

Extraposition Myth Busting

Jan Strunk

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Outline of the Talk

- Introduction
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- Constraints on extraposition
 - Right Roof Constraint
 - Subclausal locality constraints (Subjacency)
 - Restrictive vs. appositive relative clauses
 - “Indefiniteness” constraint
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 - Alleged differences between English and German

Introduction:
Relative Clause Extraposition
in English and German

Relative Clause Extraposition - English

- Integrated relative clause (“in situ”)

I met [_{DP} a girl [_{RC} who looked like you]] yesterday

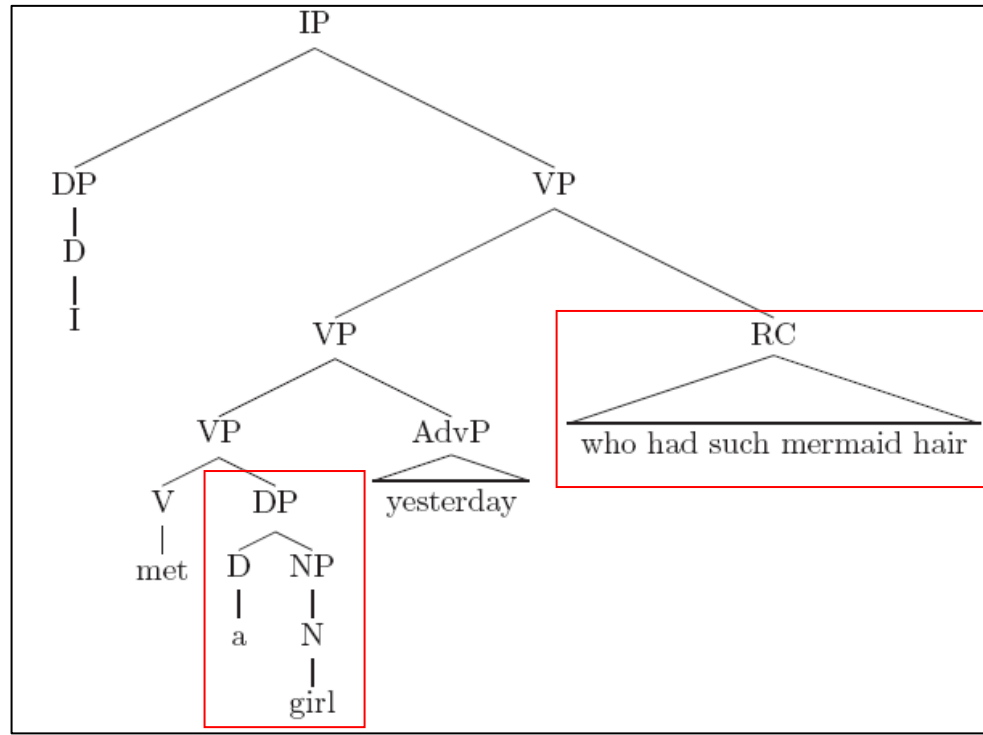
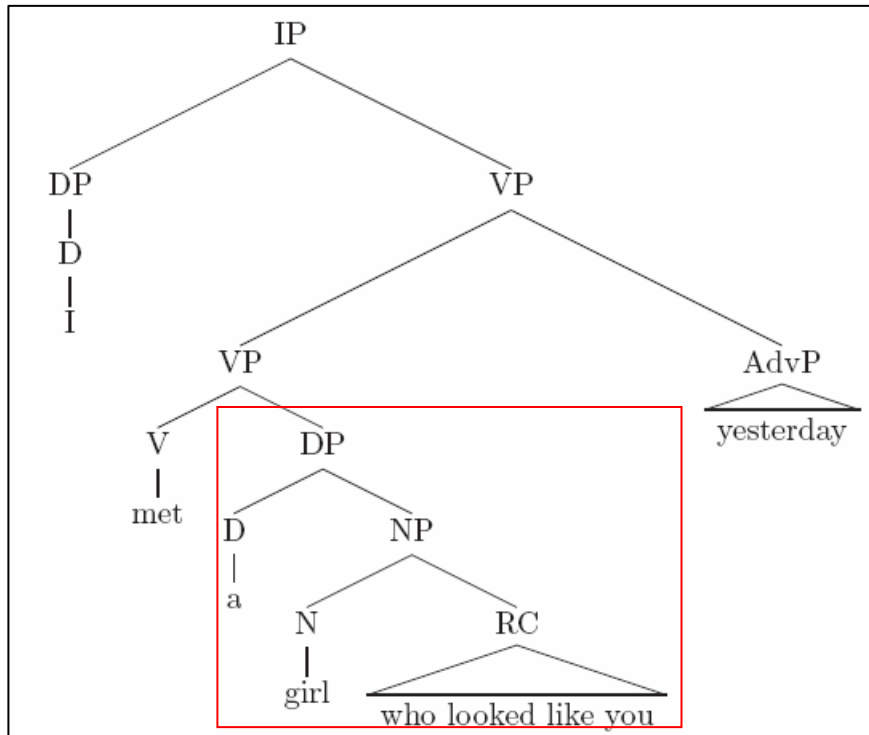
(profile.myspace.com/index.cfm?fuseaction=user.viewprofile&friendid=21174003, 03/11/2007)

- Extraposed relative clause

I met [_{DP} a girl t] yesterday [_{RC} who had such mermaid hair]

(profile.myspace.com/index.cfm?fuseaction=user.viewprofile&friendid=16025622, 03/11/2007)

Relative Clause Extraposition - English



Relative Clause Extraposition - German

- Integrated relative clause (“in situ”)

Ich habe [_{DP} *alle diesbezüglichen* *Threads* [_{RC} *die ich finden konnte*]] *gelesen*

I have all relevant threads that I find could read

‘I have read all relevant threads that I could find.’

(www.rcforum.de/ftopic6950.html, 03/11/2007)

- Extraposed relative clause

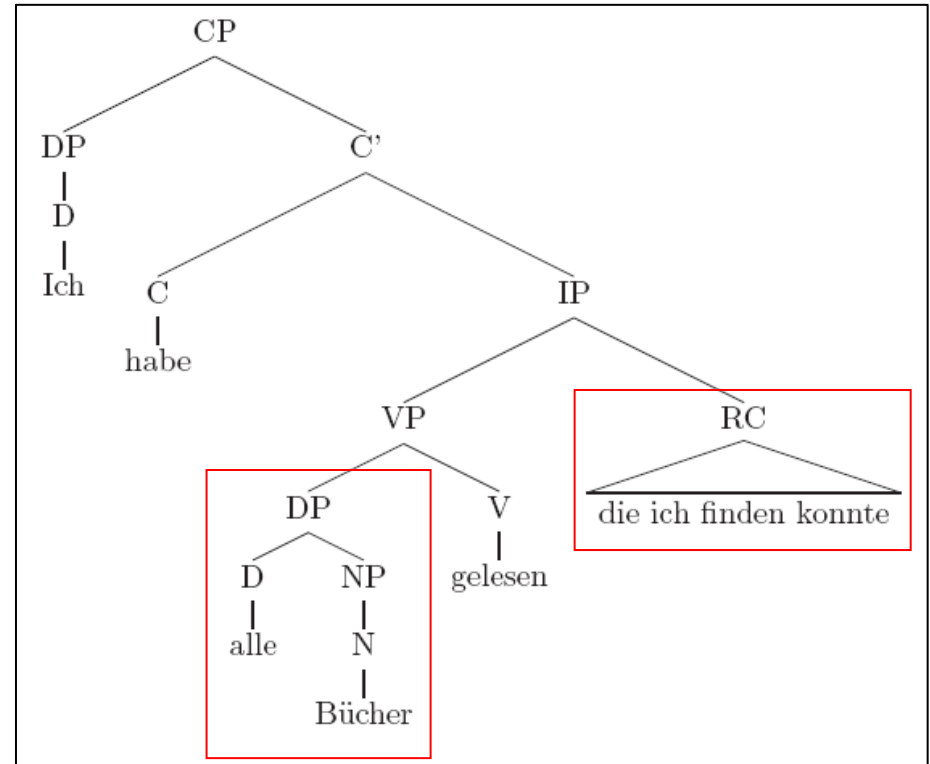
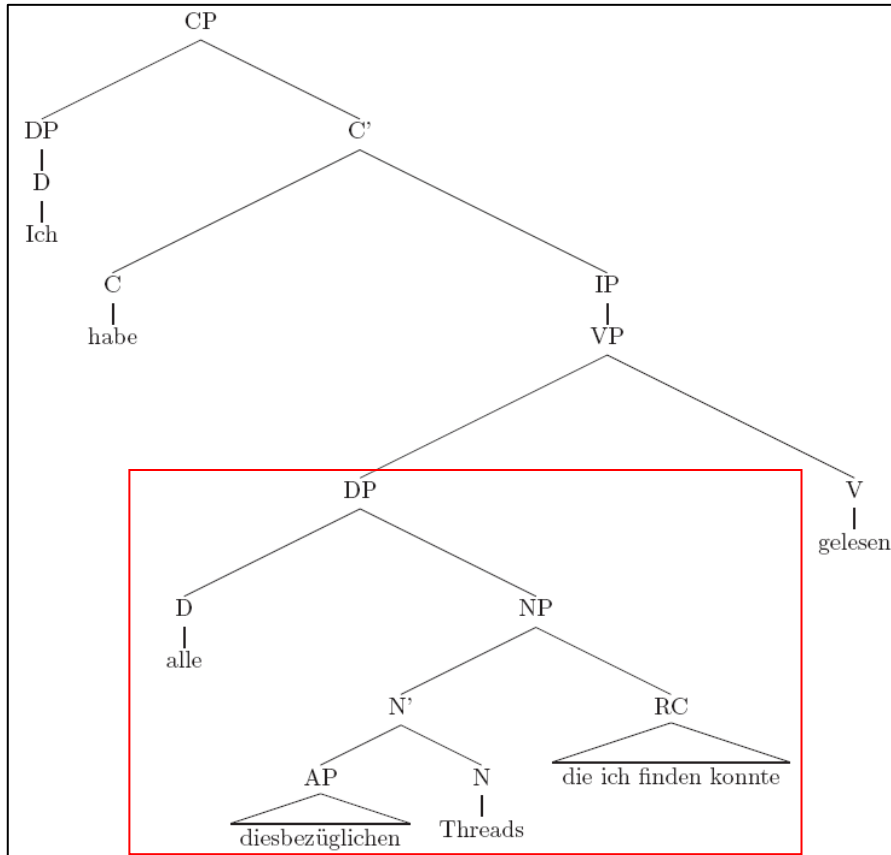
Ich habe [_{DP} *alle Bücher t*] *gelesen* [_{RC} *die ich finden konnte.*]

I have all books read that I find could

‘I have read all books that I could find.’

(www.wer-weiss-was.de/theme46/article2357606.html, 03/11/2007)

Relative Clause Extraposition - German



Extraposition as a Syntactic Alternation

- I regard the integrated and extraposed versions of relative clauses as syntactic variants
 - Naturally occurring near minimal pairs can be found
 - A given example is often acceptable in both versions
 - Extraposition has traditionally been regarded as an optional transformation (sometimes even as a stylistic or phonological operation) (e.g., Chomsky 1986; Inaba 2005 for German)
- Background on my dissertation project:
 - Research on relative clause extraposition in German
 - Modeling whether a RC will be realized in the integrated or extraposed variant
 - Modeling how attachment ambiguities of (extraposed) RCs can be resolved

The Locality of Relative Clause Extraposition

Ross's Right Roof Constraint

- “The fact is that an extraposed clause may never be moved outside “the first sentence up”, in the obvious interpretation of this phrase.” (Ross 1986, p. 5)
- “Any rule whose structural index is of the form ... A Y, and whose structural change specifies that A is to be adjoined to the right of Y, is upward bounded.” (Ross 1986, p. 179)
- “* $[_{CP} [_{CP} \textit{That Sam didn't pick } [_{DP} \textit{those packages t}] \textit{up}] \textit{is possible}]$
 $[_{RC} \textit{which are to be mailed tomorrow.}]$ ” (Ross 1986, p. 166)
- Stefan Müller and Frank Richter (p.c.) suggest that this is not an absolute constraint, but natural counterexamples are hard to find.

Subjacency

- Chomsky (1973) claims that:
 - Extraposition obeys stricter constraints than Ross's Right Roof Constraint,
 - Namely, the same subclausal locality constraints that leftward extraction does

No rule can move an item from position Y to position X in the structure

$\dots [\beta \dots [\alpha \dots Y \dots] \dots] \dots X \dots$
where $Y \neq \alpha$ and α, β are cyclic categories, ...

(Chomsky, 1973, p. 271)

- Chomsky (1973) and also Akmajian (1975) assume that the set of cyclic nodes includes **S** (IP) and **NP** (DP)
- Predicts that extraposition “out of” a noun phrase embedded in another noun phrase is impossible (since only one NP boundary can be crossed)

Generalized Subjacency

- Baltin (1981, 1983, 2006) claims that extraposition obeys even stricter subclausal locality constraints than leftward extraction:

Generalized Subjacency

In the configuration $A \dots [\alpha \dots [\beta \dots B \dots]_{\beta} \dots]_{\alpha} \dots A'$,

- a. A and B cannot be related where α and $\beta = \text{NP, PP}$, and either one or both of S and S';
- b. A' and B cannot be related where α and β are maximal projections of any major category.

(quoted from Baltin 1983, p. 155; see also Baltin 1981, p. 262)

- Predicts that only one maximal projection can intervene between an extraposed relative clause and its “in situ” position (this maximal projection is already exhausted by the antecedent NP/DP)

Generalized Subjacency

- Generalization (Baltin 2006, p. 241):
“An extraposed phrase is adjoined to the first maximal projection that dominates the phrase in which it originates.”
- See also Akmajian (1975), Asakawa (1979), Jacobson (1987), and Rochemont and Culicover (1997) for English, Wiltschko (1997) for German, and Keller (1995) for both languages.

Extraposition from within PP

- Baltin admits that extraposition from within PP is a problem for Generalized Subjacency (Baltin 2006, p. 246)

*“I saw it [_{PP} in [_{DP} a magazine t]] yesterday
[_{RC} which was lying on the table.]”*

- But he claims that extraposition from within a fronted PP is ungrammatical (Baltin 2006, p. 246)

“[_{PP} In [_{DP} which magazine t]] did you see it
[_{RC} which was lying on the table?]*”

Counterexamples - English

- There is a systematic class of counterexamples, however, both in English and in German

[_{PP} In [_{DP} what noble capacity t]] can I serve him

[_{RC} that would glorify him and magnify his name]?

(www.christianinconnect.com/lp1pet.htm, 02/19/2007)

If you need to manage your anger,

[_{PP} in [_{DP} what ways t]] can you do that

[_{RC} which would allow you to continue to function]?

(www.positivearticles.com/Article/Top-Ten-Ways-of-Moving-Through-Anger/5832, 02/19/2007)

Extraposition from within PP

“Prepositional phrases and adverbs in the prefield, for instance, are particularly inhospitable to RCE. Not a single case of RCE with an initial PP head was found, as opposed to the frequent application of RCE with PPs in the middle field. Furthermore, attempts to apply RCE in such cases resulted in crashingly ungrammatical outputs.”

(Shannon 1992, p. 267)

Counterexamples - German

[PP in [NP welches SKigebiet t]] kann man über die Osterferien fahren
in what skiing region can one over the spring break drive
[RC das noch Schneesicher ist] ...
that still snow-sure is

'In what skiing region can you travel over spring break that is guaranteed to have snow?'

(www.bergfex.at/forum/allgemein/?&msgid=1000049637, 02/19/2007)

[PP An [NP wen t]] kann ich mich wenden,
to whom can I myself turn
[RC der mir kluge Tips aus der Praxis geben kann?]
who me clever tips from the practice give can

'To whom can I turn who can give me clever tips from practice?'

(www.ruhr-uni-bochum.de/beratungsportal/chat/doku14b.htm, 02/19/2007)

Intermediate Summary

- Extraposition from within PP seems to be possible both in English and in German
- This is also true for fronted PPs outside the VP
- Baltin's Generalized Subjacency Principle is therefore falsified (unless one excludes P from the set of major categories)

Chomsky's Subjacency

- Chomsky (1973) predicts that relative clause extraposition from an NP embedded inside another NP is ungrammatical
- This is explicitly argued for with regard to PP extraposition by Akmajian (1975, p. 118)

*“ $[_{DP}$ A photograph t] **was published last year** $[_{PP}$ of a book about French cooking.]”*

“ $[_{DP}$ A photograph $[_{PP}$ of $[_{DP}$ a book t]] **was published last year** $[_{PP}$ about French cooking.]”*

Counterexamples - English

- Counterexample from Uszkoreit (1990, p. 2333)

“ $[_{DP}$ Only letters $[_{PP}$ from $[_{DP}$ those people t]]] remained unanswered $[_{RC}$ that had received our earlier reply.]”

- Naturally occurring examples

We drafted $[_{DP}$ a list $[_{PP}$ of $[_{DP}$ basic demands t]]] that night $[_{RC}$ that had to be unconditionally met or we would stop making and delivering pizza and go on strike.]

(portland.indymedia.org/en/2005/07/321809.shtml, 02/22/2007)

A wreath was placed $[_{PP}$ in $[_{DP}$ the doorway of $[_{DP}$ the brick rowhouse t]]] yesterday, $[_{RC}$ which is at the end of a block with other vacant dwellings.]

(<http://www.firerescue1.com/DutyDeaths/278039/>, 02/22/2007)

Counterexamples - German

- Constructed example by Müller (2004)

*Karl hat mir [DP eine Kopie [DP einer Fälschung [DP des Bildes
Karl has me a copy a.GEN forgery the.GEN painting
[DP einer Frau t]]]] gegeben, [RC die schon lange tot ist.]
a.GEN woman given who already long dead is*

‘Karl gave me a copy of a forgery of the painting of a woman who has been dead for a long time.’

- Other authors also claim that such examples are grammatical in German: Haider (1997), Kiss (2005), Müller & Meurers (2006) and others.

Counterexamples - German

Ich habe [DP einen Bericht [PP von [DP einer Patientin t]]]

I have a report of a patient

gesehen [RC die von der Schulmedizin aufgegeben wurde]

seen who by the scientific medicine given up was

‘I have seen a report about a patient who was given up by scientific medicine.’

(www.krebs-kompass.org/Forum/showthread.php?t=4697, 02/27/2007)

Und dann sollte ich [DP Augenzeuge [DP der Zerstörung

and then should I eye witness the.GEN destruction

[DP einer Stadt t]]] werden, [RC die mir am Herzen lag] - Sarajevo.

a.GEN city become that me at the heart lay Sarajevo

‘And then I was about to become an eye witness of the destruction of a city that was dear to my heart – Sarajevo.’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 16294)

Intermediate Summary

- Extraposition from an NP embedded inside another NP has been argued to be grammatical in German by some authors
- Natural English and German examples can indeed be found in corpora
- Baltin's Generalized Subjacency is therefore falsified by the empirical data:

An extraposed RC is not always adjoined to the first maximal projection containing its antecedent.
- Chomsky's (1973) version of Subjacency is also falsified (if NP is taken to be a cyclic node)

Intermediate Extraposition

- German has a small class of postpositions such as “gegenüber” (against, towards)

Die Annahme muss [PP [DP demjenigen, [RC der das Angebot gemacht hat,]] gegenüber] erklärt werden.
the acceptance must that person who the offer made
has towards declared be

‘Acceptance must be declared to the person who has made the offer.’
(www.123recht.net/article.asp?a=113, 02/25/2007)

- A relative clause can either appear before the postposition, after the postposition, or at the end of the clause

Intermediate Extraposition

Aber [_{PP} [_{DP} *den Tieflieger-Piloten* t] *gegenüber*, [_{RC} *die auf alles*
but the strafers pilots against who on everything
schossen, was sich bewegte,]] *gab es schon Haßgefühle.*
shot that itself moved were there of course feelings of hatred
'But there were of course feelings of hatred against the strafers pilots
who shot at everything that moved.'

(www.geschichtsforum.de/showthread.php?p=231275, 02/24/2007)

Das ist [_{PP} [_{DP} *denen* t] *gegenüber*] *extrem unfair* [_{RC} *die sich*
that is those against extremely unfair who themselves
die Mühe machen auf so einen Mist zu antworten.]
the trouble make to such a rubbish to answer
'That is extremely unfair against those who go through the trouble of
answering such rubbish.'

(www.homepage-forum.de/showthread.php?t=22168, 02/24/2007)

Chomsky's Barriers Approach

- Chomsky (1986, p. 14) makes a revised proposal which incorporates the distinction between arguments and adjuncts:

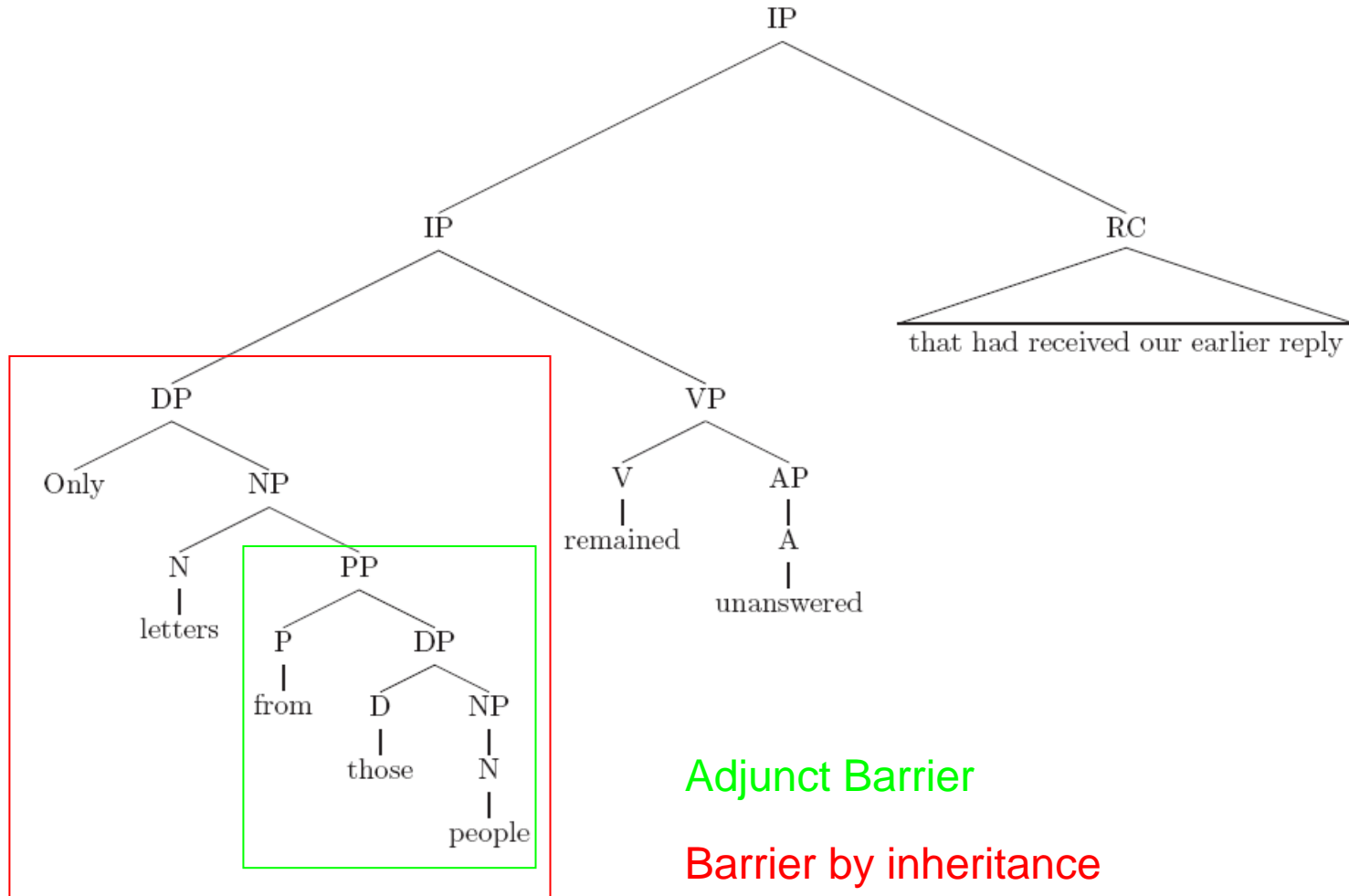
γ is a BC for β iff γ is not L-marked and γ dominates β .

γ is a barrier for β iff (a) or (b):

- a. γ immediately dominates δ , δ a BC for β ;
- b. γ is a BC for β , $\gamma \neq \text{IP}$.

- Again, two barriers are needed to render extraposition illicit
- This predicts that extraposition from a DP that is contained in some kind of adjunct (of another DP, for example) is ungrammatical

Chomsky's Barriers Approach



Chomsky's Barriers Approach

- Chomsky (1986, p. 40) argues that the RC in the following example can only modify the higher NP (i.e., it can only originate from position t' and not from t)

*[_{DP} many books [_{PP} with [_{DP} stories t]] t'] **were sold**
*[_{RC} that I wanted to read]**

- Müller (2004, p. 10) argues that structurally equivalent examples in German are in fact grammatical with unambiguous attachment of the RC to the embedded DP

weil [_{DP} viele Schallplatten [_{PP} mit [_{DP} Geschichten t]]]

because many records with stories

***verkauft wurden** [_{RC} die ich noch lesen wollte]*

sold were that I still read wanted

'because many records with stories were sold that I still wanted to read'

Counterexamples - English

*I'm reading [_{DP} a book [_{PP} about [_{DP} Elliott Smith t]]
right now, [_{RC} who killed himself]]*

(www.songmeanings.net/lyric.php?lid=3530822107858518290, 02/28/2007)

*For example, we understand that Ariva buses have won
[_{DP} a number [_{PP} of [_{DP} contracts [_{PP} for [_{DP} routes
[_{PP} in [_{DP} London]] t]]]]] **recently**, [_{RC} which will not be run
by low floor accessible buses.]*

(<http://www.publications.parliament.uk/pa/cm199899/cmselect/cmenvtra/32ii/32115.htm>,
02/24/2007)

Counterexamples - German

... hielt sie vor allem [DP das Andenken [PP an [DP “die gute alte Zeit”
held she above all the memory of the good old time
[PP unter [DP ihrem verstorbenen Mann t]]]]] hoch, [RC der im
under her deceased husband high who in the
Mittelpunkt ihres Wahlkampfes stand.]
center of her campaign stood

‘... she mostly kept the memory of the good old times under her deceased husband alive who was at the center of her election campaign.’

(Tübinger Baumbank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 12507)

Counterexamples - German

Statt Unsummen [PP in [DP Sicherheitsstudien [PP für
Instead of enormous sums into security studies for
[DP Atomkraftwerke t]]]] zu stecken, [RC die ohnehin nicht nachgerüstet
nuclear power plants to put that anyway not upgraded
werden können,] ...
be can

‘Instead of investing enormous sums into security studies for nuclear power plants that cannot be upgraded anyway ...’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 20483)

Counterexamples - German

*... er habe damals einem Kollegen Wüppesahls ... [DP den Karton
he has at that time a colleague Wüppesahl's ... the carton
[PP mit [DP den 68 Vorgängen t]] übergeben, [RC die dieser angeblich
with the 68 transactions handed over which he allegedly
mit in sein Urlaubsdomizil in Österreich nehmen wollte.]
with in his holiday residence in Austria take wanted*

'that he had then handed over to a colleague of Wüppesahl's
the carton with the 68 transactions which he allegedly wanted to take
with him to his holiday residence in Austria.'

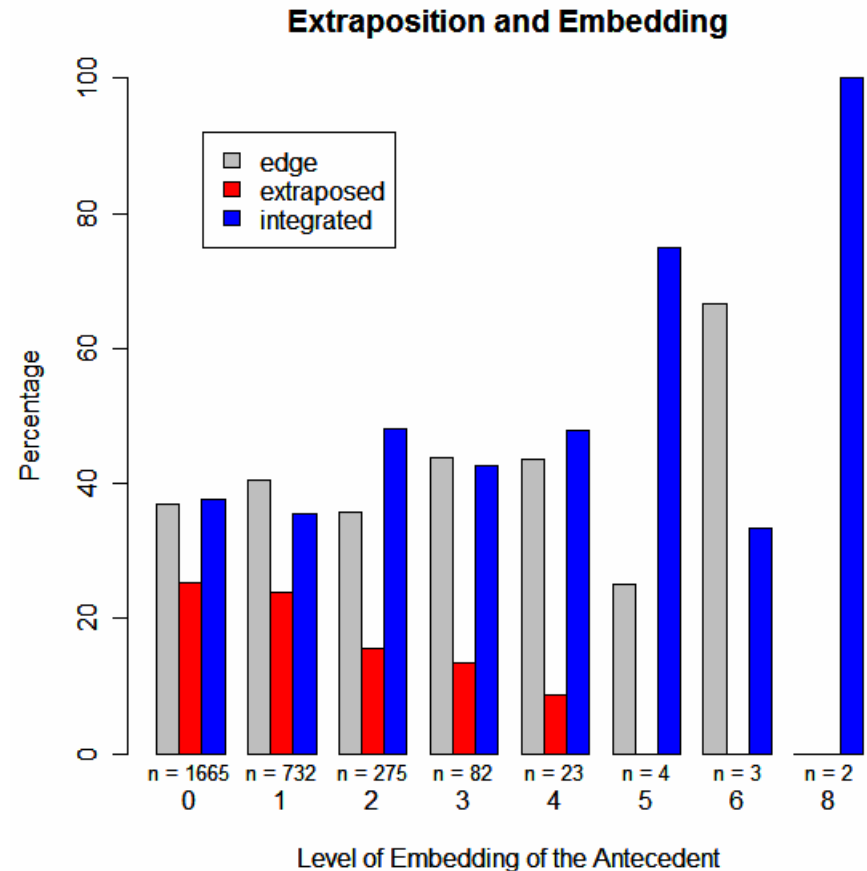
(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 21243)

Intermediate Summary

- Counterexamples against Chomsky's Barriers approach can be found both in German and English
- Extraposition is possible "out of" multiply embedded DPs
- No subclausal locality constraint proposed so far is compatible with the counterexamples I have presented
- The null hypothesis should be that there is no syntactic subclausal constraint on extraposition
- More systematic empirical research is needed

Preliminary Statistics

- German newspaper corpus
TüBa-D/Z
- 2,789 relative clauses
- Likelihood of RC extraposition decreases with deeper embedding
- But the decrease is very gradual:
 - Embedding 0 – 25.4 %
 - Embedding 1 – 23.9 %
 - Embedding 2 – 15.5 %
 - Embedding 3 – 13.4 %
 - Embedding 4 – 8.7 %
 - Embedding 5-8 – 0 %



Restrictive vs. Appositive Relative Clauses

Ziv and Cole (1974)

- There seems to be a (widespread?) belief that only restrictive relative clauses can be extraposed
- This belief possibly originates in a paper by Ziv and Cole (1974):
“Appositive relative clauses cannot be extraposed.” (p. 773)

“*[_{DP} John Smith t] *is here* [_{RC} who has three ears.]”

“*[_{DP} A boy t] *was here*, [_{RC} whom I had never seen before.]”

“*[_{DP} My father t] *just came in*, [_{RC} who runs his own business]”

(Ziv and Cole 1974, pp. 777-779)

Ziv and Cole (1974)

- Ziv and Cole distinguish between two types of nonrestrictive relative clauses:
 - Appositive relative clauses (p. 776)

“Appositives are non-restrictive relative clauses which are used in apposition to the head Noun Phrase [...]. There seem to be very weak contextual requirements on the relevance of the appositive to the main assertion of the sentence in which it is embedded.”

“_{DP} John Smith, _{RC} who is my instructor,] is very sick.”

Ziv and Cole (1974)

- Continuative relative clauses (Ziv and Cole 1974, pp. 776, 777)

“Continuative relative clauses, on the other hand, are non-restrictive relative clauses which usually occur at the end of the sentence, bear some logical (or often causal or temporal) relation to the matrix sentence and thus serve as appropriate continuations of that which was said in the sentence to which they are appended.”

“I gave the book to [_{DP} my mother], [_{RC} who gave it to [_{DP} my sister]], [_{RC} who returned it to the library.]”

Ziv and Cole (1974)

- According to Ziv and Cole appositive relative clauses cannot be extraposed
- They also assume that proper names cannot be modified by restrictive relative clauses (p. 779)

Counterexamples - English

*Dan Bailey got it and [_{DP} Bob Leatherman t] **called me**,
[_{RC} who was the head of distributor relations for us]
(<http://www.amquix.info/scheibeler.html>, 03/13/2007)*

*In 1999 [_{DP} Bill Wyman t] **called me**, [_{RC} who I'd also known right back to
the seventies,] and he told me about the Rhythm Kings band.
(http://www.cultfound.org/back_door_colin_bass_guitar_mag_interview.htm, 03/13/2007)*

*I swam in [_{DP} Lake Ontario] **yesterday**, [_{RC} which is my second
Great Lake of the trip.]
(www.coolgrrrls.com/pages/mar.html, 03/13/2007)*

*I had [_{DP} a memory [_{PP} of [_{DP} my dear old grandma t]]] **yesterday**
[_{RC} who used to buy the EXACT same outfit in every color available
(down to the shoes!).]
(www.sandysknitting.com/archives/000658.html, 02/22/2007)*

Counterexamples - German

*Einmal nickt er [DP Schröder t] zu, [RC der zurückgelehnt und mit
once nods he Schröder to who leaned back and with
übereinandergeschlagenen Beinen auf seinem Stuhl sitzt,] ...*

crossed legs on his chair sits

‘Once he nods to Schröder, who is leaning back and is sitting with legs crossed on his chair’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 3050)

*Allerdings habe er mit [DP Prodi t] gesprochen, [RC zu dem er "ein
however has he with Prodi talked to who he a
enges und intensives Verhältnis" pflege.]*

close and intensive relationship cultivates

‘However, he has spoken with Prodi, with who he has a close and intensive relationship.’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 10665)

Counterexamples - German

Die neuen Tageszeitungen sollen sich nur aus [DP Anzeigen t] finanzieren, [RC die rund 55 Prozent der Zeitung ausmachen.]
the new newspapers shall themselves only from ads
finance which about 55 percent the.GEN newspaper make up

‘The new daily newspapers are supposed to finance themselves from ads, which make up about 55 percent of the paper.’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 4615)

Immerhin hatte er bis dahin [DP alle Entlassungsaktionen t] überstanden, [RC bei denen seit 1990 mehr als 2.100 Leute gehen mußten.]
after all had he till then all layoffs survived
in which since 1990 more than 2,100 people go must

‘After all, he had survived all layoffs till then, in which more than 2,100 people had had to leave since 1990.’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 2661)

Intermediate Summary

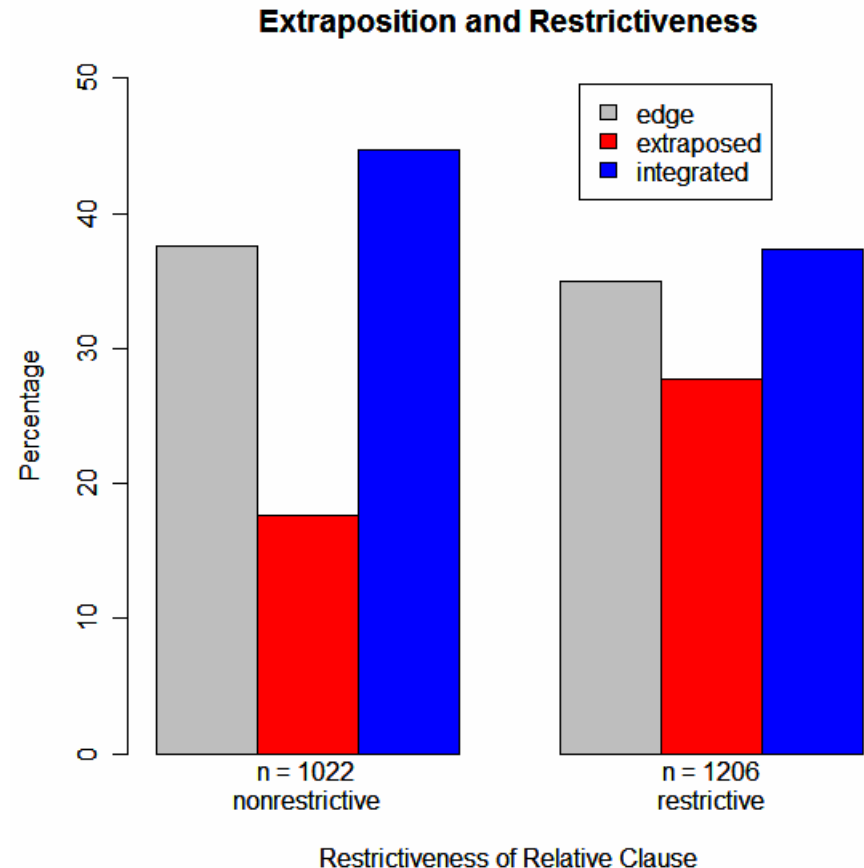
- Examples parallel to Ziv and Cole's appositive examples can be found in which the RC is extraposed
- It seems that the generalization that appositive relative clauses cannot be extraposed is wrong

We met with [_{DP} our vet t] yesterday – [_{RC} who by the way is a holistic vet and does prescribe Metacam as a "last resort".]

(<http://www.arthritis-cats-dogs.com/cgi-bin/datacgi/database.cgi?file=Forum&report=Subtopic&SubtopicID=00000699&firstrecord=0&finalrecord=14,03/13/2007>)

Preliminary Statistics

- German newspaper corpus
TüBa-D/Z
- 2,789 relative clauses
- Extraposition of nonrestrictive RCs is indeed less likely than extraposition of restrictive RCs
- But this is in no way categorical: 18 % of nonrestrictive relative clauses are extraposed vs. 28 % of restrictive relative clauses
- (No distinction between appositives and continuatives)



The Indefiniteness Constraint

The Indefiniteness Constraint

- Many authors also believe that DPs with a simple definite article or a demonstrative or DPs containing proper names cannot be modified by an extraposed relative clause
- Guéron and May (1984) propose a theory in which relative clause extraposition is mediated by Quantifier Raising (Fox and Nissenbaum (1999) is a modern incarnation of this idea)
 - “a. *I read* [_{DP} *a book t*] *during the vacation* [_{RC} *which was written by Chomsky.*]
 - b. * *I read* [_{DP} *that book t*] *during the vacation* [_{RC} *which was written by Chomsky.*]

The Indefiniteness Constraint

- While Baltin (2006, p. 243) gives the following counterexample to Guéron and May's (1984) claims

“_{[DP} Those students t] will pass this course _{[RC} who complete all of their assignments on time.]”

- He still states that:

“It is, however, impossible, it seems, to improve a nominal that is introduced by a pure definite article as an extraposition host.”
(Baltin 2006, p. 243)

*“*_{[DP} The man t] showed up _{[RC} that hated Chomsky.]”*

Counterexamples - English

- However, it is easy to find counterexamples in which the antecedent DP is located inside the VP

I met [_{DP} the guy t] yesterday [_{RC} who presently owns the house that I am buying.]

(www.houseoffusion.com/groups/CF-Community/thread.cfm/threadid:15674, 03/13/2007)

I just met [_{DP} the co-surgeon t] yesterday [_{RC} who will be moving my organs.]

(www.scoliosis.org/forum/showthread.php?t=4204, 03/13/2007)

*Pope John Paul II met with [_{DP} the actor t] yesterday [_{RC} who played Jesus in the movie *The Passion of the Christ*.]*

(http://catholicism.about.com/b/a/2004_03_16.htm, 03/13/2007)

Counterexamples - English

- Extraposition from definite subject DPs is also possible

Later [DP the guy t] showed up [RC who was supposed to come out here (in a “couple of days”) last month.]

(www.43things.com/things/view/407953, 03/13/2007)

[DP The car t] broke down [RC that was going to pick up my wife to be!]

(answers.yahoo.com/question/index?qid=20060929091928AAG5z7p, 03/13/2007)

Cooper failed to mention to the reporter that he already had the bodyguard before [DP the woman t] showed up [RC who had sent the bear.]

(gettingitoffmychest.blogspot.com/2005/11/anderson-cooper-unanchored.html, 03/13/2007)

Counterexamples - German

Man muß vor allem [DP die Leute t] stützen, [RC die die leiseren
one must particularly the people support who the quieter

Themen gründlich bearbeiten.]

subjects thoroughly work on

‘One particularly has to support the people that work thoroughly
on the less spectacular subjects.’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 1421)

Er stellte [DP das Spiel t] nach, [RC das kleine Mädchen spielen, ...]

he re-enacts the game PART that little girls play

‘He re-enacts the game that little girls play...’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 1377)

Counterexamples - German

als sie endlich selbst über [DP die Musik t] erzählen darf,
when she finally herself about the music tell may
[RC die sie macht.]
that she makes

‘when she finally is allowed to speak herself about the music
that she makes.’

(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 279)

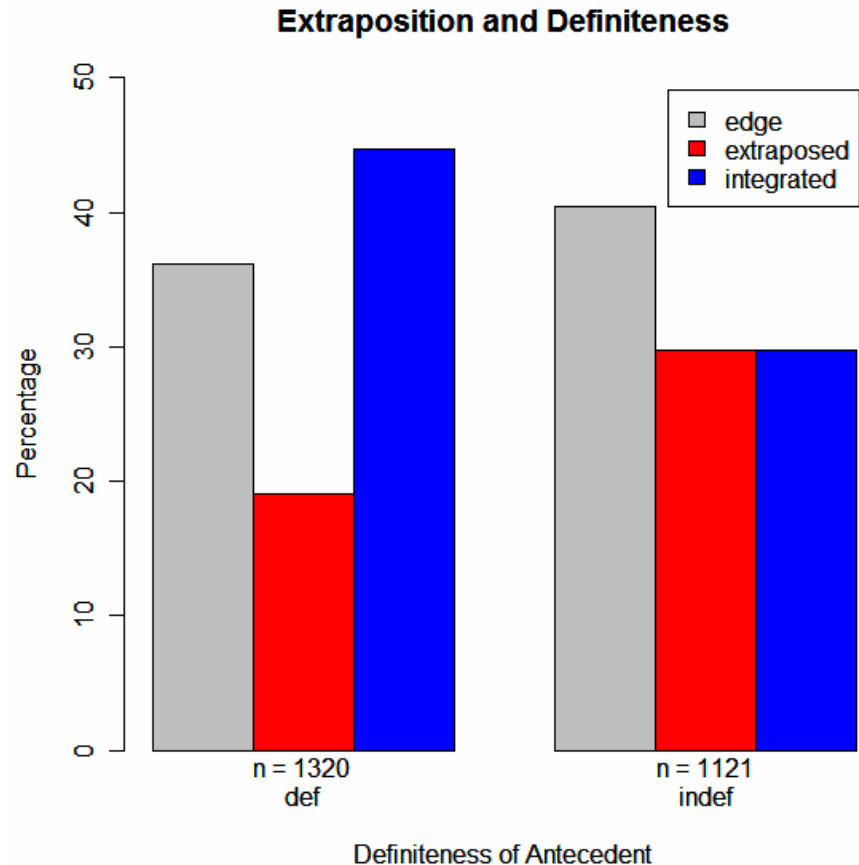
Mit Skepsis blicken die Angestellten aus dem Depot durch das blaue
With skepticism look the employees from the depot through the blue
Stahltor in [DP den Bunkerteil t] herüber, [RC in dem Kresnik probt.]
steel gate into the bunker part over in which Kresnik rehearses
‘With skepticism, the employees look from the depot through the blue
steel gate into the part of the bunker in which Kresnik is rehearsing.’
(Tübinger Baubank des Deutschen / Schriftsprache (TüBa-D/Z), sentence 1339)

Intermediate Summary

- There are grammatical examples of RC extraposition from simple definite DPs
 - Both from subjects and from DPs inside the VP
 - Both in English and German
- There is no categorical syntactic or semantic constraint against extraposition from definite (or non-quantificational) DPs

Preliminary Statistics

- German newspaper corpus TüBa-D/Z
- 2,789 relative clauses
- Extraposition from definite DPs is indeed less likely than extraposition from indefinite DPs
- But this is in no way categorical: 19 % of relative clauses with a definite antecedent are extraposed vs. 30 % of relative clauses with an indefinite antecedent



Conclusion

Syntactic Constraints vs. Nonsyntactic Factors

- There are no convincing categorical syntactic or semantic constraints on extraposition (except possibly for Ross's Right Roof Constraint)
- In principle, an extraposed relative clause can modify any DP inside the clause it is adjoined to
- However, there are noncategorical information structure constraints and also processing constraints on extraposition

Possible Non-Syntactic Factors

- Extraposed RC mostly modify the focus of the sentence (Shannon 1992)
 - Subjacency: embedded DPs are harder to focus (even harder for adjuncts than for arguments)
 - Indefiniteness constraint: focussed DPs are often indefinite
- Intervening material cannot be focussed (Takami 1998)
 - It is important to control for the type of intervening material
- Increasing linear distance between DP and extraposed RC makes extraposition less likely (Uszkoreit et al. 1998)
- Hypothesis: Extraposition should not split a topic into two parts

Alleged Differences between English and German

- Inaba (2005) has suggested that RC extraposition in German and English are two totally different types of phenomena
 - Extraposition in English is syntactic movement
 - Extraposition in German is a phonological operation
- Typical examples examined in the two languages differ
 - German:
 - Intervening material: final verb
 - Small linear distance between antecedent and RC
 - English:
 - Intervening material: some kind of adverb or the whole VP
 - Often greater linear distance between antecedent and RC
 - Often “verbs of appearance” which allow the subject to be the focus

Alleged Differences between English and German

- Typical German example (Kiss 2005, p. 285)

Man hatte [DP den Boten t] beschimpft, [RC der den Befehl überbrachte.]

they had the messenger insulted who the command delivered

‘They had insulted the messenger who delivered the command.’

- Typical English examples (Baltin 2006, p. 237)

[DP a book t] appeared [RC which was written by Chomsky.]

- More frequent discussion of violations of Subjacency and the “indefiniteness” constraint in the literature on German is probably due to the different nature of the typical examples in English and German

Conclusion

- “Traditional” assumptions about constraints on extraposition are not justified by the empirical data.
- More systematic research is needed!
- For my dissertation, I am trying to build a model of the choice between the integrated and the extraposed variants in German
 - Based on ~2,600 examples from the TüBa-D/Z
 - Annotated with syntactic, semantic, and information structural information as well as, e.g., linear distance
- I am currently running a pilot on the influence of Subjacency on reading time and acceptability together with Neal Snider and I hope to obtain comparative data from English and German.

Thank you!

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