THE STRUCTURE OF THE VP


GOAL: Gain an understanding for why (1) is part of the grammar.

(1) John intended to give the book to the children, and give the books to them he did on each other’s birthdays

PESETSKY (1995)

Pesetsky (1995) observes that constituency tests and tests sensitive to c-command yield conflicting evidence for the organization of phrase markers in English double object constructions (PESETSKY’S PARADOX). While the availability of partial predicate movement and coordination indicates that the VP is internally right-branching, data from negative polarity licensing and binding is compatible only with a left-branching projection line for the VP.

EVIDENCE FOR RIGHT-BRANCHING VP

- Coordination test points to a right-branching structure:

(2) a. John gives [candy to children on weekends] and [money to homeless people on weekdays]
   b. John gives candy [to children on weekends] and [to homeless people on weekdays]
   c. John gives candy to [children on weekends] and [homeless people on weekdays]

(3) 

```
  V'
gives PP
     PP and PP
       NP P' NP P'
         candy to PP money to PP
            NP P' NP P'
               children on NP homeless on NP
                  weekends weekdays
```
Licensing of Negative Polarity Items and pronominal variable binding also indicates that VP is right-branching (licensor in **bold face**, licensee in *italics*; see also Philips 1996: 25ff for discussion)

(4)  
  a. John gave **nothing** to *any of the children* in the library on *his* birthday  
  b. John gave candy to *none of the children* in *any library* on *his* birthday  
  c. John gave candy to children in *no library* on *any public holiday*  
  d. *John gave *anything* to *none of the children*  
  e. *John gave candy to *any of the children* in *no library*  

The same results can be replicated for Superiority, WCO, pronominal variable binding and anaphoric dependencies.

**Evidence for left-branching VP**

VP-topicalization indicates that VP is left-branching: VP-fronting can move any string to the left which includes the left edge of the VP. Assuming that movement tests reflect the structure of the constituents, the VP has to be organized in a left-branching tree:

(5)  
  a. John intended to give candy to children in libraries on weekends, and  
  b. ...[VP give candy to children in libraries on weekends], he did  
  c. ...[VP give candy to children in libraries] he did on weekends  
  d. ...[VP give candy to children] he did in libraries on weekends  

(6)  

Strings which do not include the left edge of the VP and extend from there contiguously cannot be extracted. Crucially, while (7)a is out on both parses - left-branching or right-branching - (7)b is predicted to be well-formed on the assumption of a right-branching structure:

(7)  
  a. *...and [to children in libraries] he did give candy t on weekends.  
  b. *...and [in libraries on weekends] he did give candy to children t.

**Paradox**: Within VP, the coordination test and c-command sensitive tests parse the string ABC as [A [BC]], while movement diagnostics assign ABC the factorization [[A B][C]].

Pesetsky (1995) develops a dual system, which parses complex VP’s into two distinct phrase-markers, a right-branching *Cascades* and left-branching trees generated by *Layered Syntax*.
In Phillips (1996), the paradox is resolved by the assumptions that sentence processing interacts with the syntactic component and influences the architecture of phrase structure. More specifically, he assumes that (i) production grammar follows the same principles as sentence processing (‘the parse is the grammar’) and that (ii) a top-down parser reorganizes left-branching tree structures into right-branching phrase-markers during the course of the syntactic derivation. Intuitively, a string ABC is given the factorization [AB] first. Then, C is merged at the right edge of [AB], resulting in a tree of the form [A[BC]]. Thus, while [AB] forms a constituent at some initial point of the derivation, as required by movement and coordination tests, C is within the c-command domain of both A and B in the final output, accounting for the binding facts (for extensions see also Richards 2000).

Two principles ensure that linear order corresponds to c-command:

\[(8)\]

**INCREMENTAL MERGER**

a. **MERGE RIGHT:** New items must be introduced at the right edge of a structure.

b. **BRANCH RIGHT:** Merge as low down as possible.

(vd. Late Attachment; Frazier 1978)

\[(9)\]

a. \[A \quad B\]

b. \[A \quad B\]

c. \[A \quad B \quad C \quad D\]

\[E \quad F\]

**SAMPLE DERIVATION**

The fronted VP is built according to Branch Right (vd. (11)a -c)). Then, a copy is inserted ((11)d). Note that the copy of the fronted VP is a constituent, when it is merged ((11)d), satisfying the identity requirement between antecedent and its copy derivationally. Adjuncts are merged once the parser reaches the right edge of the copy, where they are attached low at the right edge ((11)e).

(10) John intended to [\textit{VP} give candy to children on weekends], and [\textit{VP} give candy to children he did on weekends]

(11) John intended to give candy to children on weekends and

a. [\textit{VP} give candy]

b. [\textit{VP} give [candy to]]

c. [\textit{VP} give [candy [to [children]]]] he did

d. [\textit{VP} give [candy [to [children]]]] he did [\textit{VP} give [candy [to [children]]]]

e. [\textit{VP} give [candy [to [children]]]] he did [give [candy [to [children [on [weekends]]]]]]

The system generates a number of interesting predictions (see Phillips 1996, to appear, and Richards
(12) **Prediction I:** Constituency changes over course of derivation. C-command relations do not change.

That is, expansion is predicted to leave c-command relations unaffected. Whenever new categories are attached to the right edge of a phrase, constituency is changed, but existing c-command relations are not altered:

(13) \[[A \ B]\] \Rightarrow \[[A \ B \ C]\] \Rightarrow \[[A \ B \ [C \ D]]\]

This ensures that sentences are parsed into right-branching trees and that precedence translates into c-command.

(14) **Prediction II:** Constituency changes systematically: Adding material to the right edge of a constituent (e.g. \[[A \ B]\] in (15)) destroys this constituent and expands its right edge (B to C in (15)). Constituency changes as the string expands sequentially to the right.

(15) \[[A \ B]\] \Rightarrow \[[A \ B \ C]\]

This leads one to expect that left and right-ward movement do not behave alike: The parser proceeds from left to right, and therefore allows for low attachment of terms only at the right edge of a phrase. Given the assumption that dislocated XPs have to structurally match their antecedent (at least at some point in the derivation), left-ward movement is predicted to behave more liberally than its right-ward counterpart in that categories can be freely attached to a copy of left-, but not to a copy of right-ward movement.

**Test A: Left-ward Movement**

With left-ward movement, it is expected that the copy in the base position can be expanded into a right-branching constituent, as in (16), Step 2:

(16) Step 1: \[[[A \ B] ... .... [A \ B]]\] \[A \ B\] forms constituent, licensing movement

Step 2: \[[[A \ B] ... .... [A \ [B \ C]]\] \[B\] c-commands C

Since the movement chain is completed before the c-command sensitive tests apply, categories inside the fronted VP c-command material at the right periphery of the copy. This prediction is empirically borne out.

**Solution to Peletsky’s Paradox**

(17) John intended to \[\text{[vp give the book to the children]}, \text{and, [vp give the book to them]}\] he did on each other’s birthdays

Step 1: \[\text{[vp give the books to them]}\] he did \[\text{[vp give the books to them]}\]

Step 2: \[\text{[vp give the books to them]}\] he did \[\text{[vp give the books to them on eo’s birthdays]}\]
The same strategy ensures that fronted PPs can bind into stranded categories. Since the structure is strictly right-branching, no special proviso is required to allow NPs to bind from inside a PP:

(18)  
\[
\begin{align*}
\text{a. } & \text{ John gave money to each of the girls for for her college fees} \\
\text{b. } & \text{ [pp To each of the girls], John gave money to for for her college fees}
\end{align*}
\]

Step 1:  
\[
\text{[pp To each of the girls], John gave money [pp to each of the girls]}
\]

Step 2:  
\[
\text{[pp To each of the girls], John gave money [pp To each of [the girls t for her college fees]]}
\]

(19) **Problem**: Objects stranded by VP-topicalization take scope over the VP they originated in (‘Scope Freezing’; Sauerland 1998:591)

(20)  
\[
\begin{align*}
\text{a. } & \text{ and David gave every handout to one of the student} \\
\text{b. } & \text{ and give every handout David did to one of the student} \\
\text{c. } & \text{ and giving every handout David is to one of the student}
\end{align*}
\]

This indicates that remnants are merged high, instead of low as predicted by Phillips.

**Test B: Right-ward Shift**

In contexts of right-ward movement, the copy cannot be expanded into a right-branching constituent. This is so because extension at the right edge of the copy (by C in (21)) would lead to a configuration in which the moved category and the copy would no longer match structurally:

(21)  
\[
*[[A [B C]] ... .... [[A B]] \\
B c-commands C, but [A B] and its copy do not match.
\]

Thus, right-ward movement should not display manifestations of Pesetsky Paradoxes. The only way to extract [A B] while at the same time stranding C is by attaching C high, resulting in a left-branching structure:

(22)  
\[
[[A B] C] ... .... [[A B]] \\
[A B] forms constituent, but B does not c-command C
\]

NB: Merge Right cannot be violated, but Branch Right can, if independent factors prohibit right-branching structure. That is, not all trees are strictly right-branching.

- The prediction is borne out, as witnesses by the absence of reconstruction effects with Heavy NP Shift of PPs:

(23)  
\[
\begin{align*}
\text{a. } & \text{ I gave money to the boys for themselves} \\
\text{b. } & \text{ *I gave money \(\bigtriangleup\) for themselves to the boys who had helped me clean the yard}
\end{align*}
\]

In tree (24)a, *to the boys does not form constituent, and movement is prohibited. In (24)b,
movement of PP is licenced, but *the boys* does not c-command anaphor:

\[(24)\]

\[
\begin{array}{c}
\text{a. } \text{PP} \\
\text{P} \\
\text{to} \\
\text{NP} \\
\text{PP} \\
\triangle \\
\text{the boys} \\
\text{P} \\
\text{for} \\
\text{NP} \\
\text{PP}
\end{array}
\]

\[
\begin{array}{c}
\text{b. } \text{VP} \\
\text{PP} \\
\text{to} \\
\text{NP} \\
\text{PP} \\
\triangle \\
\text{the boys} \\
\text{P} \\
\text{for} \\
\text{NP} \\
\text{PP} \\
\text{themselves}
\end{array}
\]

- Note that HNPS does in principle allow reconstruction, as witnessed by the fact that NPs reconstruct for Principle A (Baltin & Postal 1996):

\[(25)\]

\[\begin{array}{c}
a. \text{I described [the victim whose sight had been impaired by the explosion] to } \text{himself} \\
b. \text{I described } \triangle \text{ to } \text{himself [the victim whose sight had been impaired by the explosion]}
\end{array}\]

\[(26)\] **Prediction III:** Constituency is predicted to change permanently: Once a left-branching structure has been established, further conditions can only refer to the left-branching output, and not to earlier stages of the derivation.

Prediction III can be empirically tested on the basis of examples involving VP-ellipsis:

\[(27)\] John liked the movie, and Bill did \(\triangle\), too

\[\triangle = [v_p \text{ like the movie}]\]

\[(28)\] **Constraints on VP-ellipsis:**

1. The elliptical VP has to match its antecedent structurally.
2. Only constituents can be elided.

Assume the VP-ellipsis site is followed by an overt remnant (C below). \(A^B\) has to form a constituent because of 2 above. Moreover, according to 1, \(A^B\) has to form a constituent in the antecedent clause. It follows that material inside \([A B]\) is not expected to c-command either X or C.

\[(29)\]

1. **Step 1:** \(... [v_p A B] \) Build 1st conjunct. \([A B]\) forms constituent
2. **Step 2:** \(... [v_p A B] & .... \) Merge conjunction
3. **Step 3:** \(... [v_p A B] & ..[v_p A B] \) Identify VP-ellipsis \([A B]\) according to
4. **Step 4:** \(... [v_p A B] & \ [v_p A B] C \) Merge C high at VP to avoid violation of 1
5. **Step 4′:** \(*... [v_p A B] & \ [v_p A [B C]] \) Violation of 1
TEST A: QP-SCOPE
Object QPs display scope ambiguity w.r.t. modal adverbs

(30) John read every book quickly

a. Collective: The sum of all books was read quickly
b. Distributive: For each book that John reads, he reads it in a short time

To keep the two readings apart, consider the following scenario: John has the habit of reading exactly two books of 500 pages each year, one of which he starts January 1st and one of which he starts reading July 1st. But in principle, John is a quick reader, so he finishes them in one day each. In this scenario, (30) is judged as false in its collective reading, because there is a time span of half a year between John’s two books, which doesn’t exactly qualify as a ‘short time’. (30) is however true in its distributive interpretation, since reading a book in a day qualifies as quick reading.

A slightly more formalized paraphrase of the two readings can be given as follows (the variables ‘e’ range here over events)

(31) a. collective: \( \exists e [\text{quickly}(e) \land \forall x [\text{book}(x) \rightarrow \text{John_read}_x \text{ in } e]] \)
   ‘there was an event which lasted a short period of time and John read every book during this event’

b. distributive: \( \forall x [\text{book}(x) \rightarrow \exists e [\text{quickly}(e) \land \text{John_read}_x \text{ in } e]] \)
   ‘for every book, there was an event which lasted a short period of time and John read the book during this event’

• In VP-ellipsis, out of four possible readings only one is attested:

(32) John read every book quickly and Mary did slowly

a. \( \checkmark \) collective - collective
b. *distributive - distributive
c. *distributive - collective
d. *collective - distributive

(33) ASSUMPTION: Collective reading correlates with wide scope of adverbial, distributive reading with narrow scope.

(34) COROLLARY: Parallelism requirement on VP-ellipsis forces the adjunct to attach outside the VP, and distributive reading is blocked.
A side remark: Phillips’ assumption about when scope ambiguity arises can be challenged. In particular, the order QP^adverb should allow for both readings, given the assumption that QP is only optionally distributed over by D-operator/*-operator (Schwarzschild 1991, 1994). Order adverb^QP only allows for collective reading (since applying D/* to QP is vacuous).

There is a potential problem for the analysis, though:

(37) **PREDICTION:** QP should be able to QR over the adverbial if inverted scope is forced for independent reasons (parallelims).

In VP-ellipsis contexts with two quantificational subjects, two out of four readings are possible (Fox 1995; Hirschbühler 1982; Sag 1976):

(38) Some boy read every book quickly and some girl did slowly
a.  \( \exists > \forall \)
and \( \exists > \forall \)
b.  \( \forall > \exists \)
and \( \forall > \exists \)
c.  *\( \exists > \forall \)
and \( \forall > \exists \)
d.  *\( \forall > \exists \)
and \( \exists > \forall \)

This indicates that the object can QR over the subject inside the second conjunct (if scope inversion also applies inside the first one). Thus, in such contexts, one expects objects to take scope also over modal adverbials. Since wide scope of the object over the adverb allows for distributive reading, minimally changing the VP-ellipsis - modal examples by inserting a quantificational subject should feed the distributive uld interpretation. This predication seems to be incorrect (Phillips, to appear: 22)

(39) Some boy finished every book quickly and some girl did slowly
a.  \( \checkmark \)collective
b.  *distributive
A possible solution: subjects have to reconstruct inside VP for inverted scope (Hornstein 1995). Then, the object would not have to move across the adverbial.

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**TEST B: BINDING**

Parallelism requires that the antecedent and the ellipsis are both left-branching or both right-branching. If a remnant is attached to the right edge of the ellipsis site, it cannot be merged low, since this would violate parallelism (the antecedent would contain a node - the temporal PP - which is not included in the ellipsis). For the same reason, it cannot be attached high in a right-branching parse. The only option to satisfy parallelism and the requirement that only constituents elide is to employ a left-branching structure:

\[(40)\]

a. *John [VP gave books to them on each other’s birthdays] and Mary [VP did \(\triangle\) on each other’s first day of school] (\(\triangle = \text{gave books to them}\))

b. LF: ....Mary [VP [gave books to them] on each other’s first day of school]

\[(41)\]

<table>
<thead>
<tr>
<th></th>
<th>a.</th>
<th>b.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP</td>
<td>VP</td>
<td>PP</td>
</tr>
<tr>
<td>NP</td>
<td>VP</td>
<td>V’</td>
</tr>
<tr>
<td>books</td>
<td>PP</td>
<td>V</td>
</tr>
<tr>
<td>to them</td>
<td>V</td>
<td>PP</td>
</tr>
<tr>
<td>on each other’s birthdays</td>
<td>V</td>
<td>NP</td>
</tr>
<tr>
<td>give</td>
<td>to them</td>
<td>books</td>
</tr>
</tbody>
</table>

VP-ellipsis contrasts in this respect with VP-fronting (see above)

\[(42)\]

Mary said she would give books to them and
\([VP \text{ give books to them}] \text{ she did on each other’s first day of school}\)

---

**PREDICTION:** Not only should left-to-right binding relations between the elided VP and stranded material be impossible, but the antecedent VP should be left-branching, too.

This prediction is contradicted by the data, though. An anaphor inside the antecedent VP can be bound by an NP to its left, indicating that the antecedent VP is right-branching:

\[(44)\]

John gave books to them on each other’s birthdays and
Mary did \(\triangle\) on their first day of school
(\(\triangle = \text{gave books to them}\))
Note that it is not possible to construed the antecedent VP as right-branching, and to merge the remnant on *their first day of school* high as a VP-adjunct to the ellipsis. Such a derivation would violate parallelism (the antecedent would contain a node - the temporal PP - which is not included in the ellipsis).

**Further Problem: Locality**

The antecedent of the moved/elided VP cannot contain islands (Phillips, to appear: 39f). The remnant and the left edge of the VP have to be in a ‘local’ relationship:

(45) They wanted to assign each problem to a student,
    a. ...and [\(\text{VP assign each problem, to a student who slept during its, presentation}\) they did
    b. *...and [\(\text{VP assign each problem, to a student who slept they did}\) during its, presentation

Phillips (to appear: 40) accounts for this restriction by stipulation:

(46) Clause Constraint on VP-gaps (his 129)
In the sequence [...]Aux [\(\text{VP null}\) adverbial...] the adverbial is interpreted as a clausemate of the Aux.

**An Alternative Analysis**

- In V-final V2 languages (German, Dutch), any contiguous string starting from the right edge of the VP can be fronted by Remnant Topicalization (Haider 1993; den Besten & Webelhuth 1990, Müller 1998 among many others).

(47) Remnant Topicalization in German
    a. Sie wollte [\(\text{VP einem Freund ein Kamel zum Geburtstag schenken}\]
       She wanted a friend a camel to birthday given
       ‘She wanted to give a friend a camel for his birthday’
    b. [\(\text{VP einem Freund ein Kamel zum Geburtstag schenken}\) wollte sie
       a friend a camel to birthday given wanted she
    c. [\(\text{VP } t_i \text{ ein Kamel zum Geburtstag schenken}\) wollte sie einem Freund,
       a camel to birthday give wanted she a friend
    d. [\(\text{VP } t_i \text{ k zum Geburtstag schenken}\) wollte sie einem Freund, ein Kamel_k
       to birthday give wanted she a friend a camel
    e. [\(\text{VP } t_i \text{ k } \text{t_j schenken}\) wollte sie einem Freund, ein Kamel_k
       give wanted she a friend a camel to birthday
    f. ?*[\(\text{VP ein Kamel } t_j \text{ zum Geburtstag schenken}\) wollte sie einem Freund,
       a friend a camel to birthday given wanted she

(48) Assumption: Remnant Topicalization resolves Peetsky’s Paradox. Constituency conflict is explained by
(i) Scrambling of the remnant to a position outside VP and
(ii) Subsequent application of VP-Topicalization
(49) John intended to \[\text{[} \text{VP} \text{ give the book to the children}, \text{ and} \text{]} \text{[} \text{VP} \text{ give the books to them}] \text{ he did on each other’s birthdays} \]

(50) Step 1: \[\text{[} \text{VP} \text{ give the books to them on each other’s birthdays} \text{]}\]

Step 2: \[\text{[[on each other’s birthdays],} \text{[} \text{VP} \text{ give the books to them} t_k] \text{ ] Scrambling}\]

Step 3: and \[\text{[} \text{VP} \text{ give the books to them } t_k \text{]} \text{ he did [} \text{on each other’s birthdays} k t_j \text{]}\]

Note that the pronoun them c-command the trace of the stranded PP. Since fronted predicates invariantly reconstruct for assessment of interpretatioal principles, c-command and constituency are no longer at conflict.

**SOLVING THE LOCALITY PUZZLE**

Since scrambling is constrained to local (restructuring) contexts, long-distance remnants are correctly predicted to be blocked:

(51) They wanted to assign each problem to a student,
   a. ...and \[\text{[} \text{VP assign each problem, to a student who slept during its presentation] they did}\]
   b. *...and \[\text{[} \text{VP assign each problem, to a student who slept they did t_k} \text{]} \text{[} \text{PP during its presentation}] k\]

The analysis crucially rests on the assumption that English has a process similar to scrambling. Evidence for this claim comes from properties of a related construction: Pseudogapping.

**PSEUDOGAPPING**

Pseudogapping elides a VP, while stranding a remnant (examples from Johnson 1997; see Jayaseelan 1990; Lasnik 1995; Levin 1986 for discussion)

(52) Sally suspected Joe, but didn’t ◇ Holly

◇ = suspect

**ANALYSIS:** Johnson (1997): Pseudogapping derives from (i) scrambling of the remnant to a position outside VP with (ii) subsequent application of VP-ellipsis

(53) **SCRAMBLING IN DUTCH**

dat Jan Marie\_k heeft geprobeerd [t\_k te kussen]

that Jan Mary has tried to kiss
(54) **PSEUDOGAPPING**

Step 1: Sally suspected Joe, but didn’t \[ \text{[vp suspect Holly]} \] Source

Step 2: Sally suspected Joe, but didn’t \[ \text{[Holly}_k \text{ [vp suspect t}_k \text{ ]]} \] Scrambling

Step 3: Sally suspected Joe, but didn’t \[ \text{[Holly}_k \Diamond] \] VP-ellipsis

\[ \Diamond = \text{suspect} \]

**EVIDENCE FOR SCRAMBLING:**

All examples from Johnson (1997)

- Predicates don’t scramble and do not make good remnants

(55)  

a. dat Jan Marie om die reden intelligent vindt

\( \text{that Jan Marie for this reason intelligent finds} \)  

(Zwart 1993: 323)

b. *dat Jan Marie intelligent om die reden vindt

\( \text{that Jan Mary intelligent for this reason finds} \)

(56) *Rona looked annoyed, but she didn’t frustrated

- No scrambling of particles, and particles may not be stranded by Pseudogapping:

(57) *While Perry might swith the TV OFF, he won’t ON

(58)  

a. dat Jan de TV steeds uit zet

\( \text{that Jan the TV all the time out puts} \)

b. *dat Jan de TV uit steeds uit zet

\( \text{that Jan the TV out all the time puts} \)

- Locality constraints on long-distance Scrambling in Dutch and on Pseudogapping are identical:

(59)  

*dat Jan het boek zijn vader gelesen heeft [om t te pliezeren]

\( \text{that John the book his father read has to please} \)

‘that John has read the boook to please his father’

(60) *While Rusty might leave in order to please Mag, he won’t his father

**REMAINING PUZZLES**

There are at least three types of open problems for the analysis:

I. No reconstruction of remants into Pseudogaps

II. Pseudogapping and VP-ellipsis do not converge in all properties

III. Remnant movement: overt or covert ‘scrambling’?
ad I: On the present account, it remains unclear why remnants reconstruct into the copy of VP-topicalization, but not into Pseudogaps:

(61) a. John intended to \( [\text{VP give the book to the children}] \), and \( [\text{VP give the books to them}] \) he did on each other’s birthdays

b. *John \( [\text{VP gave books to them on each other’s birthdays}] \) and Mary \( [\text{VP did } \triangle] \) on each other’s first day of school
\( (\triangle = \text{gave books to them}) \)

II. DIFFERENCES VP-ELLIPSIS - PSEUDOPELLAPING

Pseudogapping and VP-ellipsis should behave alike - modulo constraints on scrambling. Still, there are some curious dispartities:

- Backwards VP-ellipsis is possible, but backward pseudogapping is not.

(62) a. Although Holly doesn’t, Doe eats rutabagas

b. *Although Holly doesn’t eggplants, Doe eats rutabagas

- Haik (1987): pseudogapping cannot elide part of a PP:

(63) *Sally will stand near Meg, but he won’t Holly

Tomioka (1997): pseudogapping cannot elide part of a NP

(64) While Holly didn’t discuss a report about every boy, she didn’t every girl

But VP-ellipsis can elide part of PPs or NPs:

(65) ?I know which WOMAN Fred will stand near, but I don’t know which MAN he will

(66) I know which WOMAN Fred will discuss a report about, but I don’t know which MAN he will

The problem is not unsurmountable, though: Given that Pseudogapping is VP-ellipsis plus ‘scrambling’, Pseudogapping should be at least as constrained as VP-ellipsis; other factors, which are related to ‘scrambling’ might filter out further instances of Pseudogapping.

III. NEGATION-STRANDING IN GERMAN

Above, it was assumed that remnant topicalization in German generalizes to English. The analysis of remnant topicalization rests on the assumption that remnants can be stranded by overt movement. There is however also evidence that movement cannot proceed in an overt fashion in
these constructions. This generates a new PARADOX.

- In German, all NP-objects - even indefinites - leave VP overtly, as shown by relative word order w.r.t. negation (Brugger & Polletto 1993):

(67) **DEFINITE OBJECTS**
   a. weil er dieses Buch nicht gelesen hat
      \(\text{since he this book not read has}\)
      \(\text{‘since he hasn’t read this book’}\)
   b. *weil er **nicht** dieses Buch gelesen hat
      (✓ in constituent negation reading)

(68) **INDEFINITES**
   a. weil er zwei Bücher nicht gelesen hat
      \(\text{since he two books not read has}\)
      \(\text{‘since he hasn’t read two book’}\)
   b. *weil er **nicht** zwei Bücher gelesen hat
      (✓ in constituent negation reading)

- PP-objects may remain in-situ, indicating that movement is case-driven (SpecvP, SpecAgrOP, ...):

(69) a. weil er den Hans nicht gesprochen hat
   b. *weil er **nicht** den Hans gesprochen hat
   c. weil er mit dem Hans nicht gesprochen hat
   d. weil er nicht mit dem Hans gesprochen hat

- VP-topicalization can pied-pipe the object, stranding negation. This suggests that Case-checking proceeds by covert/feature movement → **PARADOX**:

(70) a. Dieses Buch gelesen hat er nicht
   \(\text{this book read has he not}\)
   \(\text{‘He hasn’t read this book’}\)
   b. Zwei Bücher gelesen hat er nicht
   \(\text{two books read has he not}\)

- The nominative subject of unaccusatives can be fronted together with verb, while fronting of dative plus verb is prohibited. This indicates covert movement even for subjects:

(71) a. \([\text{VP Ein Fehler}_{\text{NOM}} \text{unterlaufen}] \text{ist ihm}_{\text{DAT}} \text{noch nie}\)
   \(\text{a mistake occurred is him yet never}\)
   \(\text{‘No mistake has ever occurred to him’}\)
   b. *\([\text{VP Dem Peter}_{\text{DAT}} \text{unterlaufen}] \text{ist ein Fehler}_{\text{NOM}} \text{noch nie}\)
   \(\text{the Peter occurred s a mistake yet never}\)

It looks as if movement of the stranded NP is overt, but that the lower copy - the copy inside the fronted VP - is pronounced (feature movement). While this aligns with a recent idea of Fox & Nissenbaum (1999) - according to whom QR proceeds overtly, submitting the lower copy to PF - at the present point this idea amounts to not much more than a restatement of the facts.
RESUME: PROBLEMS FOR PHILIPS (1996)

- VP-ellipsis:
- Scope Freezing (Sauerland 1998)
- Locality restrictions on size of VP
  (OV-languages)

PROBLEMS FOR PSEUDOGAPPING APPROACH

- No reconstruction of remnant into VP-ellipsis

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