

## Main clause phenomena in finite embedded clauses and intervention

---

*If the double asymmetry can be the diagnostic for syntactic movement then the fact that it is also found to obtain with a number of finite clauses suggests that these to are derived by movement. The presentation, which partly draws from joint work with Barbara Ürogdi, builds on a lot of work that has been done on factive clauses since the 1970s and integrates earlier findings concerning the ‘nominal’ properties of factive clauses in a novel account which derives parallelisms between ‘nominal’ clauses and DPs from movement.*

Reference:

Haegeman, Liliane & Barbara Ürogdi (2010) Referential CPs and DPs: An operator movement account. Paper presented at GLOWAsia, 2010, BULC, Beijing.

### 1. Recapitulation: the double asymmetry and the movement derivation of adverbial clauses.

#### 1.1. Intervention and wh-movement: the double asymmetry

##### 1.1.1. RELATIVE CLAUSES

- (1) a. \*This is a student to whom, your book, I would recommend.
- b. Voici l'étudiant à qui ton livre je le donnerais.  
          this is the student to whom your book I it give-COND-1SG
- c. I met the author who, last year, began to write this new column.

##### 1.1.2. LONG MOVEMENT

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

##### 1.1.3. THE DOUBLE ASYMMETRY

(3)	a.	Eng	* $wh_{INT/REL}$ -constituent	- argument .....	t.....	}
	b.	Rom	$\sqrt{wh_{INT/REL}}$ -constituent	- CLLD.....	t.....	
	c.	Eng	$\sqrt{wh_{INT/REL}}$ -constituent	- adjunct.....	t.....	

#### 1.2. Temporal and conditional clauses display the double asymmetry

- (4) a. \* When this song I heard, I remembered my first love.
- b. When last year she started to write this column, I thought she would be fine.
- c. 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.’
- (5) a. \* If these exams you don't pass, you won't get the degree.

- b. If by Monday we haven't found him, we'll call the RSPCA.  
 c. Se la stessa proposta la fa anche l' altro candidate,... (Italian)  
 if the same proposal it make3SG also the other candidate  
 'If the other candidate also makes that proposal,...'  
 (Cardinaletti 2008:(22a))  
 Si ce livre tu le trouves à la Fnac, achète-le. (French)  
 if this book you it find-2sg at the Fnac, buy it  
 'If you find this book at the FNAC, buy it.'
- (6) a. Eng \*if/when- argument ..... ]  
 b. Eng √if/when- adjunct.....1 ]  
 c. Rom √if/when- CLLD..... 2 ]

Proposal : temporal adverbial clauses and conditional clauses are derived by operator movement (see also Endo 2009 for a head movement account)

## 2. Extending the proposal: Finite subordinate clauses and MCP

### 2.1. The data

#### 2.1.1. COMPLEMENTS OF 'FACTIVE PREDICATES' ('FACTIVE COMPLEMENTS')

- (7) a. John regrets that Mary read this book.  
 John doesn't regret that Mary read this book.  
 (Presupposition: Mary read this book.)  
 a' (%) \*John regrets [that this book Mary read]. (Maki *et al*, 1999: 3, their (2c))  
 b. \*I regret [that Mary, my antics upset as much as they did]. (Alrenga 2005: 179 (16b))  
 c. \*Mary realizes [that this book, John read]. (Hegarty 1991: 52, n. 19, his (iii))  
 d. \*John regretted that Gone with the Wind, we went to see. (Watanabe (1993: 525)) 730  
 in Honda 2010: (17a))

Other MCP are also incompatible with factive complements:

- (8) a. \*John regretted that never had he seen Gone with the Wind. (*ibid.*) (in Honda 2010: (17b)) (negative inversion)  
 b. \*He regretted that down the stairs fell the baby. (Coopmans (1989:730), in Honda 2010: (17c)) (locative inversion)  
 c. \*Harry was annoyed that even more corrupt was the Republican Party. (Preposing around *be*: Hooper&Thompson 1973: 479 their (105))  
 d. \*I forgot that playing in the concert was Arthur Rubinstein. (Preposing around *be*: Hooper&Thompson 1973: 479 their (106))  
 e. \*Sally plans for Gerry to marry her, and it bothers me that marry her he will (VP-fronting, Hooper&Thompson 1973: 479 their (102))

However:<sup>1</sup>

- (7) e I am glad that this unrewarding job, she has finally decided to give \_ up. (12/15)  
 f He tried to conceal from his parents that the maths exam he had not passed \_, and the biology exam he had not even taken \_ . (13/15)  
 ((a-c) Bianchi and Frascarelli (2009); their acceptance rate in parentheses)

<sup>1</sup> Observe that these data are a problem for Basse's (2008) account according to which factive complements are defective complements lacking an EF. If fronted adjuncts are moved to the Left Periphery attracted by an EF (cf. Sigurdsoon 2010) then the data with fronted adjuncts also argue against Basse's proposal.

### 2.1.2. SENTENTIAL SUBJECTS (IF THEY EXIST)

- (9) a. \*That this book, Mary read thoroughly is true. (Authier 1992: 332, his (17b))  
b. \*That Mary, your antics will upset is obvious. (Alrenga 2005: 179 his (15e))  
c. \*That a rabbit he pulled out of the hat seemed to confuse him. (Green 1996: 6)

Other MCP are incompatible with clausal subjects:

- (9) d. \*That over the entrance should hang the gargoyle was written in the plans. (Hooper&Thompson 1973: 479 their (69))  
e. \*That playing in tomorrow's concert will be Artur Rubinstein is certain. (Hooper&Thompson 1973: 479 their (71))

### 2.1.3. CLAUSAL 'COMPLEMENTS' OF NOUNS

- (10) a. \*I resent the fact that each part he had to examine carefully. (Hooper&Thompson 1973: 479 their (109))  
b. \*A warning that flights to Chicago travellers should avoid will soon be posted. (Emonds 2004: 77, (2c))  
c. \*John raised the possibility that Mary, your antics would upset. (Alrenga 2005: 179, his (15c))  
d. \*A promise that defective sets the company will fix has been made by John. (Emonds 2004: 77, note 3, his (ii))

MCP are incompatible with clausal 'complements' of nouns:

- (11) a. \*The announcement that speaking at today's luncheon will be our local congressman turned out to be false (Hooper & Thompson 486: heir (173))  
b. \*The claim that on the wall hangs a portrait of Mao is still unsubstantiated. (Hooper & Thompson 486, their (174))

-semantic/pragmatic accounts: MCP depend on assertion (Hooper and Thompson 1973, Krifka 2001, cf. Heycock 2006:202<sup>2</sup>, Haegeman 2006b)

-syntactic accounts

(i) variable structure analysis :

Kuroda (1992: 350), Benincà & Poletto (2001), Grewendorf (2003: 53: 'the idea that embedded clause vary as to which portions of the CP-layer may be projected, and that this has to do with the selectional properties of the matrix verb... it may be a property of non-bridge verbs that their complement does not project the whole CP-layer while bridge verbs select a complete CP-layer with all projections of the left periphery available.'). Emonds 2004, McCloskey 2004, Meinunger 2004, De Cuba 2007, Basse 2008. The LP of complement clauses of factive predicates is somehow seen as structurally defective.

(ii) intervention (see already Iwakura 1978 for a very early proposal that could be compatible with the intervention account)

## 2.2. Evidence for a left periphery

### 2.2.1. ADJUNCT FRONTING

- (12) a. John regrets that last week Mary did not turn up for the lecture.  
b. I find it strange that last week Mary did not turn up for the lecture.

---

<sup>2</sup> With respect to V2, which is also characterized as an MCP Heycock (2006: 202) says: This is because work on V2 in particular (including that of Andersson 1975) has led to the conclusion that there is an irreducibly syntactic aspect to the distribution of at least the structural root phenomena.'

- c. ... so it's not surprising that throughout history we've taken some bad turns.  
 (The monks of New Skete. 1999. *In the spirit of happiness*. Little, Brown, and Company. 181.) (Santorini 2001)
- (13) a. That in year one we won't make any profits is quite likely.  
 b. That later on she moved into students' accommodation is quite normal.
- (14) a. I resent the fact that last week Mary did not turn up for the lecture.  
 b. but nothing could alter the fact that on the previous evening he had got engaged to be married to a girl without a bean (P.G. Wodehouse. 1960. *The most of P.G. Wodehouse*. Simon and Schuster. 521.) (Santorini 2001)  
 c. I am choosing to ignore the rumour that for next year's festival they're thinking of having red carpet, a ribbon and Heather Mills. (*Observer Magazine* 6.9.9 page 7 col 3)

### 2.2.2. CLLD

- (15) a. Jean regrette que son texte tu ne l'aies pas encore lu. (French)  
 Jean regret-3SG that his text you *ne* it have-SUBJ-2SG yet read.  
 'Jean regrets that you haven't read his text yet.'  
 b. Mi dispiace  
 me displease-3SG  
 che questo problema gli studenti non l'abbiano potuto risolvere. (Italian)  
 that this problem the student-PL *non* it have-SUBJ-3PL can-PART solve  
 'I am sorry that the students have not been able to solve this problem.'  
 c. E' strano che questo problema gli studenti non l'abbiano potuto risolvere. (Italian)  
 it is strange that this problem the student-PL *non* it have-SUBJ-3PL can-PART solve  
 'It is strange that the students have not been able to solve this problem.'
- (16) a. Che questo problema, i professori non l'abbiano potuto risolvere<sup>3</sup>  
 That this problem, the professors *non* it have-SUBJ-3PL can-PART solve  
 mi sembra improbabile. (Italian)  
 me seem-3SG unlikely  
 'It seems to me to be unlikely that the professors should not have been able to solve this problem.'  
 b. Que ce texte-ci, ils ne l'aient pas accepté ne m'étonne pas. (French)  
 that this text here, they *ne* it have-SUBJ-3PL not accepted *ne* me surprise-3SG not.  
 'I am not surprised that they should not have accepted this text.'
- (17) Je souligne le fait que chaque partie il faudra l'examiner en détail. (French)  
 I underline the fact that each part it must-FUT-3SG it examine-INF in detail  
 'I underline that each part must be examined carefully.'
- (18) a. Eng \*<sub>[CP</sub> that-argument/MCP ..... ]  
 b. Eng √<sub>[CP</sub> that- adjunct..... 1 ]  
 c. Rom √<sub>[CP</sub> that- CLLD..... 2 ]

### 2.2.3. AN INTERVENTION ACCOUNT?

Hypothesis: factive complements/noun complements/ subject clauses are derived by leftward *wh*-movement of a null operator:

- (19) a. Eng \*<sub>[CP</sub> OP that-argument ..... t..... ]  
 b. Eng √<sub>[CP</sub> OP that- adjunct..... t..... 1 ]  
 c. Rom √<sub>[CP</sub> OP that- CLLD..... t..... 2 ]

<sup>3</sup> Thanks to Nicola Munaro and Luigi Rizzi for the judgements on these sentences.

Two ingredients of the movement account:

- (i) (null) OP in LP : to account for weak islandhood ;
- (ii) movement from TP internal position to account for \*MCP

The account thus assumes that OP is both an intervener (i) and is blocked by other interveners (ii).

‘When complement sentences disallow extraction of their internal constituents, they also disallow application of root transformations’ (Iwakura 1978: 357, (50))

- (20) a. How do you suppose [that Maria fixed the car \_\_\_]? (Hegarty 1992: 1, (1b))
- b. \*How did you notice [that Maria fixed the car \_\_\_]? (Hegarty 1992: 1, (2b))

### 3. Null operator movement in complements of factive predicates

#### 3.1. An operator in the left periphery

An early proposal: Munsat (1986): *that* vs. *that*<sub>+WH</sub>

- (21) a. John knows that Fred lives in France.
- b. John knows where Fred lives.
- c. John believes that Fred lives in France.
- d. \*John believes where Fred lives. (cf. Munsat 1986: (48-53))

‘*Believe* takes the complementizer *that*; *know* takes *wh-that*’ (Munsat 1986: 203).

- (21) d. \*Where does John know (that<sub>WH</sub>) Fred lives?  
(updated version): Violates locality: *wh*-feature on *that* should attract/freeze *where*
- e. Where does John believe (that) Fred lives?
- (22) a. \*How did you notice [that Maria fixed the car *t*]? (Hegarty 1992: 1, (2b))
- b. ?? What did you notice [that Mary had fixed *t*]?
- c. Which car did you notice [that Mary had fixed *t*]?
- d. That is the car which I had noticed [that Mary had fixed *t*].

No reconstruction (weak islands) (Basse (2008: 60)):

- (23) a. Which of his<sub>\*i/j</sub> aunts does John<sub>j</sub> regret/resent [that every boy<sub>i</sub> loves most]?  
b. Which of his<sub>i/j</sub> aunts does John<sub>j</sub> think/reckon [that every boy<sub>i</sub> loves most]?

The (weak) island status of factive clauses : Melvold (1986, 1991: 104), Hegarty (1992), Watanabe (1992), Roussou (1994), Bianchi (2000: 95), Zubizarreta (2001), among many others, assume that tensed factive complements contain a null operator in their left periphery.

It is likely that factive predicates, which presuppose the truth of their propositional complement, contain an Ass(ertion)<sup>4</sup> operator in its CP. *This operator is lexicalised by the*

<sup>4</sup> The affirmation that the complements of factive predicates are assertions seems at odds with the standard assumption in the literature and indeed with Zubizarreta’s own affirmation that factive predicates presuppose the truth of their propositional complement. However, observe that once again she adopts the idea that there is an operator in their left periphery, which will account for the island status of complements of factive predicates. According to Starke (2004: 260) the relevant operator is a ‘factive (assertion) operator’... he says: ‘Since the assertion operator is a positive operator (‘it is truly a fact that...’), factives indicate that positive operators induce weak island [sic] to the same effect as negative operators.’ The assumption that factive complements are associated with ‘assertion’ goes against the general trend. Also it should be pointed out that the ‘positive’ assertion operator is eminently compatible with a negative clause:

*complementizer, which explains why it must be obligatorily present [cf. John regrets \*(that) Mary is bald]. Complements of propositional attitude verbs lack an Ass operator, therefore, their complementizer may be absent in some languages [cf. John thinks (that) Mary is bald]. (Zubizarreta 2001: 201, my italics).*

### 3.2. Operator variable binding

*What distinguishes the complements of factives is the presence of the operator in the Spec of CP. We assume that this operator is licensed by the [+definite] functional element either at D-structure or at LF and that it binds the open event-position (<e> position) in the complement. ... if the operator is licensed at S-structure, then SPEC is not available as a landing site for an extracted element. (Melvold 1991: 104, my italics).*

*Event-arguments ... have a referential function. ... we will argue that the event position in the complement of a factive verb is bound by a different kind of operator. ..., the definite complementizer licenses an iota operator in the SPEC of COMP, thus making the sentence into a term which identifies a particular 'event-object' in the world. (Melvold 1991: 103-104, my italics).*

The null operator (Melvold's iota operator) in the left periphery of clausal complements of factive predicates binds a TP-internal position (namely the event-variable).

⇒: If operator-variable relation is established by movement, MCP in the left periphery of factive complements will block operator movement to derive complement clause.<sup>5</sup>

- |      |   |                       |                   |                         |
|------|---|-----------------------|-------------------|-------------------------|
| (24) | a | * [CP Op <sub>Q</sub> | XP <sub>Q</sub>   | ... [FP t [TP V ... ]]] |
|      | b | * [CP Op <sub>Q</sub> | XP <sub>Q+δ</sub> | ... [FP t [TP V ... ]]] |

Alternative : OP is merged in LP ?

(24)' merged high in LP (SpecForceP) : predicts that MCP are available :

- |    |                          |                   |                  |
|----|--------------------------|-------------------|------------------|
| a' | [CP Op <sub>Q</sub> that | XP <sub>Q</sub>   | ... [TP V ... ]] |
| b' | [CP Op <sub>Q</sub> that | XP <sub>Q+δ</sub> | ... [TP V ... ]] |

(24)'' merged low in LP (SpecFinP) : predicts that at least topicalisation is generally available :

- |    |                            |                 |                  |
|----|----------------------------|-----------------|------------------|
| a' | *[CP that XP <sub>Q</sub>  | Op <sub>Q</sub> | ... [TP V ... ]] |
| b' | [CP that XP <sub>Q+δ</sub> | Op <sub>Q</sub> | ... [TP V ... ]] |

### 3.3. Factive complements as DPs?

---

<sup>5</sup> (i) I resent that he did not talk to me.  
 Adams (1986: 305, her (1)-(4)) reports on subject object asymmetries discussed in the literature:

- |       |    |  |
|-------|----|--|
| (i)   | a. | le livre que Jean croit que Marie aime<br>'the book that Jean believes that Marie likes'   |
|       | b. | le livre que Jean croit qu'aime Marie  |
| (ii)  | a. | le livre que Jean regrette que Marie aime<br>'the book that Jean regrets that Marie likes' |
|       | b. | *le livre que Jean regrette qu'aime Marie  |
| (iii) | a. | Qui crois-tu qui aime ce livre?  |
|       | b. | *Qui regrettes/comprends/oublies-tu qui aime ce livre?                                     |
| (iv)  | a. | Who do you believe likes this book?  |
|       | b. | *Who do you regret/understand/forget likes this book?                                      |

The unavailability of subject extraction will follow from the account presented here, like an overt operator in the LP, the fronted operator in the LP will prevent subject extraction. Cf:

- |     |   |   |
|-----|---|---|
| (v) | a | I wonder how John liked this book.      |
|     | b | *Who do you wonder how liked this book? |

3.3.1. COMPLEMENT CLAUSES OF FACTIVE VERBS: 'NOMINAL' PROPERTIES (KIPARSKY AND KIPARSKY 1971)

-selectional properties

- (25) a. I resent / remember / know the claim that John stole the jewels.  
I regret the incident (Basse 2008, 55, (4)).  
b. \* I think / said / claimed the story / idea that John stole the jewels.  
\*I think the incident.
- (26) a. Mary resents (the fact) that she is pregnant.  
b. Mary asserted (\*the fact) that she is pregnant.
- (27) a. Mary resents being pregnant.  
b. \* Mary asserts being pregnant.

-distributional properties:

Barbiers (2000): Dutch factive clauses pattern with DPs in that they can occupy position in Middle field:

- (28) a Jan zal wel vinden [dat Piet geschikt is].  
Jan will well find that Pete eligible is  
'John will have the opinion that Pete is eligible.'  
b \*Jan zal [dat Piet geschikt is] wel vinden.  
Jan will that he eligible is well find  
c Jan zal nooit toegeven [dat ie gelogen heeft].  
Jan will never admit that he lied has  
'John has lied and he will never admit that.'  
d Jan zal [dat ie gelogen heeft] nooit toegeven.  
Jan will that he lied has never admit  
'John has lied and he will never admit that.'

Note: it is not 'factivity' (= presupposed to be true) that is crucial. In (29) both extraposed (29a,c) and non-extraposed (29b,d) variants are acceptable, with (29b,d) the more marked. The non-extraposed variant does not necessarily 'presuppose' that the content of the non-extraposed complement clause is taken to be true. The negation of the matrix verb is compatible with a reading according to which 'that KBC will get subsidies' is in doubt.

- (29) a De regering heeft reeds bevestigd [dat KBC extra subsidies zal krijgen].  
the government has already confirmed that KBC extra subsidies will get  
'The government has already confirmed that KBC is to receive extra subsidies.'  
b De regering heeft [dat KBC extra subsidies zal krijgen] reeds bevestigd.  
the government has that KBC extra subsidies will already confirmed get  
'The government has already confirmed that KBC is to receive extra subsidies.'  
c De regering heeft nog niet bevestigd [dat KBC bank extra subsidies zal krijgen].  
the government has not yet confirmed that KBC bank extra subsidies will get.  
'The government has not yet confirmed that KBC is to receive extra subsidies.'  
d De regering heeft [dat KBC bank extra subsidies zal krijgen] nog niet bevestigd.  
the government has that KBC bank extra subsidies will get not yet confirmed  
'The government has not yet confirmed that KBC is to receive extra subsidies.'

For early proposals see also, among others, Adams (1986). Kalluli (2006) presents evidence from Albanian to show that a clitic pronoun that typically picks up a referential DP doubles a complement of a factive predicate.

-anaphoric properties

- (30) a Bill tried the cake and Mary tried it too. [*it*= the cake].  
b Bill tried the cake and Mary did so too [*did so*: tried the cake].

De Cuba & Ürögdi: English: *do-so* replacement targets VP, *it*-replacement targets referential arguments.

- (31) a. John supposed [that Bill had done it], and Mary supposed [it/so] too.  
 b. John regretted [that Bill had done it], and Mary regretted [it/\*so] too.  
 (Kiparsky and Kiparsky 1970: 326)

CPs: referential (*it*) or non-referential (*so*).

Kiparsky and Kiparsky's (1970) : factive complements were embedded under a nominal head with the feature definite.

-Factive complements as relative clauses<sup>6</sup>

Bulgarian (Krapova 2008, 2010): invariant subordinator *deto* 'can be used in headed relative clauses [32a], as well as a subordinating conjunction introducing complement clauses of some emotive predicates, where it alternates with the standard complementizer *če* [32b].'

- (32) a. Tova e ženata, deto (ja) snimax včera.  
 This is woman-the that her-CL-ACC took-picture-1SG yesterday  
 'this is the woman that I photographed yesterday.'  
 b. Sažaljavam, deto/če ne možax da dojda.  
 Regret-1SG that not could -1SG come-1SG  
 'I'm sorry that I couldn't come.' (Krapova 2010: her (1))  
 c. Sažaljavam/Jad me e/ Măcno mi e... [PP P za/Ø [DP tova Ø [CP deto...]]

For Krapova (2008, 2010): factive complement is a full fledged relative clause with null nominal head (32c).

my proposal is that [32b] contain[s] a hidden relative structure underlying the apparent object clause introduced by *deto*.... I would like to propose that *deto*-complements ... contain a D head realized by the demonstrative pronoun *tova* ('this')... I further propose that the 'factive' DP structure is actually embedded in a PP headed by the preposition *za* ('for'), as illustrated in [32c]. Both the demonstrative and the preposition are subsequently deleted, giving the impression that we are dealing with a complement clause (Krapova 2008: 21)

Problem: if factive clauses are (always) full fledged relativized DPs we would expect them to be strong islands.

Gungbe (Aboh 2005): factive complements are derived in a way that is similar –though not identical– to the derivation of relative clauses. Specifically: the complementizer *dě* is the same as that found in headed relatives.<sup>7</sup>

- (33) a. Kòfí wé xó [[àgásá d̀axó [d̀ě mí wlé]] ló lé].  
 Kofi Foc buy crab big that[REL] 1PL catch DET NUM  
 'KOFI bought the [aforementioned] big crabs that we caught.'  
 b. [Àgásá d̀axó ló lé [d̀ě mí wlé]] vé ná Kòfí.  
 crab big DET NUM that[REL] 1PL catch hurt for Kofi  
 'The fact that we caught the aforementioned big crabs hurt Kofi.'  
 \*'The aforementioned big crabs that we caught hurt Kofi.'

<sup>6</sup> I only discuss a few examples but the syntactic parallelism between relative clauses and complement clauses is widespread and deserves looking into in the light of the current proposal.

<sup>7</sup> The Gungbe data are a problem for Basse's (2008) account according to which factive complements are defective complements lacking an EF.

- c      [Àgásá d̀axó    ló      [d̥ě              Kòfí    wlé] ] nyón,  
          crab   big    DET    that [REL]    Kofi    catch   good  
          àmón   àgásá   ló      kpàkpà má    nyón.  
          but   crab   DET    itself            NEG    good  
          ‘The fact that Kofi caught the big crab was a good thing but the crab (itself) wasn’t  
          good/sweet.’

Modern Greek (based on Roussou 2010): complementiser *pu*: factive complements + relative clauses:

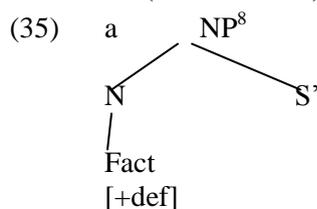
- (34) a      Thimame pu dhjavaze poli.  
          Remember-1SG that read-3SG much  
          ‘I remember that he used to read a lot/I remember him reading a lot.’  
       b      O fititis pu sinandises (ine filós mu)  
          the student that met-2SG is friend mine  
          ‘The student that you met is my friend.’

*Pu* can appear instead of a relative pronoun, very much like English *that* (and Italian *che*)  
 Roussou 2010: 591).

According to Christidis (1986), *pu* is construed as the equivalent of the definite article in the nominal system. [note omitted]. It is this property that allows *pu* to be associated with factivity. More precisely *pu* locates the proposition it embeds to a given point of reference (temporally, causally, etc) thus yielding the presuppositional effect associated with factive complements. (Roussou 2010: 592)

(for complications and more subtle distinctions see Roussou 2010 and the works cited).

### 3.3.2. THE (RELATIVIZED) DP(NP) ANALYSIS



- b      ... [DP [D Ø] [NP [N fact] [CP that...]] (updated from Kiparsky and Kiparsky 1971)  
 c      Krapova 2008/2010: ... [PP P Ø [DP Ø [CP *deto*...]]

### -weak (rather than strong) islands

<sup>8</sup> Already in the early accounts, the syntactic parallelism was taken to be reflected in the interpretation: All propositional arguments in the semantic interpretation of a sentence whose truth is entailed are represented as falling within the scope of the 'spec' quantifier, which also binds object-variables, according to the schema (SpecX<sub>i</sub>) ([P] X<sub>i</sub>). Their semantic representation is thus closely analogous to specific noun phrases. In the case of factive verbs and adjectives, this semantic parallel is explicitly reflected in the syntactic representation, which contains an underlying definite noun phrase. The feature of definiteness is specified at the level of deep structure since the definite article in phrases such as *the fact that Mary came* are never anaphoric... Indeed this type of construction demands the definite article: *a fact that Mary came* is ungrammatical as a noun-phrase construction... The semantic interpretation of the entailed complements of factives in both positive and negative sentences is then predicted by rules of interpretation which are independently justified. (Kempson 1975: 134-135)

- (36) a \* How did you notice [that Maria fixed the car *t*]? (Hegarty 1992: 1, (2b))  
 b ?? What did you notice [that Mary had fixed *t*]?  
 c Which car did you notice [that Mary had fixed *t*]?  
 d That is the car which I had noticed [that Mary had fixed *t*].

-distributional

- (37) a John forgot / thinks that Jane left too early.  
 b John forgot / thinks about Jane's early departure/\* that Jane left too early.  
 (38) a I was surprised that he left/\*his departure.  
 b It was surprising that he left/\*his departure.

Gungbe:

Factives clauses are more restricted in their distribution than relative clauses. The former mainly occur in subject positions while the latter occur in virtually any argument position. Like CPs [39a] and unlike relative clauses [39b], factives cannot occur in the pre-verbal object position in Gungbe progressives (cf. Aboh 2004: 278)

- (39) a. \* Ûn tò [dò mí wlé àgásá ló lé] dò ná Kòfî.  
 1SG PROG that[Comp] 1PL catch crab DET NUM tell for Kofi  
 'I'm telling Kofi that we caught the crabs.'  
 b. Ûn tò [àgásá dĕ mí wlé ló lé] jré ná Kòfî.  
 1SG PROG crab that 1PL catch DET NUM report for Kofi  
 'I'm telling Kofi about the aforementioned crabs that we caught.'

Factive clauses, though apparently derived by a process akin to relativization, have the distribution of CPs and not that of (relative) DPs.

3.3.3 A CLAUSAL ANALYSIS

Observe (section 3.2.): Melvold : factive complements: C: [+definite], OP in Spec.

Hegarty (1992) : 'definiteness as a clausal property':

- the concept 'factivity' is not the crucial factor in determining extraction possibilities.
- Extraction is ungrammatical from an embedded clause which has the property of 'being *discourse bound*, that is of having already been introduced into a discourse' (Hegarty 1992: 8, my italics).
- for predicates of the 'factive type', familiarity is syntactically marked (Hegarty 1992:13),
- 'familiar complement clauses are akin to definite nominals' (Hegarty 1992: 26).
- 'complements of Class B predicates are introduced by a complementizer marked [+definite], licensing a null 'definite operator' in Spec-CP. (Hegarty 1992:30).

De Cuba (2007: 60)<sup>9</sup>

The lists from Hegarty's (1992:13) classification[s] are repeated in [40]. I adopt a version of his terminology, calling Class A predicates *Novel Complement taking Predicates* (NCPs) and Class B *Familiar Complement taking Predicates* (FCPs).

- [40] a. Class A: Novel Complement taking Predicates (NCPs): *believe, think, say, claim, assert, allege, declare, state, propose, suggest, assume, suppose, conjecture, suspect, consider, imagine, be likely, be possible*  
 b. Class B: Familiar Complement taking Predicates (FCPs): *notice, point out, realize, recognize, forget, admit, emphasize, regret, know, remember, conclude, confirm, verify, learn, find out, inform, agree, accept, insist, stress, hate, like, be aware, be significant, be odd, be glad, be proud*

<sup>9</sup> DeCuba : truncation analysis: Class A 'novel' predicates select a more structurally complex sentential complements than Class B 'familiar' predicates.

Gungbe (Aboh 2005): factive complements are derived in a way that is similar –though not identical– to the derivation of relative clauses. The complementizer *dě* is the same as that found in headed relatives. Factive clauses (42) ≠ headed relatives (41):

- (i) both involve DP movement to CP;  
 (ii) but headed relatives involve an outer DP layer (41), but factive clauses do not (42).

- (41) a. Kòfí wé xó [[àgásá d̀àxó [d̀ě mí wlé]] ló lé].  
 Kofi Foc buy crab big that[REL] 1PL catch DET NUM  
 ‘KOFI bought the [aforementioned] big crabs that we caught.’  
 b. [DP<sub>D</sub>[TopP CP [TopP ló [NumP t<sub>CP</sub> [NumP lé [CP àgásá d̀àxó<sub>i</sub> [C° d̀ě [IP mí wlé t<sub>i</sub>]]]]]]]]]  
 -*agasa* to SpecCP;  
 -CP: to NumP and to TopP in LP of DP.
- (42) a. [Àgásá d̀àxó ló lé [d̀ě mí wlé] ] vé ná Kòfí.  
 crab big DET NUM that[REL] 1PL catch hurt for Kofi  
 ‘The fact that we caught the aforementioned big crabs hurt Kofi.’  
 \*‘The aforementioned big crabs that we caught hurt Kofi.’  
 b. [Àgásá d̀àxó ló [d̀ě Kòfí wlé] ] nyón,  
 crab big DET that[REL] Kofi catch good  
 àmón àgásá ló kpàkpà má nyón.  
 but crab DET itself NEG good  
 ‘The fact that Kofi caught the big crab was a good thing but the crab (itself) wasn’t good/sweet.’  
 c. [CP [DP àgásá d̀àxó ló lé ]<sub>i</sub> [C° d̀ě [IP mí wlé t<sub>i</sub>]]]...

### 3.4. Referentiality as a clausal property (De Cuba & Ürögdi 2009)

- (43) **Referential:** XP is referential if XP is a referring expression

**Referential CP (RCP):**

a referential entity that denotes a proposition without illocutionary force (a sentence radical in the sense of Krifka 1999); a semantic object encoding a proposition/question which the complex sentence (the embedding context) positions in the dynamics of conversation. As such, an RCP in itself does not constitute a speech act and cannot be used as an utterance. RCPs can be embedded under both factives and non-factives.

**Non-referential CP (NCP):**

a non-referential semantic object denoting a speech act with illocutionary force, i.e., one which involves a conversational move. An NCP can thus be a matrix sentence, or an embedded clause subject to various restrictions. Factive verbs cannot embed speech acts due to conflicting semantic requirements.

Clausal anaphora:

English: *do-so* replacement targets VP, *it*-replacement targets referential arguments.

Non-referential elements (including NCPs) are replaced by *so*, referential elements are replaced by the pro-form *it*. ⇒ Clauses can be referential (RCP) or Non referential (NCP).

Non-factive predicates may embed either RCP or NCP (44a), ⇒ *it* / *so* anaphora

Factive predicates embed only RCP (44b), ⇒ only *it*-substitution.<sup>10</sup>

- (44) a. John supposed [<sub>NCP</sub> that Bill had done it], and Mary supposed [it/so] too.  
 b. John regretted [<sub>RCP</sub> that Bill had done it], and Mary regretted [it/\*so] too.

<sup>10</sup> Data in (50) from Kiparsky and Kiparsky (1971:362); labels and interpretation from de Cuba & Ürögdi (2009a).

DC&Ü: referentiality = a very pared-down concept, the potential of an expression to refer (and thereby generate/call up a reference set). DC&Ü 2009: referentiality a weaker condition than - and a precondition on - givenness, D-linking and presupposition.

Referential propositions – just like referring expressions in general – may be used as given or D-linked, and their truth may be presupposed if they are subordinated to a factive verb. Factivity is a lexico-semantic property of verbs, and enforces truth-conditional presupposition on the verb's complement. Referentiality is – unlike givenness or D-linking – not contextually defined but a syntactic property of expressions

### 3.5. Operator movement, referentiality and the CP/DP parallelism

How to account for the distributional similarities between referential DPs and RCPs if the RCPs are not nominal/dominated by DP? Hypothesis:

- (i) referentiality in the clause: results from the proposed operator movement,
- (ii) referentiality in the nominal domain is also derived via operator movement. (5.4.2)

#### 3.5.1. REFERENTIAL CPS AND DPS ARE WEAK ISLANDS

In DPs referentiality (DC&U) correlates with structural differences. Fiengo & Higginbotham (1981): referential<sup>11</sup> DPs are more resistant to extraction than non-referential ones:

- (45) a. Who did you see pictures of?
- b. \* Who did you see the picture of?<sup>12</sup>

Based on such examples (and others where referential DPs turn out to be opaque not only to extraction but also to binding and so on), F&H formulate the 'Specificity Condition' ('no specific DP may contain a free variable').

Extraction facilitated if the *wh*-phrase is strongly referential: (noted (without explanation) in Dikken (2006) fn. 29., DC&Ü 2009):

- (46) a. \* Who did you read John's book about?
- b. ? Which popular play did you read John's review about?

⇒: referential DPs are weak islands.

#### 3.5.2. MOVEMENT ANALYSIS OF REFERENTIAL DPs: A PROPOSAL<sup>13</sup>

Campbell (1996): Specificity in DPs is derived via an operator chain between Spec,DP and the subject of a small clause of which the NP is the predicate. Campbell's 'specificity' = our 'referentiality'.

- (47) [<sub>DP</sub> OP the [<sub>sc</sub> [e] [<sub>NP</sub> thief]]]

NP: a predicate whose subject is the variable *e* that is bound by the specificity operator in Spec,DP. According to Campbell, the specificity operator is a kind of DP-internal topic, which links the internal subject position (and hence DP itself) to a referent (potentially identified in the discourse), yielding referential interpretation. Campbell's schematic structure in (47) involves an operator chain between a

---

<sup>11</sup> Fiengo and Higginbotham use the term "specific" rather than "referential". We abstract away from this.

<sup>12</sup> Example from Fiengo and Higginbotham, who cite Chomsky (1973) for the observation.

<sup>13</sup> The proposal interacts with other constraints extraction from DP, the details of this are yet to be worked out. For discussion see Cinque 1980, and much later work.

functional projection dominating the contentful part of the phrase (an extended projection of N in the case of a DP, and the eventuality in the case of a clause) and the left periphery of the referential phrase.

Aboh 2004 :Gungbe (42) repeated here: DP internal movement to left periphery; tentative suggestion that the observed DP internal phrasal movement in Gungbe is paralleled by DP-internal (null) operator movement in languages like French or English.

- (48) a. Kòfí wé xó [[àgásá d̀àxó [d̀ě mí wlé]] ló lé].  
 Kofi Foc buy crab big that[REL] 1PL catch DET NUM  
 ‘KOFI bought the [aforementioned] big crabs that we caught.’  
 b. [DP[D°[TopP CP [Top° ló [NumP t<sub>CP</sub> [Num° lé [CP àgásá d̀àxó<sub>i</sub> [C° d̀ě [IP mí wlé t<sub>i</sub>]]]]]]]]]  
 -*agasa* to SpecCP  
 -CP: to NumP and to TopP in LP of DP

### 3.6. Speculations/extensions

#### 3.6.1. LICIT ARGUMENT FRONTING IN FACTIVE COMPLEMENTS

- (49) a I am glad that this unrewarding job, she has finally decided to give \_ up. (12/15)  
 b He tried to conceal from his parents that the maths exam he had not passed \_, and the biology exam he had not even taken \_. (13/15)  
 c Mary didn’t tell us that Bill she had fired \_, and John she had decided to promote \_ . (8/15)  
 ((a-c) Bianchi and Frascarelli (2009); their acceptance rate in parentheses)  
 d His parents resented that the maths exam he had not passed \_, and the biology exam he had not even taken \_ . (H&U)  
 e The entire office resented that Bill she had fired \_, and John she had decided to promote \_ . (H&U)
- (50) ≈I am glad to say that this unrewarding job, she has finally decided to give up.  
 ‘factive’ verb reinterpreted as ‘verb of saying’:  
 Haegeman (2006b), Urmson (1963); Maki et al (1999); Gärtner (2001: 127-28); Shaer and Frey (2004: 486).

B&F (2010): English topicalization is invariably contrastive, (49b) : contrast between *the maths exam* and *the biology exam*

However:H&U:

(49b-e): not just contrastive object, also: a contrast between two events. In (49d), for instance, the entire event of ‘not passing the maths exam’ must also be contrasted with another event (in this case, ‘not even taking the biology exam’); in (49e) ‘firing Tom’ is contrasted with ‘promoting John’. ... the contrast on the events is required for the examples to be felicitous.

By virtue of being contrasted with another event, the event, itself relativized in the RCP, is now part of a reference set and is thus D-linked in a way that it is not in the unmarked case.

Hypothesis:

- the moved operator is endowed with  $\delta$ , resulting in D-linking of the RCP.
- $\delta$  not encoded on the fronted argument itself but rather on the operator, while the fronted argument has only the Q feature.

- (51) [CP Op<sub>Q+\delta</sub> XP<sub>Q</sub> ... [FP t<sub>Q+\delta</sub> [TP V ... ]]]

- (52) a. \* John resents that this book Mary read.  
 b. John resents that this book Mary read from cover to cover, while the other (his favorite) she didn't even open.  
 c. John found out that this book Mary read from cover to cover, even though she had told him she could not read long texts because they gave her a headache.  
 d. What John regrets is that this book Mary read and commented on, while the other she didn't even open.
- (53) ?? What John regrets is that THE PENSION FUND Mary chose.  
 (No contrasting events since 'choose' does not apply iteratively, and is not easily contrasted with alternative predicates.)

3.6.2. FOR FUTURE WORK: THE EXTRACTION SITE OF THE OPERATOR.

- (i) SpecFinP?  
 (ii) Irrealis Mood projection (Cinque 1999)?  
 -It: Degradation of high modals: clitic climbing with *sembrare*:

- (54) a. ?? È strano che lo sembrino trovare troppo difficile.  
 is strange that it seem-SUBJ-3PL find too difficult  
 b. È strano che sembrino trovarlo troppo difficile.  
 is strange that seem-SUBJ-3PL find it too difficult  
 'It is odd that they seem to find it too difficult.'<sup>14</sup>

The restriction on high modals, i.c. clitic climbing with *sembrare* as an instantiation of Cinque's (2004) Evidential Mood, might be taken as an indication that the moved operator is similar to that moved in conditional clauses. Hypothesis: the moved operator is a +REALIS operator?

Kidwai (2010): Meiteilon: two embedded complementizers: *háybə* (55a) –factive complement clauses- and *háynə* (55b). The choice of complementizer determines the interpretation.

- (55) a. [məhá:k thəbək əsi təw-gə-də-bə-ni                      háybə/\*háynə] cumm-í  
 he work this do-POT.EPST.IRR.COP COMP true-IND  
 'It is true that he did this work.'  
 b. [məhá:k pərikha ŋəm-gə ni                      \*háybə/háynə] əy khəll-í  
 he exam pass-POT COP COMP I think-IND  
 'I think that he will pass the exam.'  
 c. [məhá:k hidak əma ca-gə-də-bə-ni                      háybə/háynə] əy niŋsiŋ-í  
 he tablet one take-POT.COP.EPST.IRR.COP COMP I remember-IND  
 (a) 'I remember that he should take a tablet.' (C = *háybə*)  
 (b) 'I reminded him that he should take a tablet.' (C = *háynə*) (from Singh 2000)

(i) Clauses introduced by *háybə* : nominal properties (Kidwai 2010: (42)). In descriptive grammars, the morpheme *-bə* is referred to as a 'nominalizer' : *-bə* clauses behave like nominals, in that, for instance, they can display case morphology (Kidwai 2010: (21) for arguments).

(ii) 'It can be no accident that *-bə* on *háybə* is homophonous with the *irrealis -pə*, identified in the previous sections as the head of Mood<sub>IRREALIS</sub>' (Kidwai 2010: 56).

<sup>14</sup> Note that *tout* climbing is licit in French complements of factive verbs, suggesting that it is not evidence for assigning a functional status to *sembler*.

(i) Je suis contente qu'ils ont tout semblé comprendre.  
 I am pleased that they have all seemed understand

Note that in English both conditionals and complements of factive verbs contain *should*, but the nature of this modal awaits further research:

- (56) a. If he should mention it, pretend that you don't know.  
b. I regret that he should have mentioned it  
That he should have mentioned it was awful.

#### 4. Subject clauses

##### 4.1. Koster (1978a) : 'Sentential subjects do not exist'

- (57) a. That these nouns behave differently is captured by this formulation of the rule.  
b. NOT  $[_{TP} [_{CP} \text{that these nouns behave differently}]]$  is captured  $t_1$  by this formulation of the rule]  
c. BUT  $[_{TopP} [_{CP} \text{that these nouns behave differently}]] OP_1 [_{TP} t_1 \text{ is [captured } t_1 \text{ by this formulation of the rule}}]]]$

Arguments:

-Subject clauses are incompatible with SAI

- (58) a. \*Does that the Giants lost the World Series really suck?  
b. Does the article that reported that the Giants lost the World Series really suck? (Takahashi 2009, 20, adapted from Alrenga 2005:177)
- (59) a. \*Who did [that John left early] disappoint?  
b. \*To whom did [this book] you give?  
c. \* $[_{FocP} \text{to whom did } [_{TopP} \text{this book } [_{Top} \emptyset] [_{FinP} [_{TP} \text{you } [_{T} \text{did}]]]]]$  [...

However: for (59d) there should not be any problem since the 'subject' is a DP:

- (59) d. \*Who did the fact that John left early disappoint? (Davies and Dubinsky 2000: 7)  
e. \*Who did  $[_{DP} \text{the fact that John left early}]$  disappoint? (Davies and Dubinsky 2000: 7)

Contextualized example:

- (60) A: I tried to convince Dave that the world is flat, but he wouldn't buy it.  
B: ??Is [that the world is round] all that surprising to anyone any more?  
(Davies and Dubinsky 2000: 7, their (21))
- (61) a. To what extent did that Fred failed to show up anger those of his devoted fans who had waited by the stage door since dawn the previous day? (Delahunty 1983: 382, his (11))  
b. Why does that Fred wants to marry her so upset Mary's mother, father, brothers, sisters and four grandparents that they haven't ceased to harangue her about it since they discovered the proposal? (Delahunty 1983: 383, his (12))  
c. Who does that Fred left early bother so greatly that he refuses to visit us any more? (Delahunty 1983: 385, his (22a))  
d. Who does that the world is ending upset so terribly that they have decided to abandon the planet? (Delahunty 1983: 385, his (22b))  
e. To whom is that quarks are green so well known that he cannot conceive of people who have not heard of the notion? (Delahunty 1983: 385, his (22c))  
f. Amongst which peoples is that the Earth was once flooded so often recalled that they refuse to leave their mountain homes for fear they will be trapped in the lowlands if the flood should ever occur again? (Delahunty 1983: 385, his (22d))  
g. Does that Fred lied to them bother all of the people who bought stock in this company? (Delahunty 1983: 387, his (31a))  
h. Does that the world is round boucher as many people now as it did 500 years ago? (Delahunty 1983: 387, his (31b))  
i. Does that quarks have wings explain their odd behaviour? (Delahunty 1983: 387, his (31c))

- j. Does that quarks have wings explain anything at all? (Delahunty 1983: 387, his (31d))

-No clausal subjects for ECM –contexts:

- (62) a. \*John believes [that the cult members cloned a human baby] to be true.  
b. John believes [their claim] to be true. (Alrenga 2005:185; in Takahashi 2009: 21)

Small clauses: 2 native speaker informants rated both examples in (63) as fully acceptable (5 on a scale of 1-5):

- (63) a. I found that no one left such a boring party early remarkable. 5  
b. I thought that no one would leave such a boring party early unlikely. 5

-Subject clauses are incompatible with fronting of another argument in the containing clause:

- (64) a. \*Such things, that he reads so much doesn't prove. ((Koster 1978, his (5b), Davies and Williams 2000: 8, their (25))  
b. \*John, this book, I will give to.

But

- (64) a. \*Such things, the fact that he reads so much doesn't prove. (Davies and Williams 2000: 8, their (26))  
b. ??Ted, that John's a fool bothers to no end, not Horatio. (Davies and Dubinsky 2000: 8, their (28a))

- (65) a. Through a detailed observation of gulls, Lorenz thought he had shown that the image of the mother was acquired. This conclusion turned out to be based on a series of misinterpretations.  
\*On the other hand, from his observations of ducklings, that the image of the mother is innate, we have since learned, though Lorenz himself never noticed this. (Miller 2001, his (21a))  
b. Descartes claimed that the two lines in figure C were parallel and provided a proof based on his second theorem. This proof was in fact mistaken.  
From his first theorem on the other hand, that the two lines are parallel certainly does follow, but remarkably, Descartes apparently never noticed this. (Miller 2001: his (20))

#### 4.2. Subject clauses and MCP

Factive predicate:

- (66) \*[That a rabbit he pulled out of the hat] seemed to confuse him. (Green 1996: 6)
- (67) a. \*That this book, Mary read thoroughly is true. (Authier 1992: 332, his (17b))  
b. \*That Mary, your antics will upset is obvious. (Alrenga 2005: 179 (his 15e))  
c. \*That over the entrance should hang the gargoyle was written in the plans. (Hooper&Thompson 1973: 479 their (69))<sup>15</sup>  
d. \*That playing in tomorrow's concert will be Artur Rubinstein is certain. (Hooper&Thompson 1973: 479 their (71))

To the extent that they are allowed (63), observe that subject clauses of small clauses disallow MCP:

- (68) a. \*I found [ that such a boring party no one left early] remarkable 1  
b. \*I thought [ that such a boring party no one would leave early] unlikely. 1

<sup>15</sup> Lasnik and Saito (1993: 77, their (43)) give the following as grammatical:  
(i) that this solution I proposed last year is widely known.

Interpretive differences:

- (69) a. UPI reported that the president was dead.  
 b. That the president was dead was (not) reported by UPI. (presupposed/familiar)
- (60) a. That Mary read this book thoroughly is true. not presupposed but familiar  
 b. That Mary read this book thoroughly is not true. not presupposed but familiar
- (71) a. That John has finished the job on time is (not) certain. not presupposed but familiar  
 b. It is (not) certain that John has finished the job on time.

Miller (2001): ‘non-extraposition requires that the content of the subject be discourse-old or directly inferrable. If the content is discourse-new, then extraposition is necessary.’ (Miller 2001:1).

discourse old/inferable/ familiar ⇒ ‘referential’ in the sense of DC&Ûrögdi (2008) and H&Û (2010)

The double asymmetry:

- (72) a. \*That this book, Mary read last week is true.  
 b. That last week Mary read this book is true.  
 c. Che questo problema, i professori non l'abbiano potuto risolvere (Italian)  
 That this problem, the professors *non* it have-SUBJ-3PL can-PART solve  
 mi sembra improbabile.  
 me seem-3SG unlikely  
 ‘It seems to me to be unlikely that the professors should not have been able to solve this problem.’

Proposal (tentative): subject clauses derived by operator fronting in the same way that complements of ‘factive’ verbs are derived.<sup>16</sup>

Aboh 2004:

- (73) a. [Àgásá d̀axó ló lé [d̀ě mí wlé] ] vé ná Kòfí.  
 crab big DET NUM that[REL]1PL catch hurt for Kofi  
 ‘The fact that we caught the aforementioned big crabs hurt Kofi.’  
 \*‘The aforementioned big crabs that we caught hurt Kofi.’
- b. [Àgásá d̀axó ló [d̀ě Kòfí wlé] ] nyón,  
 crab big DET that[REL] Kofi catch good  
 àmón àgásá ló kpàkpà má nyón.  
 but crab DET itself NEG good  
 ‘The fact that Kofi caught the big crab was a good thing but the crab (itself) wasn’t good/sweet.’
- c. [<sub>CP</sub> [<sub>DP</sub> àgásá d̀axó ló ]<sub>i</sub> ]<sub>i</sub> [<sub>C</sub> d̀ě [<sub>IP</sub> mí wlé t<sub>i</sub>]]]...

### 4.3. Extending the data

#### 4.3.1 SUBJECT CLAUSES IN DUTCH (JUDGEMENTS VARY)

- (74) a. ?Ik weet niet of [dat KBC extra subsidies zal krijgen] aangekondigd is.

<sup>16</sup> Davies and Dubinsky (2000: 9): subject clauses are DPs:

- (i) [<sub>DP</sub> t [that Selby lost it]] is quite apparent.  
 Arguments: coordination and agreement (iia), (iib) emphatic reflexives.
- (ii) a. [ [<sub>CP</sub> That the march should go ahead] and [that it should be cancelled]] have been argued by the same people at different times.  
 b. That Leslie arrived drunk itself put Kelly in a foul mood.  
 (Davies and Dubinsky 2000: 9, their (30b,c))

- I know not whether that KBC extra subsidies will obtain announced is  
'I am not sure that ( the fact )that KBC will get extra subsidies has been announced.'
- b. ?[Dat KBC extra subsidies zal krijgen] werd niet aangekondigd.  
That KBC extra subsidies will get was not announced.  
'(The fact) that KBC is getting extra subsidies has not been announced.'
- c. ?Ik vind [dat KBC extra subsidies zal krijgen] niet goed.  
I find [that KBC extra subsidies will get] not good  
'I don't approve of KBC getting extra subsidies.'

#### 4.3.2. FOR FURTHER RESEARCH: FRONTED CLAUSES ARE INCOMPATIBLE WITH MCP

- (75) \*That Mary, our antics would upset, I didn't expect. (Alrenga 2006: 179 (15d))
- (76) a. They have announced in the local press that the lecture theatre they will renovate first.  
b. ??\*That the lecture theatre they will renovate first, they have announced in a short communication in the local press.

(Takahashi (2009): moved clauses are dominated by DP. )

### 5. Clausal complements of N

cf. Iwakura (1978): disallow MCP and disallow extraction.

- (77) a. \*Which ticket<sub>i</sub> did Sonia deny [the claim that she had misplaced t<sub>i</sub>] (Nichols 2003: 156: her (3b))  
b. \*It is this book<sub>i</sub> that [<sub>IP</sub> I accept [<sub>NP</sub> the argument [<sub>CP</sub> that [<sub>IP</sub> John should read [e<sub>i</sub>]]]]].  
(Chomsky (1977: 95) in Honda 2010: (3))

The ungrammaticality of referential *wh* extraction in [77] may be due to the fact that the subordinate clause in [77a] is a type of adjunct clause. If the subordinate clause in [77a] below is an adjunct, then a further reasonable hypothesis is that this is a relative clause adjunct, with a structure similar to that of the relative clause in [77b,c]. In [77b] the nominal head corresponds to a gap in the subordinate clause associated with an argument position (here direct object). In [77a] there is no nominal argument position gap, although there is another argument variable in the subordinate clause for relativization. This is the event argument (or event variable, [references omitted, lh]) in [78].

- [78] a. The claim [that Sonia had misplaced the lottery ticket]  
b. The train [that John missed]  
c. [<sub>DP</sub> the train<sub>i</sub> [<sub>CP</sub>  $\emptyset$ <sub>i</sub> [that [<sub>IP</sub> John missed t<sub>i</sub>]]]]
- [79] Sonia bought a lottery ticket in Rhode Island.  
**Ee** [buying(e) & Agent (Sonia) (e) & Theme (lottery ticket) (e) & in (RI) (e)]

The subordinate clause associated with the noun *claim* in [77a] may be represented as a relativization of this event argument and therefore as a canonical relative adjunct [note omitted, lh], as in [77d]:

- [78] d. [<sub>DP</sub> the claim<sub>i</sub> [<sub>CP</sub>  $\emptyset$ <sub>i</sub> [that [<sub>IP</sub> Sonia [e<sub>i</sub> [had bought the lottery ticket]]]]]]

(Nichols 2003: 156-157)

Hypothesis lh: relation Operator event variable: movement<sup>17</sup>

[78] e. [DP the claim<sub>i</sub> [CP OP<sub>i</sub> [that [IP Sonia [t<sub>i</sub> [had bought the lottery ticket]]]]]]

Nichols (2003: 161-2) : Burmese ‘attitude nominal subordinate clauses ... are formally similar to relative adjuncts’. Like relative clauses (67a), Burmese complement clauses of N contain the relative marker *té*, as shown in (67b) and (67c). (Nichols 2003: 161-2, Nichols 2001)

- (80) a. hou thòu thaw té we<sup>?</sup> thà hin (Burmese)  
 that rancid go REL pork curry  
 ‘That pork curry which has turned rancid’ (Soe 1999, in Nichols 2003: 162, her (23a))
- b. [[ thu chàu tha te] hsou té] ‘əthi (Burmese)  
 he rich REALIS EVAL REL.REALIS NOM-know  
 ‘the knowledge of the fact that he is rich’  
 (Nichols 2003: 162, (20a) from field notes)
- c. [[thu nei mə kàun hpù ] hsou *té*] kauláhalá (Burmese)  
 He stay NEG good NEG EVAL REL.REALIS rumor  
 ‘the rumour that he is/was ill’ (Nichols 2003: 162, (20b) from field notes)

Arsenijevic (2009).

Observe first F[inite]C[omplement]C[lause]s to nominals, as in [81]:

[81] the claim that John kissed Mary

FCCs are said to be complete propositions, which do not have to involve any abstracted or variable elements.

However, these proper propositions do not compositionally contribute their truth-value to the structure they appear in (Hinzen, 2007). For instance, a sentence like [81] would be true or false irrespective of the truth or falsity of the embedded clause from [82], when evaluated against the context.

[82] Bill was surprised by the claim [that John kissed Mary].

The standard move is to consider these propositions embedded in predicates which isolate their truth-value from that compositionally derived at the matrix clause level. But how exactly this isolation effect is achieved still needs to be explained. Isolation effects in syntax usually come from some kind of barrier, e.g. in terms of the relativized minimality theory (Rizzi, 1990). Assuming that the force of the matrix clause is the locus of composition of the truth-values of FCC and the matrix clause, this means that a barrier appears between the force of FCC and that of the matrix clause. I argue that exactly this is the case:

- (1) all FCCs have a variable, and abstracted, force; in syntactic terms, the subject of their ForceP (the SpecForceP) is assigned a variable value;
- (2) FCCs combine only with predicates that also involve a force component, and moreover – a force component with a specified value. In terms of a matching analysis – the nominal head has to match the relativized constituent, and for the subject of force, this is possible only if the nominal head also specifies some force. In terms of the raising analysis, the element in the highest specifier position of the relative clause has to denote force (because

<sup>17</sup> Binding effects which are argued to distinguish between ‘complement clauses to N’ and relative clauses which were discussed in Lebeaux (1998) need to be reconsidered.

(i) a \*Whose claim that John<sub>i</sub> liked Mary did he<sub>i</sub> deny?  
 b Which picture that John<sub>i</sub> took did he<sub>i</sub> like?

it is basegenerated in the ForceP) and it has to be nominal in order to establish the relevant relation with the determiner taking the relative clause;

(3) the structural relation between the nominal head and the FCC is the same as that in relativization. Hence, [81] can be represented as in [83], involving a syntactic element with a variable feature.

[83] [<sub>DP</sub> the claim]<sub>[force:claim]</sub> [<sub>ForceP</sub> [<sub>SpecForceP</sub> [<sub>Var</sub>]] that]<sub>[A]</sub> [<sub>IP</sub> John kissed Mary]]

Kayne (2008a:10-11, 2008b: section 10): ‘nouns do not project’ (2008b, section 9).  
Kayne (2008a,b) proposes a relativization analysis for:

(84) the fact that they’re here

## 6. For further research: the generalised relativization analysis of complement clauses

if one were to adopt a general relativization analysis for ALL complement clauses (Kayne 2008b, Manzini 2008, Arsenijević 2009, Roussou 2010), then the availability of MCP in some complement clauses and its absence in others can be made to follow from intervention if the launch site of the operator is differentiated between a TP internal position (no MCP) and a position in the LP (MCP).