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On subject wh-extraction and partial wh-movement as remnant CP Movement

In this talk:
--reconsider aspects of the classical problem of subject extraction under wh-movement. (Koopman, 1996) and paper presented at the pied-piping conference in Jena (1997)).
--Part of larger project: how does wh-movement work in derivational theories using remnant movement? How should transparency effects be captured? Can they be captured as a by-product of the derivation (movement)).
--I will suggest that the bridge verb property can be implemented quite naturally within the framework of Koopman and Szabolsci (2000). In particular I will propose to analyze bridge verbs as a particular type of restructuring verb.

Plan of the talk:
--establish necessary properties of short subject extraction in English.
--From this it follows that a particular configuration structure must hold at one point in the derivation when you extract the subject out of an embedded tensed complement.
--I will propose that bridge verbs "restructure" with their complements, and implement this as we do in Koopman and Szabosci (2000): bridge verbs attract a particular type constituent to their left. This attraction allows wh-phrases to escape from their complements.
-- I will show that this configuration yield new insight in the derivations of German partial wh-movement, and propose a remnant CP movement of partial movement.
--General insight in the properties of bridge verbs, and derivation of islands (failure of pied-piping).

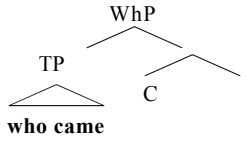
Part 1: short subject extraction (English and beyond)

Short wh-movement:
(1) a. Who (*did) saw Marie
b. What *(did) Mary see

(2) Historically: two competing analyses:
- subject wh-questions are CPs (WhPs), and subject is outside TP
- subject wh-questions are IPs. Gasdar (1981), Schachter (1987), String vacuous movement (Chomsky, 1986) , McCloskey and Chung (1983)

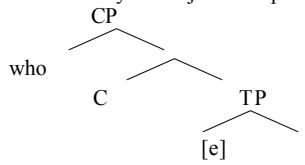
(3) Reconcile: Koopman (1996)
subjects wh-questions are : wh-CPs
the subject wh-phrase is inside TP, not outside of TP.
→ **subject extraction involves TP pied-piping**

(4) The surface constituency of subject wh-extraction: (*with a simplified left periphery (at least: wh>Q>C*)



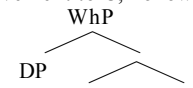
(5) Existing principles: allow pied-piping as in (4),
allow for short wh-movement as in (6)

(6) Constituency of subject wh-questions



→ Subject is outside TP.

(7) Or a variant of (6), (derivation involves A'-movement of the subject, followed by remnant TP movement to C, followed by a second step wh-movement:



(could be excluded for root environments: remnant TP *came* is not allowed to be in Spec, CP, but should be fine in embedded questions (no such restrictions hold; the coordination facts hold for embedded questions as well)

(8) Argument against the availability of (6) or its variant: If it were available it is mysterious why in many languages, you can never extract from the preverbal subject position at all; (Rizzi (1982), holds in many other languages. Ouhalla (1993) (pro-drop languages))

Kayne and Pollock for stylistic inversion (extraction of the subject): generalized condition B prohibits local wh-movement. Another category needs to be merged first, than wh-extraction can proceed. I will explore a different route…

(9) Argument for the availability of (6): Pesetsky and Torrego (2000).

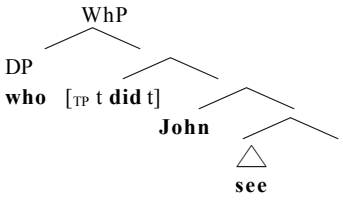
(10) [Wh who the hell [TP came]

This argument is not convincing, since *the hell* can appear within a clearly pied-piped constituent:

(11) [who the hell's car] did you drive

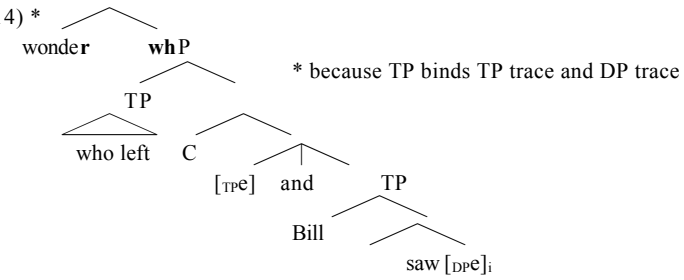
Therefore the distribution of *the hell* does not show that *who* is outside its TP. (*see appendix A for further remarks on the hell.)*

(12) The structure of (6) is unavailable: The surface constituency of subject wh-questions is different from that of non-subject extraction: (*with a simplified left periphery, and assuming T to C is remnant TP movement*) :

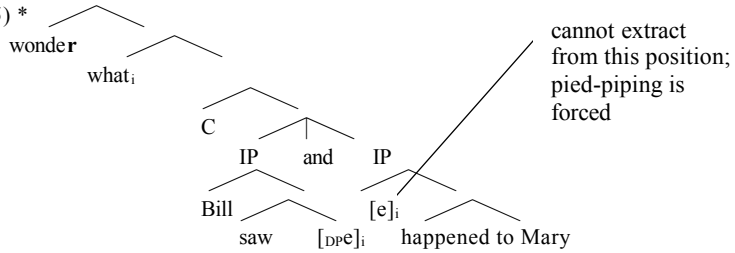


(13) Strong evidence for (4) and (12): ATB: Williams, 1977.
a. * I wonder who left and Bill saw [e]
b. * I wonder what Bill saw [e] and [e] happened to Mary
c. I wonder what Bill saw [e] and you thought [e] happened to Mary

(14) *



(15) *



Dutch subject extraction:

Extraction surrounding subject extraction in Dutch is quite complex, and ill understood; OK from a lower position (like object extraction): should be able to be coordinated with non subjects. This seems basically correct, although there are also cases that don't appear to be so good:

(16) Ik vraag me af wat Bil [e] gezien geeft en er daarna [e] gebeurt is
I wonder wnat Bill seen has and there therafter happened is
**I wondered what Bill has seen and happened then*

(17) Ik weet niet wie er al [e] vertrokken zijn en Bil niet gezien heeft
I know not who there already left are and Bil not seem has
**I don't know who left already and Bill hasn't seen yet.*

(18)
a. Short subject wh-questions derived by TP pied-piping; short wh-movement unavailable *(why)*
(b. object wh-questions are derived by DP extraction and T to C (=remnant TP movement))

(19)a. Why the asymmetry between subject and non subject extraction?
b. How does non-subject extraction proceed? (*not discussed here*)
c. Subject is in a privileged position to trigger pied-piping, but what forces pied-piping for subject wh-questions?
c. Why can a wh-subject be extracted out of complements of bridge verbs (+ why must *that* be absent)

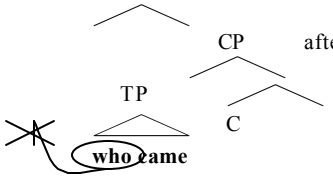
(20)*Crosslinguistically*: -- structure of wh-CPs: Wh--Q—C (simplify: WhP and CP)

WhP: Wh attracts wh-phrase
CP: attracts TP *(see appendix B for some configurations*:)

(21)Why no short subject movement? (why cannot the subject (or any other element (PP)) be extracted from immediately under "C"?)

(22)*Basic Idea*: depends on order of merger: C (which attracts TP) is merged before WhP (the category that attracts WhP.) (the category that attracts the container of the subject is attracted before wh is attracted:

(23)Merge C→ move TP
TP to CP movement puts the wh-phrase on a left branch; the wh-phrase can no longer extract from TP: (Koopman and Szabolsci (2000); hence pied-piping is the only possible option.
Merge WhP → wh pied-pipes TP



(*Why is TP pied-piping not available for objects? Objects too far embedded to trigger pied-piping).*

(24)Crucial: order of merger Wh C-T
(in cases of short wh-movement)

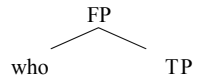
(25)So far, TP pied-piping will only yield short wh-movement and clausal pied-piping:

(26) (i) I wonder who left
(ii) [who came] do you think
(iii) *but not*: who do you think left

(27) **How can subjects ever extract from TP?**
Extraction only possible in bridge verb contexts (when *that* is absent).

(28)Subjects can only escape from TP, if there is a landing site for the subject outside TP, (before TP is attracted to CP (or to some higher projection)).

This landing site is not available in Wh-CPs (*Wh>C>F>T)
This landing site must be available in bridge verb contexts (C > F > T)



(29) Totally stipulative, and should be derived: but root wh-clauses behave differently from tensed embedded complement clauses in this respect: (freely after Culicover1993)

This is the boy that just yesterday John had seen that FP TP
**Who had just yesterday John seen (wh TP *FP*

*what is on the table she going to put
I think that on the table she is going to put the yellow dishes

(30)Bridge verb contexts: "facilitate" extraction out of that-complement.

Proposal: bridge verbs are a particular type of restructuring verbs (tensed equivalent of restructuring.)

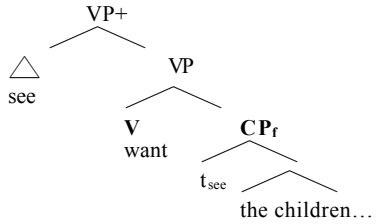
(31)Extend the treatment proposed in Koopman and Szabolsci (2000) for restructuring verbs. restructuring verbs (modals, want, aspectual auxiliaries etc) have a lexical property: they require a particular constituent (VP+) to their left (as a semantic property).

→ some constituent with the relevant feature (the constituent that is attracted) must move to the left of the restructuring predicate.

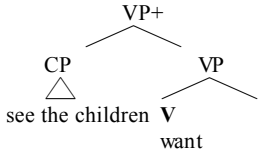
The "attracted" constituents occur within a CP (this is a structural property: predicates are topped off by CP):

Different orders and surface constituency come about depending on how the properties of the restructuring predciate are satisfied: (extraction out of CP complement, or CP pied-piping)

(32)a. The attracted constituent escapes from its CP → surface restructuring effects: the dependents of the V move into the *want* clause (yields inversion)



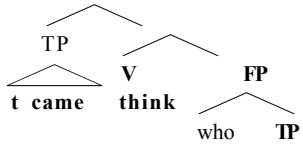
(33)b. The constituent pied-pipes CP → dependents of V do not escape from CP



(+ further movement to restore order.)

(34)Bridge verbs:
-as a lexical property: attract a TP to their left.(this will force TP to be in a Spec head configuration with V)
--This TP can be embedded in a CP (this is independent of the lexical property of V, but a structural property: all tensed clauses clauses are CPs)

(35)(*ignoring CP*) *think attracts TP:*



→ ***TP splits out of FP***

eventually: *who do you think came*

(36)--TP movement frees the wh- phrase for further extraction
-- successive cyclic wh-movement is not movement from Spec, but involves a stage in which the Spec is separated from the remainder of the constituent (=made a final constituent. (Kuno, 1972))

(37)"Transparency" (wh-movement out of an embedded complement is like clitic climbing". It is dependent on the existence of a relation of an outside attractor and a subconstituent (necessary condition:)

(38) V […YP. [XP]…]

(39)Adding CP:
- CPs must be licensed (Koopman and Szabolsci(2000)
- Where is overt C merged? High? Low? (*How do you get the that-t effect?)*

(40)C *can* be merged low: --→ German partial wh-movement

(41)Prerequisite for subject extraction out of tensed complement clause:

- configuration in (35); (wh-movement must have moved to a high position outside the TP)
- the presence of a TP attractor (an appropriate attracter (a bridge verb),
- a " splitting" parameter (TP does not pied-pipe FP)

(42)Language variation: size of pied-piped constituent. (K and Sz)
What if TP does not split but pied-pipes FP? → German partial wh-movement
(propose an analysis of partial wh-movement that is parsimonious, and uses mechanisms that are independently needed or motivated.

Partial Movement in German
(43) German, Hungarian, Hindi, and other languages (Van Riemsdijk, 1983, McDaniel, 1989, Dayal (1994), Horvath (1997), Mahajan(1995), Fanselow and Mahajan (1995). Fanselow, 2000).

(44) Partial wh-movement in German: (*the was… whP construction*)

- An expletive *was* ("what") shows up in the Wh projection (the "scope" position of the wh-phrase)

(45) **Was** glaubst du [**mit wem** Johann gesprochen hat]
'what' think you with who Johan talked has
Who do you believe that J talked with

- A wh-phrase must be "partially" moved up to initial position within its clause, and cannot remain in-situ.

(46)***Was** glaubst du [dass Johann **mit wem** gesprochen hat
'what' think you with who Johan talked has
Who do you believe that J talked with

(47)Superficially speaking, the problem is that the wh-phrase is 'too low" with respect to the scope position; (direct dependency approach (expletive replacement); indirect dependency approach (clausal expletive and CP associate: CP movement at LF)

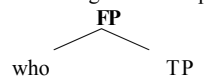
(48) **Traditional Problems:**

- why is the 'real' wh-phrase not in Spec, WH of matrix
- Why is it PM moved?
- What is the motivation for movement of the wh-phrase?
- What is the analysis of the expletive *was*?
- Why dependent on bridge Vs taking tensed *dass* clauses.

A remnant CP movement analysis of partial movement:

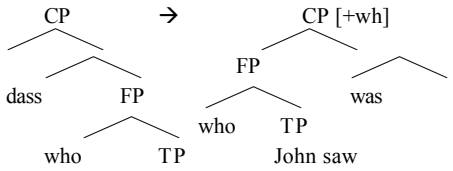
(49)a prerequisite for subject extraction out of a tensed (indicative) clause:

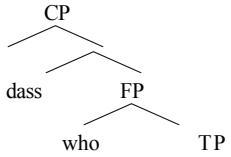
merge FP on top of TP



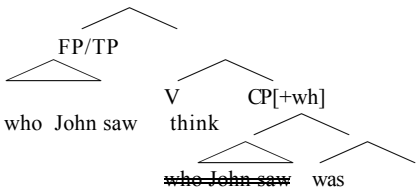
→ in German, TP will pied-pipe FP (in specific contexts)

(50)Merge dass: (→attracts FP/TP → agree: wh)





(51) Merge *think (*bridge V: bridge V attracts TP as a lexical property: → FP/TP extracts from Spec, CP:



- *was* is a remnant +wh CP: the "real" wh-phrase has pied-piped with TP, and vacated the CP
- CP contains a copy of the "real" wh-phrase and will eventually end up in the scope position (the derivation continues in a mechanical fashion)

(52)[[~~who John saw~~] was] think you [who John saw]

(53) Why is the 'real' wh-phrase not in Spec, WH of matrix? *Its copy is..*
What is the motivation for movement of the wh-phrase? *The usual: all wh-movement is overt*

- Why is it PM moved? *It has pied-piped with another constituent and been put on a side track*
- What is the analysis of the expletive *was*? *It is the wh-form of dass.*
- Why dependent on bridge Vs taking tensed clauses? *These are contexts which allow FP/TP to escape from CP*

(54) The configuration in
(51) is a necessary condition for partial wh-movement
→ restricted to environments in which *dass* is licensed.
→ contexts that have no *dass* complements (*either overt wh-movement (if they involve some other type of restructuring (cf infinitival complements) or no wh-movement if they do not (the wh-phrase in that case will simple be too low to trigger pied-piping, and is never be able te reach the wh-position.)*

(55)How do other properties of the construction follow? *For further discussion of individual cases, see Appendix c.*

--contexts that allow for *dass* complements, but do not support partial wh-movement::
--they contain no attractor for TP (*either they attract some bigger complement, or some smaller complement)*

1. non bridge verbs: do not attract TP (but some bigger category (maybe attract CP))
2. *wollen*: complement "more transparent" than bridge verb complement: →attracts smaller IP constituent that cannot pied-pipe FP to *dass*)

-- contexts that do not allow for *dass* to be merged low enough (partial movement will be impossible, since TP cannot be removed from the *dass* complement). *If pied-piping is impossible → these complements will be islands*

Appendix A:

(56)A potential argument that English wh-subjects are outside TP is offered in Pesetsky and Torrego 2000) (distribution of *the hell*)

(57)The *the-hell* argument:

- " the hell" attaches to wh-phrases;
- can only follow wh-phrases that are in Spec, CP. *seems to support (6)…*

(i) Who the hell left
(ii) Who the hell did Bill meet where
(iii) *Who did what the hell

- I wondered who the hell bought this book

(58) Do strings like *who the hell left* show that the subject has moved out of TP?
Only if it can be established that *the hell* starts out higher than TP (but say lower than Spec, WH(CP)):

(59)*The hell* does not start out higher than TP:

a. [who the hell's car] did you drive

(60)*The hell* merges with bare wh-phrases quite early, and moves to the left periphery.

- the hell merges with bare wh-phrases: (*who the hell/ why the hell/ where the hell/ when the hell/how the hell*
- But not with *which* phrases, or if/whether complementizers: **which the hell book did you like /*which book the hell did you like / I wonder* if the hell/ *whether the hell/who the hell*

2. *wh- the hell* pied-pipes with the wh-phrase to left periphery (for interpretive purposes **who saw what the hell*)

3. wh-in-situ cannot be in the same surface position as initial wh,

(*or the material to the left blocks the hell from entering into a local relationship with the appropriate licenser:*(* Il a parle a qui diable) + predicts languages with "lower" wh-phrases (Simpson, 2000), Pollock and Poletto (2000) should not have elements like "the hell")

Appendix B

Crosslinguistic variation depends on the size of the pied-piped constituent (Koopman and Szabolsci (2000), also a variant on Pollock and Poletto (2000, Pollock, Munaro and Poletto (1999) ..) All languages have TP to CP movement. Different sized "TP"s occupy the surface position

a. [$_{WH}$ [[$_{TP}$who came] [$_{CP}$[$_{TP}$ t] [….

a. [$_{WH}$ [[who] [$_{CP}$[$_{T}$ ..did..] [you see [$_{TP}$e] (*root wh-questions*)

c. [$_{WH}$ [[who] [$_{CP}$[$_{TP}$ you saw t] (*embedded wh-questions*)

d. [$_{WH}$ [[$_{TP}$qui est venu] [$_{CP}$[$_{TP}$ t] […. [

e. [$_{WH}$ [a qui] [$_{CP}$[$_{TP}$ quel qu'un a] t [$_{CliticP/S}$ il parle [$_{TP}$e] ….

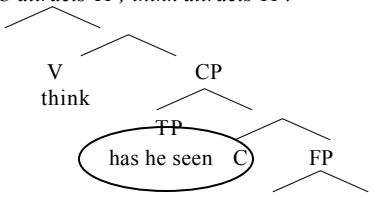
f. [$_{WH}$ [a qui] [$_{CP}$[$_{ClioticP/S}$ ~~il~~ a parle] t [$_{TopP}$ Jean

Vata: relative clauses/focus constructions (Kru/ Gur…):
g. [$_{WH}$ [ ] [$_{CP}$ [$_{TP}$ DP V-Tense] [$_{C}$D …Adv DP...

Appendix C:

(61) Why is embedded verb second possible in exactly the same environments as partial wh-movement?

Empty dass/C attracts TP; think attracts TP:



who

Other properties:

- The dependency between *was* and the *wh-phrase* can be long distance (but it must be mediated by another wh-expletive):
  (62) **Was** glaubst du **was** Hans meint **mit wem** Johann t gesprochen hat
  what believe you with who Hans believes that J talked has

This follows from remnant +Wh CP movement, and the mechanisms of the derivation(the mechanics of movement).

- The wh-phrase can move up within the local clause
  (63) was denkst du wen sie glaubt dass Fritz meint dass sie t liebt
  what think you who she believes that Fritz means that she loves

First step involves normal wh-movement; second step FP/TP pied-piping and wh-agreement.

- Negative islands
  (64) **Mit wem** glaubst du nicht dass Maria gesprochen hat
  (65) ***Was** glaubst du nicht **mit wem** Maria gesprochen hat

(not clear how to allow wh-extraction (maybe dass is forced to be merged higher)

- PM structures are a property of clausal complements that are complements of bridge verbs
  (66)* was weisst wu wen Jacob besticht
  what know you who Jacob bribes

bridge verbs do not select for TP, or dass is forced to be merged higher.

- PM movement constructions are not possible in dass complements of verbs like "wollen" (these are "subjunctive" like, (though the verb is in the indicative). They have no independent Tense node?)
  (67) *Was willst du wen Jacob besticht
  Wh want you who Jacob bribes
  (must obligatorily have dass (do not allow for verb second): either dass is merged higher, or they do not have the right "TP" (and hence no FP: having the segment FP/TP is a precondition for partial wh-movement)

- PM cannot happen in matrix clauses (the antilocality effect) or in infinitivals:
  ***was** is a complementizer: you need a **dass** clause.*

(68)* was hat Maria mit wem gesprochen