CONSEQUENCES OF THE LCA - NOMINAL MODIFICATION

On Kayne’s (1994) account, there is a match between hierarchy and order, expressed in terms of the LCA. In addition, this match is assumed to be mediated by the precedence relation. Thus, if the T-set contains a pair \( \langle \alpha, \beta \rangle \), then \( \alpha \) precedes \( \beta \). The relevant parts of the definitions are (this time in set notation, instead of relational notation) repeated below:

1. **T-Set**

\[
T = \{ (a,b) \mid a \in N_T \land b \in N_T \land \exists x, y \in N_{NT} [ x \text{ dom. } a \land y \text{ dom. } b \land x \text{ asymm. } c\text{-commands } y ] \}
\]

- \( N_T \): terminal nodes
- \( N_{NT} \): non-terminal nodes

(The T-set collects all pairs of terminals which are dominated by non-terminals in asymmetric c-command relation)

2. **Linear Correspondence Axiom**

\( T \) is a linear ordering (of the terminal nodes \( N_T \)): the relation satisfies transitivity, reflexivity and antisymmetry.

1. **PRE VS. POSTNOMINAL MODIFIERS**

The LCA and right-adjunction: Adjuncts to a head \( X^o \) are merged higher than the \( X^o \). The LCA therefore entails as a consequence that adjuncts always need to precede the head. Various empirical problems arise from this prediction for the analysis of what are usually taken to be postnominal modifiers.

Postnominal APs: Some APs may surface in pre- or postnominal position. How can an LCA-conform analysis account for the postnominal order in (3)b, given that these APs cannot be base-generated to the right of the head noun?

(3) a. a responsible man
    b. a man responsible for his acts

One way consists in analyzing postnominal structures as the result of modulating a prenominal configuration by movement of the NP, as shown below:

(4) a. a responsible man
    b. a \([\text{NP} \text{ man}]_1\) responsible \( t_1 \)

Movement approaches that relate pre- and postnominal modifiers generally face problems, though (some of these general problems are already discussed in classic work by Bolinger 1967).
1.1. PROBLEM I: MISSING SOURCES

First, not all adjectives may serve as prenominal modifiers. This remains puzzling for analyses that systematically derive postnominal modification from prenominal ones, because there would be no source for the well-formed string (5)c.

(5)  a. The man is asleep/ready
    b. *the asleep/ready man
    c. the man asleep/ready to leave

Second, postnominal modifiers systematically differ in meaning from prenominal ones, making a (simple) derivational relation unlikely to succeed (see Kamp & Partee 1995; Siegel 1978 for discussion). Before presenting the problem, the next section introduces some background observations about possible interpretations of APs.

1.2. INTERSECTIVE AND SUBSECTIVE READINGS OF ADJECTIVES

In configurations involving certain types of prenominal modification, the attributive AP can be interpreted either intersectively or subsectively:

(6)   Sam is a beautiful dancer
       a. intersective: “Sam is beautiful and Sam is a dancer”
       b. subsective: “Sam is beautiful as a dancer, but not necessarily beautiful to look at”

**Intersective modifiers:** With intersective modifiers (carnivorous, sick, blond, French, rectangular,...), the meaning of the adjective-noun combination is equivalent to the meaning of the intersection of the components:

(7) \( \text{Intersective Adjective}_{\text{Def}} \)
    \[
    [\text{AP}_{\text{intersective}} \text{ NP}] = [\text{AP}_{\text{intersective}}] \cap [\text{NP}]
    \]

Read ‘\( \alpha \)’ as: ‘the meaning/denotation of \( \alpha \)’

(8) \( \text{Set intersection}_{\text{Def}} \) (Notation ‘\( \cap \)’)
    For any sets A and B, \( x \in (A \cap B) \) iff \( x \in A \) and \( x \in B \)

**Example (equivalence):** As illustrated by (9), French is intersective. If Fred is a French surgeon, it follows that Fred is French and Fred is a surgeon, and v.v.

(9) a. Fred is a French surgeon \( \iff \)
    b. Fred is French and Fred is a surgeon

(10) a. Fred \( \in [\text{French}] \cap [\text{surgeon}] \) \( \iff \) (Set-theoretic notation)
    b. Fred \( \in [\text{French}] \) and Fred \( \in [\text{surgeon}] \)

**Example (inference):** Assume that Fred is also a violinist. Since French is intersective, the information provided in (9) supports the inference that Fred is a French violinist: if Fred is a French surgeon ((12)a), and he is a violinist ((12)b), he cannot be but a French violinist ((12)c).

(11) a. Fred is a French surgeon
    b. Fred is a violinist
    c. \( \Rightarrow \) Fred is a French violinist
Consequences of LCA

(12) a. Fred ∈ [French] ∩ [surgeon]
    b. Fred ∈ [violinist]
    c. Fred ∈ [violinist] ∩ [French]

Subsective modifiers: With subsective modifiers (*skillful, typical, perfect, good, legendary, ...*), which are defined as in (13), equivalences and inferences comparable to the ones observed with intersective adjectives do not hold.

(13) Subsective AdjectiveDef
    [AP_{subsective} NP] = [AP_{subsective}] ⊆ [NP]

*Example (equivalence):* Suppose Fred is a surgeon, and that he is good at it. (14)a is evaluated as true in this situation, while (14)b might be false at the same time (Fred might not be a skillful ice skater). Thus, (14)a and (14)b are not equivalent.

(14) a. Fred is a skillful surgeon
    b. Fred is skillful and Fred is a surgeon

(15) a. Fred ∈ [skillful] ⊆ [surgeon]
    b. Fred ∈ [skillful] and Fred ∈ [surgeon]

Equivalence does not hold because that Fred is a member of the skillful surgeons does not ensure that he is a member of skillful individuals in any other field (sports, music,...).

*Example (inference):* Assume Fred is a skillful surgeon. Suppose furthermore that Fred also plays the violin. From this information it does not follow that he is also a skillful violinist.

(16) a. Fred is a skillful surgeon
    b. Fred is a violinist
    c. Fred is a skillful violinist

(17) a. Fred ∈ [skillful] ⊆ [surgeon]
    b. Fred ∈ [violinist]
    c. Fred ∈ [skillful] ⊆ [violinist]

The inference is not valid because the violinists are not a subset of the surgeons.

○ Note that if an adjective is intersective, it is also subsective, but not v.v.
○ If non-intersective adjectives such as *skillful* are used in predicative position (*This man is skillful*), they are followed by a silent dummy noun (Siegel 1976).

Non-subsective and non-intersective modifiers: Finally, there are also adjectives which are neither inters- nor subsective; this group includes *former, alleged, fictitious, putative, imaginary, arguable,* and *counterfeit.*

(18) They are alleged criminals
    a. [alleged criminals] ⊈ [alleged] ∩ [criminals] non-intersective
    b. [alleged criminals] ⊈ [criminals] non-subsective

Members of this class of intensional modifiers are only attested in attributive position:

(19) a. They are alleged criminals
    b. *They are alleged and they are criminals
1.3. PROBLEM II: INTERPRETATION

In some contexts, such as comparatives, adjectives may show up pre- or postnominally. Interestingly, the postnominal position disambiguates the AP-meanings into the direction of the intersective interpretation (Bresnan 1973; Siegel 1976; Lechner 2004; this holds for Germanic; on Romance see Bernstein 1993).

(20) a. John is a poor piano player
   i. intersective: “John is poor and John is a piano player”
   ii. subsective: “John is not very proficient as a piano player, but not necessarily without financial resources”

(21) a. A more beautiful dancer than Mary intersective or subsective
   b. A dancer more beautiful than Mary intersective only

Problem for LCA account: The problem for deriving AP^NP sequences from postnominal orders presents itself as follows. How can the fact be accounted for that the postnominal modification structures lack readings which are available in the prenominal variant? Note that while it is known that movement of $\alpha$ may affect the interpretation of $\alpha$ (Diesing 1992, a.o.), it is - by assumption - not the AP that moves in (21)b, but the NP dancer:

(22) a. A more beautiful dancer$_1$
   b. A dancer$_1$ more beautiful $t_1$

→ LCA analysis owes an account for how NP-shift blocks the subsective reading for the AP.

Possible solution - reduced relative analysis of postnominal APs: One way to derive the abovementioned contrast consists in assuming that the postnominal structure is not derived from the prenominal one, but related to the predicative construction, which can also only be interpreted intersectively (Siegel 1976):

(23) This piano player is poor intersective only
   “John is poor and John is a piano player”

(24) This dancer is beautiful intersective only
   “Mary is beautiful and Mary is a dancer”

On this view, (21)b is derived from a relative clause by what has been called *whiz-deletion* (deletion of the *wh*-phrase and *is* $\Rightarrow$ *whiz*):

(25) a. a dancer more beautiful than Mary
   b. a dancer who is more beautiful than Mary

1.4. SUMMARY

The AP NP $\rightarrow$ NP AP analysis of postnominal modifiers fails for two reasons:

- missing source (*asleep man $\rightarrow$ man asleep)
- missing readings (word order change eliminates subsective readings)

→ An LCA conform analysis must derive postnominal APs from relative clauses, which eliminates these two complications.
2. **Reduced Relative Analysis of Postnominal Modifiers**

The discussion above indicated that the postnominal order can, if at all, only be derived from the predicative construction. The *reduced relative analysis of attributive modification*, which was first formulated in the 1960ies, also extends to the non-comparative postnominal APs in (26):

(26)  

| a. a man who is responsible for his acts | base generated relative clause |
| b. a man *who* is responsible for his acts | ellipsis by *whiz* deletion |
| c. a man responsible for his acts | postnominal order |

Making the LCA compatible with the reduced relative analysis presupposes that a plausible story for the derivation of relative clauses can be found, as the latter are also right-adjoined, in violation of the LCA. Kayne’s account for relative clause will be spelled out in section 3. In addition, the reduced relative analysis faces obstacles of its own, which advise against a derivational relation between relative clauses and postnominal APs. The next section outlines one of these problems.

2.1. **Individual vs. Stage Level Predicates**

Predicates fall into two groups which differ w.r.t. the ‘permanence’ of the properties they ascribe to their arguments. *Stage level* (SL) predicates encode temporary properties, while *individual level* (IL) predicates express permanent, usually non-alterable characteristics of the argument (Carlson 1977; Diesing 1992; Kratzer 1989/1995):

(27)  

| a. Firemen are available | stage level |
| b. Firemen are altruistic | individual level |

Some predicates are ambiguous between a stage level and individual level interpretation.

(28)  

| a. stage level: “some stars are visible right now, because the sky is clear, it is night,...” |
| b. individual level: “some stars are permanently visible from earth, because they are bright enough, not too far away, etc...” |

IL differ from SL-predicates w.r.t. a number of linguistically relevant properties, among them:

**Property I of IL/SL-predicates:** Only SL-predicates tolerate NP-split (Diesing 1992):

(29)  

| a. Was sind für Karotten im Kühlschrank |
| b. *Was sind für Schuhe wasserdicht |

(30)  

| a. Karotten sind viele im Kühlschrank |
| b. *Schuhe sind viele wasserdicht |

**Property II of IL/SL-predicates:** IL-predicates only admit generic (as opposed to existential) readings for the subject. Such readings are moreover strongly correlated with a position to the left of particles such as ‘ja doch’, which marks the left edge of the vP. Leaving the generic subject *in-situ* results in degradation (Diesing 1992; Kratzer 1989/1995):

(31)  

| a. weil Skorpione ja doch [vP giftig sind] |
| b. *weil [vP ja doch Skorpione giftig sind] |
2.2. Problem: Missing IL Readings

SL and IL readings are unevenly distributed in pre- and postnominal constructions in that postnominal orders lack the IL interpretation, which is available with prenominal APs as well as with relative clause (on NP-internal AP interpretation see Larson 1998):

(32) a. The stars that are visible (today/from earth) include Sirius and Alpha Centauri ambiguous
   b. The visible stars include Sirius and Alpha Centauri ambiguous
   c. The stars visible are Sirius and Alpha Centauri only stage level

(33) a. Some men are responsible (for this act) ambiguous
   b. a responsible man ambiguous
   c. a man responsible for his acts only stage level

This observation comes unexpected for the LCA analysis, on which the postnominal orders (32)c/(33)c are derived from the predicative sources (32)a/(33)a. Note that the structures only differ in the application of ellipsis, hence the meaning contrasts cannot be attributed to movement.

→ LCA overgenerates, in that it predicts non-existent IL reading for postnominal APs

2.3. Excursus: Deriving Prenominal APs from Predicative APs

There have also been attempts to derive prenominal APs from relative clauses. These analyses have been abandoned for various reasons (Bolinger 1967), similar to the ones discussed above. For the sake of completeness and in order to appreciate the historical antecedents of the strategies employed in the LCA debate, it is instructive to briefly review two of these arguments.

I. Missing source: Some modifier such as total, mere, former, veteran, rightful, utter, fake, and alleged cannot function as predicates, they may only be interpreted non-intersectively (NB: these adjectives are neither intersective nor subsective). Thus, the prenominal structures would lack an underlying source.

(34) a. a total stranger
   b. *The stranger is total

(35) a. der frühere/angebliche Präsident
   b. *Der Präsident war früher/angeblich

II. Overgeneration: There are also modifiers that are restricted to predicative position, resulting in the reverse situation that was characteristic of (34). The reduced relative analysis would have to identify a reason why (34)a cannot be derived from (34)b:

(36) a. *The ready/asleep candidate
   b. The candidate who is ready/asleep
3. RELATIVE CLAUSES

The fact that the LCA prohibits right-adjunction causes complications for the analysis of relative clauses. More specifically, if the LCA is correct, relatives cannot be right-adjointed to NP, as is standardly assumed. Kayne therefore revives the so-called head raising analysis of relative clauses (Vergnaud 1974). The head raising account competes with the standard matching analysis (Chomsky 1977), which employs empty operator movement. As will be seen, it is not possible to derive all known properties of relative clause from the head raising, though.

3.1. MATCHING ANALYSIS OF RELATIVE CLAUSES

The standard matching analysis of relative clause adopts the following assumptions:

- Relative clauses function as predicate modifiers of the common noun (NP),
- Relative clauses are CPs which are right-adjointed to the NP-node.
- Internally, the relative clause contains an empty operator movement chain (Chomsky 1977). An empty operator is base generated in the position to be ‘relativized’, and then moves to SpecCP.

(37) John bought a book that Mary likes

(38) DP
    D° NP
    a NP CP
    book OP₁ C°
    C° TP
    that Mary VP
    likes t₁

Empty Operator Movement is motivated by two considerations:

I. LOCALITY

First, empty operator movement accounts for locality effects in relative clauses. While successive cyclic movement is attested (see (39)), islands block relativization ((40) - (42)):

(39) Successive cyclic movement:
    a. You believe [CP (that) [CP that Mary said [CP that Sam will visit the president of China]]]
    b. I know the person [CP who₁ you say [CP (that) [CP that she said [CP that Sam will visit t₁]]]]

(40) Subject islands:
    a. You believe [CP (that) [IP [CP that Sam will visit the president of China] annoys Mary]]
    b. *I know that the person [CP who₁ you say [CP (that) IP [CP that Sam will visit t₁] annoys her]]
(41) **Complex NP Constraint (CNPC) I: noun-complement case**

a. There is [DP a [NP rumor] [CP that Sam will visit the president of China]]

b. *I know the person [CP who there is [DP a [NP rumor] [CP that Sam will visit]]]

(42) **CNPC II: relative clause case**

a. There is [DP a [NP book] [CP that t explains the problem]]

b. *I know the problem [CP which there is [DP a [NP book] [CP that t explains]]]

II. **TRANSPARENT LF INTERFACE**

Second, assuming OP-movement facilitates a transparent representation of the meaning of relative clauses. The operator can be thought of as an *abstractor* in set notation, which collects the entities which form the meaning (extension) of the relative clause:

(43) John bought a book OP5 that Mary likes t5

a. book [CP OP5 that Mary likes t5]

b. \{x | x is a book\} \{x | Mary likes x\} meaning of relative clause
   “the set of all x, such that x is a book”
   “the set of all x, such that Mary likes x”

c. \{x | x is a book\} \cap \{x | Mary likes x\} = {x | x is a book and Mary likes x} meaning of *book that Mary likes*

3.2. **RAISING ANALYSIS** (most examples copied from Bhatt 2002)

The strategy of head-raising was for the first time been explicitly employed in the analysis of relative clauses in Schachter (1973) and Vergnaud (1974), but can be traced back to Brame (1968), Lees (1960) and Smith (1961). In its latest version, defended in Kayne (1994: section 8.4), the head-raising analysis generates relative clauses such as (44) by overt movement of the common noun into the SpecCP position of a CP-complement to D°

(44) DP
   ↓
  D° CP
  a NP1 C’
     book C°
     that Mary VP
     likes t1

Proponents of head raising bring to attention a number of advantages of the analysis, the most prominent among which are the following six arguments.

I. **IDIOMS**

One immediate advantage of head-raising consists in its ability to provide a plausible explanation the possibility to relativize parts of an idiom (Kayne 1994; Williams 1994: 224ff; Schachter 1973; see Bhatt 1999, 2002; all examples taken from Bhatt 2002: 47).
The argument proceeds as follows: idioms are strings of more than one lexical item with fixed interpretation. These strings must be interpreted locally. On the raising analysis ((49)), locality of subcategorization is satisfied by the relative clause internal head (Hulsey & Sauerland 2002).

The matching analysis posits two occurrences of the head (see (50)). While the lower copy can be interpreted together with the verb, the higher one (italics) cannot be assigned a meaning:

A similar argument can be manufactured from subcategorization restrictions (Larson 1985):

II. EXTRAPOSITION

Hulsey (2001) and Hulsey & Sauerland (2002) observe that extraposition bleeds idiomatic readings. This indicates that extraposition renders unavailable a raising construal. The fact that extraposition is possible in the first place demonstrates that relatives also have a matching interpretation:

Questions:

○ Why can the relative clause not reconstruct, restoring the pre-movement configuration? This should again permit the raising construal.
○ Why is a raising interpretation not compatible with extraposition?
Hulsey & Sauerland give an explanation in terms of the theory of extraposition proposed by Fox & Nissenbaum (1999).


(53) a. *I showed him, the book that Sam wanted to read yesterday
   b. I showed him, the book yesterday that Sam wanted to read

Antecedent contained deletion (ACD) obviates Principle C effects (Fox 2002):

(54) a. *I showed him every book that Sam wanted me to show him
   b. I showed him every book that Sam wanted me to

△ = [VP show him]

Fox & Nissenbaum assume that the host QP (every book) undergoes QR in overt syntax, but that the lower copy is spelled out (‘overt covert QR’). Then, the relative clause is late merged to the silent copy of the QP.

Consequence for relative clauses: On this analysis, the extraposed relative clause cannot contain the head of the relative, because the head (e.g. every book) has an independent syntactic life prior to the point it is joined with the relative clause. Thus, extraposition is only compatible with a matching parse for the relative clause.

III. BINDING RECONSTRUCTION

Reconstruction: Head raising accounts for reconstruction effects e.g. with Principle A, B and C in relative clauses:

(55) The book about himself that Bill bought was flattering.  Priniple A
(56) *The opinion of him that John has is favorable.  Principle B
(57) a. *The opinion of John that he thinks Mary has is unfavorable.  Principle C
   b. *The portrait of John that he painted is extremely unflattering.
      (exs. (41b), (42b) from Schachter 1973)

The analysis rests on the assumption that at one point of the derivation, the position in which the Binding Conditions evaluated has been filled with the appropriate lexical content. For example, the anaphoric relation linking the reflexive to its antecedent in (58)b can be thought of as being licensed already in the underlying representation (58)a (see Belletti & Rizzi 1988 for level of application of Binding Theory in pre-minimalist/pre-Copy Theory model):

(58) a. Source: ...that Bill bought [book about himself]
   b. Output: the [book about himself] that Bill bought

Copy Theory: This argument in support of head-raising over the traditional empty operator approach towards relative clause formation is somewhat undermined by the Copy Theory of movement, though (Chomsky 1992, 1995). If it is assumed that the empty operator chain in relatives is composed of copies which form an extended chain with the head of the relative, the
interpretational effects in (58) and (48) can be accounted for without reference to actual reconstruction of the head of the relative into its trace position (Sauerland 1998). In the alternative LF representation for (58)b given in (58)b, the copy in SpecCP is matched against the head of the construction, and Principle A is evaluated on the basis of the lower copy of the operator chain:

(59)  
\[  \text{[NP book about himself]} \text{[CP [book about himself, that B_1 bought [book about himself]]]} \]

Still, another problem persists for the matching analysis: how can the higher copy satisfy the binding requirements (see idiom argument for same point; see Hulsey & Sauerland for discussion). Thus, at least reconstruction with reflexives (i.e. variable binding) furnish an additional argument for the existence of head-raising.

**Antireconstruction**: A further complication comes from the observation that Principle C does not (always) reconstruct in relatives (Munn 1994):

(60)  
\begin{align*}
\text{a. Which is the picture of John_1 [that he_1 likes]?} & \quad \text{relative clause} \\
\text{b. *Which picture of John_1 does he_1 like?} & \quad \text{wh-interrogative}
\end{align*}

This provides evidence for the matching account, according to which the representation does not necessarily involve a lower copy which contains lexical material (see Sauerland 1998, 2004).

(61)  
\[ \text{Which is the picture of John_1 [OP_5 that he_1 likes t_5]?} \]

\[ \rightarrow \text{LCA analysis is not compatible with matching construal of relative clauses.} \]

**IV. VARIABLE BINDING**

(62)a demonstrates that bound variable pronoun contained in the head of the relative are reconstructed into the gap, as shown in (62)b. This is compatible with the predications of the raising analysis. On the matching account, the higher copy in SpecCP would also need to be interpreted (see (62)c).

(62)  
\begin{align*}
\text{a. [[The picture of his_1 mother] that every soldier_1 kept ____ wrapped in a sock] was not much use to him.} & \quad \text{raising construal} \\
\text{b. ...that every soldier_1 kept [the picture of his_1 mother] } & \quad \text{raising construal} \\
\text{c. [the picture of his_1 mother] that every soldier_1 kept [the picture of his_1 mother] } & \quad \text{matching construal}
\end{align*}

**Antecedent contained deletion** (ACD) can only be given a matching construal, because the VP-ellipsis internal gap must be interpreted as a trace (a copy would lead to endless regress):

(63)  
\begin{align*}
\text{Sue likes every picture that Bill does } & \triangle \\
\text{a. } & \triangle = \text{[VP likes t]} \\
\text{b. * } & \triangle = \text{[VP likes every picture that Bill does } \triangle ] \quad \text{raising: endless regress}
\end{align*}
Wold (1995) provides a strong argument supporting this assumption by pointing out that ACD is incompatible with raising relative:

(64)  *Sue/Bill likes every picture of himself, that every boy, does

(64) includes two conflicting requirements: on the one hand, licensing of the bound variable pronoun presupposes a raising construal. On the other hand, ACD resolution requires that the object position be represented by a trace, as in the matching construal.

→ LCA analysis of relative clauses not compatible with the existence of ACD

V. SCOPE RECONSTRUCTION
Narrow scope readings of the head of the relative clause w.r.t. an operator inside the relative clause attest to the fact that there must be a relative internal copy of the head.

(65)  I am worried about the twenty-five people likely to come for dinner tomorrow.  
Possible reading: likely > 25 people  
(Irene Heim)

(66)  
(a) No linguist would read the many books Gina will need for vet school.  
Possible reading: need > many  
(b) Mary shouldn’t even have the few drinks that she can take.  
Possible reading: can > few  
(exs. (54a, b) from Sauerland 1998)

VI. ADJECTIVAL MODIFIERS
Bhatt (2002) uses the ambiguity of certain relatives whose head is modified by a superlative to support the head raising account. (67) can be interpreted as in (67)a or as in (67)b:

(67)  the first book that John said Tolstoy had written

(a) ‘High’ reading: In 1990, John said that Tolstoy had written Anna Karenina; in 1991, John said that Tolstoy had written War and Peace. Hence the NP is Anna Karenina. (I.e., order of saying matters, order of writing is irrelevant.)

(b) ‘Low’ reading: John said that the first book that Tolstoy had written was War and Peace. Hence the NP is War and Peace. (I.e. order of writing matters, order of saying is irrelevant.)  
(ex. (20) from Bhatt 2002: 57f)

On the low reading, the first book is interpreted in the lowest copy side the relative clause, providing an argument for having the head originate inside the relative clause.

(68)  Low reading of the first book that John said Tolstoy had written: 
the x s.t. [CP John said that [the first book] that Tolstoy had written was x.]
SUMMARY
The table below lists the arguments for matching and head raising analysis, respectively.

<table>
<thead>
<tr>
<th></th>
<th>Matching</th>
<th>Raising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idioms</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Extraposition</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Binding reconstruction (Principle A)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Antireconstruction (Principle C)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Pronominal variable binding</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>ACD</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Scope reconstruction</td>
<td>?</td>
<td>✓</td>
</tr>
<tr>
<td>Adjectival modifiers</td>
<td>?</td>
<td>✓</td>
</tr>
</tbody>
</table>

(read ✓/✗ as ‘analysis is/is not compatible with phenomenon’)

For critical discussion of the arguments above see Hulsey and Sauerland (2002). See Sauerland (1998) for further arguments that relative clauses are in fact systematically ambiguous between a head raising structure and a matching construal.

4. RESUME: LCA AND POSTNOMINAL MODIFICATION

The LCA faces several challenges in deriving matches between word order and interpretation. Two of the most prominent challenges that remain to be addressed by proponents of the LCA come from postnominal modifiers and relative clause:

(70) Adjectival modification:

- missing source (*asleep man → man asleep)
- subsective/intersective readings: only prenominal APs admit subsective readings.

Consequence: postnominal orders cannot be derived from prenominal orders. Rather, postnominal APs must be derived from (reduced) relative clauses.

- stage/individual level contrasts: only prenominal APs admit individual level readings.

(71) Relative clauses: The LCA is only compatible with the head raising analysis, but relative clauses display systematic ambiguity between a matching and a raising interpretation.

Prediction: postnominal modifiers, which by assumption are derived from (reduced) relative clause by head raising, should display all properties of raising in table (69). Correct?
BIBLIOGRAPHY