across one example from Basle German where a topicalized direct object is linked to a resumptive inside a *wh*-island, cf. Suter (1976: 186, §319):

i) **[Sälli Meebel]** waiss i my Seel nit, won i **<u>si</u>** mues aanestèlle.
such furniture know.1SG I by God not where I them must.1SG put
'Such furniture I really don't know where to put.'

All the examples of this type I have found are restricted to direct relations. There don't seem to be any with dative objects. This might indicate that we are dealing with a different A'-dependency that is not discussed in this thesis. I pointed out in Salzmann (2006) that one often finds examples with topicalization or *wh*-movement in spontaneous speech where the

further correctly predicts that *wh*-movement and topicalization will always be sensitive to locality (cf. also 3.8.3.3, 3.8.3.4). The violations described in (771) and (774) in 4.2.1 cannot be saved by using a resumptive:

(877) *[**Welem** **Maa**] häsch es Buch <von **em**> überchoo
which.DAT man have.2SG a book from him received?
'Which man did you get a book from?'

Resumption in local relativization is a means of realizing oblique case. As it were as a side-effect, movement from otherwise intransparent domains (cf. (771), (774)) becomes possible.[298, 299]

4.8.3.3 Implementing resumption

As for the technical implementation of resumption, both a Spell-out as well as a Big-DP approach are in principle possible. On a Spell-out approach, things are very straightforward: Only phrases with the feature oblique are realized, e.g. as in

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dislocated antecedent is case-unmarked and the case information is spelled out by a resumptive as in the following examples:

ii) [**Dää** **Maa**] wäiss i nöd, öb i **em** wett im Tunkle begägne.
this man know.1SG I not if I he.DAT would.like.1sg in.the dark meet
'This man I don't know whether I would like to meet in the dark.'

iii) [**Die** **Frau**] chan I scho verschtaa, dass t mit **ere** wettsch go tanze.
this woman can.1SG I certainly understand that you with her want.2SG go dance
'This woman I can certainly understand you would like to go dancing with.'

iv) [**Die** **Frau**] hett i nie tänkt, dass **si** mi nett findt.
this woman had.SUBJ.1SG I never thought that she me nice finds
lit.: 'This woman I would have never thought likes me.'

I have referred to this construction as "A'-splits" because the content of an A'-phrase is in a sense split across two positions. Importantly, this option is only available in long-distance A'-movement, but is not restricted to island contexts. Since nominative and accusative are identical I have assumed that they can also be interpreted as default case. Case is then alternatively realized in the theta-position of the dislocated phrase by a resumptive pronoun. It seems quite likely that i) above can be subsumed under A'-splits. In case we are dealing with a movement dependency (which is difficult to test), these constructions would violate the constraint mentioned in the text and would also be expected to be able to violate locality constraints. Perhaps, the proper formulation of the constraint refers to case instead of overtness: what is ruled out are chains where case is realized twice. As for potential island-voiding properties, there do indeed seem to be some data that point in that direction. However, since A'-splits are limited to long-distance A'-movement, this cannot be shown for the local cases at hand. The following example shows how a case-unmarked *wh*-operator is related to the complement of a preposition located inside a PP:

v) [**Wele** **Maa**] häsch gsäit, dass d < mit de Schwöschter von **em** >
which man have.2SG said that you with the sister of he.DAT
i d Schuel bisch?
in the school are
lit.:'Which man did you say that you want with a sister of to school?'

298 There is a certain problem with this interpretation for those resumptives that occur as complements of prepositions and can be dropped under matching. If they are required to void the PP-island, how is movement still possible if the resumptive is deleted under matching? I will tentatively assume that locality is checked before matching so that subsequent deletion does not affect the locality constraints. Alternatively, if locality is checked after matching, it is conceivable that the PP-island vanishes after deletion of the preposition so that there will be no locality violation anymore after matching. I will leave this for future research.

299 Recall that some verbs disallow resumptives for datives even if the antecedent is animate, cf. 4.1.3.3. I have no explanations for those at the moment. The fact that those datives do not seem to be relativizable at all suggests, however, that very different factors are involved.

Pesetsky (1998). With a Big-DP, one needs more elaborate assumptions, perhaps as in Boeckx (2003). He assumes that oblique positions count as a Strong Occurrence (cf. 3.8.2.5) so that together with the A'-feature that needs to be checked, we get two Strong Occurrences, which is too much, the *Principle of Unambiguous Chains* is violated. Forming a Big–DP is a means to disambiguate the chain: the Big-DP checks the oblique case whereas the A'-operator is part of a different chain, it subextracts from the DP and moves to its operator position. This way, we get two chains with one Strong Occurrence each.[300]

As discussed at length in 3.8.4.4, it is not easy to find compelling arguments that favor one over the other approach. In ZG local relativization, there are no absolutely decisive arguments. There are no epithets and or other more exotic types of resumptive elements as e.g. in resumptive prolepsis (cf. 3.8.4.1) so that a Spell-out approach fares relatively well. The only arguments that tend to favor a Big-DP approach come from pronoun fronting and PG-licensing and the fact that (certain) resumptives are incompatible with inanimate antecedents, cf. (756), repeated here:

(878) a) *d [Gfaar], won ich **(ire)** de Hansli uusgsetzt han
the danger C I it.DAT the little.John exposed have.1SG
'the danger to which I exposed little John'

b) *Ich het de Hansli **ire** nöd söle uussetze.
I had.SUBJ the little.John it.DAT not should put.at.mercy.of
'I should not have put little John at her mercy.'

The resumptive thus behaves like a normal personal pronoun. This is relatively easy to model under a Big-DP approach because the resumptive is simply a pronoun that is expected to behave like one. Since it is a separate constituent it can undergo fronting. However, as discussed in 3.8.4.4, these arguments are not as strong as previously assumed. First, it is difficult to prove that pronoun fronting is syntactic. Second, the PG-licensing can also be due to A'-movement of the operator. Third, the fact that the resumptive is incompatible with an inanimate antecedent can also follow under a Spell-out approach if it is assumed that the relevant copy contains a feature [– animate]. Since personal pronouns are [+animate] there will be no suitable element to realize this position and the derivation crashes.

The interpretive facts also does not seem to favor any of the approaches. We have seen in 4.6.1.2 that scope reconstruction is possible in local resumptive relatives, especially with R-pronouns. Since we are dealing with resumptives in oblique positions, this is exactly what Bianchi (2004: 95f.) predicts. This seems unsurprising under a Spell-out approach because the resumptives occur for independent reasons and do not lexicalize a specific chain. However, this is not quite sufficient because of the difference between personal pronouns and R-pronouns. Only the latter allow scope reconstruction. This fact is clearly related to independent properties of the resuming elements. While R-pronouns can refer

[300] Demirdache's (1991) approach, however, does not seem to be an option. It would fail to explain why in-situ operators should be limited to oblique positions.

to non-individual antecedents such as amounts, personal pronouns cannot as the following sentence shows:

(879) Er verdient [4000 Stutz] im Monet,
He earns 4000 bucks in.the month
isch aber nöd zfride de-mit/ *mit ene.
is but not satisfied there.with/with them
'He earns 4000 bucks a months but isn't satisfied with that.'

The semantic restrictions thus follow from the type of resumptive used. At first sight, this rather seems to argue in favor of a Big-DP approach where the resumptive is simply a pronoun so that one expects the same effects as outside resumption. A Big-DP approach can certainly handle the data, but the question is whether they are a problem for a Spell-out approach. I don't think that this is the case: Suppose we have a chain with scope reconstruction into an oblique position. Since oblique case has to be realized overtly, the grammar will require a resumptive in this position. Spelling out a personal pronoun, however, is impossible because it would not be compatible with the features of the reconstructed copy. Scope reconstruction implies that the phrase is non-individual-denoting. However, personal pronouns are incompatible with such types. If a personal pronoun is inserted, the derivation crashes. An R-pronoun, however, is a possible Spell-out because its features are compatible with those of the reconstructed copies. I conclude therefore that both approaches make essentially the same predictions.

The conclusion is therefore pretty much the same as for resumptive prolepsis: In the absence of decisive evidence, it is impossible to choose between a Spell-out or a Big-DP approach. Things are probably even more difficult in ZG local relativization because there are no special resumptive elements so that a Big-DP and a Spell-out approach make pretty much the same predictions. I will briefly come back to this issue in 4.9.3.8 below where resumption in long-distance relativization is discussed.

4.9 The syntax of long-distance relativization

In this section, I will present a new account of ZG long-distance relativization. I will partially adopt an idea from a recent paper by van Riemsdijk (to appear) that reanalyzes long-distance relativization in ZG in terms of aboutness relatives, essentially a structure quite similar to the resumptive prolepsis structure argued for in chapter 3. I will first introduce this approach and discuss its pros and cons. Since quite a few aspects of long-distance relativization remain unaccounted for, I will argue for an implementation of it in terms of resumptive prolepsis by showing that it patterns with the proleptic construction in Standard German in a striking number of respects.[301]

[301] An earlier and abridged version of this section appears as Salzmann (to appear a).

4.9.1 A previous approach: van Riemsdijk (to appear)

The starting point for van Riemsdijk's reanalysis are locative and aboutness relatives such as the following (repeated from 4.1.4):

(880) a) s [Huus], **wo$_1$** de Peter __$_1$ wont
the house where the Peter lives
'the house where Peter lives'

b) es [Wätter], **wo$_1$** s sich __$_1$ nöd loont, de Raase z määje
a weather where it self not is.worthwhile the lawn to mow
'a weather where there is no point in mowing the lawn'

Van Riemsdijk (to appear) assumes that in both cases there is a phrasal relative adverb *wo* 'where' next to the relative complementizer *wo*. It moves to Spec, CP and is eventually deleted under haplology with the complementizer:

(881) NP [$_{CP}$ [$_{xp}$ ~~**wo**~~]$_1$ C$_{wo}$ [$_{xp}$ ~~**wo**~~]$_1$ …]

Since this is a normal case of phrasal A'-movement, a resumptive pronoun is not expected. The lower copy is deleted due to normal deletion of the lowest chain link and the upper copy is exceptionally deleted by haplology. But now comes the crucial step: Van Riemsdijk proposes that long relativization actually involves aboutness relativization in the matrix clause. If I read him correctly, the resumptive pronoun we find in the complement clause is simply a bound pronoun linked to its antecedent by construal and not movement:

(882) the man$_i$ [$_{CP}$ [$_{xp}$ ~~**wo**~~]$_{1/i}$ **C$_{wo}$** I [$_{xp}$ ~~**wo**~~]$_{1/i}$ think [$_{CP}$ **he$_i$** …]]

This approach has two major advantages. First, the occurrence of a (resumptive) pronoun in all positions is not surprising because movement is not involved, and since ZG is not a pro-drop language, an overt pronoun is necessary. Secondly, the insensitivity to locality (4.2.1) follows under base-generation. Third, there is a base-construction: the constituent corresponding to *wo* in both long relativization and aboutness relatives is realized as *bi*+DP 'at'+DP if it remains in-situ:[302]

(883) a) es [Wätter], **wo$_1$** s sich __$_1$ nöd loont, de Raase z määje
a weather where it self not is.worthwhile the lawn to mow
'a weather where there is no point in mowing the lawn'

b) Es loont sich **bi dem Wätter** nöd, de Raase z määje.
it be.worthwhile self at this weather not the lawn to mow
'With this weather, there is no point in mowing the lawn.'

(884) a) es [Mäitli], **wo** mer säit, dass **es** gern is Kino gaat
a girl C one says that she likes.to in.the movie goes
'a girl who one says likes to go to the movies'

[302] In 4.9.3.1 below I will use this as the starting point for my reanalysis of van Riemsdijk's approach.

b) Mer säit **bi** [**dem Mäitli**], dass **es** gern is Kino gaat.
one says at this girl that she likes.to in.the movie goes
'One says about this girl that she likes to go to the movies.'

I think that there are further strong arguments for such an approach even though they are not explicitly mentioned in van Riemsdijk (to appear). First, it makes ZG relativization similar to Standard German where the proleptic construction is used for long-distance movement, a fact I will capitalize on below as well. Second, it accounts for the absence of long-distance matching (4.5.3). The resumptive is not directly related to the matrix Spec, CP position and the only information available there is invariant *wo*. As a consequence, the information necessary to license deletion of the resumptive is not recoverable – *wo* does not contain the relevant information such as dative case.

Despite these advantages, the approach leaves a large number of properties unaccounted for. They are discussed in the next subsection.

4.9.2 Problems of van Riemsdijk's (to appear) approach

4.9.2.1 Movement effects

Van Riemsdijk (to appear) assumes that the only representation of the external head inside the relative clause is the general operator *wo*. Furthermore, there is a pure construal relationship between matrix *wo* and the alleged resumptive pronoun, which is therefore just a bound pronoun. If I read him correctly, this is not to be taken as an A'-dependency. This implies that the movement effects in the matrix and in the embedded clause remain mysterious.

Let me begin with reconstruction into the complement clause (cf. 4.3.2). I repeat an example for convenience:

(885) s [Bild vo **siich**$_i$], wo t gsäit häsch,
the picture of self C you said have.2SG
dass de **Peter**$_i$ s wett verchauffe
that the Peter it wants sell
'the picture of himself$_i$ that you said Peter$_i$ wants to sell'

(Semantic) Reconstruction with base-generation is not completely ruled out (recall the discussion in 3.8.3.1) even though it is certainly not the predominant approach. However, there are two aspects of the ZG reconstruction pattern a base-generation approach cannot explain: First, reconstruction into intermediate positions (cf. 4.3.3.2) cannot be dealt with by semantic reconstruction since it can only copy material into the location of the pronoun. Second, a base-generation approach that directly links *wo* with the resumptive pronoun would predict reconstruction across the board. This would leave the absence of Condition C effects unexplained. There is probably an even more fundamental problem: Reconstruction is normally thought to require an A'-dependency. However, there is no A'-dependency according to van Riemsdijk. I conclude from this that reconstruction into the complement clause is a serious problem.

Let me continue with the SCO effects in the matrix clause. I repeat an example from (814)a:

(886) a) *de [**Bueb**]$_i$, won **er$_i$** tänkt, dass d Marie **<u>en</u>$_i$** gern hät
the boy C he thinks that the Mary him likes
lit.: 'the boy$_i$ who$_i$ he$_i$ thinks that Mary likes'

It is not so clear how van Riemsdijk would deal with this. An SCO effect obtains if there is A'-movement across a coreferential pronoun. However, there is no relative clause-internal representation of the external head but just *wo*. *wo* is invariant and is therefore unlikely to bear phi-features. If it moves across a pronoun it is unlikely to cause an SCO violation as the following representation shows:

(887) *de [Bueb]$_i$, [$_{CP}$ **[~~wo~~]$_1$** **won** **er$_i$** **[~~wo~~]$_1$** tänkt,
the boy wo C he thinks
dass d Marie **<u>en</u>$_i$** gern hät]
that the Mary him likes
lit.: 'the boy$_i$ who$_i$ he$_i$ thinks Mary likes'

However, perhaps this problem can be solved. It is clear that *wo* somehow has to be related to the external head and to the resumptive pronoun. A possibility would be to assume that it bears the same index as the two. That might yield the right result:

(888) *de [Bueb]$_i$, [$_{CP}$ **[~~wo~~]$_{1/i}$** **won** **er$_i$** **[~~wo~~]$_{1/i}$** tänkt,
the boy wo C he thinks
dass d Marie **<u>en</u>$_i$** gern hät]
that the Mary him likes
lit.: 'the boy$_i$ who$_i$ he$_i$ thinks Mary likes'

In a sense, *wo* would be the overt counterpart of the empty operator, which is also compatible with any kind of external head, any value for animacy, gender, number and person. I think there are two reasons why such an approach is still problematic: First, overt operators are normally not so flexible, they are only compatible with certain antecedents, even if they are invariant. Second, any analysis in terms of operator movement is subject to the criticism of the HEA in 1.4.2.

The same problems obtain with reconstruction into the matrix clause. Consider the following example repeated from (802):

(889) s [*äinzige* Grücht über **siich$_i$**], wo de **Peter$_i$** findt,
the only rumor about self C the Peter finds
dass <u>es</u> unggrächt isch
that it unfair is
'the only rumor about himself$_i$ that Peter$_i$ thinks is unfair'

If we only have movement of *wo* in the matrix clause, it is unclear how reconstruction can be captured:

(890) s [*äinzige* Grücht über **siich**$_i$], [$_{CP}$ **[~~wo~~]**$_1$ wo de **Peter**$_i$ **[~~wo~~]**$_1$ findt,
the only rumor about self wo C the Peter wo finds
dass es unggrächt isch]
that it unfair is
'the only rumor about himself$_i$ that Peter$_i$ thinks is unfair'

If, as suggested for the SCO effects, *wo* bears the same index as the external head and the resumptive/coreferring pronoun we would effectively dealing with a Head External Analysis. The HEA, however, was shown to be ill-suited to capture reconstruction effects, cf. 1.4.2.

4.9.2.2 Obligatoriness of the coreferring pronoun

Recall that van Riemsdijk assumes that long-relativization involves aboutness relativization in the matrix clause. I repeat the relevant example from above:

(891) es [Wätter], **wo$_1$** s sich __$_1$ nöd loont, de Raase z määje
a weather where it self not is.worthwhile the lawn to mow
'a weather where there is no point in mowing the lawn'

Aboutness *wo* is an adjunct that is independently (semantically licensed). One would expect the same to hold for the *wo* in long relativization. Interestingly, however, more seems to be necessary to license *wo*: "long relativization" requires a coreferring element in the embedded clause:

(892) es [Resultaat], won i glaub,
a result C I believe.1SG
dass de Hans zfriden isch ***(demit)**
that the John satisfied is there.with
'a result that I believe John is satisfied with'

The obligatoriness of the resumptive (and the preposition) cannot be related to selectional properties of the adjective in the embedded clause because it allows its argument to be dropped:

(893) De Chef isch zfride **(demit)**.
the boss is satisfied there.with
'The boss is satisfied with it.'

Omitting the PP-complement of the adjective does not affect the interpretation; there is still an implication that the boss is satisfied with something. Still, preposition and resumptive are obligatory in long-distance relativization. This is unexpected if *wo* is independently licensed. Matrix clause adjuncts (and arguments except those of Control verbs) normally do not have to be resumed in the embedded clause. The following illustrates this for an aboutness adjunct (the construction has a Teutonic flavor, corresponding examples in Standard German are frequently found on the net):

(894) De Parteipresidänt hät **bezüglich em Wahlresultat** bemerkt,
the party.leader has concerning the election.result remarked
dass mer s ganz offesichtlich nöd gschaft hät,
that one it quite obviously not managed has
de Wääler vo de äigene Idee z überzüüge.
the voter of the own ideas to convince
'The party leader remarked concerning the election result that one has obviously not managed to convince the voter of one's ideas.

It seems unlikely that *wo* has quantificational properties (so that (892) without a resumptive would be a case of vacuous quantification) given the fact that no such obligatory binding is necessary in locative and aboutness relatives, cf. 4.1.4. Rather, it suggests that something else is necessary to license the *wo*-constituent in long-distance relativization.

4.9.2.3 Alleged phrasal *wo* does not pattern with other adverbial relatives

The previous two subsections have made it clear that the assumption of a phrasal *wo* is the most problematic aspect. Here I would like to argue that there is distributional evidence that suggests that there is no phrasal *wo*.

It can be shown that locative relatives fail to pattern with the other adverbial relatives, which were shown to employ a phrasal relative adverb that is not PF-deleted, cf. 4.1.4. Both manner and reason relatives allow the C position to be filled with the declarative complementizer *dass* 'that':

(895) a) de Grund, **werum**$_1$ **dass** de Peter $___1$ z spaat choo isch
the reason why that the Peter too late come is
'the reason why Peter came late'

b) D Art, **wie**$_1$ **dass** de Peter s Probleem $___1$ gglööst hät,
the way how that the Peter the problem solved has
hät mi beiidruckt.
has me impressed
'The way Peter solved the problem impressed me.'

Interestingly, with locative *wo* a declarative complementizer is much worse:

(896) De Ort, **wo**$_1$ **(??dass)** er $___1$ wont, will er niemertem verraate.
the place where that he lives wants he nobody.DAT tell
'He does not want to reveal the place where he lives to anybody.'

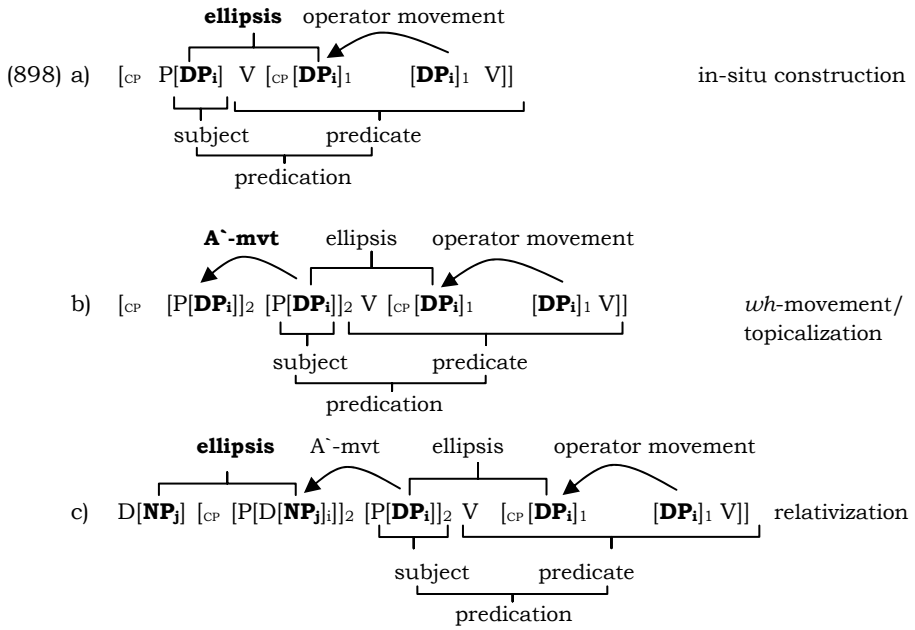
Crucially, when we look at the phrasal *wh*-adverb *wo*, we find no such restriction. This suggests that the deviance of (896) is not a property of phrasal *wo* as such:

(897) Ich wäiss nöd, **wo**$_1$ **dass** er $___1$ wont.
I know not where that he lives
'I do not know where he lives.'

I conclude from this that there is no phrasal relative adverb *wo*. One major advantage of the approach advanced here is that there is only one *wo* in relativization, namely the complementizer *wo*.[303, 304]

4.9.3 Long-distance relativization as resumptive prolepsis

In this subsection, I will argue that long-distance relativization in ZG should be analyzed in terms of resumptive prolepsis. This integrates van Riemsdijk's original insights but also provides solutions to the problems mentioned in 4.9.2 and accounts for further hitherto unnoticed properties. Recall the derivations for the three different variants of the proleptic construction:



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303 Admittedly, the deviance of (896) follows, if one assumes – as van Riemsdijk (to appear) does – that the C-position is occupied by the complementizer *wo*. There is simply no space for *dass*. The question is then why C-*wo* does not occur in the other adverbial relatives. Henk van Riemsdijk (p.c.) suggests extending the constraint against two "wo" in the left periphery to two "w-words". This would rule out *werum wo* and *wie wo*, but crucially not *werum dass* and *wie dass*. That is certainly a possibility. It implies that both *wo* and *dass* are in principle possible complementizers in relativization. But this immediately raises a further question: Why is *dass* not an option in resumptive relatives? Furthermore, this constraint may run into difficulties with multiple *wh*-questions where on an LF-movement analysis multiple *wh*-phrases occupy specifier positions of C. It seems therefore preferable to me at this point to keep resumptive and adverbial relatives separate.

304 Henk van Riemsdijk (p.c.) has pointed out to me that the relative modifying reason is also different in that the *wh*-word can be dropped. This might suggest that there are independent reasons for the different behavior. Josef Bayer (p.c.) has suggested in the same context that the reason relative clause is actually a *wh*-complement. These facts might admittedly weaken the argument made in the text. However, they leave (895)b unexplained. I will leave this for further research.

Since the facts are almost identical to the Standard German ones in chapter 3, I will be rather brief. In a first step, I will establish that there is no direct movement relationship between the matrix clause and the reconstruction site in the embedded clause and that the proleptic object is base-generated in the matrix clause. In subsection two I present evidence for the operator movement approach. It turns the CP into an island and accounts for the obligatoriness of a coreferring element. Subsection three illustrates the complete absence of lexical restrictions, which is also expected under an operator movement approach. In subsection four, I discuss the relationship between the in-situ construction and the derivation with relativization and argue that relative *wo* licenses deletion of locative prepositions in Spec, CP. Subsection five shows that there has to be a representation of the proleptic object in the complement clause and introduces ellipsis as a means to accomplish that. In subsection six, I provide explicit evidence in favor of ellipsis. The interpretive properties of the proleptic object are addressed in subsection seven. Subsection eight, finally, discusses distribution and implementation of resumption.

4.9.3.1 Main clause properties of the PP

The fact that there is a base-construction as shown in (883)–(884) already shows that there cannot be a direct movement relationship from the embedded clause to the matrix operator position. The location of the proleptic object is the same as in Standard German (cf. 3.4.1.1). It is base-generated below the matrix subject, but higher than the verb and the complement clause. The first property is illustrated by the following sentence where the subject binds a pronoun inside the proleptic object. A modal particle indicates that the subject remains inside the vP (Diesing 1992):

(899) dass doch **käne$_i$** bi [**sim$_i$** Soon] würd glaube,
that PRT no.one at his son would believe.1SG
dass er en Verbrächer isch
that he a criminal is
'that no one$_i$ would believe of his$_i$ son that he is a criminal'

The following asymmetry in VP-topicalization shows that the matrix verb and the complement clause form a constituent to the exclusion of the proleptic object:

(900) a) [Gglaubt, dass er intelligänt isch]$_1$ han i
believed that he intelligent is have.1SG I
bim [Peter] scho immer __$_1$.
at.the Peter PRT always
'I have always believed that Peter is intelligent.'

b) *[Bim [Peter] gglaubt]$_1$ han i scho immer __$_1$,
at.the Peter believed have.1SG I PRT always
dass er intelligänt isch.
that he intelligent is

Finally, it is important to show that there is c-command out of the proleptic object to get the right configuration for predication (cf. 3.7.1). In the following example, a Negative Polarity Item in the complement clause is licensed by the DP within the proleptic object:

(901) Ich glaub **bi** [**käm Holländer**],
I believe.1SG at no Dutchman
dass er **au nume äin Euro** würd verschwände.
that he even one euro would waste
'I believe about no Dutchman that he would waste even one euro.'

The next point concerns anaphor binding. The fact that the matrix subject can bind an anaphor implies that the position the proleptic object occupies in the in-situ construction is its base-position because – as in Standard German – binding would not be possible in a derived A'-position (see the discussion in 3.4.1.2). The following pair shows (a) reconstruction into the matrix clause and (b) the impossibility to bind into an A'-landing site (Spec, CP):

(902) a) s [äinzige Grücht über **siich$_i$**], wo de **Peter$_i$** findt,
the only rumor about self C the Peter finds
dass es unggrächt isch
that it unfair is
'the only rumor about himself$_i$ that Peter$_i$ thinks is unfair'

b) **De Hans$_i$** fröögt sich, [weles Fotti vo ***siich$_i$/im$_i$**]$_1$
the John asks self which picture of self/him
ich __$_1$ am beschte find.
I the best find
'John wonders which picture of himself$_i$/him$_i$ I like best.'

Furthermore, since anaphor binding in the matrix clause was shown to be clearly better than intermediate anaphor binding (cf. 4.3.3.1), we have another strong argument in favor of base-generation in the matrix clause.

Reconstruction into the matrix clause is also possible if the proleptic object undergoes *wh*-movement:

(903) Bi [welem Fotti vo **siich$_i$**] glaubt de **Peter$_i$**,
at which picture of self believes the Peter
dass es s beschte isch?
that it the best is
'Which picture of himself$_i$ does Peter think is the best one?'

Finally, if the *bi*-phrase is *wh*-moved across another *wh*-phrase, we do not get a superiority violation (cf. 3.4.1.4). This would be unexpected if that constituent were extracted from the complement clause because ZG, like Standard German, shows long distance Superiority effects, cf. (904)a. However, since the proleptic object is base-generated in the matrix clause and only two matrix *wh*-phrases compete, the absence of Superiority effects is predicted (904)b:

(904) a) ***Welem** *Schüeler* glaubt *wele* *Leerer*,
which.DAT pupil thinks which teacher
dass mer __ sött äis a d Oore gëë?
that one should one at the ears give
lit.: 'Which pupil does which teacher think that one should give a box on the ears?'

b) *Bi welem Schüeler* glaubt *wele* *Leerer*,
at which student thinks which teacher
dass mer em sött äis a d Oore gëë?
that one he.DAT should one at the ears give
lit.: 'Which pupil does which teacher think that one should give a box on the ears?'

I conclude from these facts that the proleptic object is base-generated in the matrix clause.[305]

4.9.3.2 Evidence for operator movement: opacity and coreference

ZG presents the same paradox as Standard German in that there is reconstruction into the complement clause, which, however, can be shown to be opaque for extraction (cf. 3.4.1.5). The following triple illustrates the base sentence with an aboutness constituent (905)a; (905)b is an example with argument extraction from the aboutness construction and (905)c shows argument extraction from a normal complement clause.

(905) a) Ich hoffe bim [Leerer Müller],
I hope at.the teacher Müller
dass er em Hansli e gueti Noote git.
that he the.DAT John a good grade gives
'I hope about teacher Müller that he will give little John a good grade.'

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[305] This is strictly speaking not correct because the proleptic object can in principle undergo long-distance A'-movement and therefore originate in a lower clause. This is why the following relative, suggested to me by Henk van Riemsdijk (p.c.), is in principle ambiguous:

i) de Maa, wo de Peter gsäit hät, dass d Marie mäint, dass mer en sött uufhänke
the man C the Peter said has that the Mary thinks that one him should hang
'the man who/about whom Peter said that Mary thinks that one should hang him.'

The proleptic object can originate either in the *say*-clause or in the *think*-clause. The following example gives the in-situ variant for the latter case:

ii) dass de Peter gsäit hät, dass d Marie **bi irem Soon** mäint,
that the Peter said has that the Mary at her son thinks
dass mer en sött uufhänke.
that one him should hang
'that Peter said that Mary thinks about her son that one should hang him'

b)??[**Welem Schüeler**]$_1$ hoffsch bim [Leerer Müller],
which.DAT student hope.2SG at.the teacher Müller
dass er __$_1$ e gueti Noote git?
that he a good grade gives
lit.: 'Which student do you hope about teacher Müller that he will give a good grade?'

c) [**Welem Schüler**]$_1$ hoffsch,
which.DAT student hope.2SG
dass de Leerer Müller __$_1$ e gueti Noote git?
that the teacher M. a good grade gives
'Which student do you hope that teacher Müller will give a good grade?'

The following pair contrasts adjunct extraction from the aboutness construction (906)a with adjunct extraction from a normal complement clause (906)b:

(906) a) ***Werum**$_1$ glaubsch bim [Peter],
why think.2SG at.the Peter
dass er d Anna __$_1$ wett hüraate?
that he the Anna wants marry
'Why do you think about Peter that he wants to marry Anna?'

b) **Werum**$_1$ glaubsch, dass de Peter d Anna __$_1$ wett hüraate?
why think.2SG that the Peter the Anna wants marry
'Why do you think that Peter wants to marry Anna?'

The pattern is very clear. While extraction from normal complement clauses is unproblematic, argument extraction from the proleptic construction is strongly degraded and adjunct extraction is completely impossible: (906)a only allows the matrix construal.

The opacity of the complement CP follows directly under operator movement. It turns it into a weak island, cf. 3.7.2.2.

The predication-part of resumptive prolepsis accounts for the obligatory relation between the proleptic object and the coreferring pronoun noted in 4.9.2.2:

(907) es [Resultaat], won i glaub,
a result C I believe.1SG
dass de Hans zfriden isch ***(demit)**
that the John satisfied is there.with
'a result that I believe John is satisfied with'

Operator movement creates an open slot, and this slot needs to be filled. Since the filler is merged outside the complement CP, it will necessarily be coreferential with a position inside the CP, and this is the coreferring pronoun, which marks the tail of the operator chain. If there is no coreference, there is no operator movement, so that the proleptic object cannot be licensed as in the example above. The same is observed if the proleptic object is in-situ:

(908) Ich glaub bi [dem Resultaat],
I believe.1SG at this result
dass de Hans zfriden isch ***(demit)**.
that the John satisfied is there.with
'I believe of this result that John is satisfied with it.'

4.9.3.3 Absence of lexical restrictions

Like long relativization in Standard German (3.4.2), its ZG equivalent is completely insensitive to lexical restrictions. The following examples give a short selection with propositional attitude verbs, desiderative verbs, factives, adjectival predicates, reflexives, ditransitives and control verbs:[306, 307]

(909) a) Dasch eifach en [krassogene Spruch], won i *finde*,
that.is simply a extreme slogan C I think.1SG
dass mer dëë befolge sött.
that one that follow should
'That is simply an extremely cool slogan that I think one should follow.'
www.meinbild.ch/?n=137380

b) de [Maa], won i *ghöört* han,
the man C I heard have.1SG
dass er de noi Presidänt wird
that he the new president becomes
'the man who I heard will become the new president'

c) Isch doch immer s gliiche, die [Persoone], wo me *hofft*,
is PRT always the same the people C one hopes
dass si gföttelet worde sind, sind nie druf.
that they take.pictured become are are never there.on
'It's always the same: the people that one hopes will be taken a picture of are never on it.'
partyguide.ch/.../prestige_040605/img&PHPSESSID=63aade0a6330ac87bfef21ef14cb24b6

d) de [Maa], won i *bezwiifle*, dass en d Marie küsst hät
the man C I doubt.1SG that him the Mary kissed has
'the man that I doubt that Mary kissed'

e) d [Frau], won i *überrascht bin*, dass t si wettsch hüraate
the woman C I surprised am that you her want.2SG marry
'the woman that I am surprised that you want to marry'

---

306 Some of the examples taken from the internet were originally from other Swiss dialects, but the corresponding ZG examples are perfectly fine. I only give the ZG examples.

307 There are no examples with non-finite complements as in Standard German (511) because they are treated like local relatives and only show resumptives for oblique relations, a fact I will come back in 4.10.4.

f) d [Frau], won i *mi frööge*, warum si käne wett hüraate
the woman C I me ask.1SG why her no.one wants marry
lit.: 'the woman that I ask myself why no one wants to marry'

g) de [Maa], won i *mi froi*, wänn i en gsee
the man C I me am.happy when I him see.1SG
lit.: 'the man that I am happy when I see him'

h) d [Frau], wo t *spinnsch*, wänn t si hüraatisch
the woman C you are.crazy if you her marry.2SG
lit.: 'the woman that you are crazy if you marry her'

i) d [Frau], won i minere Muetter *gsäit* han,
the woman C I my.DAT mother said have.1SG
dass i si wett hüraate
that I her want.1SG marry
'the woman that I told my mother that I want to marry'

j) de [Typ], won i d Petra *überzüügt* han,
the guy C I the Petra convinced have.1SG
dass er intelligänt isch
that he intelligent is
'the guy that I convinced Petra is intelligent'

The absence of lexical restrictions is entirely expected under an operator movement analysis. Operator movement is in principle always available and can turn any CP into a predicate.

4.9.3.4 C-*wo* makes deletion of locative Ps recoverable

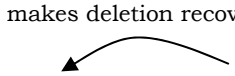
I pointed out in 4.9.1 that one of the arguments in favor of a matrix clause-internal base-position of the proleptic object is the fact that there is a base-construction. The question is how long-distance relativization is related to a base-construction where the proleptic object is headed by the preposition *bi* 'at':

(910) a) es [Mäitli], **wo** mer säit, dass es gern is Kino gaat
a girl C one says that she likes.to in.the movie goes
'a girl who one says likes to go to the movies'

b) Mer säit **bi** [**dem Mäitli**], dass es gern is Kino gaat.
one says at this girl that she likes.to in.the movie goes
'One says about this girl that she likes to go to the movies.'

What happens to the preposition and how do we get a relative clause-internal representation of the external head? The second aspect is straightforward. Since "long-distance relativization" actually only involves short relativization, the same Matching Analysis proposed in 4.8.3.1 for local relativization will be applied. As a consequence there will be a full copy of the external head governed by the preposition *bi* 'at'. The entire PP undergoes A'-movement to Spec, CP of the matrix clause. The copy of the external head is deleted under identity with it. Crucially, the preposition *bi* is also PF-deleted because the complementizer *wo*,

due to its locative origin, makes the deletion of locative and aboutness prepositions recoverable.[308]



(911) de [Maa]$_i$, [$_{CP}$ [~~bi~~ Op ~~Maa$_i$~~]$_1$ won i [bi x Maa$_i$]$_1$ tänke,
the man at Op man C I at man think.1SG
dass **er** intelligänt isch]
that he intelligent is
'the man who I think is intelligent'

Since the lower copy of the *bi*-PP is deleted as well, all we see at the surface is *wo*. This gives us a handle on the movement effects in the matrix clause because there is a full representation of the external head inside the relative clause. I repeat the relevant examples with SCO and reconstruction effects for convenience:

(912) a) *de [**Bueb**]$_i$, won **er**$_i$ tänkt, dass d Anna **en**$_i$ gern hät
the boy C he thinks that the Anna him likes
lit.: 'the boy$_i$ who$_i$ he$_i$ thinks that Anna likes'

b) s [äinzige Grücht über **siich**$_i$], wo de **Peter**$_i$ findt,
the only rumor about self C the Peter finds
dass es unggrächt isch
that it unfair is
'the only rumor about himself$_i$ that Peter$_i$ thinks is unfair'

The following pair illustrates the corresponding PF- and LF-representations:

(913) a) *de [Bueb]$_j$, [$_{CP}$ [~~bi~~ Op ~~Bueb$_j$~~]$_{1/i}$ won **er**$_i$ [bi x Bueb$_j$]$_{1/i}$ tänkt,
the boy at Op boy C he at boy thinks
dass d Anna **en**$_i$ gern hät]
that the Anna him likes

b) s [äinzige Grücht über **siich**$_i$]$_j$,
the only rumor about self
[$_{CP}$ [~~bi~~ Op [~~äinzige Grücht über siich$_i$~~]$_j$]$_1$
at Op only rumor about self
wo de **Peter**$_i$ [bi x Bild vo siich$_i$]$_1$
C the Peter at picture of self
findt, dass es unggrächt isch]
finds that it unfair is

A full copy of the external head A'-moves across a coreferential pronoun, triggering an SCO effect in (913)a. In (913)b, a full copy remains inside the matrix clause so that the anaphor inside it can be bound by the subject. This approach

[308] Recall from chapter one that PF-deleted constituents appear in outline.

nicely links long relativization to its base-structure, which as it were as a side effect derives the right results for the movement effects in the main clause.[309]

I would like to extend this analysis of *wo* to aboutness and locative relativization and make the strongest claim possible: there is no phrasal *wo* at all in ZG relativization. The following pair illustrates schematically how the complementizer *wo* makes the deletion of locative and aboutness prepositions recoverable in normal locative and aboutness relatives:

(914) a) the [city]$_j$ [$_{CP}$ [~~in~~ Op ~~city~~$_j$]$_1$ **wo** I have [in x city$_j$]$_1$ lived

b) the [weather]$_j$ [$_{CP}$ [~~bi~~ Op ~~weather~~$_j$]$_1$ **wo** one [bi x weather$_j$]$_1$ should stay home

With other prepositional relations, deletion is not recoverable so that the preposition has to be realized (together with a resumptive pronoun):[310]

(915) the [man]$_j$ [$_{CP}$ [~~with~~ Op ~~man~~$_j$]$_1$ **wo** I have [**with** x man$_j$]$_1$ talked

him

The same applies to more specific locative relations such as 'next to', 'under', 'through' etc. The locative complementizer is very vague and therefore only licenses very general locative or aboutness relations.[311]

This reinterpretation of *wo* avoids the problems pointed out in 4.9.2.3, reduces the number of *wo*s to just one and provides a handle on the movement effects in the main clause that were problematic under van Riemsdijk's original approach (cf. 4.9.2.1).

4.9.3.5 Reconstruction into the complement clause

Further evidence for the prolepsis approach comes from reconstruction into the complement clause. This was already observed for relativization in 4.3.2. Importantly, we find the same if the proleptic object undergoes topicalization or *wh*-movement. The following examples illustrate reconstruction for anaphor binding and variable binding:

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309 This also accounts for the absence of long-distance matching (4.5.3) because the relevant oblique information is not available in Spec, CP, but only *bi* + DP. Deletion of an oblique resumptive and/or a preposition would be irrecoverable.

310 One may wonder why the preposition is realized in the base position and not upstairs. This is due to a conspiracy of factors: Since the representation of the external head in Spec, CP is deleted, that position is empty – also because the resumptive is realized downstairs. If the preposition were realized upstairs, it would be separated from the resumptive it governs. That is ruled out by the constraint against preposition stranding in ZG, cf. Fleischer (2001: 138ff.).

311 As pointed out to me by Henk van Riemsdijk (p.c.), this my still be too strong. In many cases, a locative relative does not expresses a precise location as in the following example:

i) de Berg, won i wone
the mountin C I live.1SG
'the mountain where I live'

This does not mean 'on the mountain' or 'at the bottom of the mountain' but rather that the location where the speaker lives is in the proximity of the mountain and therefore remains vague. It is therefore unclear which preposition is being deleted and recovered here.

(916) a) s [Bild vo **siich$_i$**], wo t gsäit häsch,
the picture of self C you said have.2SG
dass de **Peter$_i$** s wett verchauffe
that the Peter it wants sell
'the picture of himself$_i$ that you said Peter$_i$ wants to sell'

b) Bi [dem Fotti vo **siich$_i$**] glaub i sofort,
at this picture of self believe.1SG I immediately
dass de **Peter$_i$** s guet findt.
that the Peter it good finds
'This picture of himself$_i$ I believe Peter$_i$ likes.'

c) Bi [welem Fotti vo **siich$_i$**] glaubsch, dass de **Peter$_i$** s guet findt?
at which picture of self believe.2SG that the Peter it good finds
'Which picture of himself$_i$ do you believe Peter$_i$ likes?'

(917) a) de [Abschnitt vo **sim$_i$** Läbe], won i glaub,
the period of his life C I believe.1SG
dass en **käne$_i$** so schnäll vergisst
that it no.one so quickly forgets
'the period of his$_i$ life that I believe no one$_i$ forgets so quickly'

b) Bi [äim Abschnitt vo **sim$_i$** Läbe] glaub i,
at one period of his life believe.1SG I
dass en **jede$_i$** gern vergisst.
that it everyone likes.to forgets
'One period of his$_i$ life I believe everyone$_i$ likes to forget.'

c) Bi [welem Abschnitt vo **sim$_i$** Läbe] glaubsch,
at which period of his life believe.2SG
dass en **jede$_i$** gern vergisst?
that it everyone likes.to forgets
'Which period of his$_i$ life do you believe everyone$_i$ likes to forget?'

This shows that a full copy of the proleptic object must be available inside the complement clause. Since the previous subsections have shown that there cannot be a direct movement relationship between the proleptic object and the reconstruction site, a different strategy is necessary. As argued in 3.7.3 and 3.7.3.2 this is handled by ellipsis: The operator in Spec, CP of the complement clause is a full DP that is deleted under identity with the proleptic object, i.e. the DP within the PP. This yields a full representation of the proleptic object inside the complement clause so that reconstruction effects can be handled in terms of ellipsis. Since I have provided a number of LF-representations in 3.7.3 I will only illustrate reconstruction for anaphor binding under *wh*-movement. The other derivations would be identical except that there would be an additional ellipsis operation in relativization:

(918) [~~**Bi**~~ [welem ~~**Fotti vo siich$_i$**~~]$_j$]$_2$ glaubsch [Bi [x ~~**Fotti vo siich$_i$**~~]$_j$]$_2$,
at which picture of self believe.2SG at picture of self
[$_{CP}$ [Op ~~**Fotti vo siich$_i$**~~]$_{1/j}$ dass de **Peter$_i$**
picture of self that the Peter
[x Fotti vo **siich$_i$**]$_{1/j}$ <u>s</u> guet findt]?
picture of self it good finds
'Which picture of himself$_i$ do you believe Peter$_i$ likes?'

Recall the assumptions I have made about deletion: In both A'-chains, the Preference principle applies. Additionally, the proleptic object is deleted in its base position because it contains material that is not licensed there, the anaphor (cf. 2.4.2).

4.9.3.6 Evidence for ellipsis

The data in the previous section show that there has to be a representation of the proleptic object inside the complement clause. Ellipsis is a means to accomplish that. In addition, it gives us a handle on the Condition C effects, or rather the absence thereof. Recall from 4.3.2.5 that there are no Condition C effects in long-distance relativization:

(919) s [Fotti vom **Peter$_i$**]$_j$, won i glaub,
the picture of.the Peter C I believe.1SG
dass **er$_i$** <u>s</u> am beschte findt
that he it the best finds
'the picture of Peter$_i$ that I think he$_i$ likes best'

I have argued at various points in this thesis in favor of Vehicle Change to capture the alleviation of Principle C effects. However, relativization data are not sufficient to argue for an ellipsis operation to link operator and proleptic object because Condition C effects are generally absent, also if the coreferential element is located in the matrix clause (cf. 4.3.3.1):

(920) s [Bild vom **Peter$_i$**], won **er$_i$** tänkt,
the picture of.the Peter C he thinks
dass <u>es</u> s schönschten isch
that it the most.beautiful is
'the picture of Peter$_i$ that he$_i$ thinks is the most beautiful one'

Since I have adopted a Matching Analysis for relative clauses (cf. 4.8.3.1), there will always be an ellipsis operation in the matrix clause and concomitant Vehicle Change. This means that the absence of Condition C effects in the complement clause might also be due to Vehicle Change between the external head and the relative operator.

As in Standard German, we therefore have to test the proleptic construction with *wh*-movement and topicalization. The following examples show that there are *no* Condition C effects in the embedded clause:

(921) a) Bi [dem Fotti vom **Peter$_i$**] glaub i sofort,
at this picture of.the Peter believe.1SG I immediately
dass **er$_i$** s guet findt.
that he it good finds
lit.: 'This picture of Peter$_i$, I immediately believe that he$_i$ likes.'

b) Bi [welem Fotti vom **Peter$_i$**] glaubsch, dass **er$_i$** s guet findt?
at which picture of Peter think.2SG that he it good finds
lit.: 'Which picture of Peter$_i$ do you think that he$_i$ likes?'

Importantly, there *are* Condition C effects in the matrix clause with *wh*-movement and topicalization, showing that there is in principle reconstruction for Condition C. Since there is no ellipsis operation with *wh*-movement and topicalization in the matrix clause, such effects are entirely expected. At the same time, they confirm that the link between the proleptic object and the operator in Spec, CP is mediated via ellipsis and Vehicle Change:

(922) a) *Bi [dem Fotti vom **Peter$_i$**] glaubt **er$_i$**, dass es s beschten isch.
at this picture of.the Peter thinks he that it the best is
lit.: 'This picture of Peter$_i$, he$_i$ believes is the best one.'

b) *Bi [welem Fotti vom **Peter$_i$**] glaubt **er$_i$**,
at which picture of Peter thinks he
dass es s beschten isch?
that it the best is
lit.: 'Which picture of Peter$_i$ does he$_i$ think is the best one?'

I first illustrate the LF for (921)b:

(923) [~~Bi~~ [welem ~~Fotti vom **Peter$_i$**~~]$_j$]$_2$ glaubsch
at which picture of Peter think.2SG
[Bi [x Fotti vom **Peter$_i$**]$_j$]$_2$, [$_{CP}$ [Op ~~Fotti vo **im$_i$**~~]$_{1/j}$
at picture of Peter picture of he.DAT
dass **er$_i$** [x Fotti vo **im$_i$**]$_{1/j}$ s guet findt]?
that he picture of he.DAT it good finds

The Preference Principle applies to both chains. Vehicle Change turns the R-expression inside the proleptic object into a personal pronoun. Since ZG allows pronouns inside picture NPs, the sentence is grammatical, just like the following base sentence:

(924) **Er$_i$** findt [das Fotti vo **im$_i$**] am beschte.
he finds that picture of him the best
'He$_i$ likes this picture of him$_i$ best.'

Here is the LF for (922)b:

(925) *[~~Bi~~ [welem ~~Fotti vom **Peter**$_i$~~]$_j$]$_2$ glaubt **er**$_i$
at which picture of Peter thinks he
[Bi [x Fotti vom **Peter**$_i$]$_j$]$_2$, [$_{CP}$ [Op ~~Fotti vo **im**$_i$~~]$_j$
at picture of.the Peter picture of he.DAT
dass [x Fotti vo **im**$_i$]$_j$ es s beschten isch]?
that picture of he.DAT it the best is

Importantly, the lower copy of the proleptic object is retained in accordance with the assumptions about deletion made here (cf. also 3.7.3.5). R-expressions do not belong to the class of elements with a positive licensing requirement. That is why they cannot be exceptionally deleted.

Additional evidence comes from the absence of Condition C effects under reconstruction for variable binding as in the following example:

(926) Bi [welem Buech vom **Peter**$_i$ über *ir*i_j Vergangehäit] glaubsch,
at which book of.the Peter about her past believe.2SG
dass **er**$_i$ *jedere Politikerin*$_j$ s gschickt hät?
that he every.DAT politician it sent has
lit.: 'Which book by Peter$_i$ about her$_j$ past do you think he$_i$ sent every politician$_j$?'

There has to be a representation of the proleptic object inside the complement clause to guarantee variable binding. The absence of Condition C can then only follow from Vehicle Change.

4.9.3.7 Interpretation

The interpretive possibilities in ZG long-distance relativization show almost the same restrictions as the proleptic construction in German. While reconstruction for binding and variable binding is fine, reconstruction for scope, under which one can subsume the absence of the low construal of adjectives, cf. (854) and the restrictions to individual-denoting antecedents, is limited to oblique relations with R-pronouns.

With topicalization and *wh*-movement, the same restrictions are found, further corroborating the proleptic approach. The first triple shows that non-individual-denoting proleptic objects are impossible, neither amounts, nor predicates, nor manners:[312, 313]

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[312] Henk van Riemsdijk (p.c.) has correctly pointed out to me that the cases with *wh*-movement and topicalization are much worse than long-relativization. They are complete gibberish while long relativization with non-individual-denoting antecedents is not completely out for all speakers. I can only offer a very tentative extra-grammatical explanation: There is a functional need to relativize predicates so that people will be more likely to accept them in long-distance relativization even though they are degraded, simply because this is the only option there is in the grammar. With the other types of the proleptic construction, however, there is no such functional pressure because regular *wh*-movement and topicalization allow movement of predicates and amounts so that it does not matter if there are restrictions in the proleptic construction. There is no functional gap.

[313] For reasons that are unclear to me, the semantic restrictions persist in oblique relations and R-pronouns if *wh*-movement or topicalization are involved. I mentioned in 4.6.2.2 that some

(927) a) *[**Bi 20 Franke**] glaub i nöd,
at 20 franks think.1SG I not
dass de Peter **das/so vil**$_j$ würd zale.
that the Peter that/that.much would pay
'20 franks, I do not believe that Peter would pay.'

b) *[**Bin emene Soiniggel**] glaub i nöd, dass t **das** bisch.
at an filthy.pig believe.1SG I not that you that are
'A filthy pig, I do not believe that you are.'

c) *[**Bi sehr wichtig**] glaub i nöd, dass de Peter sich **so** füült.
at very important think.1SG I not that the Peter self thus feels
'Very important, I do not believe that Peter feels.'

The wide-scope property is illustrated by the following pair: indefinites get a generic or specific interpretation and negative quantifiers trigger a presuppositional reading (recall the facts in 3.5.2), the b-example does not imply that there are no catholic colleagues:

(928) a) *[**Bin emene Mäitli**] wäiss i, dass de Peter s küsst hät.
at a girl know.1SG I that the Peter her kissed has
'A girl, I know that Peter kissed.'

b) [**Bi käm Kolleeg**] wäiss i, dass er katolisch isch.
at no colleague know.1SG I that he catholic is
'No colleague do I know is catholic.'

Finally, there is no reconstruction for distributive and amount readings into the embedded clause. The first pair shows the familiar main/embedded clause asymmetry with regard to distributive readings (cf. also 4.6.2.3):

(929) a) [**Bi welere Band**] glaubt **jede Leerer**,
at which band believes every teacher
dass d Studänte si am beschte finded?
that the students her the best find
'Which band does every teacher think that the students like best?'
wh > ∀; ∀> wh

b) [**Bi welere Band**] glaubsch,
at which band believe.2SG
dass **jede Studänt** si am beschte findt?
that every student her the best finds
'Which band do you think every student likes best?' wh > ∀; *∀ > wh

Amount readings are impossible as well. In the following pair with a verb of creation, the a-example allows a referential interpretation (by using past tense) and is grammatical, but the b-example forces an amount reading (through locating the event in the future) and is ungrammatical:

---

speakers tend to find narrow scope more difficult with long-distance relativization. With *wh*-movement and topicalization, however, narrow scope is completely out.

(930) a) [**Bi wie vilne Büecher**] glaubsch,
at how many books believe.2SG
dass mer s 2001 *publiziirt* händ?
that we them 2001 published have.1PL
'How many books do you think that we published 2001?'

b) *[**Bi wie vilne Büecher**] glaubsch,
at how many books believe.2SG
dass mer si das Jaar *publiziered*?
that we them this year publish.1PL
'How many books do you think we will publish this year?'

I discussed the various possibilities to derive the absence of scope reconstruction in 3.7.4 and pointed out that the absence of scope reconstruction, under which all semantic restrictions can be subsumed, follows from the specificity of the chain in operator movement in general. It is also intimately related to the fact that it terminates in a resumptive. I have pointed out several times that there is a strong crosslinguistic tendency for antecedents of resumptives to take wide-scope. The ZG pattern differs slightly from the Standard German one in that scope reconstruction is possible in oblique relations with R-pronouns. I did not discuss any oblique relations in chapter 3. But as far as I have been able to ascertain this, scope reconstruction is still blocked. The following pairs juxtapose ZG and Standard German. The first one illustrates predicates:

(931) a) Isch de Hans würkli de [Trottel], wo t gsäit häsch,
is the John really the idiot C you said have.1SG
dass en all defüür haltet?
that him all there.for hold
'Is John really the idiot that you said everyone regards him as?'

b)??Ist Hans wirklich der [Trottel], von dem du sagtest,
is John really the idiot of who you said
dass ihn alle dafür halten?
that him all it.for hold

The next pairs illustrate distributive and amount readings:

(932) a) d Liischte mit de [**zwäi** Fottene], won mer abgmacht händ,
the list with the two pictures C we agreed have.1PL
dass **jede Schüeler** demit i d Schuel chunt (2 > ∀); ∀ > 2
that every student there.with in the school comes
'the list with the two pictures that we agreed every pupil comes to school with'

b) die Liste mit den [**zwei** Fotos], von denen wir beschlossen haben,
the list with the two picture of which we decided have
dass **jeder Schüler** damit in die Schule kommt
that every student there.with in the school comes (2 > ∀); *∀ > 2

(933) a) Kän Linguischt würd di [**vile** Büecher] läse, won i ghöört han,
no linguist would the many books read C I heard have.1SG
dass sich de Hans demit **sött** uf d Prüefig vorberäite.
that self the John there.with should on the exam prepare
'No linguist would read the many books that John should prepare with for the exam.' many > should; should > many

b) Kein Linguist würde die [**vielen** Bücher] lesen,
no linguist would the many books read
von denen ich gehört habe,
of which I heard have many > should; *should > many
dass Hans sich damit auf die Prüfung vorbereiten **sollte**.
that John self there.with on the exam prepare should

The Standard German examples only allow the wide-scope interpretation. For reasons that are unclear, they are generally somewhat degraded. The difference cannot be reduced to properties of R-pronouns because Standard German R-pronouns can refer to non-individual-denoting antecedents:

(934) Er verdient [4000 Euro], ist aber nicht zufrieden damit.
He earns 4000 euros is but not satisfied there.with
'He earns 4000 Euros but isn't satisfied with that.'

It seems therefore, that the ban against scope reconstruction in Standard German is independent from resumption whereas in ZG it is to a large extent derivative of the properties of the resuming elements. I leave an exploration of this asymmetry for future research.

4.9.3.8 Resumption

Another parallel between the Standard German construction and long-distance relativization in ZG concerns the obligatorily overt trace of operator movement. As I discussed at length in 3.8.2, it is difficult, perhaps even wrong, to pinpoint the cause of this. I will stick to my proposal according to which there is resumption because nothing rules it out in the proleptic construction. The scarcity of resumption in ZG was linked to the constraint against realizing more than one link of a chain, cf. 4.8.3.2.

I also argued that the presence of a resumptive makes movement out of islands possible – as it were as a side effect. The data in 4.3.4 and 4.4 show movement effects with resumptives in opaque domains, thereby lending support to this assumption.

The parallelism with Standard German extends to the possible types of resuming elements, cf. 3.8.4. The following examples illustrate epithets (935)a, strong

pronouns (935)b, disagreement in phi features (935)c, and partial reference (935)c–e:[314]

(935) a) de [**Maa**], won i gsäit han, dass i mit Schrecke vernoo han,
the man C I said have.1SG that I with shock heard have
dass d Marie **dëë Idiot** wett hüraate
that the Mary the idiot would.like.to marry
'the man such that I said that I heard with shock that Mary wants to marry that idiot'

b) de [**Maa**], won i vermuete, dass **ER und sini Frau** Betrüüger sind
the man C I suspect that he and his wife swindlers are
'the man such that I suspect that he and his wife are swindlers'

c) Das isch **e** [**Brugg**], won i nöd cha verschtaa,
that is **a** bridge C I not can.1SG understand
werum mer **söttigi Sache** bout.
why one such thing**s** builds
'That is a bridge such that I cannot understand why one builds such things.'

d) Ich han e [**Frau**] käne gleert, won i überzüügt bin,
I have a woman met C I convinced am
dass **mer** e guets Paar wäred.
that we a good match were.SUBJ.1PL
'I met a woman such that I think we would be a good match.'

e) Das isch s [**äinzige Mäitli**] i minere Schuelklass,
that is the.**3SG** only girl in my class
won i glaube, dass **es** dehäi no käi Elektrisch händ.
C I think.1SG that they home still no electricity have.**3PL**
'This is the only girl in my class such that I know that they still use wood to heat at home.'

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[314] At first sight, it seems possible to reanalyze (935)e/f as pure long-distance aboutness relativization. The base sentences would then be something like 'at this girl's home they don't have any electricity' or 'with this couple, she wears the pants, but he earns the money', both of which are fully grammatical. However, if this were correct, one would expect the sentences to be subject to locality requirements, as shown in 4.2.2. However, embedding the above mentioned sentences in islands does not affect their grammaticality as shown by the following example where the resumptives are embedded in a CNPC island:

i) es [Ehepaar], won i s Grücht, dass **si** d Hose aahät, **er** aber s Gält verdient,
a couple C I the rumor thats he the pants wears he but the money earns
nöd cha glaube
not can.1SG believe
'a couple such that I cannot believe the rumor that she wears the pants, but he earns the money'

Since aboutness relatives are sensitive to locality, cf. 4.2.2, I conclude that the examples in the text do represent cases of resumptive prolepsis.

f) es [**Ehepaar**], won i glaube, dass **si** d Hose aahät,
a couple C I believe.1SG that she the pants wears
er aber s Gält verdient
he but the money earns
'a couple such that I believe she wears the pants, but he earns the money'

As discussed in 3.8.4, these facts are most difficult for a movement analysis unless a Big-DP analysis is adopted with a very powerful notion of "Big-DP" that handles all kinds of anaphoric relationships. A base-generation approach fares better in this respect but leaves questions about reconstruction unanswered. Since the situation is exactly the same as in Standard German, I will not repeat all the arguments. See instead 3.8 for full discussion.

4.10 Conclusion and remaining issues

In this last section, I will briefly discuss various minor aspects pertaining to relativization in ZG that have not been addressed yet and some of which will remain essentially unaccounted for.

4.10.1 The impeccability of the in-situ construction

There is one aspect where long-distance relativization in ZG differs somewhat from the Standard German construction: While the in-situ construction is sometimes degraded in Standard German, it is practically always good in ZG. The following examples use the verbs that fail in Standard German (cf. 3.9.1.1) in the in-situ construction with *von* 'of':

(936) a) de [Maa], won i *mi froi*, wänn i en gsee
the man C I me am.happy when I him see.1SG
lit.: 'the man that I am happy when I see him'

b) Ich *froi mi* bi [dem Maa], wänn i en gsee.
I am.happy at the man when I him see.1SG

(937) a) es [Resultaat], won i *zuegib*, dass es nöd toll isch
a result C I admit.1SG that it not great is
'a result that I admit is not great'

b) Ich *gib* bi [dem Resultaat] *zue*, dass es nöd toll isch.
I give at this result PRT that it not great is

(938) a) en [Plaan], won i *aanimm*, dass de Peter en unterstützt
a plan C I assume.1SG that the Peter him supports
'a plan that I assume Peter supports'

b) Ich *nimm* bi [dem Plaan] *aa*, dass de Peter en unterstützt.
I take.1SG at this plan PRT that the Peter him supports

The in-situ construction is also impeccable in the following examples with CNPC islands, the relative clauses repeated from (772)c/d:[315]

(939) a) de [Autor], wo d Marie <jedes Buech, won er schriibt >,
the author C the Mary every book C he writes
sofort chauft
immediately buys
lit.: 'the author that Mary immediately buys every book he writes'

b) D Marie *chauft* bi [dem Autor] < jedes Buech, won er schriibt >.
the Mary buys at this author every book C he writes

(940) a) de [Sänger], won i <s Grücht, dass er gar nöd cha singe >,
the singer C I the rumor that he PRT not can sing
nöd cha glaube
not can.1SG believe
lit.: 'the author that I cannot believe the rumor that he cannot sing'
(CNPC: comp.clause)

b) Ich *chan* bi [dem Sänger] <s Grücht, dass er gar nöd cha singe>,
I can at this singer the rumor that he even not can sing
nöd *glaube*.
not believe

Interestingly, as I pointed out in 3.9.3, the Standard German in-situ construction also becomes good once the preposition *bei* 'at' is used instead of *von* 'of'. I will discuss aspects related to this fact in more detail in 4.10.6 but will leave the asymmetry between *von* 'of' and *bi/bei* 'at' for further research.

4.10.2 Ambiguous locatives

I mentioned in 4.1.4 and 4.2.2 that locative relativization does not always leave a gap. I repeat the relevant examples:

(941) a) s [Huus], **wo$_1$** t gsäit häsch, dass de Peter __$_1$ wont
the house where you said have.2SG that the Peter lives
'the house where you said Peter lives'

b) a [Stadt], **wo** mer säit, dass **deet** d Mietene seer hööch sind
a city where one says that there the rents very high are
'a city where one says the rents are very high'

I would like to suggest that this has to do with the fact that there are two possible derivations for locatives: The default case is adverbial relativization as in

[315] Recall from footnote 161 that the Standard German equivalents of these island cases where they are not embedded are only good with *bei* 'at', but not with *von* 'of'. Since long relativization in ZG is assumed to be based on *bi* 'at', this is not very surprising.

(941)a. Alternatively, locative relatives also allow a proleptic analysis, which requires a resumptive, cf. (941)b.[316]

4.10.3 Asymmetries short-distance vs. long-distance

I have already discussed and explained two differences between local and long-distance relativization in ZG: the distribution of resumptive pronouns (4.1.3) and the differences in Matching (4.5). While these have been addressed and sufficiently explained, there is another difference that does not follow from the analysis proposed here: Whereas in long-distance relativization, practically any kind of resuming element is possible (935), only weak pronouns are possible as resumptive elements in local relativization. This is shown by the following pairs, the first example illustrating long-distance movement, the second one local relativization. (942) tests epithets, (943) is a pair with a disagreeing DP, (944) tests strong pronouns and (945) is a case of partial reference:

(942) a) de [Maa], won I nöd cha glaube, dass t **dem Trottel**
the man C I not can believe that you the.DAT idiot
au no Gält ggëë häsch
also even money given have.2SG
'the man such that I cannot understand that you even gave that idiot money'

b) de [Maa], won i **em/*dem Trottel** no Gält ggëë han
the man C I he.DAT/the.DAT idiot even money given have.1SG
'the man that I gave even money/such that I gave that idiot money'

(943) a) Das isch e [Brugg], won i nöd cha verschtaa,
that is **a** bridge C I not can.1SG understand
werum mer **söttigi Sache** bout.
why one such thing**s** builds
'That is a bridge such that I cannot understand why one builds such things.'

b) e [Brugg], wo mer **demit/ *mit söttige Sache** nüüt chan aafange
a bridge C one there.with/with such things nothing can begin
'a bridge one cannot do anything with/such that one cannot do anything with such things'

(944) a) de [Maa], won i gsäit han, dass d Susi **numen IM** vertrout
the man C I said have.1SG that the Susie only him trusts
'the man such that I said that Susie trusts only him'

b) de [Maa], wo d Susi **em/*numen IM** vertrout
the man C the Susie he.DAT/only him trusts
'the man such that Susi trusts him/only him'

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[316] Van Riemsdijk (to appear) provides further evidence for the ambiguity of locatives, cf. his exx. 39ff.

(945) a) Ich han **e** [Frau] käne ggleert, won i glaub,
I have a woman met C I believe.1SG
dass **mer** e guets Paar wääred.
that we a good match were.SUBJ.1PL
'I met a woman such that I think we would be a good match.'

c) *d [Frau], wo **mer** e guets Paar wääred
the women C we a good match were.SUBJ.1PL
'the woman such that we would be a good match'

A similar asymmetry was found with datives in 4.1.3.3 where long-distance relativization does not show the degradedness with certain types of dative objects. The bottom line of this is that the resumptive strategy in long-distance movement is more systematic and flexible than in local relativization.

It is not clear to me what causes this asymmetry. It is not unheard of that epithets are impossible in local relativization, cf. Shlonsky (1992: 460f.) and Aoun & Choueiri (2000), but why this should be so is poorly understood. Other types of resumptive elements have never been discussed to my knowledge. I will leave this for future research.

4.10.4 Non-finite complements

An issue I have not touched upon so far is relativization in non-finite complements. Interestingly, they systematically count as "local" with respect to the distribution of resumptives. They are only found in oblique relations, but not for subjects and direct objects. This holds for both restructuring (946) and non-restructuring (947) predicates:

(946) a) s [Buech], won i versuecht ha **(*s)** z stääle
the book C I tried have.1SG it to steal
'the book that I tried to steal'

b) de [Maa], won i versuecht han, ***(mit em)** z rede
the man C I tried have.1SG with him to talk
'that man I tried to talk to'

(947) a) s [Buech], won i d Susi überredt ha **(*s)** z chauffe
the book C I the Susie convinced have.1SG it to buy
'the book that I convinced Susie to buy'

b) de [Maa], won i d Susi überredt han, ***(mit em)** z rede
the man C I the Susie convinced have.1SG with him to talk
'the man I convinced Susie to talk to'

This implies that ZG makes use of the regular relativization strategy in this configuration. This is more or less parallel to the situation in Standard German, where regular relativization out of non-finite complements is possible:[317]

[317] The same holds if the complement clause is not extraposed.

(948) a) das Buch, **das**$_1$ ich versuchte, __$_1$ zu stehlen
the book which I tried to steal
'the book that I tried to steal'

b) der Mann, [**mit dem**]$_1$ ich versuchte, __$_1$ zu sprechen
the man with whom I tried to speak
'the man I tried to speak with'

(949) a) das Buch, **das**$_1$ ich Susi überredete, __$_1$ zu kaufen
the book which I Susi convinced to buy
'the book that I convinced Susie to buy'

b) der Mann, [**mit dem**]$_1$ ich Susi überredete, __$_1$ zu sprechen
the man with whom I Susie convinced to speak
'the man who I convinced Susie to speak with'

I showed in 3.4.2 that the proleptic construction is also possible with non-finite complements. However, my intuition is that most speakers would prefer the regular strategy in Standard German so that the situation is pretty much parallel to ZG.[318] We thus have another parallel between ZG and Standard German.

The question remains why long-relativization is only available across non-finite clause-boundaries, but not finite ones. This limitation is in principle arbitrary and quite difficult to implement because the non-finite complements probably instantiate CPs: Many speakers introduce relative clauses with *zum* 'to in order to'.

(950) Ich han alles versuecht **zum** dini E-mail Adrässe überzcho.
I have.1SG everything tried to your e-mail address to.get
'I've tried everything to get your e-mail address.'

This amalgam consists of a preposition *zu* and a complementizer *um* so that we are dealing with a full CP, perhaps with a PP on top. One can therefore not relate the limitation to structural differences (such as non-finite clauses lack the CP layer which otherwise blocks extraction). One could technically implement it by making sure that the Spec, CP position of a finite complement cannot bear a feature that would attract the relative operator, but this would not be very explanatory. Since I do not have anything insightful to offer in this regard, I will leave this for future research.

4.10.5 ZG as a marked case?

If it is correct that ZG long-relativization actually represents a different structure, namely must be given a proleptic analysis, this means that there is no real long relativization with resumptives. There only is long relativization in adverbial relatives, cf. 4.1.4. In other areas of A'-movement such as *wh*-movement, topicalization and comparatives, long-distance movement is no problem in ZG. Other German dialects do not have this restriction with respect to relativization.

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[318] Perhaps, the proleptic structure is possible in ZG non-finite relatives as well; the examples do not sound all that bad and are possible for some speakers, but unfortunately, I have not been able to find any naturally-occurring examples.

They have normal long A'-movement with gaps. Consider the following example from Hessian German (Schmitt 2005, ex. 13a):

(951) Isch hab mei Käbbi, **wo** isch glaabt hab,
I have my cap C I believed have
dass mei Onggel Schorsch __ gestohle
that my uncle George stolen
hätt, gestern in Sensbach widdergefunne.
has yesterday in Sensbach found
'I found my cap which I thought my uncle George had stolen yesterday in Sensbach.'

I do not know what long relativization looks like in all varieties of German, but to the extent I could ascertain it, it seems that the Hessian pattern is quite frequent. I know for sure that Swabian patterns the same. A possible factor could be the presence of a relative pronoun. It seems to me that long relativization is easier with pure complementizer structures, but Hessian for instance allows long relativization also with *relative pronoun + relative complementizer*, cf. Schmitt (2005: 13b) – and ZG does not allow it even though it does not use relative pronouns. It seems therefore that ZG and Swiss German dialects in general are relatively marked within the German speaking area. It is quite surprising that a dialect should make use/adopt a Standard German strategy that was arguably enforced by prescriptive pressure. Normally, dialects are immune to this kind of pressure and tend to preserve older structures. A potential solution to this puzzle is offered in the following section where I show that the choice ZG makes for long relativization can be understood in terms of markedness: the strategy employed is arguably one that is available to most speakers of (some version of) the standard variety.

4.10.6 *wo*-relativization in Standard German

As already mentioned in 3.2.1, the proleptic object can also be governed by the preposition *bei* 'at' in Standard German, which happens to be the one I have postulated for long-distance relativization in ZG. I also mentioned in 3.9.3 that with *bei* 'at', the in-situ construction is impeccable. Next to the construction with *bei*, one also finds relatives with *wo* in certain substandard varieties of German (not necessarily dialects!). This use is strongly prescriptively stigmatized, cf. Duden (1995: 737). However, while not so frequent in local relativization, the use of *wo* is very frequent in a type of relative clause that is almost identical to the ZG pattern: One finds *wo* in the matrix clause and a coreferring element in the embedded clause. The construction can be considered a variant of the proleptic construction and has exactly the same meaning. Here are a number of examples with different matrix verbs:

(952) a) Es gibt [Figuren], **wo** ich *weiß*, dass **die** zu absolut
there are characters wo I know that they to absolutely
100 Prozent erfunden sind.
100 percent fictitious are
'There are characters that I know are absolutely a hundred percent fictitious.'
www.karen-susan-fessel.de/html/interview_sim99.htm

b) Bin jetzt in Amerika [jemand] auf der Spur, **wo** ich *vermute*,
am now in America somebody on the trace wo I suspect
dass **er** ebenfalls mit meiner Familie verwandt sein könnte
that he also with my family related be could
'I am now tracing someone in America who I suspect could be related to my family.'
www.wer-weiss-was.de/theme49/article767487.html

c) Ich schieb hier gleich nochmal eine [Aufgabe] hinterher,
I shove here immediately again a exercise after
wo ich *hoffe*, dass ich **sie** richtig gelöst habe.
wo I hope that I her correctly solved have.1SG
'I am adding an exercise that I hope I solved correctly.'
www.matheplanet.com/matheplanet/nuke/html/viewtopic.php?topic=45082

d) Sei das weiters [Stephan Rabl], **wo** ich *mich freue*, dass **er** jetzt
be that further Stephan Rabl wo I me be.happy that he now
das Kindertheater, den "Dschungel",
the kids.theater the jungle
das Theaterhaus für junges Publikum, leitet.
the theater for young audience leads
lit.: 'Be that further S.R. who I am happy that he is now leading the kids theater, „the jungle", the theater for a young audience.'
www.wien.gv.at/mdb/gr/2004/gr-049-w-2004-11-23.doc

e) Unter den Journalisten am Spielfeldrand gibt es [einige], **wo** ich
among the journalists at.the sideline are there some wo I
mich frage, ob **die** noch genügend Abstand zu ihrem Sujet haben.
me ask if they still enough distance to her subject have.1PL
'Among the journalists at the sideline there are some that I ask myself whether they still have enough distance from their subject.'
www.allesaussersport.de/archiv/2005/10/14/in-memoriam-christian-sprenger/

The following examples illustrate cases of mismatch (an epithet and a case of partial reference):

(953) a) Wieder so ein [Fall], **wo** ich mich frage, ob **sowas**
again such a case wo I myself ask if something.like.that
wirklich mal irgendwo passiert.
really ever anywhere happens
'Again such a case such that I ask myself if something like that really ever happens anywhere.'
www.jura.uni-duesseldorf.de/interactive/foren/show.asp?forumid=2&threadid=41227&site=1

b) Zuerst ein [Artikel im Abendblatt], **wo** ich mich frage,
first an article in.the evening.paper wo I myself ask
ob **die** überhaupt verstanden haben, worum es geht.
whether they at.all understood have what.about it goes
'First an article in the evening paper such that I ask myself if they really understood what it is all about.'
www.fc42.de/brief6.html

I would like to propose that long *wo*-relativization in Standard German should be given the same analysis as long-distance relativization in ZG: In the basis, the proleptic object consists of *bei* + DP, *wo* is just a complementizer and makes the deletion of *bei* recoverable. This implies that there are two alternative strategies for long-distance relativization. I do not know whether every speaker uses both constructions. One will tend to use the *von-* 'of'-construction in more formal settings and the *wo*-construction in less formal situations,[319] but I think that in principle, both are available to all speakers.[320]

This implies that the *wo*-strategy is probably one that is used in the entire German speaking area and can perhaps be considered the most unmarked strategy for long-distance relativization. The interesting consequence of this is that even though there probably was prescriptive pressure that lead to a preference for (perhaps even: introduction of) the proleptic construction, cf. 3.1., the fact that a similar strategy is also used in less formal registers, substandard varieties, and dialects suggests that the construction as such is generally quite unmarked and perhaps independently available. At the same time, this accords well with the fact that for many speakers of German, the scope-marking construction is preferred over long-distance *wh*-movement, cf. 3.1. Why this should be the case is something I leave for future research.

4.10.7 Conclusion

Relativization in ZG has proved to be intriguing in a number of respects. While both local and long-distance relativization can be shown to involve movement (even from opaque domains), they differ in a number of respects that suggest that

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[319] One can hear them in prestigious TV-talk shows, e.g. Guido Westerwelle in *Wahlabend, Elefantenrunde,* ARD, September 18, 2005 so that the division might only be upheld by prescriptively very conscious speakers.

[320] I do not know why the in-situ construction is generally much better with *bei* than with *von*. I leave this for further research.

we are in fact dealing with two different constructions. The distribution of resumptives (4.1.3) in local relativization is based on the direct-oblique distinction whereas in long-distance relativization all positions require resumptives. Local relativization is subject to a matching constraint whereas long-distance relativization is not (4.5). The interpretive properties are cut along different lines (4.6): While gap relatives and oblique resumptive relations with R-pronouns allow scope reconstruction, direct resumptive relations do not. This asymmetry is intimately related to the properties of the resuming elements.

The syntax of local relativization is relatively simple and handled in terms of movement with a Matching Analysis to link the operator with the external head (4.8.3.1). Resumption is a consequence of a constraint that requires oblique case to be overt (cf. 4.8.3.2). Both a Spell-out and a Big-DP approach are shown to be viable options.

Long-distance relativization, however, is analyzed as a proleptic construction (4.9). Importantly, this is disguised by the fact that the relative complementizer *wo*, due to its locative origin, makes recoverable the deletion of the preposition *bi* 'at', which heads the proleptic object (4.9.3.4). The rest of the analysis is identical to the one for Standard German. Operator movement turns the complement into a predicate, which licenses the proleptic object. The operator is linked to the proleptic object via ellipsis, which gives a handle on reconstruction into the embedded clause (4.9.3.5) and together with Vehicle Change accounts for the absence of Condition C effects (4.9.3.6). The semantic properties follow from the specificity of the operator chain and the properties of the resumptive (4.9.3.7), the absence of matching from the nature of the proleptic object (4.9.3.4), and the distribution of resumptives from the simple fact that this type of construction requires overt traces (4.9.3.8). ZG therefore instantiates a more abstract version of the Standard German structure and shows that even dialects make use of a construction that was originally forced for prescriptive reasons. A possible interpretation of this surprising development could be that it actually instantiates an unmarked alternative strategy for long-distance movement.

5 Conclusion and outlook

I this final chapter I will summarize the major empirical theoretical results of this thesis and suggest a few avenues for further research.

5.1 Summary

5.1.1 Chapter 1

The starting point of this thesis was the observation that next to regular direct A'-dependencies there are configurations that show the hallmarks of A'-dependencies yet do not involve a direct dependency. Relative clauses are a case in point. While it is undisputed that the relative operator establishes a dependency with its extraction site, it is much less clear what kind of role the external head plays in that dependency. An important clue are reconstruction effects as in the following example:

(954) the [picture of **his$_i$** mother] which **every man$_i$** likes __ best

The bound pronoun inside the external head must be interpreted relative clause-internally because it is bound by the QP. Since reconstruction is a central property of A'-dependencies, this suggests that the external head also participates in an A'-dependency with the gap. In chapter one, I have discussed the various options that have been proposed in the literature to handle reconstruction in relative clauses. One obvious possibility is to re-interpret the indirect A'-dependency as a direct one. This is exactly what the Head Raising Analysis does (1.4.3). The head of the relative clause undergoes A'-movement out of the relative clause to its surface position. The resulting A'-chain is interpreted according to the Preference Principle, which automatically leads to reconstruction. This is very attractive at first sight since reconstruction in relative clauses could then be handled the same way as in normal A'-movement: reconstruction is modeled as the interpretation of the lower copy of a movement chain.

(955) the [$_{CP}$ [Op ~~picture of his$_i$ mother~~]$_1$ that **every boy$_i$** likes best
[x picture of **his$_i$** mother]$_1$]

However, attractive as it may be, the Head Raising Analysis is confronted with a number of problems that cast serious doubts on its validity. I pointed out in 1.2 that the derivation that raises the head out of the relative clause requires assumptions that are either quite ad hoc or violate well-established constraints of grammar. In addition, the reconstruction pattern found in relatives is not straightforwardly comparable with other types of A'-movement. While reconstruction for variable binding, scope, anaphor binding and idiom interpretation is systematic, there are no Condition C effects in relative clauses, contrary to what is found in *wh*-movement (cf. 1.3.4):

(956) a) The [picture of **John$_i$**] which **he$_i$** saw __ in the paper is very flattering.

b) *[Which picture of **John$_i$**]$_1$ did **he$_i$** see __$_1$ in the paper?

This asymmetry is unexpected under a Head Raising Analysis, which assimilates relative clauses to direct A'-dependencies. Furthermore, there are configurations where the external head must not be reconstructed as in the following example where the external head forms an idiomatic expression together with the matrix verb (1.3.6):

(957) John **pulled the** [**strings**] that __ got Bill the job.

If reconstruction in relative clauses is handled as in regular A'-movement where the Preference Principle automatically leads to reconstruction, such facts are completely unexpected.

As a consequence, alternative explanations are called for. The traditional Head External Analysis avoids the problems of the Head raising analysis but is discarded quite early because it does not offer a straightforward way of handling reconstruction. The external head is related to the gap via coindexation with the relative operator, but it is not represented relative clause-internally (1.4.2). I then discussed the Matching Analysis, which is somewhere in between the traditional Head External Analysis and the Head Raising Analysis. There is a relative clause-internal representation of the external head, but the two are not related via movement but via ellipsis:

(958) the [**book**]$_i$ [$_{CP}$ [Op/which book]$_1$ John likes __$_1$]

This has a number of advantages: First, since the constituency is the same as in the Head External Analysis, it is not subject to the criticism raised against the Head Raising Analysis. Second, it provides a means of handling reconstruction in an indirect A'-dependency since there is a full occurrence of the external head inside the relative clause (1.4.4, 1.5.1). Third, a Matching Analysis provides a handle on the absence of Condition C effects. One approach, Sauerland (1998, 2003), capitalizes on the fact that the external head and its representation in Spec, CP are related to each other via ellipsis. The absence of Principle C effects is argued to follow from Vehicle Change which turns R-expressions inside the external head into personal pronouns. This correctly predicts that such relatives are as grammatical as simple sentences with a pronoun inside the picture NP (1.5.3.1):

(959) a) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~picture of **him$_i$**~~]$_j$]$_1$ that **he$_i$** likes [x picture of **him$_i$**]$_1$]

b) **Bill$_i$** likes a picture of **him$_i$**.

A different approach, Citko (2001), exploits the fact that there are three occurrences of the external head in the Matching Analysis. In addition to the external head, there are two relative clause internal copies. The absence of Condition C effects is argued to follow from exceptional deletion of the lower relative clause-internal copy. Deletion is possible in this case because the content of the lower copy is recoverable form the external head (1.5.3.1):

(960) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op ~~picture of **Bill$_i$**~~]$_j$]$_1$ that **he$_i$** likes [x ~~picture of **Bill$_i$**~~]$_1$]

This also provides a handle on the cases of non-reconstruction in (957). The external head is retained while the relative clause-internal copy is deleted, thereby preventing interpretation of an idiomatic NP in a position where it is not licensed (1.5.4):

(961) John **pulled the** [**strings**]$_j$ [$_{CP}$ [Op [~~strings~~]$_j$]$_1$ that [x ~~strings~~]$_1$ that got Bill the job].

Citko's (2001) approach also correctly predicts the re-emergence of Condition C effects under reconstruction for variable binding or scope (1.5.4):

(962) *The [letters by **John$_i$** to *her$_j$*] that **he$_i$** told *every girl$_j$* to burn __were published.

In this case, the lower relative clause-internal copy must not be deleted because of variable binding. As a consequence, the R-expression is also present inside that copy and triggers a Condition C effect (1.5.3.9):

(963) *The [~~letters by **John$_i$** to *her$_j$*~~]$_k$ [$_{CP}$ [Op [~~letters by **John$_i$** to *her$_j$*~~]$_k$]$_1$ that **he$_i$** told *every girl$_j$* to burn [x letters by **John$_i$** to *her$_j$*]$_1$] were published.

The correlation also follows under the Head Raising Analysis. Bhatt (2002) and Sauerland (1998, 2003) argue that both the Head Raising and the Matching Analysis are necessary. They apply Head Raising wherever there is reconstruction and Matching when there is not. This derives more or less the result albeit at the cost of having to use two derivations. Citko's (2001) approach, however, requires only one type of derivation and is therefore considered superior. But in terms of empirical coverage, the Head Raising plus Matching approach by Bhatt–Sauerland and Citko's (2001) Matching Analysis are largely equivalent.

5.1.2 Chapter 2

This is where the German data discussed in chapter two become important. The reconstruction pattern in German relatives is largely identical to the English one, but there is one crucial exception: Condition C effects do not re-emerge under reconstruction for variable binding/under scope reconstruction (2.2.7):

(964) a) das [Buch von **Peter$_i$** über *ihre$_j$* Vergangenheit],
the book of Peter about her past
das **er$_i$** *jeder* *Schauspielerin$_j$* __ sandte
which he every.DAT actress sent
lit.: 'the book by Peter$_i$ about her$_j$ past that he$_i$ sent every actress$_j$'

b) die [*vielen* Bücher über **Peters$_i$** Vater],
the many books about Peter's father
die **er$_i$** in seinem Studium __ lesen *muss*
which he in his studies read must
lit.: 'the many books about Peter's$_i$ father which he$_i$ must read for his studies'

This argues both against a Head Raising Analysis and Citko's (2001) version of the Matching Analysis, which predict a correlation. I therefore propose a Matching Analysis that is closer to Sauerland's (1998, 2003) version yet integrates some of Citko's assumptions. The absence of Condition C follows from Vehicle Change (2.4.5.4):

(965) die [~~*vielen* Bücher über **Peters$_i$** Vater~~]$_j$,
the many books about Peter's father
[$_{CP}$ [die [~~*vielen* Bücher über **seinen$_i$** Vater~~]$_j$]$_1$ **er$_i$** in
which many books about his father he in
seinem Studium [x *vielen* Bücher über **seinen$_i$** Vater]$_1$ lesen *muss*]
his studies many books about his father read must

The rest of the reconstruction pattern, including cases of non-reconstruction as in (957) follows from explicit assumptions about deletion. I argue that elements with a positive licensing requirement (bound variables, anaphors and idiom chunks) can be exceptionally deleted from a copy if they are not licensed in that position. These assumptions provide the right result for configurations where the external head must not be interpreted or where the lower relative clause-internal copy must not be interpreted. The first case obtains with normal instances of reconstruction. In the following example, the external head contains an idiomatic NP which is only licensed relative clause-internally. Deleting the external head is necessary (2.4.3):

(966) a) die [**Rede**], die er __ **geschwungen** hat *eine Rede schwingen*
the speech which he swung has = 'give a speech'
'the speech he gave'

b) die [~~Rede~~$_j$], [$_{CP}$ [die ~~Rede~~$_j$]$_1$ er [x Rede]$_1$ geschwungen hat]
the speech which speech he speech swung has

The reverse case is represented by cases of non-reconstruction: Here, the external head is retained, but the relative clause-internal copy is deleted (2.4.6):

(967) a) Er **schwingt** [**große Reden**], die keiner __ hören will.
he swings grand speeches which no.one hear wants
'He gives grand speeches no one wants to hear.'

b) Er **schwingt** [**große Reden**]$_j$, [$_{CP}$ [die [~~große Reden~~]$_j$]$_1$ keiner
he swings grand speeches which grand speeches no.one
[x ~~grosse Reden~~]$_1$ hören will].
grand speeches hear wants

In addition, there is a set of data that shows that the Vehicle Change approach is correct. Certain semi-idiomatic expressions show embedding effects. Once the R-expression is more deeply embedded, such sentences become grammatical (2.4.5.5):

(968) a) *der [PRO$_i$ Streit über **Peter$_i$**], den **er$_i$** __ vom Zaun gebrochen hat
the fight about Peter which he off.the fence broken has
lit.: 'the fight about Peter$_i$ that he$_i$ started'

b) der [PRO$_i$ Streit über Marias Kritik an **Peter$_i$**],
the fight about Mary's criticism of Peter
den **er$_i$** __ vom Zaun brach
which he off.the fence broke
lit.: 'the fight about Mary's criticism of Peter$_i$ that he$_i$ started'

This is perfectly parallel to the base sentences with a pronoun: If the pronoun is not embedded, a Principle B violation ensues. Under embedding, the sentences are fully grammatical:

(969) a) **Er$_i$** hat einen [PRO$_i$ Streit über ***ihn$_i$/sich$_i$***] vom Zaun gebrochen].
he has a fight about him/self off.the fence broken
'He$_i$ started a fight about *him$_i$/himself$_i$.'

b) **Er$_i$** hat einen [PRO$_i$ Streit über Marias Kritik an **ihm$_i$**]
he has a fight about Mary's criticism of him
vom Zaun gebrochen.
off.the fence broken
'He$_i$ started a fight about Mary's criticism of him$_i$.'

In other words, the R-expression behaves like a pronoun, which is exactly what Vehicle Change predicts. The proposed version of the Matching Analysis thus handles the entire reconstruction pattern and proves superior to previous approaches (cf. 2.5).

5.1.3 Chapter 3

Chapter three was dedicated to a hitherto unstudied construction, the *proleptic construction*. This construction is an alternative to long A'-movement. The putatively extracted constituent is preceded by the preposition *von/van* 'of' and the putative extraction site is occupied by a coreferring pronoun. The proleptic construction also represents an indirect A'-dependency. The following example shows that there is reconstruction into the complement clause (cf. 3.3):

(970) Von [welchem Foto von **sich$_i$**] denkst du,
of which picture of self think you
dass **Peter$_i$** es am besten findet?
that Peter it the best finds
'Which picture of himself$_i$ do you think Peter$_i$ likes best?'

An anaphor contained in the proleptic object is interpreted in the position of the coreferring pronoun. This suggests there is an A'-dependency between the two. Importantly, there is clear evidence that this dependency cannot be direct because the proleptic object can be shown to be base-generated in the matrix clause (3.4). The most straightforward evidence for this is the fact that the proleptic object can also occur in-situ (3.4.1.1):

(971) Ich hoffe von [**diesem Buch**], dass **es** ein Erfolg wird.
I hope of this.DAT book that it a success becomes
'I hope that this book will be a success.'

But how is the proleptic object linked to the coreferring pronoun? In a first step, I argue that there has to be a full representation of the proleptic object inside the complement clause to be able to handle reconstruction by means of the Copy Theory, despite the fact that there is a pronoun instead of a gap in the complement clause. But how does this representation come about? I argue that the proleptic object is not independently licensed. Evidence for this comes from the fact that it requires a coreferring element in the complement clause:

(972) *Von [**Computern**] glaube ich, dass jeder einen PC kaufen sollte.
of computers.DAT believe I that everyone a PC buy should
lit.: 'I believe of computers that everyone should buy a PC.'

I then propose a *tough*-movement style analysis which involves operator movement in the complement clause (3.7.1–3.7.2.1). This turns the CP into an unsaturated predicate. It is the proleptic object which saturates it and is thereby linked to a position in the complement clause. This also explains the obligatoriness of the coreferring pronoun (assuming that it is just the overt realization of a fully-fledged copy). This explains the semantic link, but not yet the syntactic relationship between the operator and the proleptic object. In 3.7.3, I argue in favor of a Matching Analysis to link the two. An ellipsis operation provides a means of handling reconstruction into the complement clause in terms of the copy theory (3.7.3.2):

(973) [~~Von~~ [welcher ~~Periode **seines**$_i$ Lebens~~]$_j$]$_2$ denkst du
of which period his.GEN life think you
[Von [x ~~Periode **seines**$_i$ Lebens~~]$_j$]$_2$ [$_{CP}$ [Op ~~Periode **seines**$_i$ Lebens~~]$_{1/j}$
of period his.GEN life period his.GEN life
dass **keiner**$_i$ gerne [x Periode **seines**$_i$ Lebens]$_{1/j}$ dran denkt]?
that no.one likes.to period his.GEN life there.on thinks

I make exactly the same assumptions as for Standard German relative clauses. This nicely captures the fact that the reconstruction pattern in the proleptic construction is nearly identical to the pattern in relatives. For instance, the proleptic construction shows the same absence of Condition C effects (3.3.5).

(974) Von [welchem Bild von **Peter$_i$**] glaubst du,
of which picture of Peter believe you
dass **er$_i$** es am besten mag?
that he it the best likes
lit.: 'Which picture of Peter$_i$ do you think he$_i$ likes best?'

This follows if ellipsis plus Vehicle Change links the proleptic object with the operator in the complement clause (3.7.3.4):

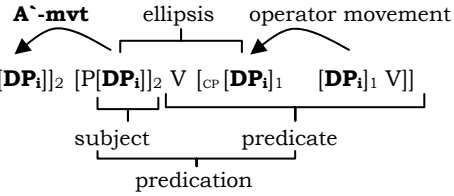
(975) [~~Von~~ [welchem ~~Bild von **Peter$_i$**~~]$_j$]$_2$ glaubst du
of which picture of Peter believe you
[Von [x Bild von **Peter$_i$**]$_j$]$_2$, [$_{CP}$ [Op ~~Bild von **ihm$_i$**~~]$_1$
of picture of Peter picture of he.DAT
dass **er$_i$** [x Bild von **ihm$_i$**]$_1$ es am besten mag]?
that he picture of he.DAT it the best likes

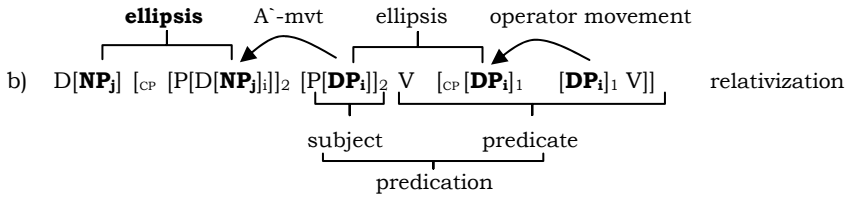
Direct evidence for Vehicle Change comes from the fact that Principle C effects do not re-emerge under reconstruction for variable binding as the following example with its LF shows (3.3.6, 3.7.3.8):

(976) a) Von [welcher Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz] denkst du,
of which opinion of John about her essay think you
dass **er$_i$** *jeder Schülerin$_j$* rät, sie ernst zu nehmen?
that he every student advises it seriously to take
lit.: 'the opinion of John$_i$ about her$_j$ essay I think he$_i$ advises every student$_j$ to take seriously.'

b) [~~Von~~ [welcher ~~Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz~~]$_k$]$_2$ denkst du
of which opinion of John about her essay think you
[Von [x ~~Meinung von **Hans$_i$** über *ihren$_j$* Aufsatz~~]$_k$]$_2$,
of opinion of John about her essay
[$_{CP}$[Op ~~Meinung von **ihm$_i$** über *ihren$_j$* Aufsatz~~]$_{1/k}$ dass **er$_i$**
opinion of he.DAT about her essay that he
jeder Schülerin$_j$ rät, [x Meinung von **ihm$_i$** über *ihren$_j$* Aufsatz]$_{1/k}$
every student advises opinion of he.DAT about her essay
sie ernst zu nehmen]?
it seriously to take

Additionally, the same embedding effects with semi-idiomatic expressions are found (3.7.3.7) as in normal relatives (cf. 2.4.5.5). The derivation in the proleptic construction is schematically illustrated below:





While reconstruction for variable binding and anaphor binding is solid in the proleptic construction, there is no reconstruction for scope (3.5). This entails a number of semantic restrictions on the proleptic object: It is necessarily individual-denoting and referential/D-linked (3.5.1–3.5.2). The following examples show that neither predicates nor amounts are possible and that indefinites get a specific interpretation.

(978) a) *Von [**einem Arschloch**] glaube ich nicht, dass du **das** bist.
of a asshole believe I not that you that are
'An asshole I don't believe that you are.'

b) *Von [**achtzig Kilos**] glaube ich, dass Peter **das/so viel** wiegt.
of eighty kilos believe I that Peter that/that.much weighs
'Eighty Kilos I believe Peter weighs.'

(979) Ich weiß von [**einem Mädchen**], dass Peter es geküsst hat.
I know of a girl that Peter her kissed has
'I know of a girl that Peter kissed her.'

The absence of scope reconstruction also implies that the low construal of superlative adjectives is unavailable (3.5.4). Furthermore, the proleptic construction is incompatible with comparative deletion because that involves abstraction over degrees, a non-individual-denoting type (3.5.5).

These semantic effects are derived from the specificity of the chain that characterizes operator movement chains (cf. 3.7). They can also be linked to the coreferring pronoun, which is interpreted as a resumptive. Resumptive pronouns are crosslinguistically well-known to impose such restrictions on their antecedents.

This raises the question of why there is resumption in the proleptic construction. I discussed various possibilities (3.8) and came to the conclusion that it is impossible and arguably wrong to try to pinpoint the source for resumption. Instead, I argue that resumption is an option in the grammar of German and Dutch (3.8.2.6). The fact that resumption is so limited is derived from a constraint that prohibits the realization of more than one chain link (3.8.2.1). Since both Standard German and Dutch use overt A'-operators in most A'-constructions, resumption is limited to comparative deletion and the proleptic construction.

After establishing resumption as a possibility in the grammar of German and Dutch, I tackle its implementation (3.8.3–3.8.4). I first address the movement effects. I argue that a movement approach derives the best result despite the fact that the proleptic construction is insensitive to locality (which seems to suggest

base-generation). It violates island constraints that are respected by other types of A'-movement (3.4.3):

(980) a) der [Mann], von dem ich denke, dass Marie <jedes Buch liest,
the man of who I think that Mary every book reads
das er schreibt>
which he writes
lit.: 'the man who I think Mary reads every book that he writes'

b) der [Mann], von dem ich glaube, dass < seine Mutter> gesund ist
the man of who I believe that his mother healthy is
'the man whose mother I think is well'

However, even such configurations show movement effects in that reconstruction into islands is possible (3.8.1.3):

(981) ?Das ist das [Buch von **sich**$_i$], von dem ich denke,
this is the book of self of which I think
dass <die Art, wie **Peter**$_i$ es vermarktet>, widerlich ist.
that the way how Peter it promotes disgusting is
Lit.: 'This is the book about himself$_i$ that I think that the way John$_i$ promotes it is disgusting.'

I conclude from this that resumption voids islands as it were as a side-effect and discuss possible ways of implementing that (3.8.3.3–3.8.3.4).

Finally, I discuss the nature of the resumptive pronoun itself. The two prominent movement approaches to resumption, the Spell-out approach and the Big-DP approach are evaluated in some detail. It turns out that they both make almost the same predictions so that they are difficult to tease apart. A Big-DP approach is eventually slightly preferable because it is more flexible. But even a Big-DP approach runs into difficulties with examples where there is a mismatch between the proleptic object and the resuming element (3.8.4.1):

(982) a) eine [**Brücke**], von der ich finde, dass man **solche Dinge**
a bridge of which I find that one such thing**s**
nicht mehr bauen sollte.
not anymore build should
'a bridge such that I think one should not build such things anymore.'

b) Ich habe eine [**Frau**] kennen gelernt, von der ich glaube,
I have a woman got.to.know of who I believe
dass **wir** ein gutes Paar wären.
that we a good match would.be
'I met a woman such that I think we would be a good match.'

These cases surely mark the limits of movement approaches to resumption. In the proleptic construction, it might be possible to handle such mismatches at least to some extent by the ellipsis operation between the operator and the proleptic object.

At the end of the chapter, I briefly address a number of unexpected properties of the in-situ construction and conclude that these are due to extra-grammatical factors.

5.1.4 Chapter 4

Chapter four provides an in-depth analysis of relative clauses in Zurich German. It starts out with an intriguing asymmetry between local and long-distance relativization. While local relativization restricts resumptives to oblique positions, they are found across the board in long-distance relativization (4.1.3). I illustrate the asymmetry with direct objects:

(983) a) es [Bild], wo niemert **(*s)** cha zale
a picture C nobody (it) can pay
'a picture that nobody can afford'

b) s [Bild], wo t gsäit häsch,
the picture C you said have.2SG
dass ***(es)** de Peter wett verchauffe
that it the Peter wants sell
'the picture that you said Peter wants to sell'

These asymmetries extend to matching effects, which are only found in local relativization (4.5). Both local and long-distance relativization are insensitive to locality. The resumptive can occur in positions that are opaque for regular A'-extraction (4.2.1):

(984) a) de [Maa], won i <mit de Schwöschter von ***(em)** i d Schuel bin>
the man C I with the sister of him in the school am
'the man with whose sister I went to school' (PP island)

b) *[**Vo wem**]$_1$ bisch < mit de Schwöschter __$_1$ > i d Schuel?
of who.DAT are with the sister in the school
lit.: 'Who did you go with the sister of to school?' (PP-island)

(985) a) de [Autor], wo d Marie < jedes Buech, won ***(er)** schriibt >,
the author C the Mary every book C he writes
sofort chauft (CNPC: rel)
immediately buys
lit.: 'the author that Mary immediately buys every book he writes'

b) ***Wer**$_1$ chauft d Marie < jedes Buech, wo __$_1$ schriibt >?
Who buys the Mary every book C writes
lit.: 'Who does Mary buy every book that writes?' (CNPC: rel)

At the same time, both local and long-distance relativization show movement effects. There is reconstruction for variable binding, anaphor binding and idioms.

(986) a) S [Bild vo **sich**$_i$], wo **de Peter**$_i$ __ wett verchauffe,
the picture of self C the Peter wants sell
gfallt niemertem.
pleases nobody
'Nobody likes the picture of himself$_i$ that Peter$_i$ wants to sell.'

b) s [Bild vo **siich**$_i$], wo t gsäit häsch,
the picture of self C you said have.2SG
dass de **Peter**$_i$ s wett verchauffe
that the Peter it wants sell
'the picture of himself$_i$ that you said Peter$_i$ wants to sell'

There is even reconstruction into islands (4.3.4):

(987) s [Bild vo **siich**$_i$], won i < s Grücht,
the picture of self C I the rumor
dass **de Presidänt**$_i$ s nöd guet findt> nöd cha glaube
that the president it not good finds not can.1SG believe
lit.: 'the picture of himself$_i$ that I cannot believe the rumor that the president$_i$ does not like'

Strong Crossover effects provide additional evidence for movement (4.4):

(988) a) *de [**Bueb**]$_i$, won **er**$_i$ tänkt, dass d Marie **en**$_i$ gern hät
the boy C he thinks that the Mary him likes
lit.: 'the boy$_i$ who$_i$ he$_i$ thinks that Mary likes'

b) *de [**Bueb**]$_i$, won **er**$_i$ mit emene Fründ vo **im**$_i$ es Auto gschtole hät
the boy C he with a friend of him a car stolen has
lit.: 'the boy$_i$ who$_i$ he$_i$ stole a car with a friend of'

Local and long-distance relativization are given two quite different analyses. For local relativization I argue in favor of a Matching Analysis (4.8.3.1). This captures the reconstruction facts as well as – thanks to Vehicle Change – the absence of Condition C effects:

(989) a) s [Fotti vom **Peter**$_i$], won **er**$_i$ __ am beschte findt
the picture of.the Peter C he the best finds
'the picture of Peter$_i$ that he$_i$ likes best'

b) s [Fotti vom **Peter**$_i$]$_j$, [$_{CP}$ [Op [~~Fotti vo **im**$_i$~~]$_j$]$_1$ won er$_i$
the picture of.the Peter picture of he.DAT C he
[x Fotti vo **im**$_i$]$_1$ am beschte findt]
picture of he.DAT the best finds

The distribution of resumptives is argued to follow from an independently necessary constraint the requires oblique case to be overt (4.8.3.2). The implementation of resumption in local relativization does not favor either a Spell-out or a Big-DP approach. Since local relativization does not allow epithets or more exotic resuming elements they both make more or less the same predictions (4.8.3.3).

Long-distance relativization is analyzed in terms of resumptive prolepsis. I thereby adapt a previous proposal by van Riemsdijk (to appear). Long-distance relativization involves what van Riemsdijk calls aboutness relativization in the matrix clause. Direct evidence for this comes from the fact that every relative can be related to a base-construction with *bi*+DP:

(990) a) es [Mäitli], **wo** mer säit, dass **es** gern is Kino gaat
a girl C one says that she likes.to in.the movie goes
'a girl who one says likes to go to the movies'

b) Mer säit **bi** [**dem Mäitli**], dass **es** gern is Kino gaat.
one says at this girl that she likes.to in.the movie goes
'One says about this girl that she likes to go to the movies.'

This PP is then interpreted as the proleptic object. It has indeed all the relevant main clause properties one expects (4.9.3.1) and we find evidence for operator movement (4.9.3.2). The fact that the preposition *bi* does not surface in relatives is linked to the locative origin of the relative complementizer *wo*, which is argued to license deletion of prepositions with a general locative meaning (4.9.3.4). The rest of the analysis is identical as in Standard German. The proleptic object is linked to the operator via ellipsis, which gives a handle on the absence of Condition C effects:

(991) a) Bi [welem Fotti vom **Peter$_i$**] glaubsch , dass **er$_i$** s guet findt?
at which picture of Peter think.2SG that he it good finds
lit.: 'Which picture of Peter$_i$ do you think that he$_i$ likes?'

b) [~~Bi~~ [welem ~~Fotti vom **Peter$_i$**~~]$_j$]$_2$ glaubsch
at which picture of Peter think.2SG
[Bi [x Fotti vom **Peter$_i$**]$_j$]$_2$, [$_{CP}$ [Op ~~Fotti vo **im$_i$**~~]$_{1/j}$
at picture of Peter picture of he.DAT
dass **er$_i$** [x Fotti vo **im$_i$**]$_{1/j}$ s guet findt]?
that he picture of he.DAT it good finds
lit.: 'Which picture of Peter$_i$ do you think that he$_i$ likes?'

Resumption is implemented as in Standard German. ZG even allows the same range of resuming elements (4.9.3.8).

There is one aspect where long relativization in ZG differs minimally from the proleptic construction in Standard German: The semantic restrictions are found as well, but not across the board. In oblique relations with R-pronouns, non-individual-denoting antecedents and scope reconstruction are possible. With personal pronouns, this is not the case.

(992) Isch de Hans würkli de [**Trottel**], wo t gsäit häsch,
is the John really the idiot C you said have.2SG
dass en all defüür haltet?
that him all there.for hold
'Is John really the idiot that you said everyone regards him as?'

(993) a) d Liischte mit de [**zwäi** Fottene], wo mer abgmacht händ,
the list with the two pictures C we agreed have.1PL
dass **jede Schüeler** mit ene d Schuel chunt (2 > ∀); *∀ > 2
that every student with them in the school comes
'the list with the two pictures that we agreed every pupil comes to school with'

b) d Liischte mit de [**zwäi** Fottene], wo mer abgmacht händ,
the list with the two pictures C we agreed have.1PL
dass **jede Schüeler** demit i d Schuel chunt (2 > ∀); ∀ > 2
that every student there.with in the school comes
'the list with the two pictures that we agreed every pupil comes to school with'

This asymmetry can be straightforwardly linked to independent properties of the resuming elements in ZG. While personal pronouns impose semantic restrictions on their antecedents, R-pronouns do not.

Except for the small difference just mentioned, long-distance relativization in ZG is almost perfectly parallel to the proleptic construction in Standard German. It is just a more abstract version of it. While it may at first seem puzzling that ZG employs a Standard German structure that was arguably introduced by prescriptive pressure, closer inspection shows that the proleptic construction is actually an unmarked structure that is available to all varieties of German.

5.2 Major theoretical contributions and extensions

In this last section, I would like to briefly point out the major theoretical contributions of this thesis and suggest possible extensions of resumptive prolepsis to other constructions.

This thesis makes two major theoretical contributions. First, it argues that ellipsis is the mechanism that makes reconstruction in indirect A'-dependencies possible. It allows reconstruction effects to be modeled in terms of the Copy Theory and correctly predicts the possibility of Vehicle Change. *Tough*-movement, another indirect A'-dependency shows exactly the same reconstruction pattern and therefore lends additional support to the ellipsis approach (3.7.5). On a more general level, it can be related to ellipsis approaches to specificational pseudoclefts which also show unexpected connectivity effects (cf. e.g. den Dikken et al. 2000).

Second, this thesis shows the advantages and limits of movement approaches to resumption. Movement approaches are ideally suited to handle reconstruction effects. The fact that resumption voids islands provides interesting perspectives on the syntax-phonology interface. At the same time, the proleptic construction also shows that resumption can be very flexible and involve all kinds of anaphoric elements that can disagree in certain features with their antecedents. Such cases are no longer amenable to a Spell-out approach and also prove problematic for a Big-DP approach unless a Big-DP of a rather abstract type is

assumed that handles all anaphoric relationships. The Standard German and ZG data are particularly important because the range of resuming elements is much wider than that described for other languages. I believe, however, that such cases of exotic resumption are more widespread and may eventually provide important aspects for the discussion.

So far, resumptive prolepsis was only illustrated for Standard German, Dutch and Zurich German. The construction is, however, much more widespread. It is certainly found in Serbo-Croatian, cf. Goodluck & Stojanovic (1996: 292) even though the authors do not analyze it in these terms.

In addition, I believe that there is a type of construction that might be amenable to a proleptic analysis. Many languages of the world have a construction often referred to as finite ECM. As in ECM, the thematic subject of the embedded clause is assigned accusative case by the matrix verb. Furthermore, there is usually clear evidence that the DP in question occupies a position in the matrix clause. Such constructions have been described for Turkish (Zidani-Eroglu 1997, Moore 1998), Javanic languages (Davies 2000), Japanese (Tanaka 2002), certain varieties of Greek (Katzoglou 2002), Passamaquoddy (Bruening 2001), Inuu-Aimun (Brannigan & Mckenzie 2002), Tsez (Polinsky & Potsdam 2001) and many more in Massam (1985). In all these languages, the object in question behaves like a constituent in the matrix clause yet is thematically related to the embedded clause. I do not have sufficient data to argue in favor of a reanalysis of these constructions in terms of resumptive prolepsis. Some of the facts, however, are very suggestive so that I believe that a proleptic analysis may prove fruitful. Davies (2002) for instance lists the following properties: There is obligatory coreference between the raised NP and some slot in the complement clause (p. 59). The object can also be related to a coreferring pronoun (p. 58f.) and it is subject to semantic restrictions: Idioms are not possible (p. 59). Katzoglou (2002) observes the following for Greek ECM: The object is subject to semantic restrictions and does not allow idioms (pp. 41, 52), it can be related to an overt pronoun in the complement clause (p. 44) and the construction disallows extraction (p. 54). Bruening (2001) notes reconstruction (p. 6) and opacity (p. 37). Branigan & Mckenzie (2002) also note the opacity of such constructions.

Unfortunately, I cannot pursue this any further. But if my speculation is on the right track, the proleptic construction may eventually turn out to be a crosslinguistically frequent phenomenon. The analysis presented in this thesis may provide a fresh look at the finite ECM-constructions and cases of long-distance agreement (Polinsky & Potsdam 2001) and thereby gain additional support.

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Samenvatting in het Nederlands

In dit proefschrift wordt een specifieke soort A-bar relaties in het Standaard Duits, Zürich Duits en het Nederlands onderzocht. Het kenmerkende van deze A-bar relaties is dat de gedisloceerde constituent indirect een relatie onderhoudt met de positie waarin deze geïnterpreteerd wordt. Er komt dus geen transformatie aan te pas zoals het wel het geval is bij een directe relatie. De analyse is ingebed in het theoretische kader van de Principes en Parameters theorie.

Hoofdstuk 1 introduceert de benodigde achtergrond over de syntaxis van relatieve bijzinnen. Hoofdstuk 2 behandelt Duitse relatieve bijzinnen, hoofdstuk 3 resumptieve prolepsis, en in hoofdstuk 4 komen Zürich Duits relatieve bijzinen aan bod.

Hoofdstuk 1

Aan de basis van dit proefschrift ligt de observatie dat er naast normale directe A-bar relaties er ook constructies bestaan die alle kenmerken hebben van A-bar relaties, maar waarin er geen sprake is van een directe relatie. Relatieve bijzinnen vormen een voorbeeld van zulke constructies. In relatieve bijzinnen staat het buiten kijf dat de relatieve operator een relatie aangaat met de positie waaruit hij geëxtraheerd lijkt te zijn. Het is echter minder duidelijk wat de rol van het externe hoofd is in deze relatie. Reconstructie-effecten laten dit zien:

(1) the [picture of **his**$_i$ girlfriend] which **every man**$_i$
de foto van zijn vriendin welke elke man
likes __ best
houdt.van het.meeste
‘de foto van zijn$_i$ vriendin waarvan elke man$_i$ het meeste houdt’

Aangezien reconstructie een van de kenmerkende eigenschappen van A-bar relaties is, lijkt het erop dat het externe hoofd hier ook in een A-bar relatie verkeert met de lege positie. Ik bespreek de verschillende verklaringen die in de literatuur zijn voorgesteld voor reconstructie in relatieve bijzinnen. Vervolgens kom ik tot de conclusie dat de populaire Hoofd Verplaatsing Analyse (HVA) niet afdoende is om Duitse relatieve bijzinnen te verklaren. De reden hiervoor is dat in Duitse relatieve bijzinnen het reconstructiepatroon verschilt van wat men zou verwachten onder de HVA. De HVA stelt relatieve bijzinnen namelijk gelijk aan de andere types van A’ verplaatsing. Het afwijkende gedrag geldt in het bijzonder voor Principe C-effecten, die kenmerkend zijn voor *wh*-verplaatsing, maar die afwezig zijn in het geval van relativisatie.

(2) a) The [picture of **John$_i$**] which **he$_i$** saw __ in the paper
de foto van John welke hij zag in de krant
is very flattering.
is erg vleiend
'de foto van Jan$_i$ die hij$_i$ zag in de krant is erg vleiend'

b) *[Which picture of **John$_i$**]$_1$ did **he$_i$** see __$_1$ in the paper?
welke foto van John DID hij zien in de krant
'Welke foto van John$_i$ heeft hij$_i$ in de krant gezien?'

Deze asymmetrie wordt niet voorspeld door de HVA. Een ander onverwacht patroon wordt gevormd door gevallen waarin er geen sprake is van reconstructie. In de HVA is reconstructie van het externe hoofd namelijk hetgeen wat er voorspeld wordt:

(3) John **pulled the** [**strings**] that __ got Bill the job.
John trok de touwtjes die gaf Bill de baan
'John trok zo aan de touwtje dat Bill een baan kreeg'

Om deze gevallen dus te kunnen verklaren zijn er andere analyses nodig dan de HVA. De traditionele Extern Hoofd Analyse is echter geen goed alternatief voor de HVA. Deze analyse kan namelijk niet die gevallen verklaren waarin er bij relativisatie wel reconstructie plaats vindt. Vervolgens bespreek ik de Matching Analyse (MA).

(4) the [**book**]$_i$ [$_{CP}$ [Op/which ~~**book$_i$**~~]$_1$ John likes __$_1$]
Het boek welke boek Jan leuk.vindt
'het boek dat Jan leuk vindt'

Het belangrijkste voordeel van de Matching Analyse is dat deze aanknopingspunten biedt om het ontbreken van Conditie C-effecten te verklaren. De MA-analyse van Sauerland (1998, 2003) maakt gebruik van het feit dat de relatie tussen het externe hoofd en de lege categorie in Spec CP gelegd wordt met behulp van Ellipsis. De afwezigheid van Principe C-effecten wordt vervolgens verklaard door Vehicle Change (VC). VC verandert referentiele uitdrukkingen binnen het externe hoofd in persoonlijke voornaamwoorden. Dit maakt de correcte voorspelling dat zulke relatieve bijzinnen net zo grammaticaal zijn als simpele zinnen met een pronomen in een picture NP (1.5.3.1.).

(5) a) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [Op [~~picture of him$_i$~~]$_j$]$_1$
de foto van Bill foto van hem
that **he$_i$** likes [x picture of him$_i$]$_1$]
dat hij leuk.vindt foto van hem
'de foto van Bill$_i$ die hij$_i$ leuk vindt'

b) **Bill$_i$** likes a picture of **him$_i$**.
Bill leuk.vindt een foto van hem
'Bill$_i$ vindt een foto van hem$_i$ leuk.'

Een andere MA-benadering, Citko (2001), maakt gebruik van het feit dat er drie verschijningen van het externe hoofd zijn in de Matching Analyse. Naast het

externe hoofd, zijn er namelijk twee kopieën binnen de relatieve bijzin. Citko betoogt dat het ontbreken van conditie C-effecten wordt veroorzaakt door de uitzonderlijke deletie van de lagere relatief-interne kopie (1.5.3.1.).

(6) the [picture of **Bill$_i$**]$_j$ [$_{CP}$ [OP ~~picture of **Bill$_i$**~~]$_j$]$_1$ that **he$_i$** likes
de foto van Bill foto van Bill dat hij leuk.vindt
[x ~~picture of **Bill$_i$**~~]$_1$]
foto van Bill.

Dit geeft ook inzicht in de gevallen in (957) waar geen reconstructie plaats vindt. Het externe hoofd blijft dan namelijk behouden terwijl de kopie in de relatieve bijzin wordt gedeleerd (1.5.4.):

(7) John **pulled the** [**strings**]$_j$ [$_{CP}$ [Op [~~strings~~]$_j$]$_1$ that [x ~~strings~~]$_1$
John trok de touwtjes touwtjes dat touwtjes
got Bill the job].
gaf Bill de baan

Citko's analyse maakt tevens de correcte voorspelling dat Conditie C-effecten weer te voorschijn dienen te komen in het geval van reconstructie voor binding van een variabele (1.5.4.).

(8) *The [letters by **John$_i$** to *her$_j$*] that **he$_i$** told *every girl$_j$*
De brieven door John aan haar dat hij vertelde elk meisje
to burn __ were published.
te verbranden werden gepubliceerd.
'Johns$_i$ brieven aan haar$_j$ waarvan hij$_i$ elk meisje$_j$ vertelde ze te verbranden werden gepubliceerd'

In dit geval wordt deletie van de lagere kopie in de relatieve bijzin verhinderd door binding van de variabele. Als gevolg hiervan dient ook de referentiele uitdrukking aanwezig te zijn binnen deze kopie. Deze referentiele uitdrukking veroorzaakt vervolgens het Conditie C-effect (1.5.3.9).

(9) *The [~~letters by **John$_i$** to *her$_j$*~~]$_k$
De brieven door John aan haar
[$_{CP}$ [Op [~~letters by **John$_i$** to *her$_j$*~~]$_k$]$_1$ that **he$_i$** told *every girl$_j$*
brieven door John aan haar dat hij vertelde elk meisje
to burn [x letters by **John$_i$** to *her$_j$*]$_1$] were published.
te verbranden brieven door John aan haar werden gepubliceerd

Deze correlatie volgt ook uit de HVA. Bhatt (2002) en Sauerland (2003) betogen dat zowel de HVA als de MA nodig zijn. Volgens hen is er hoofdverplaatsing in het geval van reconstructie en matching indien er geen reconstructie is. Dit stelt ons in staat om min of meer de goede resultaten af te leiden. Nadeel is echter dat men dan wel twee verschillende derivaties heeft. Citko's analyse heeft maar een soort derivatie nodig. De conclusie is dan ook dat deze analyse te prefereren is.

Hoofdstuk 2

Het reconstructiepatroon in Duitse relatieve bijzinnen is in grote mate hetzelfde als in Engelse relatieve bijzinnen. Er is echter een belangrijke uitzondering: Conditie C-effecten komen niet te voorschijn bij reconstructie in het geval van binding van een variabele (2.2.7.).

(10) das [Buch von **Peter**$_i$ über *ihre*$_j$ Vergangenheit],
het boek van Peter over haar verleden
das **er**$_i$ *jeder Schauspielerin*$_j$ __ sandte
dat hij elke actrice verstuurde
'het boek van Piet$_i$ over haar$_j$ verleden dat hij$_i$ aan elke actrice$_j$ verstuurde'

Dit is een argument zowel tegen de HVA als tegen Citko's (2001) versie van de MA. Deze twee analyses voorspellen namelijk in dit geval een correlatie tussen reconstructies voor het binden van een variabele en Conditie C-effecten. Daarom stel ik voor om deze feiten te analyseren met een versie van de MA die dichter bij die van Sauerland (1998, 2003) ligt, maar toch sommige van Citko's aannames kent. De afwezigheid van Conditie C-effecten volgt dan uit Vehicle Change (2.4.5.4).

De rest van het reconstructiepatroon, ook de gevallen van non-reconstructie in (957), is te verklaren door expliciete aannames over deletie. Ik betoog dat in een kopie elementen met een positieve fiatteringseis (gebonden variabelen, anaforen en woordgroepen met een idiomatische betekenis) alleen bij wijze van uitzondering gedeleerd kunnen worden. Namelijk alleen in het geval dat ze niet gefiatteerd worden in de desbetreffende positie. Deze aannames geven het juiste resultaat voor die configuraties waarin het externe hoofd niet geïnterpreteerd wordt op zo'n wijze dat een anafoor, een gebonden variabele of een woordgroep met een idiomatische betekenis gereconstrueerd dient te worden (2.4.3.):

(11) a) die [**Rede**], die er __ **geschwungen** hat *eine Rede schwingen*
de toespraak die hij gezwaaid heeft = *een toespraak geven*
'de toespraak die hij gegeven heeft'

b) die [~~Rede~~$_j$], [$_{CP}$ [die ~~Rede~~$_j$]$_1$ er [x Rede]$_1$ geschwungen hat]
de toespraak de toespraak hij toespraak gezwaaid heeft

De lagere kopie in de relatieve bijzin wordt gedeleerd in gevallen van non-reconstructie (2.4.6.):

(12) a) Er **schwingt** [**große Reden**], die keiner __ hören will.
Hij zwaait grote toespraken die niemand horen wil.
'Hij geeft lange toespraken die niemand wil horen.'

b) Er **schwingt** [**große Reden**]$_j$, [$_{CP}$ [die [~~große Reden~~]$_j$]$_1$ keiner
Hij zwaait grote toespraken die grote toespraken niemand
[x ~~große Reden~~]$_1$ hören will].
grote toespraken horen will

Verdere sterke evidentie voor VC komt van verschijnselen bij het inbedden van idiomatische uitdrukkingen (2.4.5.5.)

(13) a) *der [PRO$_i$ Streit über **Peter$_i$**],
de strijd om Peter
den **er$_i$** __ vom Zaun gebrochen hat
die hij van.de schutting gebroken heeft
lit.: 'De strijd om Peter$_i$ die hij$_i$ begonnen is'

b) der [PRO$_i$ Streit über Marias Kritik an **Peter$_i$**],
de strijd over Mary's kritiek op Peter
den**er$_i$** __ vom Zaun brach
die hij van.de schutting brak
'De ruzie over Mary's kritiek op Peter$_i$ die hij$_i$ begonnen heeft'

De referentiele uitdrukking gedraagt zicht net als een pronomen. Dit is precies wat VC voorspelt. De voorgestelde versie van de MA kan dus het hele reconstructiepatroon verklaren en is daarom beter dan eerdere analyses (cf. 2.5.)

Hoofdstuk 3

Hoofdstuk 3 is gewijd aan een tot nu toe nog onbestudeerde constructie, te weten de *proleptische constructie*. Deze constructie kent ook een indirecte A'-relatie. Het volgende voorbeeld laat zien dat er sprake is van reconstructie in de complementszin (cf. 3.3.).

(14) Von [welchem Foto von **sich$_i$**] denkst du,
van welke foto van zich denk jij
dass **Peter$_i$** es am besten findet?
dat Peter het op beste vindt
'Van welke foto van zichzelf$_i$ denk jij dat Peter$_i$ het beste vindt?'

Dit suggereert dat er een A'-relatie tussen het gedisloceerde element in de hoofdzin en het pronomen in de complementszin bestaat. Het is belangrijk om op te merken dat er overduidelijke evidentie bestaat dat deze relatie niet direct kan zijn. Er kan namelijk bewezen worden dat het proleptische object basis-gegenereerd wordt in de hoofdzin (3.4) wat te zien is door het feit dat het ook in-situ kan voorkomen (3.4.1.1.):

(15) Ich hoffe von [**diesem Buch**], dass **es** ein Erfolg wird.
Ik hoop van dit boek, dat het een succes wordt
'Ik hoop van dit boek, dat het een succes wordt.'

Echter hoe is nu het proleptische object gerelateerd aan het coreferentiële pronomen? Om te beginnen dient er opgemerkt te worden dat er een volledige representatie van het proleptische object in de complementszin nodig is om reconstructie met behulp van de kopie-theorie te kunnen verklaren. Vervolgens stel ik een analyse voor die gebaseerd is op de analyse van de *tough*-movement constructie waarin er sprake is van verplaatsing van een operator in de complementszin (3.7.1–3.7.2.1). Deze verplaatsing verandert de CP in een

onverzadigd predikaat. Vervolgens is het het proleptische object dat het predikaat verzadigd. Tevens wordt het op deze wijze gekoppeld aan een positie in de complementszin. In 3.7.3. beargumenteer ik dat een Matching Analyse de beste manier is om het proleptische object te koppelen met de operator in de complementszin. Ellipsis is dan een manier om reconstructie in de complementszin te verklaren met behulp van de kopietheorie (3.7.3.2).

(16) [~~Von~~ [welcher ~~Periode **seines**$_i$ Lebens~~]$_j$]$_2$ denkst du
van welke periode van.zijn leven denk jij
[Von [x ~~Periode **seines**$_i$ Lebens~~]$_j$]$_2$
van periode van.zijn leven
[$_{CP}$[Op ~~Periode **seines**$_i$ Lebens~~]$_{1/j}$ dass **keiner**$_i$ gerne
periode van.zijn leven dat niemand graag
[x Periode **seines**$_i$ Lebens]$_{1/j}$ dran denkt]?
periode van.zijn leven eraan denkt

Om dit te verklaren maak ik gebruik van precies dezelfde assumpties als voor relatieve bijzinnen in het Standaard Duits. Dit stelt mij in staat om te verklaren dat het reconstructiepatroon in de proleptische constructie bijna gelijk is als het patroon in relatieve bijzinnen. Onderdeel van dit patroon was de afwezigheid van Conditie C-effecten (3.3.4):

(17) Von [welchem Bild von **Peter**$_i$] glaubst du,
Van welke foto van Peter geloof jij
dass **er**$_i$ es am besten mag?
dat hij het op beste mag
'Van welke foto van Peter$_i$ geloof jij dat hij$_i$ hem het leukste vindt?'

Dit is afleidbaar als ellipsis in combinatie met VC het proleptische object koppelt aan de operator (3.7.3.4).

(18) [~~Von~~ [welchem ~~Bild von **Peter**$_i$~~]$_j$]$_2$ glaubst du
Van welke foto van Peter geloof jij
[Von [x Bild von **Peter**$_i$]$_j$]$_2$, [$_{CP}$ [Op ~~Bild von **ihm**$_i$~~]$_1$
van foto van Peter foto van hem
dass **er**$_i$ [x Bild von **ihm**$_i$]$_1$ es am besten mag]?
dat hij foto van hem het op beste mag

Directe evidentie voor VC is te vinden in het feit dat Principe C-effecten niet weer te voorschijn komen in het geval van reconstructie voor variabele binding. Dit wordt geïllustreerd door het volgende voorbeeld en zijn LF (3.3.5; 3.7.3.8):

(19) Von [welcher Meinung von **Hans**$_i$ über *ihren*$_j$ Aufsatz] denkst du,
Van welke mening van Hans over haar opstel denk jij
dass **er**$_i$ *jeder Schülerin*$_j$ rät, sie ernst zu nehmen?
dat hij elke scholier aanraadt het serieus te nehmen
'Van welke mening van Hans$_i$ over haar$_j$ opstel denk jij dat hij$_i$ elke scholier$_j$ aanraadt het serieus te nemen.'

Daarnaast vindt men dezelfde verschijnselen bij het inbedden van semi-idiomatische uitdrukkingen (3.7.3.7) als bij normale relatiefzinnen (cf. 2.4.5.5.).

De laatste vraag die beantwoord dient te worden is waarom er sprake van resumptie is in de proleptische constructie. Ik bespreek verschillende mogelijkheden en kom vervolgens tot de conclusie dat het onmogelijk en aantoonbaar verkeerd is om een bron voor de resumptie aan te wijzen. In plaats daarvan beweer ik dat resumptie simpelweg een optie is in de grammatica van het Duits en het Nederlands. Het feit dat resumptie in het Nederlands en het Duits zo'n zeldzaam verschijnsel is, leid ik af van een constraint die de realisatie van meer dan een onderdeel van een ketting verbiedt (3.8.2.1.). Aangezien zowel het Duits als het Nederlands overte A'-operatoren gebruiken in de meeste A'-constructies is resumptie beperkt tot comparatieve deletie en de proleptische constructie. Wat betreft de implementatie van resumptie (3.8.3-3.8.4), beargumenteer ik dat een verplaatsing aanpak het beste resultaat geeft, ondanks het feit dat de proleptische constructie ongevoelig voor lokaliteit is (wat juist een indicatie voor basis generatie lijkt te zijn). De constructie schendt eiland constraints die geobserveerd worden door andere types van A'-verplaatsing (3.4.3).

(20) der [Mann], von dem ich denke, dass Marie
de man van wie ik dacht dat Marie
<jedes Buch liest, das er schreibt>
elk boek leest dat hij schrijft
'de man, van wie ik dacht dat Marie elk boek leest dat hij schrijft'

Echter zulke constructies staan ook reconstructie toe (3.8.3.1):

(21) ?Das ist das [Buch von **sich**$_i$], von dem ich denke,
dat is het boek van zich van die ik denk
dass <die Art, wie **Peter**$_i$ es vermarktet>, widerlich ist.
dat de manier hoe Peter het promotie.voor.maakt wagelijk is
'Dat is het boek over zichzelf$_i$ waarvan ik denk de manier waarop Jan$_i$ er promotie voor maakt walgelijk is.'

Ik concludeer hieruit dat resumptie als bijwerking heeft dat het eilanden opheft en bespreek verschillende manieren om dat te implementeren (3.8.3.3-3.8.3.4).

Hoofdstuk 4

Hoofdstuk 4 geeft een diepgaande analyse van relatieve bijzinnen in het Zürich Duits. In het geval van lokale relativisatie komen resumptieve pronomina alleen voor in oblieke posities. Echter bij lange-afstands relativisatie komen ze in elke positie voor (4.1.3). Ik illustreer deze asymmetrie met directe objecten:

(22) a) es [Bild], wo niemert **(*s)** cha zale
een foto die niemand hem kan betalen
'een foto die niemand kan betalen'

b) s [Bild], wo t gsäit häsch,
de foto C jij gezegd heebt
dass ***(es)** de Peter wett verchauffe
dat het de Peter wil verkopen
'de foto waarvan jij gezegd hebt dat Peter het verkopen will'

Zowel lokale als lange-afstands-relativisatie zijn ongevoelig voor lokaliteit. Het resumptief pronomen kan voorkomen in posities waaruit normale A'-extractie onmogelijk is (4.2.1):

(23) a) de [Maa], won i <mit de Schwöschter von ***(em)** i d Schuel bin>
de man dat ik met de zus van hem in de school ben
'de man met wiens zus ik naar school gegaan ben' (PP-eiland)

b) de [Autor], wo d Marie < jedes Buech, won ***(er)** schriibt >,
de auteur C de Marie elk boek dat hij schrijft
sofort chauft (CNPC: rel)
gelijk koopt
'de auteur waarvan Marie onmiddellijk elk boek koopt dat hij schrijft'

Tegelijkertijd laten zowel lokale als lange-afstands relativisatie verplaatsingseffecten zien. Zo is er reconstructie voor binding van variabelen en anaforen en in het geval van idiomen.

(24) a) S [Bild vo **sich**$_i$], wo **de Peter**$_i$ __ wett verchauffe,
de foto van zich C de Peter wil verkopen
gfallt niemerem.
bevalt niemand
'Niemand bevalt de foto van zichzelf$_i$ dat Peter$_i$ wil verkopen.'

b) s [Bild vo **siich**$_i$], wo t gsäit häsch,
de foto van zich dat jij gezegd hebt
dass de **Peter**$_i$ s wett verchauffe
dat de Peter het wil verkopen
'De foto van zichzelf$_i$ waarvan jij zei dat Peter$_i$ ze verkopen wil'

Strong crossover effecten bevesigen dit bewijs voor verplaatsing (4.4.) en er is zelfs sprake van reconstructie in eilanden (4.3.4):

(25) s [Bild vo **siich**$_i$], won i < s Grücht, dass **de Presidänt**$_i$ s
de foto van zelf C ik het gerucht dat de president het
nöd guet findt> nöd cha glaube
niet goed vindt niet kan geloven
'De foto van zichzelf$_i$ waarvan ik het gerucht niet kan geloven dat de president$_i$ ze niet leuk vindt'

Ik analyseer lokale en lange-afstands relativisatie op twee nogal verschillende manieren. Voor lokale relativisatie beweer ik dat een Matching Analyse de beste oplossing is (4.8.3.1). Dit verklaart zowel de reconstructiefeiten als de afwezigheid van Conditie C-effecten dankzij Vehicle Change:

(26) s [Fotti vom **Peter$_i$**], won **er$_i$** __ am beschte findt
de foto van.de Peter C hij op beste vindt
'De foto van Peter$_i$ die hij$_i$ het beste vindt'

De distributie van resumptieve pronomina kan vervolgens verklaard worden door een constraint dat eist dat oblieke naamval overt gerealiseerd dient te worden. Zo'n constraint is toch al noodzakelijk om andere niet gerelateerde redenen.

Lange-afstands relativisatie ontvangt een analyse die het gelijk stelt aan resumptieve prolepsis. Ik maak hier gebruik van een eerder voorstel door Van Riemsdijk (2004), die ervan uit gaat dat er in de hoofdzin sprake is van aboutness relativisatie. Hier is direct bewijs voor in de vorm van het feit dat elke lange-afstands relativisatie kan worden geherformuleerd in de vorm van een basis gegeneerde aboutness constructie met een *bi*-DP:

(27) a) es [Mäitli], **wo** mer säit, dass **es** gern is Kino gaat
een meisje wie men zegt dat het graag in.de bioscoop gaat
'een meisje waarvan gezegd wordt dat ze graag naar de bioscoop gaat'

b) Mer säit **bi** [**dem Mäitli**], dass **es** gern is Kino gaat.
men zegt over dit meisje dat het graag in.de bioscoop gaat
'Over dit meisje wordt gezegd dat ze graag naar de bioscoop gaat.'

Deze PP wordt vervolgens geïnterpreteerd als een proleptisch object. Het heeft inderdaad alle relevante hoofd-zin-eigenschappen die men zou verwachten (4.9.3.1.). Ook vinden we evidentie voor operator verplaatsing (4.9.3.2). Dat de prepositie *bi* niet in relatieve bijzinnen te vinden is heeft te maken met de locatieve oorsprong van het relatieve voegwoord *wo*. Deze oorsprong stelt het voegwoord *wo* in staat om deletie te fiatteren van preposities met een algemene locatieve betekenis (4.9.3.4). De rest van de analyse is hetzelfde als in het Standaard Duits. Het proleptische object wordt via ellipsis aan de operator gekoppeld. Dit biedt inzicht in de afwezigheid van Conditie C-effecten:

(28) a) Bi [welem Fotti vom **Peter$_i$**] glaubsch, dass er$_i$ s guet findt?
over welke foto van.de Peter geloof.2s dat hij het goed vindt
lit.: 'Welke foto van Peter$_i$ denk je dat hij$_i$ leuk vindt?'

b) [~~Bi~~ [welem ~~Fotti vom **Peter$_i$**~~]$_j$]$_2$ glaubsch
over welke foto van Peter denk.2s
[Bi [x Fotti vom **Peter$_i$**]$_j$]$_2$, [$_{CP}$ [Op ~~Fotti vo **im$_i$**~~]$_{1/j}$
foto van.de Peter foto van hij.DAT
dass **er$_i$** [x Fotti vo **im$_i$**]$_{1/j}$ s guet findt?
dat hij foto van hij.DAT het goed vindt
lit.: 'Welke foto van Peter$_i$ denk je dat hij$_i$ leuk vindt?'

Met de uitzondering van kleine semantische verschillen is lange-afstands relativisatie in het Zürich Duits bijna geheel identiek aan de proleptische constructie in Standaard Duits. Het is er alleen een iets abstractere versie van.

Curriculum Vitae

Martin David Salzmann was born on 6 July 1975 in Männedorf, Switzerland. After graduating from Stiftsschule Einsiedeln, Switzerland, in June 1996, he studied General, German and African Linguistics at the University of Zurich and the University of Cologne. He completed his Masters degree (Lizentiat) in December 2001 with a thesis entitled *Theoretical approaches to locative inversion*. After working a few months as a proofreader at CAT Medien, Baden, Switzerland, he was accepted as a doctoral researcher (Assistent in Opleiding) at the Amsterdam Center for Language and Communication (ACLC) in April 2002. In May 2003, he became a PhD student (Assistent in Opleiding) at the Leiden University Centre for Linguistics (LUCL) where he worked until April 2006. This thesis is the result of the research carried out during the three years at LUCL.