Long relativization in Zurich German as resumptive prolepsis

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Long relativization in Zurich German is a construction with paradoxical properties. Some properties (reconstruction effects) suggest movement out of the complement clause, whereas others show that the complement clause is a barrier. This paradox is resolved by assuming a *tough*-movement style analysis: Operator movement in the complement clause derives a predicate and licenses an extra argument, the proleptic object. This in turn is A'-moved in the matrix clause and deleted under identity with the external head. The predication analysis proposed here makes an alternative strategy for reconstruction available and accounts for many of the puzzling properties of the construction.

1. Introduction: Relativization in Zurich German

Restrictive relatives in Zurich German (ZG) are interesting for three reasons. First, ZG (and Southern Alemannic dialects more generally) stand out among relatives in German(ic) in that they use resumptive pronouns (ignoring Yiddish). Second, the distribution of resumptive pronouns in ZG yields a pattern that is crosslinguistically interesting (although not unique). Third, resumptive pronouns in ZG only occur in relativization, but not in *wh*-movement or topicalization.²

In this section, I will first discuss general properties of restrictive relatives in ZG and then the distribution of resumptive pronouns.

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1. The research reported on here is presented in much more detail in Chapter 4 of Salzmann (2006b).

2. They also occur in comparatives, but to a much more limited degree, cf. Salzmann (2006a, 2006b).
1.1 General form of restrictive relatives in Zurich German

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), but instead an invariant complementizer wo 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 and also found in many Bavarian and Upper Franconian dialects, cf. Fleischer (2003: 227). In certain grammatical relations, a resumptive pronoun appears instead of a gap. Those resumptives are formally identical to weak pronouns and tend to occur relatively high in the clause, arguably in the Wackernagel position.

1.2 Distribution of resumptive pronouns: Local relativization

In local relativization, resumptive pronouns are only found in oblique relations, i.e. with datives, possessors and complements of prepositions, but crucially not with subjects and direct objects (Weber 1964; van Riemsdijk 1989). The relative complementizer appears as won before vowels. The term “resumptive pronoun” is used inconsistently in the literature. I use it as a purely descriptive term for elements that look like personal pronouns and are A’-bound, i.e. have an antecedent in an A’-position (whether resumptive pronouns are also found in A-chains is unclear). Whether the pronoun participates in a movement or a binding dependency and in case of movement is just the spell-out of a trace or rather a true pronoun are issues of implementation I will discuss below.

The resumptive element is not always a weak pronoun. In local relativization, strong pronouns and demonstratives are possible as well; in long relativization, epithets are found; a discussion of these cases is beyond the scope of this paper, but cf. Salzmann (2006b) for detailed analysis.

Things are more complex when it comes to datives. Resumptives are systematically found for animate indirect objects (even though some speakers have started dropping the resumptive in recent years). With inanimates and unaccusative verbs with dative > nominative order, resumptives are awkward, often leading to ungrammaticality. Puzzlingly, many of those cases do not improve if the resumptive is omitted. See Salzmann (2006b) for full discussion.

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 Dieth & Schmid-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,
1.3 Distribution of resumptive pronouns: Long-distance relativization

Once we look at long-distance relativization, we find resumptives for all relations, even subjects and direct objects:

(2) a. *d Frau, wo t gsäit häsch, dass *si kän Früind hät*  
the woman C you said have.2s that she no boyfriend has  
‘the woman who you said has no boyfriend’  
(subject)

b. *s Bild, wo t gsäit häsch, dass *(es) de Peter wett*  
the picture C you said have.2s that it the Peter wants  
verchauffe  
to.sell  
‘the picture that you said Peter wants to sell’  
(direct object)
2. Long relativization as aboutness relatives: Van Riemsdijk (to appear)

This asymmetry between local and long relativization is somewhat surprising. The local pattern can be explained straightforwardly by the assumption that oblique case needs to be realized, a condition operative in many languages that use resumptive pronouns, cf. e.g. Pesetsky (1998). Bayer et al. (2001) have pointed out that this constraint is operative in Standard German (though in other areas), and Salzman (2006a) discusses matching effects that clearly show that the local ZG pattern is best understood as a means to guarantee the recoverability of oblique case.

The long-distance pattern, however, is surprising given the facts from local relativization. One would expect the transparent local pattern, for which there is independent evidence in other parts of the grammar, to be found in all aspects of relativization. The asymmetry clearly suggest that something else must be responsible for the appearance of resumptive pronouns in long relativization. This is, I believe, the starting point for a reanalysis of long relativization in ZG by van Riemsdijk (to appear). I will introduce this approach in the next section.

2.1 Locative relatives and aboutness relatives: Adverbial wo

Next to resumptive relatives, there is one type of relative where a gap appears in both local and long relativization, namely locative relatives. They are also introduced by wo. The same form is used for so-called aboutness relatives (van Riemsdijk to appear) which have a vague locative meaning and express corollary circumstances (similar to English expressions like with this weather):

\[
\begin{align*}
(3) \ a. & \quad s & \text{Huus, wo t gsäit häscht, dass de Peter _ wont} \\
& & \text{the house C you said have.2s that the Peter lives} \\
& & \text{‘the house where you said Peter lives’}
\end{align*}
\]
\[
\begin{align*}
& b. \quad es & \text{Wätter, wo s sich _ nöd loont, de Raase z määge} \\
& & \text{a weather C it self not is.worthwhile the lawn to mow} \\
& & \text{‘a weather where there is no point in mowing the lawn’}
\end{align*}
\]

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 haplogony with the complementizer:

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8. In certain languages, e.g. Irish, resumptives are only barred from the matrix subject position. For those cases, there have been proposals (e.g. McCloskey 1990) that make reference to the notion A’-disjointness, basically the A’-version of Principle B. A very different explanation is found in Boeckx (2003). The Zurich German pattern is also found in Welsh (Rouveret 2002). Unfortunately, the syntax of Welsh resumptive relatives is different in relevant respects so that comparison does not provide new insights.
2.2 Long relativization as aboutness relativization

Now comes the crucial step: Van Riemsdijk (to appear) proposes that long relativization actually involves aboutness relativization in the matrix clause. If I interpret him correctly (the paper is not very explicit on this point), the resumptive pronoun we find in the complement clause is simply a bound pronoun linked to its antecedent by construal and not movement (van Riemsdijk speaks of an “apparent variable”):

\[
\text{(5) the man} \quad [\text{CP } C \text{ wo } I \text{ think } [\text{CP } he \ldots]]
\]

2.3 Advantages

This proposal has a number of important advantages. First, the appearance of a pronoun is predicted because movement is not involved, and since ZG is not a pro-drop language, an overt pronoun is necessary. Second, ZG can be argued to instantiate a more abstract version of an alternative strategy to long relativization in both German and Dutch (Section 6, Salzmann 2006b) whereby an ‘of’-XP constituent appears in the matrix clause:

\[
\text{(6) der Mann, von dem } \quad \text{ich glaube, dass er, intelligent ist}
\]

the man of who.DAT I believe.1s that he intelligent is
‘the man who I believe is intelligent’

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9. An anonymous reviewer has correctly pointed out that the indexing employed in this example and elsewhere in the paper is strictly speaking incorrect: The external head is only an NP and therefore not a referring term so that it cannot be directly co-indexed with a pronoun. Rather, the pronoun is co-indexed with an element in the matrix clause, arguably wo under van Riemsdijk’s analysis (see Subsection 3.1.1), or [Op + a representation of the external head] under the analysis proposed in Section 4. The NP part of the operator phrase in the matrix clause is then related to/predicated of the external head. Under van Riemsdijk’s proposal, the resumptive is arguably re-interpreted as a variable bound pronoun (a pronoun bound by an operator (wo) in an A-position that undergoes further A’-movement). Despite these complications, I will retain the indexing for reasons of legibility, especially in the context of reconstruction effects. In Salzmann (2006b) I discuss these issues and employ a different notation system.
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:

(7) a.  
\[ \text{es \ Wätter, wo s sich _ nöd loont, de \ Raase z määje} \]
  a weather C itself not is worthwhile the lawn to mow
  ‘a weather where there is no point in mowing the lawn’

b.  
\[ \text{Es loont sich bi dem Wätter nöd, de \ Raase z määje.} \]
  it be worthwhile self at this weather not the lawn to mow
  ‘With this weather, there is no point in mowing the lawn.’

(8) a.  
\[ \text{es Mäitli, wo mer säit, dass es gern \ is \ Kino gaat} \]
  a girl C one says that it likes to in the movie goes
  ‘a girl who one says likes to go to the movies’

b.  
\[ \text{Mer säit bi dem Mäitli, dass es gern \ is \ Kino gaat.} \]
  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.’

Fourth, a fact not discussed in van Riemsdijk (to appear), if the bi-phrase is wh-moved across another wh-phrase, we do not get a superiority violation. This would be unexpected if that constituent were extracted from the complement clause because ZG, like Standard German, shows long distance superiority effects, cf. (9a). However, since only two matrix wh-phrases compete, the absence of superiority effects is predicted (9b):

(9) a.  
\[ \text{*Welem \ Schüeler glaubt wele Leerer, dass mer _ sostt äis} \]
  which.DAT pupil thinks which teacher that one should one
  \[ a \ d \ Oore gëe? \]
  at the ears give
  lit.: ‘Which pupil does which teacher think that one should give a box on the ears?’

b.  
\[ \text{Bi welem \ Schüeler glaubt wele Leerer, dass mer em} \]
  at which.DAT student thinks which teacher that one he.DAT
  sostt äis a d Oore gëe?
  should one at the ears give

Fifth, “long relativization” is insensitive to locality (the island appears in angled brackets):

(10)  
\[ \text{de Autor, wo d \ Marie < jedes Buech list, won er schriibt >} \]
  the author C the Mary every book reads C he writes
  lit.: ‘the author that Mary reads every book he writes’
The alleged resumptive appears inside a relative clause. Since ZG obeys locality constraints on movement elsewhere as in the following example with wh-movement

(11) *Wer list d Marie < jedes Buech, wo ___ schriibt >?
 who reads the Mary every book C writes
 lit.: ‘Who does Mary read every book that writes?’

this would be unexpected under a movement account. It follows naturally, however, under a pure construal relationship as proposed by van Riemsdijk (to appear).

Although I believe that the basic idea of this analysis is correct, there are a number of problems. They are discussed in the following section.

3. Problems of van Riemsdijk’s (to appear) proposal

3.1 There seems to be a copy of the external head inside the relative

The first type of problem concerns the nature of wo. If “long relativization” really involves movement of wo in the matrix clause there is no relative clause internal representation of the external head. As a consequence, we do not expect any reflections of this for processes like binding. However, this is exactly what we find.

3.1.1 Strong crossover effects

If a matrix subject is co-indexed with a resumptive in the complement clause ungrammaticality results:

(12) *de Maa₁, won er₁ tänkt, dass en₁ niemert gern.hät
 the man C he thinks that him no.one likes
 lit.: ‘the man₁ who₁ he₁ thinks no one likes’

I would like to argue that the ungrammaticality is due to a Strong Crossover (SCO) effect, i.e. that there is movement of a coreferential element across the matrix subject as in the following example from local relativization:

(13) *de Maa₁, won er₁ ___ gern.hät
 the man C he likes
 lit.: ‘the man₁ who₁ he₁ likes’

10. The example does not improve if the gap is replaced by a resumptive pronoun, cf. Salzmann (2006b).
Here, a direct object is A'-moved across a coreferential pronominal subject. Importantly, there has to be a relative clause internal representation of the external head (i.e. an empty operator in D + Maa as in Bhatt (2002) (cf. 4.1), or at least a relative pronoun with the same phi-features as the external head) to explain the ungrammaticality of these examples. However, if according to van Riemsdijk (to appear) only phrasal (local) wo moves, this does not follow:

\[(14) *_{de \ Maa_i, \ [CP \ [\_\_\_\_\_\_\_\_\_\_\_\_] \ wol \ er_i \ [\_\_\_\_\_\_\_\_\_\_\_\_] \ t\ddot{a}nt, \ dass \ en_i \ niemert \ gern.h\ddot{a}t} \]
\[\text{the man wo C he thinks that him no one likes lit.: 'the man that who he, thinks no one likes'}\]

Since wo – being a locative form – neither has phi-features nor contains a representation of the external head, the SCO effect is unexpected.

One of the reviewers suggested assigning wo the index “i” instead. This seems indeed a reasonable assumption: It is clear that wo somehow has to be related to the external head and to the resumptive pronoun. Assigning it the same index as the two would take care of this, thereby yielding the right result for the SCO effects:

\[(15) *_{de \ [Maa_i, \ [CP \ [\_\_\_\_\_\_\_\_\_\_\_\_] \ wol \ er_i \ [\_\_\_\_\_\_\_\_\_\_\_\_] \ t\ddot{a}nt, \ dass \ en_i \ niemert \ gern.h\ddot{a}t} \]
\[\text{the man wo C he thinks that him no one likes lit.: 'the man that who he, thinks no one likes'}\]

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 relative pronouns are normally not so flexible, they are only compatible with certain antecedents even if they are invariant (cf. e.g. Dutch prepositional waar). Second, adopting an operator movement analysis for relative clauses, i.e. the traditional Head External Analysis, is at odds with recent work that has shown it to be quite undesirable, especially when it comes to reconstruction effects, cf. e.g. Bhatt (2002). This aspect is important in the light of the following subsection.

3.1.2 Reconstruction into the matrix clause
An even stronger argument for the relative clause internal representation of the external head comes from reconstruction effects. The following example shows that material contained inside the external head can be bound by elements inside the matrix clause. The following example illustrates this for Principle A.\(^\text{11}\)

\(^{11}\) As opposed to English, anaphors in ZG cannot be used logophorically so that the concern voiced in Saflir (1999) and Bhatt (2002) does not apply. Anaphors are subject to Principle A in ZG and require a c-commanding antecedent to be licensed. For anaphor binding I have made
3.2 Reconstruction into the embedded clause

The second type of problem concerns the absence of an A'-dependency. If I read him correctly, van Riemsdijk (to appear) assumes that the resumptive pronoun in the embedded clause is not part of an A'-dependency, i.e. that it is not a resumptive pronoun at all. That is probably why he refers to it as an “alleged variable”. However, there is evidence that it does participate in an A'-dependency.

Reconstruction effects turn out to be more pervasive in ZG relatives. Material contained inside the external head can also be bound by elements inside the embedded clause. The following triple illustrates this for Principle A, variable binding and idiom formation:12, 13

sure that binding cannot be due to a coreferential implicit PRO by using ‘rumor’ where this is ruled out, cf. Bianchi (1999:117f.).

12. The expression e Reed schwinge lit. ‘swing a speech’ means ‘give a speech’. As pointed out in de Vries (2002:78f.) the types of expressions that can be used in relativization all involve NPs that more or less retain their meaning in these idiomatic expressions/collocations. Completely opaque idioms cannot be used in relativization.

13. I do not deal with reconstruction for scope and the interpretation of superlative adjectives (Bhatt 2002; Heycock 2003) here because a full discussion of the (intriguing) complications found in that domain is beyond the scope of this paper. See Salzmann (2006b) for detailed analysis.
(18) a. s [Bild von sich], wo t gsät hät sch, dass de Peter, s j
the picture of self C you said have.2s that the Peter it
wett verchaufse
wants to sell
‘the picture of himself; that you said Peter, wants to sell’
b. De [Abschnitt von simi Läbe], won i glaub, dass niemert, dr j über
the period of his life C I think that no.one it-about
redt, isch d Pubertät.
talks is the puberty
‘The period of his; live that I think no one; talks about is puberty.’
c. D [Reed], won i gsät han, dass er si geschter geschwungén hät,
the speech C I said have that he it yesterday swung has
hät mer gfale.
has me pleased
‘I liked the speech I said he gave yesterday.’

The resumptive pronouns indicate the reconstruction sites.\textsuperscript{14} Again, given standard assumptions about reconstruction in recent versions of the Principles and Parameters framework, a copy of the external head has to be present inside the complement clause. That this is incompatible with the phrasal wo that van Riemsdijk (to appear) postulates was shown in the previous subsection. Even if we grant that reconstruction is also possible via co-indexing between external head and relative pronoun (as in traditional analyses of relative clauses), this will not be sufficient for the case at hand because wo does not originate in the embedded clause and therefore never occupies the position where the content of the external head is interpreted in the examples above. The only possible way out for van Riemsdijk seems to be to assume that reconstruction is in principle independent of movement and that the content of the external head can somehow be copied into the position of the resumptive pronoun. While I cannot fully discuss reconstruction in non-movement contexts here, it seems to be generally agreed upon that reconstruction under a pure binding relationship requires at least an A'-dependency. A non-movement A-dependency, which is what I take van Riemsdijk to be postulating between wo and the “resumptive” in long ZG relativization, however, normally does not show reconstruction effects: Control, an A-dependency which under traditional assumptions does not involve movement, does not show reconstruc-

\textsuperscript{14} In (18b) the resumptive is an R-pronoun that appears whenever the antecedent is inanimate, neuter and governed by a preposition (see Salzmann 2006b for a more precise statement).
tion effects while raising (which does involve A-movement) does, as the following contrast shows. Only the raising example is ambiguous (cf. e.g. Fox 1999).\textsuperscript{15, 16}

\begin{enumerate}[a.]
\item Someone from New York is likely to win in the lottery. \(\exists > \text{likely}; \text{likely} > \exists\)
\item Someone from New York tried/promised to win in the lottery. \(\exists > \text{tried}; \ast\text{tried} > \exists\)
\end{enumerate}

### 3.3 Obligatoriness of the resumptive

Under van Riemsdijk’s approach, the aboutness \textit{wo} is an adjunct that is independently (semantically) licensed. One would expect the same to hold for the \textit{wo} in long relativization. Interestingly, however, more seems to be necessary to license \textit{wo}: “long relativization” requires a resumptive pronoun in the embedded clause:

\begin{enumerate}
\item \textit{es [Resultaat]}, \textit{won i glaub, dass de Hans zfride isch *(de-}-mit)}
\item a result C I believe that the John satisfied is it-with
\end{enumerate}

\begin{enumerate}[a.]
\item ‘a result that I believe John is satisfied with’
\end{enumerate}

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:

\begin{enumerate}
\item \textit{De Chef isch zfride (de-}-mit).}
\item the boss is satisfied it-with
\end{enumerate}

\begin{enumerate}[a.]
\item ‘The boss is satisfied with it.’
\end{enumerate}

Omitting the PP-complement of the adjective does not affect the interpretation; there can still be an implication that the boss is satisfied with something. This optionality is not found in long-distance relativization in (20). This is unexpected if \textit{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 internet):

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\textsuperscript{15} Since \textit{wo} undergoes A’-movement in the matrix clause, we get a Parasitic Gap-like configuration. To the extent that Parasitic Gaps exist at all in Standard German (cf. Kathol 2001), they do not allow for reconstruction.

\textsuperscript{16} Another argument against a binding approach is anaphor binding in intermediate positions to be discussed in 4.2.
(22) *De Parteipresident hält bezüglich em Waalresultat bemerkt, dass* the party leader has concerning the election result remarked that

*mer s ganz offensichtlich nöt gerschaft hält, de Wäiler vo de äigene* one it quite obviously not managed has the voter of the own

*Idee z überzüüge.* 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 *quantificalional properties (so that (20) 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. (3).\(^{17}\) Rather, it suggests that something else is necessary to license the *wo*-constituent in long-distance relativization.

The problems reviewed in this section point towards a different implementation of van Riemsdijk’s (to appear) proposal. This is what I attempt in the next section.

4. Proposal: Long relativization as resumptive prolepsis

The previous section has shown that in order to get the right interpretation, we need a relative clause internal representation of the external head in both the matrix and the embedded clause. While the matrix representation is quite straightforward, the representation inside the embedded clause requires more machinery because (as we will see) the embedded clause is an island. I will propose an analysis reminiscent of *tough*-movement where there is operator movement inside the complement clause. This movement licenses an extra argument, the *bi*+DP constituent, which I will refer to as the proleptic object/constituent. This constituent is not directly related to the resumptive pronoun in the embedded clause. Rather, it is related via ellipsis to the operator in Spec, CP of the complement clause that binds the resumptive, thereby making an alternative strategy for reconstruction available. The *bi*+DP constituent undergoes *A*-movement in the matrix clause and can be deleted in the operator position, partially due to the locative origin of the relative complementizer. The presence of a resumptive pronoun follows from a constraint that requires specific chains to be phonetically realized in ZG. The entire structure represents what I call “resumptive prolepsis”.

\(^{17}\) Put more carefully, *wo* is an operator that binds the variable it leaves in the matrix clause, but it does not require an additional variable such as the resumptive pronoun.
4.1 The derivation in the matrix clause: Against a phrasal wo

In this first subsection, I will argue that there is no phrasal wo in “long relativization” and aboutness relatives and possibly even in locative relatives.

4.1.1 C-wo makes deletion of locative Ps recoverable

The SCO effects and the reconstruction effects into the matrix clause discussed in 3.1 show that there has to be a representation of the external head inside the matrix clause. I propose that instead of bare wo, we find a full copy of the external head, governed by the preposition bi ‘at’ which we find in the base construction, cf. (8b). The entire PP undergoes A’-movement to Spec, CP of the matrix clause. The copy of the external head is PF-deleted under identity with it;\(^\text{18}\) the preposition is also PF-deleted because the complementizer wo, due to its locative origin, makes the deletion of locative and aboutness prepositions recoverable. As a consequence, there is no phonetic realization of the bi-PF.\(^\text{19, 20}\)

\[\text{de Maa}_i, [_{cp} \ bi \ Op \ Maa_i]_j \ \text{won} \ i \ [bi \times Maa_i]_j \ \text{tänke}, \ \text{dass er}_i \intellig\text{int isch} \]

\text{intelligent is}

‘the man who I think is intelligent’

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\(^{18}\) To be more specific, I assume a Matching Analysis (e.g. Sauerland 1998, 2003; Citko 2001) for ZG relative clauses. I cannot discuss the full range of facts that motivate this analysis for ZG for reasons of space. Very briefly, it has been pointed out in Heck (2005) that the Head Raising Analysis is confronted with serious problems when applied to Standard German (among other things, it leads to wrong case assignment on the external head and violates the CED); these objections apply to ZG as well. At the same time, a pure Head External Analysis that only has an empty operator inside the relative clause cannot capture the reconstruction effects (Bhatt 2002). The Matching analysis avoids the problems of the Head Raising Analysis and manages to handle the reconstruction effects (Bhatt 2002; Citko 2001). Furthermore, as we will see in 4.4.1 below, it allows a straightforward explanation of the non-reconstruction for Principle C.

\(^{19}\) The external D is never reconstructed in relative clauses (cf. Bianchi 1999; Bhatt 2002). For reasons of simplicity, I represent the relative operator as an empty operator. It might just as well be a relative pronoun that is deleted, but in the absence of any evidence for this, I will stick to the more innocuous choice.

\(^{20}\) The following representations encode both LF and PF. Outline indicates PF-deletion. strikethrough LF-deletion. The restriction of the operator is LF-deleted and only retained in the base position, in accordance with the Preference Principle (Chomsky 1995). The copy left by the operator itself is converted into a variable.
This assumption yields the desired result for the SCO effects and the reconstruction data: 

\[(24)\] a. *de \([Maa]\), \([\text{CP} \quad \text{bi Op } Maa]_i \text{ won } er_i [\text{bi } x \text{ Maa}]_j \text{ t"ankt, dass} \]
the man at Op man C he at man thinks that
\[\text{en}_i \quad \text{k"ane gern.h"at} \]
him no.one likes
lit.: ‘the man; who; he; thinks no one likes’
b. s \([\text{Bild } vo \text{ s"i"ch}]_k\), \([\text{CP} \quad \text{bi Op } [\text{Bild } vo \text{ s"i"ch}]_j]\) wo de
the picture of self at Op picture of self C the
\[\text{Peter}, [\text{bi } x \text{ Bild } vo \text{ s"i"ch}]_j \text{ } \text{findt, dass es } \text{guet gglunge } \text{isch} \]
Peter at picture of self finds that it good turned.out is
‘the picture of himself; that Peter; thinks turned out good’

In both cases, there is a representation of the external head inside the relative clause, which explains why we get SCO effects and why reconstruction is possible. The following triple illustrates schematically to what extent the complementizer \(\text{wo}\) makes the PF-deletion of prepositions recoverable in normal relatives where the relativized constituent originates in an oblique position:

\[(25)\] a. \(\text{the city } [\text{CP } [\text{in the city}]_i \text{ wo I have } [\text{in the city}]_j \text{ lived} \)
b. \(\text{the weather } [\text{CP } [\text{bi the weather}]_i \text{ wo one } [\text{bi the weather}]_j \text{ should stay home} \)
c. \(\text{the man } [\text{CP } [\text{with the man}]_i \text{ wo I have } [\text{with him}]_j \text{ talked} \)

In (25a–b) locative and aboutness prepositions are recoverable. (25c) shows that with other, semantically more specific prepositional relations, deletion is not recoverable. As a consequence, the preposition has to be realized (together with a resumptive pronoun).  

4.1.2 Alleged phrasal wo does not pattern with other adverbial relatives

There is further evidence that the alleged phrasal wo does not exist: It can be shown that locative relatives fail to pattern with other adverbial relatives which employ a

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21. The external head is LF-deleted when it contains material that is not licensed there such as anaphors, bound variables or idiomatic NPs, elements which I refer to as elements with a positive licensing requirement. Elements which are licensed in the external head (e.g. R-expressions) need not be deleted. A more explicit version of the deletion system assumed here is found in Salzmann (2006b).

22. One may wonder why the preposition is realized in the base position and not upstairs. Since I have assumed that PF-deletion of the constituent in Spec, CP is obligatory, the lower copy is the only possible chain link for the preposition to be realized. The presence of the resumptive follows either from the assumption that oblique case needs to be realized or the ban against preposition stranding in ZG, cf. Salzmann (2006a, 2006b).
phrasal relative adverb that is not PF-deleted. Those adverbial relatives allow the C position to be filled with the declarative complementizer dass ‘that’:

(26) a. de Grund, werum dass de Peter z spat choo isch the reason why that the Peter too late come is ‘the reason why Peter came late’

b. D Art, wie dass de Peter s Problem gglööst hät, hät mi the way how that the Peter the problem solved has has me beindruckt.

impressed ‘The way Peter solved the problem impressed me.’

Interestingly, with locative wo a declarative complementizer is much worse:

(27) De Ort, wo (??dass) er wont, will er niemertem verrate. the place where that he lives wants he nobody.DAT tell ‘He does not want to reveal to anybody the place where he lives.’

Crucially, when we look at the phrasal wh-adverb wo, we find no such restriction. This suggests that the deviance of (27) is not a property of phrasal wo as such:

(28) Ich wäiss nöö, wo dass er 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.

23. Admittedly, the deviance of (27) also 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. An anonymous reviewer 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 adverbal relatives separate.

24. 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 (26b) unexplained. I will leave this for further research.
4.2 Reconstruction into an opaque domain?

The most intricate aspect of “long relativization” in ZG are arguably the data that show reconstruction into the embedded clause (18). Since there is a base construction with the aboutness constituent in the matrix clause, a direct movement relationship from the embedded clause is unlikely. In fact, the complement CP even turns out to be an island for extraction. The following triple first illustrates the base sentence with an aboutness constituent (29a); (29b) shows argument extraction from the aboutness construction and (29c) shows argument extraction from a normal complement clause:

(29) a. Ich hoffe bim Leerer Müller, dass er em Hansli e gueti
I hope at.the teacher Müller that he the.DAT John a good
Noote git.
grade gives
‘I hope about teacher Müller that he will give little John a good grade.’

b. *Welem Schüeler; hoffsch bim Leerer Müller, dass er ti e
which.DAT student hope.2s at.the teacher Müller that he a
gueti Noote git?
good grade gives
lit.: ‘Which student do you hope about teacher Müller that he will give a
good grade?’

c. [Welem Schüeler; hoffsch, dass de Leerer Müller ti e gueti
which.DAT student hope.2s that the teacher M. a good
Noote git?
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 (30a) with adjunct extraction from a normal complement clause (30b):

(30) a. *Werum; glaubsch bim Peter, dass er d Marie ti wett hüraate?
why think.2s at.the Peter that he the Mary wants marry
‘Why do you think about Peter that he wants to marry Mary?’

b. Werum; glaubsch, dass de Peter d Marie ti wett hüraate?
why think.2s that the Peter the Mary wants to marry
‘Why do you think that Peter wants to marry Mary?’

Argument extraction is strongly degraded in the aboutness construction; adjunct extraction is impossible. (30a) only has a matrix construal. No such restrictions obtain with extraction from normal complement clauses. Argument and adjunct extraction are both fine, (30b) allows both matrix and embedded construal.

This constitutes a paradox: There is reconstruction into a domain from which extraction is impossible. One possible way out would be to assume that recon-
struction is done via binding (perhaps Chain Binding along the lines of Barss 1986). However, this does not work because there is reconstruction into intermediate positions:\textsuperscript{25}

(31) \textit{s [Bild \ vo sich\textsubscript{i,j}], won \ i \ glaube, \ [\textsubscript{cp} dass \ de \ Peter\textsubscript{i} \ z.Unrecht the picture of self \ C \ I \ think.Is \ that \ the \ Peter \ wrongly \ tänkt \ [\textsubscript{cp} dass d \ Marie; \ \textsubscript{s_k} lässig \ findt ]] \ \text{thinks \ that \ the \ Mary \ it \ cool \ finds \ lit.: 'the picture of him\textsubscript{i,-}/herself\textsubscript{j} that I believe Peter\textsubscript{i} wrongly thinks that Mary\textsubscript{j} likes'}

The reflexive can be bound by different subjects. Given our assumptions about reconstruction, this implies that there must be an additional representation of the external head inside the relative clause. In addition to the copy in the base position, there must be at least another one in the intermediate Spec, CP position so that binding by \textit{Peter} is possible. The copies are indicated in the following representation:

(32) \textit{s [Bild \ vo sich\textsubscript{i,j}], won \ i \ glaube \ [\textsubscript{cp} dass \ de \ Peter\textsubscript{i} \ z.Unrecht the picture of self \ C \ I \ think.Is \ that \ the \ Peter \ wrongly \ tänkt, \ [\textsubscript{cp} Bild \ vo sich\textsubscript{i,j} \ dass d \ Marie; \ Bild \ vo sich\textsubscript{i,j} \ \textsubscript{s_k} picture \ of \ self \ that \ the \ Mary \ picture \ of \ self \ it \ lässig \ findt ]] \ \text{cool \ finds \ lit.: 'the picture of him\textsubscript{i,-}/herself\textsubscript{j} that I believe Peter\textsubscript{i} wrongly thinks that Mary\textsubscript{j} likes'}

The external head can be interpreted in the lowest chain link or in the intermediate Spec, CP position. The latter possibility automatically rules out binding because an occurrence in that position can only result from movement. Once we need several copies inside the complement CP, we are effectively dealing with successive-cyclic movement.

Still, the paradox remains: We have reconstruction into an opaque domain; within that domain, we have evidence for successive cyclic movement up to the highest Spec, CP, but it is unclear what happens thereafter. The following section provides the first part of the answer.

\textsuperscript{25} Reconstruction into intermediate positions for anaphor binding has been disputed for Standard German, cf. Kiss (2003). I do not share this judgment, neither for Standard German nor for ZG even though intermediate binding indeed seems less straightforward than in English. See Salzmman (2006b) for detailed discussion.
4.3 Movement in the complement CP derives a predicate

I adopt the conclusion from the previous section that there is successive-cyclic A’-movement in the complement clause. This movement turns the CP into an open sentence as in tough-movement (Cinque 1990; Den Dikken/Mulder 1992). The CP is then merged with the matrix verb whereby a complex predicate is formed. 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. This is illustrated in the following figure:

![Diagram]

Crucially, the aboutness constituent is only licensed if there is operator movement in the complement. The preposition *bi* is needed to case-mark the DP. The choice of *bi* arguably follows from the semantics. Just like benefactive adjuncts are governed by *for* in English, aboutness phrases are governed by *bi* in ZG. For concreteness’ sake I assume that the proleptic constituent is adjoined to VP. Finally, the whole complex plus the little *v*, which inherits the external theta-role of the verb, is predicated of the syntactic matrix subject.

This gives us the right configuration: First, the verb and the complement clause form a constituent to the exclusion of the proleptic object; this is shown in the following asymmetry in VP-topicalization:

(34) a. *[Glaube, dass er intelligent *isch*], han i *bim* Peter *scho* believed that he intelligent is have.1s I at.the Peter *pRT immer* *tj,* always

‘I have always believed that Peter is intelligent.’

b. *[Bim Peter *glaube*], han i *scho* immer *tj*, dass er intelligent at.the Peter believed have.1s I *pRT* always that he intelligent *isch*.

is

---

26. The complex predicate is formed in the semantics or rather follows from the semantic interpretation of the syntactic structure. There is no syntactic complex predicate formation involving incorporation or the like. A detailed exposition of the semantics is beyond the scope of this paper; see den Dikken & Mulder (1992) or Rezac (2004) for implementations of tough-movement which in slightly modified form can be extended to the proleptic construction.
Second, the proleptic object can be shown to be base-generated below the syntactic subject. In the following example, I have made sure that the subject remains in the vP by using an (negative) indefinite and a modal particle that marks the vP boundary (Diesing 1992). In that position, the subject can bind a pronoun inside the proleptic object:

(35)  \( \text{dass doch käne, bi sim, Soon würd glaube, dass er en Verbrächer} \)
\( \text{that no one at his son would believe that he a criminal} \)
\( \text{isch} \)
\( \text{'that no one, would believe of his son that he is a criminal'} \)

Third, predication is known to be subject to a c-command requirement. The following example shows that the proleptic DP within the PP can c-command out of it because it licenses a Negative Polarity Item in the complement clause:

(36)  \( \text{Ich glaub bi käm Holländer, dass er au.numen äin Euro würd} \)
\( \text{I believe of a Dutchman that he even one Euro would} \)
\( \text{verschwände.} \)
\( \text{spill} \)
\( \text{'I believe of no Dutchman that he would spill even one euro.'} \)

C-command out of a PP is not infrequent and found for example in the following sentence:

(37)  \( \text{John thinks of Bill as silly.} \)

I take this to be sufficient evidence that there is the right c-command relationship for predication to be possible in the proleptic construction. The next subsection shows that this captures most of the major properties of “long relativization” in ZG.

4.3.1 Advantages

First, the operator movement approach explains the obligatoriness of the resumptive pronoun discussed and its coindexation with the aboutness-DP (inside the \textit{bi}-PP) in (20) under the assumption that the pronoun marks the tail of the Op-chain and thereby the variable. The absence of a resumptive implies absence of operator movement so that the proleptic object cannot be licensed.\footnote{27} Second, it explains the opacity of the CP-complement, as discussed in 4.2: operator movement creates a weak island. Third, it makes an alternative strategy for reconstruction available, under the assumption that what moves inside the complement CP is actually an operator with a full copy of the aboutness constituent. I will elaborate

\footnote{27} I will discuss in 4.5 why the chain link has to be overt.
on this in 4.4. Fourth, it is directly compatible with the absence of long-distance superiority discussed in (9). The proleptic object is base-generated in the matrix clause so that it can be freely reordered with respect to another wh-phrase in the matrix clause, as German does not show any short-distance superiority effects. The following subsection discusses strong parallels with tough-movement.

4.3.2 Parallels with tough-movement
I mentioned above that my approach is very similar to what has been proposed (by some) for tough-movement. This subsection shows that tough-movement behaves like the proleptic construction in a number of crucial ways.

First, the tough-subject is not independently licensed. As with resumptive prolepsis, it requires operator movement in the complement clause to be licensed. In the absence of a gap, ungrammaticality results:

(38) *This book is tough for the students to pass the exam. (Cinque 1990:153)

Second, the tough-clause is an island for extraction. The following examples illustrate this for argument and adjunct extraction (Rezac 2004:19, his (51a) and (50a)).

(39) a. *[Which violin]₂ is that sonata₁ hard to imagine you playing __₁ on t₂?
b. *[How intelligent]₂ is John₁ easy to think of __₁ as t₂?

Third, there is reconstruction of the tough-subject, mediated by operator movement (den Dikken/Mulder 1992:310n8):

(40) b. [Pictures of himself; nude] are tough for me to think that any man₁ would like __.  
a. [Pictures of his; wife nude] are tough for me to think hat any man₁ would show his friends __.

The correlations are striking and support the proposal advanced here. In 4.4.2 I will discuss further parallels between the two constructions.

28. There are certain complications with argument extraction because there is a strong contrast between nested and crossing dependencies. With another level of embedding as in the text, the result is straightforward. See Rezac (2004) for insightful discussion.

29. Since the tough-subject is not directly extracted from the infinitival CP, I indicate the position where it is interpreted via underline instead of trace notation.

30. These examples clearly show that reconstruction can go below the experiencer, contrary to what is (wrongly) claimed in Rezac (2004).
4.4 The link between the operator in the complement and the proleptic object: ellipsis

I have argued so far that operator movement instantiates an alternative strategy for reconstruction. However, it still needs to be explained how to get a full copy of the proleptic object, i.e. the DP within the PP, inside the complement CP, which, as we have seen, is an island. I argue that this comes about via ellipsis, a mechanism that has gained some popularity in the analysis of certain A′-movement types such as relativization (Sauerland 1998; Citko 2001) and comparatives (Lechner 1999). I mentioned in note 18 that I assume a Matching Analysis for ZG relative clauses: The copy of the external head in Spec, CP is deleted under identity with it. The same, I argue, happens to the operator in Spec, CP of the complement in resumptive prolepsis.

4.4.1 Arguments for ellipsis in resumptive prolepsis

There are two major motivations for an ellipsis analysis: First, there are often case-mismatches between the proleptic object and the operator in Spec, CP (the same holds for relative clauses, of course): the proleptic object is assigned dative by the preposition bi whereas the operator can receive any case. Ellipsis has been shown to be able to handle such mismatches systematically, as in the following sluicing example where we have accusative in the antecedent and nominative in the elided IP (Jeroen van Craenenbroeck p.c.):

(41) They told me to go, but I didn’t know when I should go

Second, we find Vehicle Change effects, another peculiar phenomenon associated with ellipsis, first discussed in Fienko & May (1994). It (originally) describes a mismatch in VP-ellipsis: An R-expression in the antecedent can correspond to a pronoun in the elided material:

(42) a. *John likes Mary, and she; does <like her,>, too
   b. John likes Mary, and she; knows that I do <like her,>, too

(42a) is ungrammatical despite Vehicle Change because of a Principle B violation. (42b), however, where one level of embedding is added, is grammatical. Crucially, it has been observed that the same correspondence seems to be possible between the external head of relatives and its representation in Spec, CP. Several researchers have pointed out that there seems to be no reconstruction for Principle C in restrictive relatives (Munn 1994; Sauerland 1998; Safir 1999; Citko 2001) as opposed to wh-movement. This is not only true of English relatives but also of ZG relative clauses:
(43) a.  s  [Fotti vom Peter]i, won er, tj am beschte findet
    the picture of the Peter C he the best finds
    ‘the picture of Peter; that he; likes best’

b. *[Weles Fotti vom Peter]i findet er, tj am beschte?
    which picture of the Peter finds he the best
    lit.: ‘Which picture of Peter; does he; like best?’

The issue is actually more complex than I can do justice to. Some speakers are
puzzled by examples like (43a) when first confronted with them. The coreference
is more easy to get if the subject is slightly stressed. This arguably has to do with
the somewhat exceptional anaphoric relation in this case, the antecedent not being
prominent enough (Bianchi 2004). Once this is taken into account, the sentences
are fine for practically all speakers, and there is a clear contrast between relativization
and wh-movement. 31 The influence of Vehicle Change is illustrated in the
following simplified LF-representation:

(44) s  [Fotti vom Peter]i, [cp [Op Fotti vo im]j, won er,]
    the picture of the Peter picture of he.DAT C he
    [x Fotti vo im]j am beschte findet]
    picture of he.DAT the best finds

This implies that the binding relationship is the same as in the following sentence:

(45) Erj findet [das Fotti vo im]j am beschte.
    He finds that picture of him the best
    ‘He likes this picture of him best.’

In ZG (and also Standard German, cf. Kiss 2003) pronouns and reflexives are more
or less in free variation in picture nouns, and this is exactly why Vehicle Change
leads to an alleviation of Principle C effects.

The crucial observation is that the same lack of reconstruction for Principle C
is found with the proleptic construction as well:

(46) s  [Fotti vom Peter]i, won i tj glaub, dass erj s, tj am beschte findet
    the picture of the Peter C I think that he it the best finds
    ‘the picture of Peter; that I think he; likes best’

31. There seem to be cases where material contained in wh-moved arguments fails to recon-
to find the corresponding (Standard/Zurich) German examples relatively bad, though. Fischer
(2004) discusses antireconstruction for Principle C in Standard German and arrives and par-
tially different generalizations. For my purposes, it is sufficient to assume that wh-movement
and relativization differ systematically with respect to reconstruction for Principle C, and this
seems to be generally agreed upon (Safir 1999; Sauerland 2003). See Salzmann (2006b) for
detailed discussion of this issue.
However, this does not yet provide evidence that there is ellipsis between the proleptic object and the operator in Spec, CP because the Vehicle Change effect could also be due to Vehicle Change in the matrix clause where the external head is also related to the operator in Spec, CP via ellipsis (under the Matching Analysis). Fortunately, this ambiguity can be avoided: The proleptic construction is also possible with wh-movement or topicalization in the matrix clause where the possibility of Vehicle Change in the matrix clause can be ruled out. Crucially, we find the same obviation of Principle C effects:

(47) a. [\text{[Bi} \dem Fotti \vom \text{Peter}_i, \text{]_j glaub} i \text{t}_j \text{sofort, dass} \text{er}_i s_k \text{guet \ findt.}\]

he it good finds
lit.: ‘This picture of Peter, I immediately believe that he, likes.’

b. [\text{[Bi} \welem Fotti \vom \text{Peter}_i, \text{]_j glaub}sch \text{t}_j \text{dass er}_i s_k \text{guet findt?}\]

finds
lit.: ‘Which picture of Peter, do you think that he, likes?’

Here, the lack of Principle C effects can only be due to Vehicle Change between the proleptic object and the DP in Spec, CP of the embedded clause as shown in the following LF-representations:

(48) a. [\text{[Bi} \dem \text{Peter}_i, \text{]_j glaub} i \text{Bi} [x Fotti \vom}

at this picture of the Peter think.1s I at picture of the
Peter \_j sofort, [\text{Op \text{Peter}_i, \text{]_j dass er}_i [x Fotti vo}

Peter at.once picture of him that he picture of
im}_j s_k \text{guet \ findt}]

him it good finds

b. [\text{[Bi} \welem \text{Peter}_i, \text{]_j glaub}sch, [\text{Bi} [x Fotti \vom}

at which picture of the Peter think.2s at picture of the
Peter \_j [\text{Op \text{Peter}_i, \text{]_j dass er}_i [x Fotti vo im}_j s_k}

Peter picture of him that he picture of him it
guet findt?

good finds

The argument for Vehicle Change can be strengthened even more: there are cases in German, where a pronoun cannot serve as a coreferential element inside a
picture noun. Instead, a reflexive is needed. These cases involve semi-idiomatic expressions and collocations such as the following:\textsuperscript{32}

\begin{enumerate}
\item a. \textit{Er} h\text{ä}t e unschm"{a}ichelhafti \textit{M"{a}ning} vo \textit{im/siich}, he has a unflattering opinion on him/self
\item \textit{He}; has an unflattering opinion of *him/himself;’.
\end{enumerate}

\begin{enumerate}
\item b. \textit{Er} h\text{ä}t es \textit{Portr"{a}t} vo \textit{im/siich}; ggm\textae{}et. he has a portrait of him/self painted
\item \textit{He}; painted a portrait of *him/himself;’.
\end{enumerate}

Crucially, once we test reconstruction for Principle C with such expressions (in normal restrictive relatives), the result is ungrammatical:

\begin{enumerate}
\item a. \textit{*D} \textit{[M"{a}ning vom \textit{Peter},]} t\text{\textsubscript{j}} h\text{\text{"{a}}}t, isch unschm"{a}ichelhaft
\item the opinion of the Peter C he has is unflattering
\item lit.: ‘The opinion of Peter\textsubscript{;} that he\textsubscript{;} has is unflattering.’
\end{enumerate}

\begin{enumerate}
\item b. \textit{*S} \textit{[Portr"{a}t vom \textit{Peter},]} t\text{\textsubscript{j}} ggm\textae{}et h\text{\text{"{a}}}t, isch
\item the portrait of the Peter C he painted has is
\item unvorta\textae{}lhaft.
\item unfavorable
\item lit.: ‘The portrait of Peter\textsubscript{;} that he\textsubscript{;} painted is unfavorable.’
\end{enumerate}

This follows under an ellipsis approach because the Vehicle-Changed structures correspond to the base structures with pronouns in (49) as illustrated in the following representations:

\begin{enumerate}
\item a. \textit{*D} \textit{[M"{a}ning vom \textit{Peter},]} \textit{[cp \textit{Op M"{a}ning vo im},]} t\text{\textsubscript{j}} h\text{\text{"{a}}}t, isch unschm"{a}ichelhaft
\item the opinion of the Peter C he
\item opinion of him has is unflattering
\item lit.: ‘The opinion of Peter\textsubscript{;} that he\textsubscript{;} has is unflattering.’
\end{enumerate}

\begin{enumerate}
\item b. \textit{*S} \textit{[Portr"{a}t vom \textit{Peter},]} \textit{[cp \textit{Op Portr"{a}t vo im},]} t\text{\textsubscript{j}} ggm\textae{}et h\text{\text{"{a}}}t, isch unvorta\textae{}lhaft.
\item the portrait of the Peter C he
\item portrait of him painted has is unfavorable
\item lit.: ‘The portrait of Peter\textsubscript{;} that he\textsubscript{;} painted is unfavorable.’
\end{enumerate}

The same is found with the proleptic construction (illustrated with topicalization in the matrix clause to rule out interfering Vehicle Change in the matrix clause):

\textsuperscript{32} The lack of free variation has been attributed to a coreferential implicit PRO inside the picture NP, cf. Reinhard & Reuland (1993:685).
Long relativization in Zurich German as resumptive prolepsis

(52) a. *[Bi [dere Mänig vom Peter]_j] glaub i nöd t_i, dass er_i s_k at this opinion of the Peter think.Is I not that he it hätt. has
lit.: ‘This opinion of Peter, I do not believe that he_i has.’

b. *[Bi [dem Porträt vom Peter]_j] glaub i nöd, dass er_i s_k at this portrait of Peter believe.Is I not that he it
ggmaalet hätt. painted has
Lit.: ‘This portrait of Peter, I do not believe that he_i painted.’

The parallelism between normal relativization and resumptive Prolepsis is striking and lends strong support to the ellipsis approach. See Salzmann (2006b) for more detailed discussion.

4.4.2 Ellipsis in tough-movement
The parallels with tough-movement extend to the side-effects of ellipsis as well, thereby lending further support to the proposal advanced here and providing a new handle on reconstruction in tough-movement.

First, it was noted in Wilder (1991:123) that apart from mismatches in structural case (the tough-subject bears nominative case while the gap is assigned accusative case), there are more drastic mismatches as in the following pair:

(53) 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.

The grammaticality of (53a) is surprising if there is a movement relationship between the tough-subject and the gap, given the ungrammaticality of (53b). Here, the difference is no longer one of structural case (nominative vs. accusative), but between a PP and a DP. As with the proleptic construction, such a mismatch can be handled by ellipsis only.

Second, we find the same absence of reconstruction for Principle C (Munn 1994:403):

(54) [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 infinitival clause:33

(55) Pictures of John_i are [CP [pictures of him]_i] hard for him_i to like [pictures of him]_i].

Interestingly, we also find a class of exceptions (idiom-like expressions etc.) were there seems to be reconstruction for Principle C:

(56) *\([\text{Pictures of } \text{John}_i]\) are hard for \(\text{him}_i\) to take __.\)

Crucially, the ungrammaticality follows under a Vehicle Change approach as well because the Vehicle-Changed basis is bad: the expression *take a picture* only allows reflexives just like the German cases in (49).\(^{34}\)

(57) \(\text{John}_i\) took pictures of *\(\text{him}_i/\text{himself}_i\).\)

### 4.4.3 Summary

The ellipsis approach advocated here nicely captures crucial properties of both *tough*-movement and resumptive prolepsis and unifies the two constructions in relevant respects. The derivation in resumptive prolepsis is schematically shown below:\(^{35}\)

(58) 

```
\[
\begin{array}{c}
\text{[CP} \\
\text{P[DP}_i\text{]} \\
\text{V[CP}_i\text{DP}_i\text{]} \\
\text{subject} \\
\text{predicate} \\
\text{predication}
\end{array}
\]
```

4.5 Why a resumptive?

So far, one crucial asymmetry between the proleptic construction and *tough*-movement has not been addressed: The presence/absence of a (resumptive) pronoun in the complement clause.

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34. Cf. Munn (1994:402) for a different interpretation of these facts.

35. One of the reviewers has correctly pointed out that it is not innocuous to assume that a PP-internal DP can be the antecedent of a DP in ellipsis. Since DP ellipsis is rather rare in the first place, it is somewhat difficult to provide independent evidence for the ellipsis operation proposed here. Apart from syntactic amalgamations, which have been claimed to involve DP-ellipsis (Lakoff 1974), the only instance of DP-ellipsis in ZG I can think of is topic drop, i.e. ellipsis of a topical element in the prefield (\(\text{Spec, CP}\)). Topic drop is indeed possible if the antecedent is governed by a grammatical preposition, just like *bi* in the proleptic construction (the dropped topic appears in outline):

(i) Häsch a de Mantel tänkt? – Ja, \[de Mantel\] han i debii. 

having.2s at the coat thought yes, the coat have I with.me 

‘Did you think of the coat? Yes, I have it with me.’
The fact that we find resumptive pronouns across the board in ZG resumptive prolepsis is surprising in itself because ZG does not require resumptives for subjects and objects in local relativization, cf. 1.2. Nor does it require resumptive pronouns in wh-movement or topicalization. In a first step, it is reasonable to assume a constraint that bars phonetic realization of more then one chain link in (ZG) A’-movement (cf. Merchant 2004 for a similar idea). This correctly rules out a resumptive in those cases where the operator/highest chain link is overt, as in wh-movement, free relatives and topicalization. The next step is then to explain why in certain cases a chain link must be overt.36 Cases like (1c–d) can be handled by the requirement to spell out oblique case (Bayer et al. 2001; Salzmann 2006a), but this still leaves subject and direct object resumptives in long-distance relativization unexplained.

The solution I would like to propose is based on the specificity of the chain. Cinque (152f.) has argued convincingly that operator movement chains are specific. This certainly holds for the proleptic construction which requires D-linked proleptic objects (cf. Salzmann 2006b). Bianchi (2004) in turn has pointed out that resumption is crosslinguistically most frequent with and often limited to specific chains. Consequently, there must be a spell-out constraint in ZG that requires the lexicalization of specific chain links.

In ZG there are three types of A’-dependencies without overt operator: Local relative clauses, comparatives and resumptive prolepsis constructions. Only one of them, the proleptic construction, features a specific chain and resumptives across the board. Comparatives abstract over degrees and therefore certainly do not involve a specific/referential dependency; the same holds for restrictive relatives, where what is left behind is simply a (nonreferential/nonspecific) variable.37

This gives us the desired result. It does not yet explain why spelling out the trace is illicit in tough-movement, which, of course, also involves a specific chain, cf. Cinque (1990:152f.). I believe that there is nothing particularly insightful to say about this because languages can differ in partially arbitrary ways when it comes to

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36. I have assumed without argument that a pronoun can be the spell-out of a full copy. Why this should be so is generally poorly understood. Spelling out a full copy is arguably ruled out for reasons having to do with linearization, cf. Nunes (2001). Spelling out only a pronoun could be a consequence of the features left behind after copying as in van Koppen (2004). A Big-DP approach as e.g. in Boeckx (2003) (which was proposed for the equivalent in Standard German in Salzmann 2005) is a possibility as well. Its major drawback for the data at hand is the fact that it is no longer easy to state the incompatibility of overt operators (wh, top) and resumptives. See Salzmann (2006b) for extensive discussion of the issue spell-out vs. Big-DP.

37. It remains somewhat unclear how local non-restrictive relatives in ZG fit in because they have been argued to instantiate specific chains yet show the same spell-out possibilities as restrictives. I leave this for future research.
the spell-out options of chains.\textsuperscript{38} On a general level, ZG is a language that in principle allows resumptive pronouns whereas English is not. All we find in English are intrusive pronouns, which occur in islands to repair otherwise illicit extractions, cf. Chao & Sells (1983). Since the extraction site of tough- movement is a transparent domain, a resumptive is not expected.

In ZG resumptive pronouns occur in specific chains without overt operator in all positions (resumptive prolepsis), in non-specific chains without overt operator only in oblique positions to realize oblique case (local relativization, comparatives). In English, resumptives only (marginally) occur inside islands to repair locality violations.

5. A remaining issue: Locality and reconstruction

The approach sketched here is confronted with one serious problem that was first mentioned in (10), the insensitivity of “long relativization” to locality constraints, a property that follows straightforwardly from van Riemsdijk’s (to appear) binding approach.

Since other types of A’-movement in ZG are sensitive to those constraints, the insensitivity of resumptive prolepsis comes as a surprise. One initial possibility can be ruled out: A base-generation approach with the operator binding the pronoun (what Aoun et al. 2001 refer to as true resumption) cannot be correct because one finds reconstruction effects for both anaphors and bound pronouns even into strong islands, as the following examples show (islands appear in angled brackets):

\begin{enumerate}
\item \begin{enumerate}
\item \texttt{S [Bild vo siich\textsubscript{i}], wo all lached, < wann de Peter; sj, the picture of self C everyone laughs if the Peter it z"aget>, isch i de Stube. shows is in the lounge lit.: ‘The picture of himself, that everyone laughs when Peter; shows it, is in the lounge.’}
\item \texttt{Das isch s [Buech "uber siich\textsubscript{i}], won I find, dass d < Art, that is the book about self C I find.1s that the way wie de Peter; sj vermarktet>, gruusig isch. how the Peter it promotes disgusting is}
\end{enumerate}
\end{enumerate}

\textsuperscript{38} For instance, nobody asks why Hebrew employs resumptives in relativization. Rather, resumption is an option in the language and is employed in some parts of the A’-syntax. Once we accept the fact that resumption is an option in ZG (and Standard German), the resumptive prolepsis analysis can be fruitfully extended to other constructions like Copy-Raising. See Salzmann (2006b) for discussion.
lit.: ‘This is the book about himself, that I think that the way Peter promotes it is disgusting.’

c. De [Abschnitt von sim; Läbe], won i glaub, dass < d
the period of his life C I think. Is that the
Erfarige, wo jede Bueb; dej-bi macht,> seer unterschiedlich
experiences C every boy it-with makes very different
sind, isch d Pubertät.
are is the puberty
lit.: ‘The period of his life that I think that the experiences that every boy makes during it, are very different, is puberty.’

Even more spectacularly, there is evidence for reconstruction into intermediate positions:

(60) s  [Buech über sich[i/k]], won i glaub, dass de Hans < d Art,
the book about self C I think. Is that the John the way
wie de Peter, sj vermarktet, > grusig findet>, . . .
how the Peter it promotes disgusting finds
lit.: ‘the book about himself[i/k] that I think that John finds the way Peter promotes it disgusting’

This example is ambiguous and suggests that there are several copies of the external head inside the complement clause, one of them in a CNPC island. This implies that there is successive-cyclic movement out of the island. Even if there is a way of doing reconstruction without movement, cases like (60) will remain unaccounted for and call for a movement approach.

A precise explanation of why movement out of islands is possible in this case is beyond the scope of this paper (but see Salzmann 2006b for detailed discussion). I will simply offer a tentative idea: It seems necessary to attribute the possibility to void locality constraints to the resumptive. I would like to suggest that an overt pronoun repairs an otherwise illicit chain (just like PF-deletion in sluicing can repair deficient chains, cf. Merchant 2001). This implies that (at least some aspects of) locality are checked at PF. The fact that it is normally the lowest copy that is spelled out appears problematic because this is not always the offending copy. Quite often, the offending copy is higher up, the position from which movement out of the island takes place (i.e. normally a Spec, CP position). In other words, a resumptive does not repair a particular copy, but the entire chain. The fact that the lowest copy is chosen arguably follows from some principle that favors structures which are treated identically by both the PF and the LF interface (similar to the notion “Minimize Mismatch” in Bobaljik 2002). The lowest copy is always relevant for theta-role assignment and in many cases for the interpretations of restrictions of quantifiers.
Importantly, the possibility to save island violations with a resumptive is restricted by the constraint introduced above that prevents spelling out more than one chain link. Accordingly, island violations can only be overcome in resumptive prolepsis and comparatives (see Salzmann 2006b for discussion of the latter), but not in *wh*-movement or topicalization (see Merchant 2004 for similar reasoning). \(^{39}\)

6. Resumptive prolepsis in Standard German and Dutch

I mentioned in 2.3 that long relativization in ZG instantiates a more abstract version of a construction that functions as an alternative to long-distance relativization in both Standard German and Dutch. In that construction, the proleptic object (in form of a relative pronoun) is governed by the preposition *von/van* ‘of’ and in German sometimes by *bei* ‘at’.\(^{40}\) The *of*-PP is base-generated in the matrix clause and undergoes short A’-movement. There is no locative relative complementizer so that deletion of the preposition would be irrecoverable and as a consequence it is retained. In the complement clause, we find a resumptive, as in ZG.\(^{41}\)

\begin{align*}
\text{(61) a. } & \text{ein Maler, von } \text{dem;} \quad \text{ich glaube, dass Petra } \text{ihn;} \quad \text{mag} \\
& \text{a painter of who.DAT I think that Petra him likes} \\
& \text{‘a painter who I think that Petra likes’}
\end{align*}

\(^{39}\) I should point out that the facts discussed here are also directly compatible with Boeckx’ (2003) model where island-insensitivity is a side-effect of resumption. A detailed evaluation of that complex approach is unfortunately beyond the scope of this paper. See Salzmann (2006b) for discussion.

\(^{40}\) It is not fully clear what governs the distribution of *von* and *bei* in German. They tend to be in complementary distribution, *bei* e.g. being the preference with reflexives, but due to a lot of speaker variation, the picture is somewhat murky. See Salzmann (2006b) for detailed discussion.

\(^{41}\) In German, regular long-distance relativization is unacceptable for most speakers. In Dutch, the situation is less clear. For many speakers, both constructions are equally available while for others there is a certain preference for the proleptic construction. There is some evidence (Lühr 1988:79) that prescriptive pressure in the 18th and 19th century gave rise to this construction in German. Long A’-movement (referred to as *Satzverschränkung* ‘sentence inter-leaving’) was considered illogical in those sources. Nowadays, the construction is pretty much grammaticalized and extremely frequent. It is surprising in this light that ZG uses a construction that was forced by prescriptivists since it is well-known that dialects are normally immune to such pressure. It is indeed the case that in other German dialects long relativization (with or without relative pronouns and without resumptives) is unproblematic, cf. e.g. Swabian or Hessian German (Schmitt 2005). Interestingly, however, *wo*-relativization of the ZG type is more widespread than is usually thought. In less formal registers of Standard German, it is a frequent albeit stigmatized alternative to the *of*-version of the proleptic construction:
b. *het boek waarv-
vand ik denk dat Piet het leuk vindt
the book which- of I think that Peter it cool finds
‘the book I think Peter likes’

Since a full discussion of the German and Dutch facts is beyond the scope of this paper (but see Chapter 3 of Salzmann 2006b) I will simply illustrate the two crucial paradoxical properties of the construction: opacity of the CP-complement and reconstruction into that complement. The first pair illustrates reconstruction for variable binding and Principle A:

(62) a. *Die [Periode seines, Lebens], von der, ich glaube, dass keiner
the period his.gen life.gen of which I believe that no one
gerne daran denkt, ist die Pubertät.
likes to about-it thinks is the puberty
‘The period of his life I think no one likes to remember is puberty.’
b. *das [Bild von sich], von dem, ich glaube, dass Peter, es mag
the picture of self of which I believe that Peter it likes
‘the picture of himself, that I think Peter likes’

The following pair illustrates argument and adjunct extraction from the complement CP:

(63) a. Ich glaube von Hans, dass er jedem Schüler gute Noten gibt.
I believe of John that he every.dat student good grades gives
‘I believe of John that he gives every student good grades.’
b. *Welchem Schüler, glaubst du von Hans, dass er gute Noten
gibt?
which student think you of John that he good grades
gives
‘Which student do you think John gives good grades?’
c. *Warum, glaubst du von Hans, dass er Peter gute Noten gibt?
why think you of John that he Peter good grades gives
‘Why do you think John gives Peter good grades?’

(i) Bin jetzt in Amerika [jemand] auf der Spur, wo ich vermute, dass er
am now in America somebody on the trace wo I suspect that he
ebenfalls mit meiner Familie verwandt sein könnte.
ealso 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

This implies that the wo-strategy is probably used in the entire German speaking area and can be considered a generally unmarked strategy for long-distance relativization. Its appearance in ZG is therefore not problematic: ZG simply uses an unmarked option.
7. Conclusion

Long relativization in ZG is a particularly interesting construction because it has paradoxical properties. There are reconstruction effects into the complement clause, but at the same time, there is clear evidence that the complement clause is a barrier and that the proleptic object originates in the matrix clause. The resumptive prolepsis approach presented here manages to reconcile these conflicting properties. Operator movement in the complement clause turns the complement into a predicate and licenses an extra argument, the proleptic object. This predication analysis makes an alternative reconstruction strategy available as in tough-movement and accounts for the opacity of the complement. The link between the proleptic object and the operator in the complement clause is an ellipsis operation. Together with concomitant Vehicle Change effects this nicely explains the intricate Condition C pattern in both the proleptic construction and in tough-movement.

On a more theoretical level, this approach suggests a straightforward way of handling such exceptional and hitherto ill-understood cases of reconstruction within a theory that makes crucial use of full copies of the antecedent. It unifies resumptive prolepsis with tough-movement in crucial respects and thereby provides a fresh look at the latter.

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