THE INTERPRETATION OF VERB MOVEMENT

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CLAIM I: Head movement (HM) consists in displacement of terminals, and not in remnant movement (contra Hinterhölzl 1999; Müller 2002; Nielsen 2003; Koopman & Szabolcsi 2000; pro Fanselow 2002, a.o.).

CLAIM II: HM is computed in the stem of the derivation, and not at PF (contra Chomsky 1995, 2001; Boeckx & Stjepanovic 2001; pro Matushansky 2006; Zwart 2001, a.o.).

Assume that head movement is (i) either computed at PF, or (ii) represented by remnant movement or (iii) both. At least two problems emerge:

(1) a. ZP
    \[\beta\]
    YP
    \[\alpha\]
    XP
    \[\beta\]
    YP
    \[\alpha\]
    V°

b. ZP
    \[\alpha\]
    XP
    \[\alpha\]
    \[\beta\]
    ZP
    \[\beta\]
    \[t_{XP}\]

→ Problem I: scope order \(\alpha > \beta\) not derivable (Part I)
→ Problem II: scope order \(V° > \beta\) not derivable (Part II)

EVIDENCE IN SUPPORT OF CLAIM I & II:

I: A puzzle for remnant movement analyses
Simple correlations between scope and order cannot be expressed by remnant movement or PF analyses (basic scope relations in V2 contexts).

II: HM and interpretation
There are instances of HM which result in inverse scope effects. This is unexpected under remnant movement or PF analyses.

PART I: SCOPE AND V2

Remnant movement analyses fail to derive the basal fact that in subject initial V2 clauses, scope matches order:

(2) Jeder verlor einmal
‘Everybody lost once’
1. Remnant movement analysis, 1st attempt

(3) Derivation of surface scope order *everybody* > *once* (1st attempt):

- a. OS: \[\text{XP} \ \text{everybody} \ \text{lost}\] \quad \text{Merge XP}
- b. OS: \[\text{YP} \ \text{once} \ \text{XP everybody lost}\] \quad \text{Merge once}
- c. OS: \[\text{CP} \ \text{XP everybody lost} \ 1 \ \text{YP once t1}\] \quad \text{Remnant movement of XP}

\((3)c\) can be rendered interpretable by Semantic Reconstruction of XP (ignoring contribution of *once*):

(4) a. LF: \[\text{CP} \ \text{XP everybody lost} \langle t, t \rangle \ \lambda_l \ \text{YP once t1, } \langle t, t \rangle\]
- b. Semantics: \[\text{CP} \ \text{YP once XP everybody lost} \langle t, t \rangle\] \quad \text{Semantic Reconstruction of XP}

\(\Rightarrow\) Semantic reconstruction of XP in (3)c results in scope order \(\exists > \forall\).

- Alternatively, XP can be restored in its base position at LF (lower copy):

(5) LF: \[\text{CP} \ \text{YP once XP everybody lost}\] \quad \text{Reconstruction of XP at LF}

- Fronted predicates are subject to scope freezing (Barss 1986; Huang 1993):

(6) ...and teach every student, noone will 

- a. \[\text{CP} \ \text{XP teach every student} \langle t, t \rangle \ \text{YP noone will t1}\] \quad \text{Reconstruction of XP}
- b. \[\text{CP} \ \text{YP noone will XP teach every student} \langle t, t \rangle\]

\(\Rightarrow\) Syntactic reconstruction of XP in (3)c generates order \(\exists > \forall\).

NB: It is not claimed that it is not possible to write semantic rules that derives the correct scope order. Such rules would have to involve rather implausible assumptions, though.

2. Remnant movement analysis, 2nd attempt

- Assume that (3) misconstrues the relation between the subject and the adverb, and that the correct remnant movement derivation of (2) proceed as in (7) (a possibility noticed by Ian Roberts, pc):

(2) Jeder verlor einmal 'Everybody lost once'

(7) Derivation of scope order *everybody* > *once* (2nd attempt):

- a. \[\text{vP everybody [once lost]}\] \quad \text{Evacuation of once}
- b. \[\text{once1 [vP everybody t1 lost]}\] \quad \text{Remnant movement of vP}
- c. \[\text{[vP everybody [t1 lost]]2 once1 t2} \quad \text{Reconstruction of vP}
- d. \[\text{once1 [vP everybody t1 lost]}\] \quad \text{Evacuation of once}
- e. \[\text{vP everybody [once lost]}\] \quad \text{Reconstruction of once}
2.1. FIRST PROBLEM: LAWS OF REMNANT MOVEMENT

- Trace peripherality condition on remnant movement (PBC; Frey 1993; Haider 1993; Müller 1998, a.o.):

  (8) a. Sie hat einem Freund Dat einen Fehler Acc nachgewiesen
  she has a friend DAT a mistake proven
  ‘She proved that a friend had made a mistake’
  
  b. [t Dat Einen Fehler Acc nachgewiesen] hat sie einem Freund Dat
  a mistake proven has she a friend
  
  c. *[Einem Freund Dat t Acc nachgewiesen] hat sie einen Fehler Acc
  a friend proven has she a mistake

  (9) a. Sie hat einen Freund Acc einer Gefahr Dat ausgesetzt
  she has a friend ACC (to) a danger ACC exposed
  ‘She has exposed a friend to a danger’
  
  b. [t Acc Einer Gefahr Dat ausgesetzt] hat sie einen Freund Acc
  (to) a danger exposed has she a friend
  
  c. *[Einen Freund Acc t Dat ausgesetzt] hat sie einer Gefahr Dat
  a friend exposed has she (to) a danger

  The derivation in (7) assigns to (2) the same parse as to the c-examples above:

  (7) c. [[vP everybody [t1 lost]]2 [once1 t2 ]]
  [NP - t - V°] fronted

  PROBLEM: Movement of category that contains non-peripheral trace in (7)c should be detectable in the same degraded acceptability that characterizes (8)c and (9)c. This is not the case. (The fact that in (7)c, it is an adjunct that moves, and not an argument should lead to further degradation, if anything.)

2.2. SECOND (GROUP OF) PROBLEM(S): UNATTESTED SCOPE ORDERS

- German is scope rigid, (10) can only be read with surface scope (Frey 1993; Haider 1993; Lechner 1998):

  (10) a. #Einer starb immer
  One died always
  ‘Somebody always died’
  
  b. #Einer starb in jeder Schlacht
  one died in every battle
  ‘Somebody died in every battle’

  Factorization and derivation of (10)a in terms of (revised) remnant movement analysis:

  (11) Derivation of Somebody always died:
  a. [vP somebody [vP always died]]
  b. [always1 [vP somebody [t1 died]]] Evacuation of always
  c. [[[vP somebody [t1 died]]], [always1 t2 ]] Remnant mov’t of vP
  d. [always1 [[[vP somebody [t1 died]]], [always1 t2 ]] Reconstruction of vP
  e. [[[vP somebody [always died]]] Reconstr. of always
ASSUMPTION: The two reconstruction of vP (10)d and of (10)e steps are independent in that application of (10)d does not force application of (10)e.

PROBLEM I (SCOPE PERMUTATIONS): Remnant movement analysis predicts unattested reading for (10), because (11)d (repeated below) represents the inverted scope order. In fact, the inverted reading should even be more prominent, as it involves fewer operations:

\[
(11) \text{d. } [\text{always}_1 [\text{vP somebody } [t_1 \text{ died}]]]
\]

Similar conclusion can be drawn from examples involving (strong) NPIs. As expected, movement is not undone for NPI-licensing:

\[
(13) \text{a. Niemand gewann auch nur einmal}
\]
\[
\text{‘Nobody (has) won even once’}
\]
\[
(13) \text{b. *Auch nur einer gewann nie}
\]
\[
\text{‘*Even a single one (has) never won’}
\]

Remnant movement analysis of (13)b:

\[
(14) \text{Derivation of Even a single one (has) never won:}
\]
\[
\text{a. } [\text{vP NPI } [\text{vP never won}]]
\]
\[
\text{Evacuation of never}
\]
\[
\text{b. } [\text{never}_1 [\text{vP NPI } [t_1 \text{ won}]]]
\]
\[
\text{Remnant movement of vP}
\]
\[
\text{c. } [[\text{vP NPI } [t_1 \text{ won}]]_2 [\text{never}_1 t_2 ]]
\]
\[
\text{Reconstruction of vP}
\]
\[
\rightarrow \text{d. } [\text{never}_1 [\text{vP NPI } [t_1 \text{ won}]]]
\]
\[
\text{Reconstruction of never}
\]

PROBLEM II (NPI, OVERGENERATION): Remnant movement analysis predicts (13)b to be well-formed, because the subject NPI resides within the scope of negation subsequent to reconstruction of vP ((14)d).

Word order matches scope. Subject NPIs improve if the licensing adverbial precedes the subject:

\[
(15) \text{a. Nie hat auch nur einer (bei diesem eigenartigen Spiel) gewonnen}
\]
\[
\text{‘Never has even a single one won (at this strange game)’}
\]
\[
\rightarrow \text{b. (?)Nie gewann auch nur einer}
\]
\[
\text{‘Never won even a single one’}
\]
\[
\text{cf. c. *Auch nur einer gewann nie}
\]
\[
\text{‘*Even a single one (has) never won’}
\]

This is expected on the standard HM analysis of V2 which encodes the relations relevant for NPI licensing in surface syntax.
Remnant movement analysis of (15)a and (15)b posits movement of vP to SpecCP:

(16) Derivation of *Never won a single one*:

- a. \( [\text{vP NPI} \ [\text{vP never won}]] \)
- b. \( [[\text{vP never won}]]_1 \ [\text{vP NPI} \ t_1]] \)

**PROBLEM III (NPI, UNDERGENERATION):** Remnant movement analysis predicts (15)a/b to be ill-formed, because the subject NPI does not reside within the scope of *never* at any stage of the derivation.

**OBSERVATION:** More generally, 2\(^{nd}\) attempt at parsing V2 clauses ((7); low adverbs) creates the same problem for *adverbs* that was seen to afflict *subjects* in the 1\(^{st}\) attempt ((3); high adverbs): precedence cannot be translated into scope.

### 2.3. Third Problem: Base Position of Adverb

- *einsmal*/‘once’ falls in group of manner adverbs and aspectual adverbs such as *schon*/‘already’, *immer*/‘always’, *fast nie*/‘almost never’ and *seltens*/‘seldom’.
- *schon*/‘already’ participates in perfect formation. Perfect semantic is (on widely held assumption) situated above vP. Hence, *schon*/‘already’ needs to attach outside vP, and not at VP-level (as in (7)).

(17) Alle sind schon da  
   *all are already here*  
   ‘Everybody has already arrived’

Remnant movement analysis of (17) (structurally isomorphic to (2)) needs to assume that adverbs can also attach high. This assumption generates the problems discussed for the 1\(^{st}\) attempt (see (3)).

Alternatively, one might assume that the adverb is interpreted in derived position, above vP (probably involving a semantically vacuous trace of adverb movement in (18)b). Crucially, this analysis entails that the intermediate step (18)d must be a representation that is accessible to the semantic interpretation:

(18) Derivation of *Everybody has already arrived*:

- a. \( [\text{vP Everybody} \ [\text{vP already V}]] \)
- b. \( [\text{already}_1 \ [\text{vP Everybody}[t_1 \ V]]]] \) \( \text{Evacuation of } \text{already} \)
- c. \( [[\text{vP Everybody} \ [t_1 \ V]]]_2 \ [\text{already}_1 \ t_2 ]]] \) \( \text{Remnant mov’t of vP} \)
- d. \( [\text{already}_1 \ [[\text{vP Everybody} \ [t_1 \ V]]]] \) \( \text{Reconstruction of vP} \)
- e. \( [\text{vP Everybody} \ [\text{already} \ V]] \) \( \text{Reconstruct. of } \text{already} \)

**PROBLEM:** Remnant movement analysis has to assume that intermediate reconstruction step is available for some interpretive purposes, but not for others:

- Intermediate step d can serve as LF-output: perfect semantics ((18)d))
- Intermediate step d is not accessible: computation of scope ((11)d), NPIs licensing ((14)d)
PART II: SCOPE SHIFTING HEAD MOVEMENT

(19) SAHM-CONJECTURE: There are instances of semantically active head movement.

CONSEQUENCE I: At least some instances of HM take place in the stem of the derivation, not at PF.
CONSEQUENCE II: Contradicts the claim that all instances of HM result from remnant movement.

● V° does not c-command, and therefore cannot obtain scope over β in (20)b:

(20) a. ZP
    YP
    β
    XP
    α
    V°

b. ZP
    XP
    α
    V°
    β
    t_{XP}

→ Problem: scope order V° > β cannot be derived

NB: Further movement of V° in (20)b to a node c-commanding (inverse linking) can be excluded as such a process would involve displacement of terminals, an operation not licit given the axioms of remnant movement analyses.

● Test context for SAHM: Inverse scope readings for modal w.r.t. quantificational subject (QP).

(21) a. OVERT SYNTAX  b. SCOPE  c. LF

THREE DESIDERATA/INGREDIENTS OF ANALYSIS

① It has to be demonstrated that modals are base-generated low and move (instead of surfacing in their base position). ⇓ § 1

② A semantics which interprets the head movement chain in such a way that the modal takes scope in its derived position. ⇓ § 2

③ It has to be shown that QP is not interpreted in its base position, and that the lowest position in which QP can be interpreted in (21)c is above the base position of the modal. ⇓ § 3
1. **NEW EVIDENCE THAT MODALS MOVE**

Evidence for the view that modals move, and then reconstruct (where reconstruction is subject to further, yet to be identified conditions): circumstantial modals show strong preference for narrow scope w.r.t. negation (on other modalities see Fintel & Iatridou 2004a/b; Lerner & Sternefeld 1984; Öhlschläger 1989; Iatridou & Sichel, in progress, among others):

(22) John can<sub>3</sub> not<sub>3</sub> come along today ¬ ∼ > ◊ /??◊ > ∼ (circumstantial)

(23) He can<sub>3</sub> always t<sub>3</sub> count on me always > ◊/#◊ > always

(24) He can<sub>3</sub> never t<sub>3</sub> do that never > ◊/#◊ > never


NEG-SHIFT HYPOTHESIS: Inverse scope is the product of covert movement of the negation across the modal (henceforth *Neg-Shift*).

There is good reason to believe that the Neg-shift hypothesis is incorrect, though.

- Test context: In (26), the PPI *sometimes* must not be construed within the scope of negation.

(26) It can sometimes not be avoided to confront the enemy. Sometimes > ¬◊

The inverted scope order can either be attributed to reconstruction of the modal ((27)), or to covert Neg-Shift followed by covert movement of the PPI *sometimes* ((28)):

(27)  

*Derivation A: modal reconstruction*

a. 

\[
\text{[AgrSP it can}_1 \text{sometimes [NegP not [TP t}_1 \text{]} \text{Surface order}
\]

b. 

\[
\text{[sometimes [NegP not [TP can] \text{Reconstruction of can}}
\]

(28)  

*Derivation B: Neg-Shift and modal base-generated*

a. 

\[
\text{[XP not}_2 \text{[AgrSP it can [sometimes [NegP not [TP t}_3 \text{]} \text{Surface order}}
\]

b. 

\[
\text{[sometimes [XP not}_2 \text{[AgrSP it can [t}_3 \text{]} [NegP t}_2 \text{[TP Covert Neg-Shift}}
\]

c. 

\[
\text{[VP sometimes}_3 \text{[XP not}_2 \text{[AgrSP it can [t}_3 \text{]} [NegP t}_2 \text{[TP Covert movement of sometimes}}
\]
1.1. FIRST ARGUMENT AGAINST NEG-SHIFT

- Szabolcsi (2002): The weak indefinite PPI *somewhat* in (29) has to satisfy two conflicting requirements simultaneously. As PPI, *somewhat* needs to outscope negation, but being a weak indefinite, it cannot escape the negative island established by negation:

(29) *John doesn’t appreciate this somewhat

- *Sometimes* behaves like *somewhat:*

(30) *John didn’t sometimes come to class

**Observation:** *sometimes* cannot covertly move across negation in (30). Thus, it should not be able to do so in (26), either.

→ (26) derives from reconstruction of the modal, as in (27), and not from Neg-Shift and movement of the PPI, as in (28).

1.2. SECOND ARGUMENT AGAINST NEG-SHIFT

- While regular PPI’s of the shape *some NP* may escape clausal negation, for many speakers these PPI’s cannot move across negative subjects. This can be expressed as in (32):

(31) a. John didn’t buy some book
   b. ??Nobody bought some book.

(32) **PPI Generalization**

PPIs cannot covertly cross over the subject position (for present purposes: AgrSP).

- The negative subject effect is even more pronounced with the PPI *sometimes:*

(33) a. Nobody can always win
   b. *Nobody can sometimes win

- The Neg-Shift derivation (28) locates the LF position of the adverbial PPI *sometimes* to the left of the subject, contradicting the PPI-Generalization (32):

(34) \[ YP \textit{sometimes}_3 \[XP \textit{not}_2 \[AgrSP \textit{it can}_1 \[t_3 \[NegP t_2 \[TP t_1 \]

→ (26) derives from reconstruction of the modal, as in (27), and not from Neg-Shift and movement of the PPI, as in (28).
2. SCOPE SPLITTING

2.1. SCOPE SPLITTING (AKA NEGATIVE SPLIT)

- Dissociation of the surface position and the semantic scope of negation. Many cases of splitting involve negative quantifiers and modals (Bech 1954/57: §80; Kratzer 1989; Penka 2002; Heim 2000; de Swart 2000; among others).

(35) a. No Irish need apply. ¬□ > Θ (Fintel & Iatridou 2004a)
   “It is not necessary that Irish apply”

b. No references have to be supplied.

c. No deposit is required. ¬◊ > Θ (ibid, crediting Irene Heim)

(36) Sam can find no solution. ¬◊ > Θ (Johnson 2001)
   “It is not possible, that Sam finds a solution”

- Negative indefinites may also be assigned wide scope de re reading, which is characterized by weak t-conditions, though (de Swart 2000; Penka & Stechow 1999; (37)b from Penka 2002):

(37) a. [No Irish VP] = ¬∃ > □
   true if ‘∃x[Irish(x)]’ is false, i.e. if there are no Irish

b. = ¬∀x[Irish(x)∧[VP](x)] = true if there are no Irish (ex falso quodlibet version)

2.2. SCOPE SPLITTING AS FEATURE CHECKING

- Stechow (1992/93); Penka (2002): Scope splitting is an instance of NPI licensing. Negation is overtly morphologically marked on the negative quantifier, but interpreted in a higher - possibly designated (NegP) - position.

(38) a. Sam [XP X° [+neg] [YP can [VP find [DP no solution] [+neg]]]]

b. [Sam₂ [XP not [YP can [no solution] [find (t₁)(t₂)]]]]

c. ¬◊∃x[solution(x) ∧ find(x)(Sam)]

- Implementation in terms of [+neg]-feature: Morphologically negative NPs bear [+neg] that must be checked

(39) a. Syntax: [+neg] must be in the scope of clause-mate NOT at LF.

b. Semantics: [[No NP] [+neg]] = [[NP]]
   [[Not every NP] [+neg]] = [[every NP]]
   (adopted from Penka 2002; Penka and von Stechow 2001; von Stechow 1993)

(40) a. LF: [AgrSP SubjectPF [NegP NOT [TP tsubject [NP [+Neg] ...]]"

b. LF: *[NP [+Neg] ... [AgrSP SubjectPF [NegP NOT [TP tsubject [...]]
2.3. NEGATED UNIVERSALS

Negated universals also have split readings. The universal can be interpreted de dicto w.r.t. the modal, while the modal is read within the scope of negation:

(41) Not everybody can be an orphan. ¬◊ ∀ "It is not possible, that everybody is an orphan" (André Gide)

(42) Not every pearl can be above average size. ¬◊ ∀ "It is not possible, that every pearl is above average size" (Analytically true due to the definition of ‘above average’)

(43) Not every boy can make the team. ¬◊ ∀ "It is not possible, that every boy is on the team"

(44) Not every lottery number can be drawn.

\[ \lambda w \neg \forall x [\text{lottery\_number}(x)(w) \rightarrow \exists w' [\text{Acc}(w')(w') \land \text{be\_drawn}(w')]] \]

\[ \lambda w \neg \exists w' \forall x [\text{Acc}(w')(w') \land \text{lottery\_number}(x)(w') \rightarrow \text{be\_drawn}(w')] \]

(45) Model which satisfies split de dicto reading (44)b, but not de re reading (44)a:

\[ w_0 \quad \bullet \quad \circ \quad \circ \]
\[ w_1 \quad \circ \quad \bullet \quad \circ \]
\[ w_2 \quad \circ \quad \circ \quad \bullet \]

For any \( x \in D_x \) and \( w \in D_w \),

- x is a lottery number in w
- x is drawn at the lottery in w

The evidence applies to circumstantial reading of can (as opposed to dispositional interpretation; see e.g. Bhatt 1997; Hackl 200? on ability attributions and von Wright 1951 ‘dynamic’ modality).

(46) a. Sally can come along (because the car fits five) Sidem
b. Sally can swim

(47) a. Circumstantial reading ⇒ Raising complement (<st, st>)
b. Dispositional reading ⇒ Control complement (<<e, st>,<e, st>>)

Other types of modals and other modal backgrounds may lead to different results (see e.g. Fintel & Iatridou 2004; Iatridou & Sichel, in progress on scopal properties of different types of modals).

2.4. ARGUMENT FOR SAHM: ANALYSIS OF SPLITTING WITH NEGATED UNIVERSALS

Analysis of scope splitting with negated universals generates an argument for SAHM:

(48) ASSUMPTIONS (SYNTAX):

1. The modal can overtly moves from T° to Neg° to AgrS° (see §1)
2. not every boy bears a [+neg]-feature and must be in the scope of abstract negation NOT (follows from analysis of scope splitting (39))
3. (not) every boy cannot reconstruct below T° (for evidence see §3 below)

(49) ASSUMPTIONS (SEMANTICS):

1. World variables are explicitly represented as silent entities in the object language.
2. Predicates always enter the derivation supplied with empty world arguments as their sister nodes (see Heim & Fintel 2000, 2002; Percus 2000, a.o.).
3. Movement of modal leaves a trace of type s (worlds/events/situations)
3. THE LF POSITION OF THE SUBJECT

GOAL: Demonstrate that the subject of (50) is interpreted above the base position of the modal.

(50) Not every boy can make the team.
3.1. Negative Polarity Licensing

Evidence for the assumption that the subject in (50) cannot be interpreted below the base position of the modal can be derived from the interaction of scope splitting and NPI-licensing.

**STEP I: IMMEDIATE SCOPE CONSTRAINT**

- *Not everyone* licenses NPIs:

  (52) Not everyone who works on negation has ever read any Jespersen (Horn 2000: (49b))

  **OBSERVATION:** Split reading is incompatible with NPI (cf. to split readings in (54)).

  (53) *Not everyone can ever be on the team

    \( \neg (\neg \text{NPI}) \times (\neg \text{NPI}) \times (\forall \neg \text{NPI}) \)

  (54) a. Noone can ever be on this team

    \( \neg \text{NPI} \times \neg \text{NPI} \times \exists \)

    b. Noone can ever be sure whether Homer was just one person.

- Immediate Scope Constraint (Linebarger 1980):

  (55) a. He didn’t like anything (Linebarger 1987)

    b. *He didn’t always like anything * \( \neg \forall \neg \text{NPI} \)

  (56) a. I didn’t want her to eat any cheese (Linebarger 1980: 29)

    b. *I didn’t want every boy to eat any cheese * \( \neg \forall \neg \text{NPI} \)

  (54) is ill-formed for the same reason that (57) is, both violate the Immediate Scope Constraint:

  (57) *It is not possible that everybody will ever be on the team.

    \( \neg \forall \neg \text{NPI} \)

  (58) It is not possible that you will ever be on the team.

    \( \neg \forall \neg \text{NPI} \)

**STEP II: LOCATION OF ADVERBS**

- *Ever and always* are both aspectual modifiers. If they cooccur, *ever* needs to precede *always* (falls out from Immediate Scope Constraint):

  (59) a. No one source is ever always authoritative.

    b. *No one source is always ever authoritative.

  (60) a. Where in the world is it ever always easy?

    b. *Where in the world is it always ever easy?*

- *always* can scope above modals to its left (see (23), repeated below), indicating that *always* originates as a TP-adjunct (or to whatever node contains the base but excludes the derived position of the modal).

  (23) \(
  [[\text{AgrSP He} [\text{AgrS: can}_{1} [\text{TP always}_{1} [\text{TP}_{1} \text{ t}_{1} \text{ count on me}]]]]] \quad \text{always} \times \Diamond/??\Diamond > \text{always}
  \)

  [NB: Certain modals may reconstruct below *always*, but this is orthogonal for present purposes.]
Given (23) and the order restriction, *ever* must be parsed at least as high as a TP-adjunct:

\[(61)\]

a. *ever* precedes *always*
b. *always* is a TP-adjunct (or adjunct to a higher node such as NegP)
c. \(\therefore\) *ever* is an adjunct to TP or an adjunct to a node above TP

**COROLLARY:** The NPI *ever* can be used as a test to measure the ‘depth’ of the subject at LF.

\[(62)\]

a. If the subject is above *ever*, it is located above TP.
b. If the subject is lower than *ever*, it is located below TP.

\[(53)\] *Not everyone can ever tbe on the team\( \neg (\neg \text{NPI}) \times (\neg \text{NPI}) \times \forall (\neg \text{NPI})\)

- If the subject is located above *ever* at LF, (53) can be excluded by the Immediate Scope Constraint:

\[(63)\] 

\[\text{\textbf{\text{\textit{IMMEDIATE SCOPE CONSTRAINT}}}} \rightarrow [\text{\textit{ever}}_{\text{NPI}}] \ldots \ t_2 \ldots \ t_1\ldots\]

- Assume, alternatively, that the subject can be interpreted below *ever* (and the base position of the modal.) Then, (64) should be a possible representation for (53), and (53) is predicted to be well-formed.

\[(64)\] 

\[\text{\textbf{\textit{IMMEDIATE SCOPE CONSTRAINT}}}} \rightarrow [\text{\textit{ever}}_{\text{NPI}}] \ldots \ T' \ldots \ XP \ldots\]

\[\rightarrow\] The subject (in the scope splitting construction) cannot be interpreted below \(T^o\).

- This finding confirms the assumption (crucial for SAHM) that the subject is interpreted high:

\[(65)\] 

**Scope splitting and SAHM:**

a. \(T^o\) is the base position of the raising modal *can*.
b. The subject in (50) (*\(\neg\) below) is interpreted *above* the base position of the modal (\(\therefore\)).
\[\therefore\] c. The modal must be interpreted in a derived position (= SAHM).
Not every boy can make the team

\( \neg \diamond \chi \forall \)

a. Spell-out:

Not every boy \( \_{\mathbf{Neg}}\ t_{2,\text{subject}} \) can \( \_{\mathbf{TP}} t_{2,\text{subject}} \) make the team \( \_{\mathbf{XP}} t_{2,\text{subject}} \)

b. LF:

\( \neg \) can \( \_{\mathbf{TP}} \) every boy \( \_{\mathbf{XP}} \) make the team \( \_{\mathbf{XP}} \)

3.2. STRONG VS. WEAK NPS AND A-MOVEMENT

Further evidence for the ban on subject reconstruction comes from the observation that strong NPs undergo reconstruction only in a very restricted fashion.

• Lasnik (1998: 93): No reconstruction below modified strong NPs. Weak NPs may undergo scope diminishment (focusing on determiner scope, not on \textit{de dicto/de re} contrasts):

(66) a. Every coin is 3% likely to land heads. \( \forall \times 3\% \text{likely} / 3\% \text{likely} \times \forall \)
b. A coin is 3% likely to land heads. \( \exists \times 3\% \text{likely} / 3\% \text{likely} \times \exists \)

Predicate adjectives presumably do not move in English. Hence, the observation that strong NPs need to take wide scope can be taken to support the assumption that

→ Strong NPs cannot reconstruct below (the base position of) raising predicates.

→ Given that circumstantial \textit{can} is a raising predicate, the subject must not reconstruct in (50)

• ECM (at least on one prominent analysis): ECM subject resides in \textit{higher} clause at Spell-Out, but may reconstruct into the scope of negation:

(67) I expected everyone not to be there.

\( \forall \times \neg / \neg \times \forall \)

a. Syntax: I expected \( \_{\mathbf{XP}} \) everyone \( \_{\mathbf{VP}} \) not \( \_{\mathbf{TP}} t_{2} T^{\circ} \) to be ...]]]]

b. LF: I \( \_{\mathbf{XP}} \) everyone \( \_{\mathbf{VP}} \) expected \( \_{\mathbf{NegP}} \) not \( \_{\mathbf{TP}} \) everyone \( \_{\mathbf{to be ...}} \)]]] \( \neg \times \forall \)

→ Revised condition: strong NPs cannot reconstruct below \( T^{\circ} \)

PROBLEM: Unavailability of narrow scope reading in (66) might be due to the fact that modified predicates are subject to stricter conditions on reconstruction. Non-modified predicates e.g. permit \textit{de dicto} readings of strong NPs:

(68) The height of the yacht seemed to exceed its actual height. \( \checkmark \) consistent, \textit{de dicto}

3.3. VP-TOPICALIZATION

• vP-topicalization results in \textit{scope freezing} (see e.g. Barss 1986; Elbourne & Sauerland 2002; Lechner 1996, 1998; (69) from Huang 1993):

(69) \( \_{\mathbf{vP}} \) Teach every student], noone will \( \neg \exists \times \forall / *\forall \times \neg \exists \)
The subject cannot reconstruct to a position inside the fronted constituent, as in (70):

\((\text{70})\)  \(\times\)  \textit{Derivation A: subject reconstruction}
\begin{itemize}
  \item a. will \([_{vP} \text{noone} [_{vP} \text{teach every student}]])
  \item b. will \([_{vP} \text{every student}_1 \; [_{vP} \text{noone} \; [_{vP} \text{teach t}_1]]])
\end{itemize}
\textit{Subject reconstruction} \(\forall > \neg \exists\) \(\text{(Short) object QR}\)

\((\text{71})\)  \(\Rightarrow\)  \textit{Derivation B: no subject reconstruction}
\begin{itemize}
  \item a. \([_{TP} \text{noone} \; \text{will} \; [_{vP} \text{teach every student}]])
  \item b. \([_{TP} \text{noone} \; [_{vP} \text{every student}_1 \; [_{vP} \; \text{[vP teach t}_1]]]])
\end{itemize}
\(\neg \exists > \forall\) \(\text{(Short) object QR}\)

\(\bullet\) vP-topicalization seems compatible with split reading (judgements relative to control (73)):

\((\text{72})\)  \text{The photographer told them that not every child can sit in the first row, and}
\([_{vP} \text{sit in the first row}], \text{not every child can.}\) \(\neg \diamond > \forall\)

\textbf{Scenario for Split Reading:}

In school, a photographer is taking pictures of each class. The children are arranged sitting in rows. All the parents want their own kids to sit in the first row - something which is impossible.

\(\circ\) Compare (72) to sharply ungrammatical (73).

\((\text{73})\)  \begin{itemize}
  \item a. *...and \([_{vP} \text{sit in the first row}], \text{not every child seems to}\)
  \item b. *...and \([_{TP} \text{to sit in the first row}], \text{not every child seems}\)
\end{itemize}

\textbf{Conclusion:} Topicalization in (72) excludes subject reconstruction to a vP-joined position, in defense of the original argument for SAHM.

\textbf{Resume:}

- Remnant movement accounts of HM can - in their present version - not express correlations between order and scope in German V2 constructions.
- The structure of an argument for the claim that HM can result in scope shifting (SAHM).
  - If correct, SAHM poses a further complication for remnant movement analyses of HM.
  - SAHM indicates that HM cannot generally be computed at PF.
REFERENCES

von Fintel, Kai and Sabine Iatridou. 2004a. Class handout, MIT.