

The movement derivation of central adverbial clauses

This section tries to provide an account for the restricted distribution of argument fronting (and MCP in more general terms) in ‘central’ adverbial clauses. The main claim is that no stipulations are needed with respect to the ‘size’ of the left periphery such clauses but that the absence of argument fronting/MCP follows from intervention effects on movement. The ‘non availability’ of part of the structure of the LP follows from the analysis.

References:

- 1) Haegeman, Liliane. (2010). The internal syntax of adverbial clauses. In Kleantes Grohmann & Ianthi Tsimpli (eds.). *Exploring the left periphery*. *Lingua* thematic issue, 120: 628-648.
- 2) Haegeman, Liliane (2009) The movement analysis of temporal adverbial clauses. *English Language and Linguistics* 13: 385-408.

1. MCP and temporal adverbial clauses

1.1. The double asymmetry (see handout 1: 3.3.1, 3.3.2)

- (1) a. *When this column she started to write last year, I thought she would be fine.
 b. Quand cette chanson je l’ ai entendue, .
 when this song I it have-1SG heard-PART-FSG,
 j’ ai pensé à toi.
 I have-1SG think-PART on you
 ‘When I heard this song, I thought of you.’
 c. When last year she started to write this column, I thought she would be fine.
 (cf. Handout 1: (36))
- (2) a. Eng *when- - argument
 b. Rom √when- - CLLD..... 1
 c. Eng √when- - adjunct..... 2

Other ‘Main Clause Phenomena’ (Hooper and Thompson 1973) (MCP) are also excluded from temporal adverbial clauses in English:

- (3) a. * We were all much happier when upstairs lived the Browns. (Hooper and Thompson 1973:495 (their (253)) (‘Locative inversion’)
 b. * When present at the meeting were the company directors, nothing of substance was ever said. (‘Preposing around be’)
 c. * When passed these exams you have, you’ll get the degree. (‘VP preposing’)
- (2) d. Eng *when- - MCP

Observe: the fact that adjunct fronting and CLLD are available goes against the hypothesis that adverbial clauses lack a left peripheral space.

1.2. Comparative data

- (4) a. Dani ‘amar se et ha sulxnan Rina niqta. Argument fronting
 Dani said that ACC the table Rina cleaned
 ‘Dani said that the table, Rina cleaned.’
 b. Dani ma’amin se et ha ‘avoda hu yignor ha ‘rev. argument fronting
 Dani believes that ACC the work he will finish the evening
 ‘Dani believes that the job, he’ll finish this evening.’
 c. *Dani niqa et ha sulxan axarey se et ha calaxot Rina hesira. adv clause
 Dani cleaned ACC the table after that ACC the dishes Rina cleared

- d ‘Dani cleaned the table after Rina cleared the dishes.’
 *Dani yelex ha batta kse et ha ‘avoda ha pakid yigmur. adv clause
 Dani will go the home when ACC the job the clerk will finish
 ‘Dani will go home when the clerk finishes the job.’
- e Dani niqa et ha sulxan hayon axaery se ‘etmol Rina hesira et ha calaxot. Adjunct fronting
 Dani cleaned ACC the table today after that yesterday Rina cleared ACC the dishes
 ‘Dani cleaned the table today after Rina cleared the dishes yesterday.’
- f Dani halax li-son kse ba bayt ha kol haya saqet. adjunct fronting
 Dani went to sleep when at home the all was quiet
 ‘Dani went to sleep when at home everything was quiet.’ (Shlonsky 2010: p. 3: (28)-(31))

1.3. The truncation analysis (Haegeman 2003 etc): a (very) brief summary

The availability of adjunct fronting and (esp) CLLD is incompatible with the hypothesis that adverbial clauses lack a left peripheral space.

- (5) a CP: decomposed as
 SubP ForceP TopP* FocP TopP* ModP FinP (Rizzi 1997)
- b Central adverbial clauses: ‘truncated’
 SubP TopP* ModP FinP
 Lower TopP: only for CLLD
 ModP: adjuncts

Absence of FocP and higher TopP: due to absence of ForceP: central adverbial clauses are not assertions

2. Deriving truncation: Movement and intervention

2.1. Movement and the double asymmetry: argument fronting – adjunct fronting – CLLD

2.1.1. SHORT MOVEMENT AND THE COMPOSITION OF THE LEFT PERIPHERY 1

- (6) a. *This is a student to whom, your book, I would recommend in the next semester.
 b. *These are the students who these texts will study next year.
 c. *There was a time when such courses they did not teach at university level.
 d. * The device could tell when these texts I had written.
- (7) a. These are the students who in the next semester I will recommend your book.
 b. These are the students who next year will study these texts.
 c. There was a time when at university level they did not teach these courses.
 d. The device could tell when during the year I had written these texts.
 Impressively, it really could tell when during the night I’d been awake. (*Observer* 23.1.10, page 3 col 3).
- (8) a. Voici l’étudiant à qui ton livre je le donnerais.
 this is the student to whom your book I it give-COND-1SG
 ‘This is the student to whom I would give your book.’
 b. Je me demande quand cette chanson je l’ ai entendue.²

¹ Observe: the adjunct /argument asymmetry pointed out here has been discussed in Rizzi (1997), who proposes that both adjuncts and arguments in the Left Periphery target TopP. He later modifies this view and proposed that adjuncts target a modifier position (ModP). Often adjunct fronting is treated as topicalisation, see for instance Sigurdsson (2010: 161) for a recent proposal.

I myself ask when this song I it have-1SG heard-PART- FSG
 'I wonder when I heard this song before.'

The double asymmetry

- | | | | | | | |
|-----|----|-----|---------------------------------------------|------------------|--------|-------|
| (9) | a. | Eng | * <i>wh</i> _{INT/REL} -constituent | - argument | t..... | } 2 } |
| | c. | Eng | √ <i>wh</i> _{INT/REL} -constituent | - adjunct..... | t..... | |
| | e. | Rom | √ <i>wh</i> _{INT/REL} -constituent | - CLLD..... | t..... | |

2.1.2. LONG MOVEMENT

- (10) a. Mary said that to those patients, we should not give any frozen vegetables for the time being.
 b. *??These are the vegetables which Mary said that to those patients we should not give for the time being.
 c. These are the vegetables which Marty said that for the time being we should not give to those patients.
 d. ?Chi credi che Maria la voterebbe?
 Who think-2SG that Maria her vote-COND-3SG (Alexopoulou et al 2004: 350: (64))

- | | | | | | | |
|------|----|-----|---------------------------------------------|-------------------|--------|-------|
| (10) | e. | Eng | * <i>wh</i> _{INT/REL} -constituent |argument ... | t..... | } 2 } |
| | f. | Eng | √ <i>wh</i> _{INT/REL} -constituent |adjunct..... | t..... | |
| | g. | Rom | √ <i>wh</i> _{INT/REL} -constituent |CLLD..... | t..... | |

2.1.3. SUMMARY: DOUBLE ASSYMETRY AS DIAGNOSTIC FOR MOVEMENT

- | | | | | | | |
|------|----|-----|---------------------------------------------|-------------------|--------|-------|
| (11) | a. | Eng | * <i>wh</i> _{INT/REL} -constituent | - argument | t..... | } 2 } |
| | b. | Eng | * <i>wh</i> _{INT/REL} -constituent |argument ... | t..... | |
| | c. | Eng | √ <i>wh</i> _{INT/REL} -constituent | - adjunct..... | t..... | |
| | d. | Eng | √ <i>wh</i> _{INT/REL} -constituent |adjunct..... | t..... | |
| | e. | Rom | √ <i>wh</i> _{INT/REL} -constituent | - CLLD..... | t..... | |
| | f. | Rom | √ <i>wh</i> _{INT/REL} -constituent |CLLD..... | t..... | |

2.2. Temporal adverbial clauses: a movement derivation

- | | | | | | |
|------|----|-----|----------------------------------|--------|-------|
| (12) | a. | Eng | * <i>when</i> - - argument | t..... | } 2 } |
| | b. | Rom | √ <i>when</i> - - CLLD..... | t..... | |
| | c. | Eng | √ <i>when</i> - - adjunct..... | t..... | |

Hypothesis: temporal adverbial clauses are derived by *wh*-movement of a temporal operator (e.g. *when*) to the left periphery. Cf. Geis 1970, 1975, Enç 1987:655, Larson 1987, 1990, Dubinsky and Williams 1995, Declerck 1997, Demirdache and Uribe-Etxebarria 2004:165-170, Lecarme 2008 etc.

- (13) a. I will leave when you leave.
 b. I will leave [_{CP} when [_{TP} you leave t_{when}]]
 b'. I will leave [_{CP} when [_{TP} you leave ~~when~~]]

Two ingredients of the movement account:

- (i) OP in LP (cf. *when*);
 (ii) movement from TP internal position to account for *MCP

² Not all speakers accept such examples.

3 The movement account of temporal clauses

3.1. Support for the movement derivation of *when* clauses: Low construal

- (14) I saw Mary in New York when she claimed that she would leave.
 (i) high construal: ‘I saw her at the time that she made that claim.’
 I saw Mary in New York [_{CP} when_i [_{IP} she claimed [_{CP} that [_{IP} she would leave]] t_i]]
 (ii) low construal: ‘I saw her at the time of her presumed departure.’
 I saw Mary in New York [_{CP} when_i [_{IP} she claimed [_{CP} t_i that [_{IP} she would leave t_i]]]]
- (15) I saw Mary in New York when she made [_{DP} the claim that she would leave].
 (i) ^{OK} high construal: at the time that she made that claim;
 I saw Mary in New York [when_i she made [_{DP} the claim that she would leave] t_i].
 (ii) * low construal: at the time of her presumed departure.
 *I saw Mary in New York [when_i she made [_{DP} the claim that she would leave t_i]].

3.2. Other temporal clauses

- (16) a I can’t leave until John says I can leave. (based on Larson 1990: 170: (2b))
 Mittie drove until Daniel said she should stop. (from Geis 1970, Johnson 1988: 586, his (6e))
 b I saw Mary in New York before John said that she left. (Larson 1987: 261: (45a))
 Liz left before you said she had. (from Geis 1970, cited in Johnson 1988: 586, his (6a))
 c I saw Mary in New York after John said that she left. (Larson 1987: 261: (45a))
 Sam fell after you said he would. (from Geis 1970, cited in Johnson 1988: 586, his (6b))
 d I haven’t been there since I told you I was there. (Larson 1990: 170: (2d))
 Betsy has used eye shadow (ever) since John said she has. (from Geis 1970, Johnson 1988: 586, his (6c))
- (17) a I can’t leave until John makes the announcement that I can leave. high construal
 b I saw Mary in New York before John made the claim that she left. “
 c I saw Mary in New York after John made the claim that she left. “
 d I haven’t been there since I made the claim that I was there. “

These data suggest that temporal clauses introduced by the prepositions *until*, *after*, *before* and *since* are also derived by movement of an operator from a TP-internal position to the left periphery. Further island effects are discussed in Johnson (1988):

- (18) a Gary left before you asked whether he did. (Johnson 1988: 587, his (9a))
 b *Bob left before you woke up at three and she fell asleep. (Johnson 1988: 587, his (9d)) (CSC)
 c Bob left before you woke up and she fell asleep. ((Johnson 1988: 587, his (9a), from Ross 1986:229)
- (19) a [_{PP} until/before/after/since [_{CP} OP [_{TP} Sue went to hospital t_{OP}]]]
 b [_{PP} until/before/after/since [_{CP} OP [_{TP} Sue went to hospital ~~OP~~]]]
- (20) a Ik heb hem toen gezien. (Dutch)
 I have him then seen
 b Toen (dat) ik hem gezien heb, (Dutch)
 Then that...

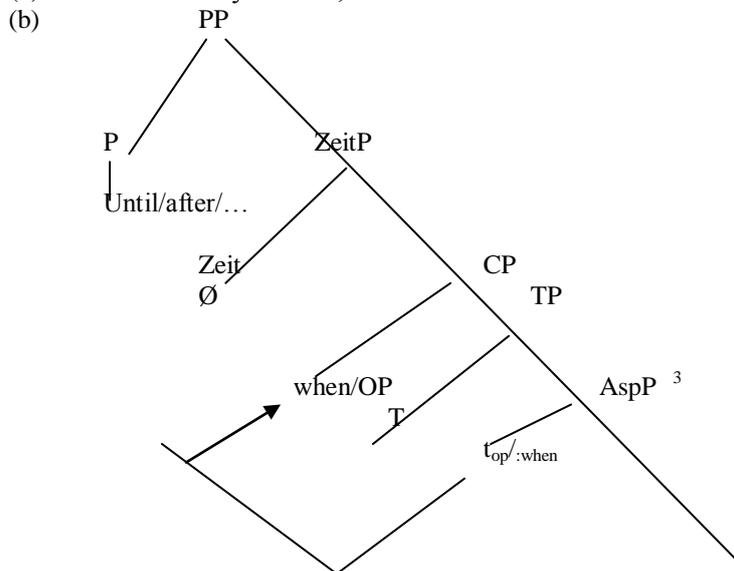
Remaining Problem:

while does not allow low construal, for reasons that I don't (yet) understand. Obviously saying that there is no movement does not make much sense since *while* clauses too are incompatible with MCP.

3.3. Temporal clauses as free relatives: one proposal

Demirdache and Uribe Etxebarria (2004): temporal clauses:

(21) (a) Until Zooey arrived,...



(22) Terwijl (dat) hij hier was (Dutch)
 While that he here was
Terwijl : *te* (P)+*der* (Det) + *wijl* (while, N)

the conjunction *before* has developed from a phrase of the form 'before the time that' (variously realised in Old English as *toforan þam timan þe*, *foran to þam timan þe*, and *toforan þam þe* – see Mitchell 1987: 379) (Declerck 1998: 97-8)
 ⇒ Old English, *before* clauses took the form of 'light headed temporal relatives' (Citko 2004), in which the 'light' D head is still overt.

As pointed out by Declerck (1997), like the *wh*-phrase heading other free relative clauses (22a), *when* in temporal clauses can be replaced by *whenever* (22b), with *ever* retaining the interpretation typical of the other instances of *ever* in free relatives (see Declerck (1997: 46-7) for some discussion and references).

(23) a I'll buy what(ever) you want to sell.
 b When(ever) I am working on this book I forget the time. (see Declerck 1997: 46-7)

Kayne (1994: 154, note 13) : '*ever* is a kind of determiner'. For the derivation of free relatives containing *ever*, Kayne proposes that '*ever* is a D outside CP to which the *wh*-word incorporates' (Kayne 1994: 125).⁴ For (24a) Kayne proposes the derivation in (24b-c), with *which* moving to D. One might assume a similar analysis for *whenever*-clauses.

(24) a We'll take whichever seat you offer us. (Kayne 1994: 154, note 13, his (ii))
 b [_D ever [_{CP} which seat [_{IP} you offer us [e]]] (Kayne 1994: 154, note 13, his (iii))
 '*ever* is a kind of determiner' (Kayne 1994: 154, note 13))

³ AspP is chosen as the launch site in relation to D&UE's theory of tense interpretation. It remains to be clarified which projection is the actual launch site of the operator.

⁴ Caponigro and Pearl (2008, 2009) also argue that *when/where/how* in free relatives are nominal.

- c [D which ever [CP ~~which~~ seat [IP you offer us [e]]]
 d [D when ever [CP ~~when~~ TIME [IP ... [t_{when}]]]

3.4. Stylistic inversion in French: support for movement/a clausal left periphery: Handout 1: 3.4.

- (25) a. Quand est venue Marie? (French)
 when be-3SG come-PART-FEMSG Marie
 ‘When did Mary arrive?’ (Barbosa: 2001: 42, her (77))
 b. Je me demande quand est venue Marie.⁵ (French)
 I myself ask-1SG when be-3SG come-PART-FEMSG Marie
 I myself ask when is come PART-FEMSG Marie
 ‘I wonder when Mary arrived.’ (Barbosa: 2001: 42, her (78))

-stylistic inversion depends on movement to the LP:

- (26) a. Jean a parlé de quoi? (French)
 John has talked of what
 ‘What did John talk about?’
 b. *A parlé Jean de quoi?
 c. De quoi a parlé Jean? (French)
 of what has talked John
- (27) a. *? Jean a parlé pourquoi? (French)
 Jean has talked why (Rizzi 1990: 47: his (48))
 b. *Pourquoi a parlé Jean? (French)
 c. Pourquoi Jean a parlé ? (French)
 d. Pourquoi Jean a-t-il parlé ? (French)
 ‘Why did John talk?’
- (28) a. Dans quel sens a tourné la voiture? (French)
 in which direction have-3SG turn-PART the car
 ‘In which direction did the car turn?’ (based on Kayne & Pollock 2001: note 59: their (i))
 b. En quel sens les fleurs parlent? /*En quel sens parlent les fleurs? (French)
 in what sense the flowers speak-3PL
 ‘In what way do flowers speak?’ (Kayne & Pollock 2001: 132: their (116))
- (29) a. ?Quand a crié l’enfant, tout le monde s’est affolé.
 when has cry-PART the child, everyone REFL-is panicked
 b. ?Tu changeras d’avis quand rentrera ta femme.
 You change-FUT-2SG of opinion when return-FUT-3SG your wife
 c. ? Alors que chantait Marie, une bombe a éclaté.
 When that sing-PAST-3SG Marie, a bomb have-3SG explode-PART
 (Kayne 1972: 108, n 13, Lahousse 2003b: 16⁶)
- (30) a. Je voulais partir quand sont arrivés les enfants.
 I want-PAST-1SG leave when be-3PL arrive-PART-PL the children
 ‘I wanted to leave when the children arrived.’ (Lahousse 2003:280, her (1))
 b. Quand avait débuté le salon Sainte-Euverte... (French)
 when have-PAST-3SG start-PART the salon Sainte Euverte
 ‘When the Salon Sainte Euverte had opened,...’ (Proust, Le Bidois 1952:302)

⁵ SI can also be triggered by the subjunctive: See Kayne and Pollock (2001).
 (i) Je voudrais que soient invités tous les étudiants de première année.
 I would-like that be invited-PL all the students of the first year

⁶ Examples all accepted by French speakers consulted (Poitiers, Geneva).

Table 1: SI in temporal adverbial clauses (based on Lahousse 2003a)

Temporal adverbials	Additional factors		No additional factor
	Adjunct in front of V	Other factor	
Source: Frantext (1995-2000)			
<i>Quand</i> ('when') : 289 xamples	47 examples	114 examples	128 examples
<i>Pendant que</i> ('while') : 51examples	12 examples	18 examples	21 examples

Hypothesis: temporal adverbial clauses are derived by the leftward movement of a TP-internal (temporal) operator (see Endo 2009 for a head movement account).

Independently: Kayne & Pollock (2001) offer an analysis according to which stylistic inversion implicates multiple movement into the left periphery, thus confirming that adverbial clauses must have a left periphery.

3.5. VP ellipsis as evidence for the movement account (Takahashi 2008a,b) (Handout 1: (44)-(45))

- (31) Sally: How was your day at work?
- a a S1: A nightmare!!! Lots of things went wrong. Agnes arrived after John ate lunch. Bill didn't eat lunch. Jesse cried for hours.
 b S1: A nightmare!!! Lots of things went wrong. Agnes arrived after John ate lunch. *Bill didn't <eat lunch>. Jesse cried for hours.
- b aS1: A nightmare!!! Lots of things went wrong. Agnes was absent when John ate lunch. Bill didn't eat lunch. Jesse cried for hours.
 bS1: A nightmare!!! Lots of things went wrong. Agnes was absent John ate lunch. *Bill didn't <eat lunch>. Jesse cried for hours.

Takahashi (2008a: 446):

The ungrammaticality of VP-ellipsis in ...[31] above can be taken as revealing that there is a structural piece in the complement of temporal adverbials, such ... *after*, which is not present in root clauses (e.g. *Bill didn't eat lunch*) and has an effect on ellipsis licensing. ... I argue that the additional structural component in TACs is a variable binding dependency created by operator movement. ... the presence of this dependency is the source of the ungrammaticality of VP-ellipsis in [31a] and [31b]. (Takahashi 2008a: 446)

Observe that in terms of H&D (21), if the variable/trace has to be within the ellipsis site, then ' VP ellipsis' would have to affect AspP1. Depending on the internal structure of vP/VP, their proposal can of course be recast with the merge position of the temporal operator lower, say in vP. There is, however, evidence that the variable is not VP internal.

-English: VP ellipsis compatible with *wh*-extraction:

- (32) a I know how fast Adam can run but I didn't remember how fast Hillary could. (based on Aelbrecht 2009: 192: (43d))
 b Although I don't know who Thomas will visit I know who Aga will. (Aelbrecht 2009: 212, (83b))
 c To say that the economy depends on immigrant workers to do the jobs that native-born men and women will not is disingenuous (*Independent* 27.2.10 page 34 col 4)
 d I never thought he would succeed. When he did [~~succeed~~], his career ended.

-British English *do* (see Haddican 2006 and Aelbrecht 2009 for recent discussion). incompatible with *wh*-extraction of object (33b) ad adjuncts (33c). British *do* ellipsis affects adjuncts (33d). Aelbrecht (2009, 2010) proposes that *do*=v, and that the complement of v (VP) is deleted.

- (33) a I didn't notice anything. You must have done.

(*Angel*, Elizabeth Taylor, Peter Davies 1957, Virago 1984, 2008, 107)

- b *Although I don't know who Thomas will visit I know who Aga will do. (Aelbrecht 2009: 212, (83a))
c *I know how fast Adam can run but I didn't remember how fast Hillary could do.
d *Morgan will write the paper slowly but Jim will do fast. (Aelbrecht 2009)

Aelbrecht (2009):

- hierarchy: VoiceP>vP>VP;
- Subject in SpecvP;
- VoiceP= phase;
- BE *do*: licensed by v; ellipsis of VP ;
- Extraction from VP proceeds via phase edge, i.e. VoiceP, which dominates vP;
- VP is deleted as soon as the licenser of the ellipsis, v, is merged, hence extraction of object/VP-adjoined adjunct to Phase edge is not available;
- subject extraction (to SpecTP) is possible because being in SpecvP the subject escapes VP ellipsis.

If the derivation of temporal clauses implied extraction of an operator from a VP adjoined position, then these examples should be as ungrammatical as (30b) and (30c), contrary to fact.

- (34) a At first, Mary hadn't talked to her young guests much, but when she finally had done, she was astonished by the stories they told her.
b He did not think he would complete the course but when he had done, he was very pleased.

3.6. German and low construal: a puzzle

native speakers of German share a consensus that the embedded readings [32] are quite marginal, if not totally unavailable: (Larson 1990: 172).

- [35] Ich sah Mary in New York [_{PP} bevor [_{CP1} sie behauptete [_{CP2} daß sie ankommen würde]]]
I saw Mary in New York before she claimed that she arrive would

'in most dialects of German only clause bound syntactic movement is permitted' (1990: 171).

This explanation is unconvincing because speakers like myself have no problem with long syntactic movement from *dass*-CPs.[note omitted] Larson's prediction would be that such speakers do get more than one reading. This prediction is wrong.

The difference which sets German aside from English ... is immediately predicted by our theory of LF-movement. In German, the projection of the verb *behaupten* gives rise to a directionality barrier which cannot be crossed by movement. The situation in English (and Swedish, another VO language) is different. Here the *that* clause is canonically selected. As a result, the projection of the verb *claim* does not erect a directionality barrier, and it is possible for the empty operator to move from SpecCP2 past the dominating VP headed by *claim* to SpecCP1. (Bayer 1996: 239)

However, WF is also an OV language and allows low construal

- (36) Marie was al in Gent angekomen voor da ze gezeid oat da ze doa ging zyn.
Marie was already in Ghent arrived before that she said had that she there would be
'Mary had already arrived in Ghent before she had said she would be there.'

3.7. The 'truncation' account.

The current proposal in terms of movement is not a complete alternative to that account, rather it derives the unavailability of the projections by movement. If the distinction between higher and lower TopP is maintained (for independent reasons) then one has to conclude that topics in the lower TopP do not give rise to intervention.

3.8. Speculations on focussing in central adverbial clauses: in situ focus/clefting/HNPS (handout 1: 3.3.4, (41))

- (37) a He was always there ready with money but when I needed ADVICE he was nowhere to be found.
 He was always there ready with money but when it was ADVICE and HELP I needed he was not to be found.
- b. He promised us his support but as soon as we needed CASH, he was no longer interested.
 He promised us his support but as soon as it was CASH that we needed, he was no longer interested.
- c. I was quite surprised when I discovered among the documents a PAPER ON ADVERBIAL CLAUSES WHICH HE HAD WRITTEN WHEN HE WAS ONLY 18.

Based on the intervention analysis we have to conclude that the focussed constituents in (37) should not intervene with the movement path of the temporal operator.

- (i) cleft: Belletti (2001, 2003): non subject cleft: *be* takes (reduced) CP complement, focussed constituent is in Spec FocP of CP complement.

- (38)
-
- *be* [_{CP} Force ... [_{FocP} ... [_{FinP} che [_{TP} S ...O/PP]]]].. (Belletti 2010: handout (11))

(ii) HNPS: Wallenberg (2009):

- (39) I met *t_i* on the street, without recognizing <pg> immediately, my rich uncle from Detroit.
 (Wallenberg: 205, (2))

Analysis:

- (i) 2010: CGSW: focussed constituent ('shifted NP') moves to Spec FocP in the left periphery :
 (ii) remnant clause moves to topic position.

- (39) a I met on the street my rich uncle from Detroit
 b [_{ForceP} [_{TopicP} [_{TP} I met on the street ~~my rich uncle from Detroit~~] [_{FocP} my rich uncle from Detroit]
 [_{TP} ~~I met on the street my rich uncle from Detroit~~]

Problem: HNPS available in temporal adverbial clauses as well as in other embedded domains; available in domains that are incompatible with argument fronting to LP and which are also often islands:

- (40) a He was encouraged to settle in London again by the advent of the Reformation, which had brought in its wake the violent destruction of religious works. (*Independent on Sunday*, ABC, 10.9.6 page 8 col 1)
 relative clause: subject relative
 *... the advent of the Reformation which the destruction of religious works brought in its wake.
- b They will revel in the delicious irony of sending back to where they learnt their violence those who would bring their violence here. (*Independent* 22.5.2010 page 45 col 3)
 gerund with PRO subject
 *of those who brought violence sending back
- c Yasmin Rahman's strict morality made her disapprove of Scott's bringing to live there with him a woman he wasn't married to. (Ruth Rendell, *The monster in the box*, Arrow 2010: 313)
 gerund with genitive subject
 *of this woman Scott's bringing to live there with him

- d A tough love approach to international aid is needed to replicate globally the rights and responsibilities approach to welfare reform in Western countries. (*Guardian* 9.6.10 page 13 col 1)
to infinitive
*... needed the rights and responsibilities to replicate globally
- e Here we can see filmed for the first time the evolution of a political party, of its struggle for life against the odds.' He says. (*Independent on Sunday* ABC 12.3.6 page 18 col 1)
small clause
- cf. *I found of the problem John quite unaware

Within such embedded domains, HNPS licenses parasitic gaps (Joel Wallenberg pc)

- (41) a John hated his friend's tendency to borrow -, without returning <pg>, his new books on syntax.
b John hated Mary's praising -, without reading <pg>, the new book on German.
- (42) a John hated Mary's praising -, without reading <pg> herself, the new book on German.
b. * John hated Mary's praising- , without reading <pg> himself, the new book on German.
c. * John hated Mary's praising - , before reading <pg> himself, the new book on German.

Since *John* cannot apparently bind a reflexive inside the *before/without* clause containing <pg>, the latter clause must be within the gerund, where *Mary* will block the binding relation. Extracting the adverbial clause outside the gerund to ensure that *Mary* is no the controller/an intervener is not possible (42b,c).

Hypothesis:

HNPS is within the domain of the gerund, extracting the clause outside that domain (and outside the domain of the subject *Mary*) is * because the parasitic gap will be outside of the c-command domain of shifted NP.

The analysis of HNPS remains to be worked out and will have repercussions for the identification of the launch site of the operator in temporal clauses.

Perhaps: HNPS does not target clausal left periphery but targets a lower focus position in the vP left periphery, following Belletti (2009).

3.9. Peripheral adverbial clauses: argument fronting: attested examples (*Handout 1, 3.3.3, (40)*)

- (43) a And yet some popular things are so brilliant, like *The Simpsons* and the Angel of the North. While other brilliant things hardly any one buys – I'd put my friend's first novel and sherry in this category. (*Observer* 6.12.09 page 34 col 2)
b I think we have more or less solved the problem for donkeys here, because those we haven't got, we know about. (*Guardian*, G2, 18.2.3, page 3, col 2).
c We don't look to his paintings for common place truths, though truths they contain none the less. (*Guardian*, G2, 18.02.3, page 8, col 1)

Various options:

Either there is no operator movement involved in the derivation of such temporal clauses (*since/while/because* are inserted as a pure connective) or there is movement from a high position on the LP ('Force'; 'while/since/because you say that' / 'while it is true that') to the edge of the conditional. The latter movement would then not interfere with MCP. The analysis also hinges on the question to what extent the speech event is syntacticized.

4. Feature based relativized minimality: a brief sketch

4.1. Features and intervention

- (40) a. * How do you wonder whether John will solve the problem?
b. ? Which problem do you wonder whether John will solve?
c. ? These are the problems which we wonder whether John will solve.

Based on the feature distribution discussed above it is (correctly) predicted that in English double topicalisation (44a-c) is excluded ($*Q+\delta > Q+\delta$), focus fronting and topicalisation may co-occur but only in the order topic-focus (44d-e) ($*Q > Q+\delta$; OK: $Q+\delta > Q$) [note that this order need not be stated independently], and that a topic can be fronted across a fronted *wh*-constituent (44) (OK: $Q+\delta > Q$):

- (44) a *This book_i, to Robin_j, I gave t_i t_j . (Culicover 1991a).¹
b *Bill_i, that house_j, she took t_i to t_j for the weekend. (Emonds 2004: 95 (27b))
c *Bill knew that the necklace, (to) Jeannette, Fred had given before he met Alice. (Ernst 2001: 408, his (8.54c))
d *To ROBIN this book I gave.
e This book to ROBIN I gave. (Culicover 1991a: 36, ex. (117a))
f. A book like this, why should I buy? (Hudson 2003: 614 (24a))
g. ?This book, to whom should we give? (Watanabe (1988))
h. ?These prices, what can anyone do about?
(Langendoen (1979), via Watanabe)
i. ?And a book like this, to whom would you give? ?
(Delahunty 1983; Koizumi 1995: 146, his (27a))
j. ?And to Cynthia, what do you think you will send?
(Delahunty (1983), via Watanabe)
k ? To Peter, what should Mary give? (Boskovic 2008: 256, n. 13 his (i))

The absence of Focus>topic in English, which is often also analysed as an effect of structural truncation, is predicted.

4.4. Appendix: Long moved adjuncts pattern with fronted arguments

- (45) a. Next year there will be an improvement in the functioning of the railways.
b. Next year the Prime Minister believes that there will be a definite improvement in the functioning of the railways.
- (46) a. I called up my mother, who, on Tuesday, I had told it is likely that Sandy will visit Leslie.
b. These are the investigators who, during my time as University president, I told there were never any illegitimate appropriations of money
- (47) a. This is the linguist who next year t will get appointed in Geneva.
b. ??/*This is the linguist who next year t expects that all his students will have a job.
- (48) a. To these patients I suggest that in the present circumstances we only give the cooked vegetables.
b. To these patients I suggest that in the present circumstances you announce that we will only give the cooked vegetables.
c. To which patients did he suggest that in the present circumstances we only give the cooked vegetables?.
d. To which patients did he suggest that in the present circumstances you announce that we will only give the cooked vegetables.
- (49) a. Under these circumstances, can we continue?
b. Under these circumstances, what should I do?
- (50) a. *Under these circumstances do you think I should do it?
b. *Under these circumstances did you tell Mary that I should do it?
- (51) a. *Under these circumstances what do you think I should do?

- b *Under these circumstances what did you tell Mary I should do?
(Iwakura 1978: 340: n. 16, (i) from Chomsky 1977)
- (52) a. This afternoon they say that it will rain.
 b. If this afternoon it rains again, we go back.
 c. If this afternoon they say that it will rain, we won't go.
- (53) a. Morgen ga ik naar Gent.
 Tomorrow go I to Gent
 b. BONEN lust ik niet.
 beans like I not
 'BEANS, I don't like'
 c. MORGEN denk ik dat ik naar Gent ga.
 Tomorrow think I that I to Gent go
 'TOMORROW, I think I'll go to Gent'

¹ Observe that the English examples are much improved if the first constituent is a topicalized constituent and the second is focalized. See discussion chapter 1, section 4.4.2.4.2. For arguments realized as PPs see also chapter 1, note 7.