

# Minimality, Reconstruction, and PF Movement

*Joseph Aoun*  
*Elabbas Benmamoun*

We investigate the interaction of clitic left-dislocation (CLLD), *wh*-interrogatives, and topicalization in Lebanese Arabic. A *wh*-phrase or a topicalized phrase can be fronted across a CLLDed element derived by movement but not across a base-generated one. A CLLDed element cannot be fronted across another CLLDed element, a *wh*-phrase, or a topicalized phrase. These interception effects are accounted for only if Minimality is construed as a constraint on derivations rather than representations and if fronting of the CLLDed elements is seen to apply in the PF component. It is thus suggested that the mapping between overt Syntax and the Articulatory-Perceptual level is not trivial.

*Keywords:* clitic left-dislocation, Minimality, PF movement, reconstruction, resumption, topicalization, *wh*-interrogatives

The following generalizations hold true of clitic left-dislocated (CLLDed) elements in Lebanese Arabic (LA):

- (1) CLLDed elements may be generated by movement or not.
- (2) Only CLLDed elements generated by movement display reconstruction.

Furthermore, the interaction between CLLDed elements, on one hand, and *wh*-phrases and topicalized phrases, on the other, reveals the following generalizations:

- (3) A *wh*-phrase or a topicalized phrase XP can be fronted across a CLLDed element YP derived by movement. These phrases cannot be fronted across a base-generated CLLDed element.
- (4) A CLLDed element cannot be fronted across another CLLDed element, a *wh*-phrase in [Spec, C], or a topicalized phrase.

The interception effects described in (3) and (4) illustrate what is referred to as *Minimality* (see Chomsky 1995). Minimality can be construed as a constraint applying to LF representations or as a constraint on derivations (see Chomsky 1995).

The literature on clitic left-dislocation within a generative framework is very rich. We have substantially relied in our research on Cinque 1990, Demirdache 1991, Iatridou 1990, Ouhalla 1992, Schneider-Zioga 1994, and Zubizarreta 1993, 1998. We also wish to thank Lina Choueiri, Norbert Hornstein, David Lightfoot, David Pesetsky, and two anonymous *LJ* reviewers for substantive suggestions.

Minimality construed as a constraint on LF representations may account for generalization (3). At LF a fronted CLLDed element is reconstructed (see the generalization in (2)); no intercepting element intervenes between the *wh*-phrase or the topicalized phrase and its trace. It is not clear, however, how to account for generalization (4) if Minimality checks LF representations after reconstruction.

Minimality construed as a constraint on derivations may account for generalization (4): a CLLDed element cannot be fronted across an intervening  $\bar{A}$ -element. However, it is not clear how to account for generalization (3) if Minimality is a constraint on derivations.

A solution to the above paradox may be entertained if fronting of CLLDed elements is viewed as a post-Spell-Out operation that applies in the PF component. As a result of this operation, CLLDed elements that are fronted at PF are interpreted in the original position in which they were generated. Given that movement of a CLLDed element has no LF import, it can be viewed as a ‘stylistic’ operation taking place in the PF component.

Generalizations (3) and (4) will be accounted for as follows: Starting with generalization (3), the extraction of a *wh*-phrase or a topicalized phrase, which takes place in syntax, is intercepted by a base-generated CLLDed element. On the other hand, a CLLDed element that is not moved until the PF component will not affect the syntactic operation of *wh*-fronting or topicalization. Generalization (4) is accounted for if Minimality applies whenever the operation Move applies (pre-Spell-Out, in LF, or in PF). Within a minimalist framework this result obtains since Minimality is an integral part of the definition of Move. The above considerations and their theoretical ramifications are the ones we will discuss in this article.

## 1 Clitic Left-Dislocation, Topicalization, and *Wh*-Movement

### 1.1 Clitic Left-Dislocation

Clitic left-dislocation (henceforth CLLD) is characterized by the presence of a lexical NP in the clause-initial position related to a clitic inside the clause. A typical example of this construction in LA is given in (5).<sup>1</sup> (The CLLDed NP and the clitic element will be in boldface throughout.)

- (5) **Naadya** **ʃeef-a**      Kariim mbeerih.  
 Nadia    saw.3SM-her Karim yesterday  
 ‘Nadia, Karim saw her yesterday.’

In matrix contexts the CLLDed NP can be found before (6a) or after (6b) C.

- (6) a. **Naadya** **ʃu**    ʔaalət-**la**      l-mʔallme?  
 Nadia    what said.3SF-her.DAT the-teacher  
 ‘Nadia, what did the teacher say to her?’

<sup>1</sup> As a help to the reader, we provide as literal a translation as possible for the sentences discussed. However, we do not assign a grammaticality judgment to those translations. Grammaticality judgments are assigned only to the LA sentences.

- b. ju **Naadya** ʔaalət-**la** l-mʔallme?  
 what Nadia said.3SF-her.DAT the-teacher  
 ‘What Nadia, did the teacher say to her?’

In embedded contexts the CLLDed element can only occur after the complementizer, as the contrast between (7a) and (7b) shows.

- (7) a. Fakkart ʔanno **Naadya** feef-**a** Kariim mbeerih.  
 thought.1s that Nadia saw.3SM-her Karim yesterday  
 ‘I thought that Nadia, Karim saw her yesterday.’  
 b. \*Fakkart **Naadya** ʔanno feef-**a** Kariim mbeerih.  
 thought.1s Nadia that saw.3SM-her Karim yesterday  
 ‘I thought Nadia, that Karim saw her yesterday.’

The pronominal clitic related to the CLLDed element can be a direct object clitic as in (7a) or a dative clitic as in (6) and (8); both the accusative and the dative clitics are attached to the verb.

- (8) Fakkart ʔanno **ʔomar** həkət-**lo** Zeena hkeeye.  
 thought.1s that Omar told.3SF-him.DAT Zeina story  
 ‘I thought that Omar, Zeina told him a story.’

The clitic can also be a genitive clitic attached to a preposition as in (9) or an adnominal clitic attached to the head noun as in (10).

- (9) Sməʔt ʔanno **Naadya** Itaʔa fiy-**a** ʔomar mbeerih.  
 heard.1s that Nadia met.3SM with-her Omar yesterday  
 ‘I heard that Nadia, Omar met with her yesterday.’  
 (10) Sməʔte ʔanno **ʔomar** ʔriina kteeb-**o**.  
 heard.2SF that Omar read.1P book-his  
 ‘You heard that Omar, we read his book.’

### 1.2 Island Effects and Clitic Left-Dislocation

The relation between the CLLDed NP and the clitic can violate island conditions such as the Adjunct Condition (11), the Complex NP Constraint (12), and the *Wh*-Island Constraint (13).

- (11) *Adjunct island*  
 Sməʔt ʔanno **Naadya** rəht mən duun ma təhke maʔ-**a**.  
 heard.1s that Nadia left.2SM without COMP talking.2s with-her  
 ‘I heard that Nadia, you left without talking to her.’  
 (12) *Complex NP island*  
 Sməʔt ʔanno **ha-l-kteeb** hkiit maʔ l-walad yalli katab ʔal-**ee**.  
 heard.1s that this-the-book talked.2SM with the-boy who wrote.3SM on-it  
 ‘I heard that this book, you talked with the boy who wrote on it.’

(13) *Wh-island*

Sməʔt ʔənnə **Naadya** byaʔrfo ʔayya walad ʃeef-**a**.  
 heard.1s that Nadia know.3P which boy saw.3SM-her  
 ‘I heard that Nadia, they know which boy saw her.’

As these examples clearly illustrate, CLLD constructions consistently violate island conditions. The relevant configurations are given in (14).

- (14) a. . . . CLLDed-NP<sub>i</sub> . . . [A<sub>junct</sub> . . . X + Clitic<sub>i</sub>]  
 b. . . . CLLDed-NP<sub>i</sub> . . . [C<sub>NP</sub> . . . X + Clitic<sub>i</sub>]  
 c. . . . CLLDed-NP<sub>i</sub> . . . [Wh . . . X + Clitic<sub>i</sub>]

1.3 *Topicalization and Wh-Movement*

Having observed the behavior of CLLD constructions with respect to various island constraints, we now compare and contrast them with topicalized constructions and *wh*-interrogatives.

Like CLLD, topicalization in LA involves the presence of a fronted lexical NP. However, the lexical NP in topicalized constructions is related to a gap and not to a clitic.

- (15) a. Naadya ʃeef Kariim mbeerih.  
 Nadia saw.3SM Karim yesterday  
 ‘Nadia, Karim saw yesterday.’  
 b. Fakkart ʔənnə Naadya ʃeef Kariim mbeerih.  
 thought.1s that Nadia saw.3SM Karim yesterday  
 ‘I thought that Nadia, Karim saw yesterday.’

Fronted *wh*-phrases, on the other hand, may be related to a gap (16a–d) or a clitic (16e–f).<sup>2</sup>

- (16) a. Miin ʃeefit Zeena mbeerih?  
 who saw.3SF Zeina yesterday  
 ‘Who did Zeina see yesterday?’  
 b. ʔayya bənt ʃeef Kariim mbeerih?  
 which girl saw.3SM Karim yesterday  
 ‘Which girl did Karim see yesterday?’

<sup>2</sup> In LA only d-linked *wh*-phrases (Pesetsky 1987) may be related to resumptives.

- (i) a. **ʔayya bənt** ʃəftu-w-**a** mbeerih?  
 which girl saw.2P-her yesterday  
 ‘Which girl did you see her yesterday?’  
 b. **Miin** (mən hal-wleed) ʃəftu-**u** mbeerih?  
 who of these-the-boys saw.2P-him yesterday  
 ‘Which one of these boys did you see him yesterday?’

In this respect, there is a contrast between the *wh*-phrases *ʃu* ‘what’, *ween* ‘where’, and *ʔemtiin* ‘when’, on one hand, and *ʔayya-NP* ‘which-NP’ and *miin* ‘who’, on the other. The former, unlike the latter, cannot be d-linked.

- (ii) a. \***ʃu** ʃtriitu-**u** mbeerih?  
 what bought.2P-it yesterday  
 ‘What did you buy it yesterday?’

- c. Baddkun taʕrfo miin jeefit Zeena mbeerih.  
want.2P know.2P who saw.3SF Zeina yesterday  
'You want to know who Zeina saw yesterday.'
- d. Baddkun taʕrfo ʔayya bənt jeef Kariim mbeerih.  
want.2P know.2P which girl saw.3SM Karim yesterday  
'You want to know which girl Karim saw yesterday.'
- e. **ʔayya bənt** jeef-a Kariim mbeerih?  
which girl saw.3SM-her Karim yesterday  
'Which girl did Karim see her yesterday?'
- f. Baddkun taʕrfo **ʔayya bənt** jeef-a Kariim mbeerih.  
want.2P know.2P which girl saw.3SM-her Karim yesterday  
'You want to know which girl Karim saw her yesterday.'

#### 1.4 Island Effects, Topicalization, and Wh-Fronting

Topicalized constructions and *wh*-interrogatives related to gaps display island effects: a topicalized phrase or a *wh*-phrase may not be related to a gap within an adjunct clause (17), a complex NP (18), or a *wh*-island (19).

##### (17) Adjunct islands

- a. \*Sməʕt ʔənnə Naadya rəhte mən duun ma tʃuufe.  
heard.1s that Nadia left.2SF without COMP see.2SF  
'I heard that Nadia, you left without seeing.'
- b. \*Baddkun taʕrfo miin rəht mən duun ma ʃuuf.  
want.2P know.2P who left.1s without COMP see.1s  
'You want to know who(m) I left without seeing.'

##### (18) Complex NP islands

- a. \*Sməʕt ʔənnə hal-kteeb hkiite maʕ zzalame yalli katab.  
heard.1s that this-the-book talked.2SF with the-man who wrote.3SM  
'I heard that this book, you talked with the man who wrote.'
- b. \*Baddkun taʕrfo ʔayya kteeb hkiit maʕ zzalame yalli katab.  
want.2P know.2P which book talked.1s with the-man who wrote.3SM  
'You want to know which book I talked with the man who wrote.'

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- b. \*Ween rəhtuu-lo mbeerih?  
where went.2P-there yesterday  
'Where did you go there yesterday?'
- c. \*ʔemtiin fallayto fi-i?  
when left.2P in-it  
'When did you leave then?'

(19) *Wh-islands*

- a. \*Sməʕt ʔanno Naadya byaʕrfo ʔayya walad ʕeef.  
heard.1s that Nadia know.3P which boy saw.3SM  
'I heard that Nadia, they know which boy saw.'
- b. \*Tseeʔalto miin byaʕrfo ʔəza Kariim ɖarab.  
wondered.2P who know.3P whether Karim hit.3SM  
'You wondered who they know whether Karim hit.'

The following representations summarize these results:

- (20) a. \**Wh/Top*-phrase<sub>i</sub> . . . [Adjunct . . . t<sub>i</sub> . . . ]  
b. \**Wh/Top*-phrase<sub>i</sub> . . . [CNP . . . t<sub>i</sub> . . . ]  
c. \**Wh/Top*-phrase<sub>i</sub> . . . [*Wh* . . . t<sub>i</sub> . . . ]

In contrast with *wh*-interrogatives involving gaps, *wh*-interrogatives involving clitics do not obey island conditions. *Wh*-phrases can be related to clitics within adjunct clauses (21), complex NPs (22), and *wh*-clauses (23). In this respect, they behave like CLLDed elements.

(21) *Adjunct islands*

- Baddkun taʕrfo ʔayya masrahiyye rəht mən duun ma ʕuuf-a.  
want.2P know.2P which play left.1s without COMP see.1s-her  
'You want to know which play I left without seeing it.'

(22) *Complex NP islands*

- Baddkun taʕrfo ʔayya kteeb hkiit maʕ zzalame yalli katab-o.  
want.2P know.2P which book talked.1s with the-man who wrote.3SM-him  
'You want to know which book I talked with the man who wrote it.'

(23) *Wh-islands*

- Tseeʔalto ʔayya walad byaʕrfo ʔəza Kariim ɖarab-o.  
wondered.2P which boy know.3P whether Karim hit.3SM-him  
'You wondered which boy they know whether Karim hit him.'

The facts in (21)–(23) are represented as follows:

- (24) a. *Wh*-phrase<sub>i</sub> . . . [Adjunct . . . X + Clitic<sub>i</sub>]  
b. *Wh*-phrase<sub>i</sub> . . . [CNP . . . X + Clitic<sub>i</sub>]  
c. *Wh*-phrase<sub>i</sub> . . . [*Wh* . . . X + Clitic<sub>i</sub>]

Summarizing the results so far: CLLD constructions and *wh*-interrogatives related to clitics pattern together in violating island conditions. These constructions contrast with topicalized constructions and *wh*-interrogatives involving gaps, which do obey various island conditions. These facts can be accounted for if we assume that topicalized phrases and *wh*-phrases related to gaps are generated by movement, and that CLLDed elements or *wh*-phrases related to clitics are base-generated. This assumption is consistent with standard analyses of  $\bar{A}$ -movement in Arabic and

other languages. Since they violate various island conditions, constructions with the resumptive pronoun strategy are base-generated (Ross 1967).

## 2 Interaction between *Wh*-Movement or Topicalization and CLLD

In section 1 we examined CLLD constructions, topicalized constructions, and *wh*-interrogatives with respect to island constraints. We now discuss the interaction of topicalization and *wh*-fronting with CLLD.

### 2.1 *Wh*-Phrase or Topicalized Phrase and CLLDed NP Occurring in the Same Clause

Topicalization or *wh*-fronting across a CLLDed NP is possible if the CLLDed NP is not separated from its corresponding clitic by an island (25)–(26).

- (25) a. *fu Naadya* (sməŋte ʔənnə) ɣabbaruw-a?  
 what Nadia (heard.2SF that) told.3P-her  
 ‘What Nadia, did (you hear that) they tell/(told) her?’  
 b. *Nəkte Naadya* (sməŋte ʔənnə) ɣabbaruw-a.  
 joke Nadia (heard.2SF that) told.3P-her  
 ‘A joke, Nadia, (you heard that) they told her.’
- (26) a. *ʔan miin Naadya* (sməŋte ʔənnə) həkkuu-la.  
 about who Nadia (heard.2SF that) talked.3P-her.DAT  
 ‘About whom Nadia, did (you hear) they talk/(talked) to her?’  
 b. *ʔan l-mudiir Naadya* (sməŋte ʔənnə) həkkuu-la.  
 about the-principal.M Nadia (heard.2SF that) talked.3P-her.DAT  
 ‘About the principal, Nadia, (you heard that) they talked to her.’

The constructions in (25)–(26) significantly contrast with ones in which the topicalized phrase or the *wh*-phrase is extracted across a CLLDed NP related to a clitic within a complex NP island (27)–(28), an adjunct island (29)–(30), or a *wh*-island (31)–(32).

#### *Complex NP islands*

- (27) a. \**fu Naadya* ɣabbaro ʃʃabe yalli ʃeef-a?  
 what Nadia told.3P the-boy that saw.3SM-her  
 ‘What Nadia, did they tell the boy who saw her?’  
 b. \**Nəkte Naadya* ɣabbaro ʃʃabe yalli byaŋrəf-a.  
 joke Nadia told.3P the-boy that know.3SM-her  
 ‘A joke, Nadia, they told the boy that knows her.’
- (28) a. \**ʔala miin Naadya* ʔarrafo rəʒʒeel yalli zaar-a?  
 to whom Nadia introduced.3P the-man that visited.3SM-her  
 ‘To whom Nadia, did they introduce the man who visited her?’  
 b. \**ʔan ssafra Naadya* ɣabbaro rəʒʒeel yalli zaar-a.  
 about the-trip Nadia told.3P the-man that visited.3SM-her  
 ‘About the trip, Nadia, they told the man who visited her.’

*Adjunct islands*

- (29) a. \**ʃu Naadya* *ħabbaro Kariim ʔabl ma ʃeef-a ʔanno l-mʔallme*  
 what Nadia told.3P Karim before COMP saw.3SM-her that the-teacher.F  
*ʔaalit?*  
 said.3SF  
 ‘What Nadia, did they tell Karim before he saw her that the teacher said?’
- b. \**Farɖ Naadya* *ħabbaruune ʔabl ma ʃəft-a ʔanno l-mʔallme*  
 homework Nadia told.3P-me before COMP saw.1S-her that the-teacher.F  
*ʔətyit tlemiiz.*  
 gave.3SF the-students  
 ‘Homework, Nadia, they told me before I saw her that the teacher gave the students.’
- (30) a. \**ʕan miin Naadya* *ħabbaro Kariim ʔabl ma ʃeef-a ʔanno*  
 about whom Nadia told.3P Karim before COMP saw.3SM-her that  
*l-mʔallme ħkyit?*  
 the-teacher.F talked.3SF  
 ‘About whom Nadia, did they tell Karim before he saw her that the teacher talked?’
- b. \**ʕan l-faħʃ Naadya* *ħabbaruune ʔabl ma ʃəft-a ʔanno l-mʔallme*  
 about the-test Nadia told.3P-me before COMP saw.1S-her that the-teacher.F  
*ħəkyit.*  
 talked.3SF  
 ‘About the test, Nadia, they told me before I saw her that the teacher talked.’

*Wh-islands*

- (31) a. \**Miin Naadya saʔalto ʔəza Kariim ʃeef-a?*  
 who Nadia asked.2P whether Karim saw.3SM-her  
 ‘Who Nadia, did you ask whether Karim saw her?’
- b. \**L-mudiir Naadya saʔalto ʔəza l-ʔəsteez ʃaħaɖ-a.*  
 the-principal.M Nadia asked.2P whether the-teacher.M dismissed.3SM-her  
 ‘The principal, Nadia, you asked whether the teacher dismissed her.’
- (32) a. \**Mən miin Naadya badkun taʔrfo ʃu ʔatuw-a?*  
 from whom Nadia want.2P know.2P what gave.3P-her  
 ‘From whom Nadia, do you want to know what they gave her?’
- b. \**Mən l-mudiir Naadya badkun taʔrfo ʃu ʔatuw-a.*  
 from the-principal Nadia want.2P know.2P what gave.3P-her  
 ‘From the principal, Nadia, you want to know what they gave her.’

The main generalizations are represented in (33).

- (33) a. . . . (P)Wh/(P)Topic<sub>i</sub> . . . CLLDed-NP<sub>j</sub> . . . V + (Dat. or Acc.)Clitic<sub>j</sub> . . . t<sub>i</sub>  
 b. \* . . . (P)Wh/(P)Topic<sub>i</sub> . . . CLLDed-NP<sub>j</sub> . . . [Island . . . Clitic<sub>j</sub> . . .] . . . t<sub>i</sub>  
 c. \* . . . (P)Wh/(P)Topic<sub>i</sub> . . . CLLDed-NP<sub>j</sub> . . . t<sub>i</sub> . . . [Island . . . Clitic<sub>j</sub> . . .]<sup>3</sup>

<sup>3</sup> The representation in (33c) corresponds to sentences (31)–(32). In those sentences the relation between the *wh*-



In (25)–(32) the *wh*-phrase or the topicalized phrase and the CLLDed element occur in the same clause. In what follows we examine the interaction between *wh*-phrases or topicalized phrases and CLLDed elements that appear in different clauses.

## 2.2 *Wh-Phrase or Topicalized Phrase and CLLDed NP Occurring in Different Clauses*

A contrast similar to the one shown above obtains when the *wh*-phrase or the topicalized phrase undergoes long movement across a CLLDed NP occurring in an embedded clause. In case the CLLDed NP is not separated from the clitic by an island, movement of the *wh*-phrase or the topicalized phrase across that CLLDed element is possible (34)–(35).

- (34) a.  $\int u$  sməŋt ʔənno **Naadya** ɣabbaruw-a?  
 what heard.2SM that Nadia told.3P-her  
 ‘What did you hear that Nadia, they told her?’  
 b. Nəkte sməŋt ʔənno **Naadya** ɣabbaruw-a.  
 joke heard.2SM that Nadia told.3P-her  
 ‘A joke, you heard that Nadia, they told her.’
- (35) a. ʔan miin sməŋt ʔənno **Naadya** həkuu-la?  
 about whom heard.2SM that Nadia talked.3P-her.DAT  
 ‘About whom did you hear that Nadia, they talked to her?’  
 b. ʔan l-mudiir sməŋt ʔənno **Naadya** həkuu-la.  
 about the-principal.M heard.2SM that Nadia talked.3P-her.DAT  
 ‘About the principal, you heard that Nadia, they talked to her.’

On the other hand, long extraction of a *wh*-phrase or a topic across a CLLDed NP related to a clitic within an island is blocked (36)–(41).

### *Complex NP islands*

- (36) a. \* $\int u$  sməŋt ʔənno **Naadya** ɣabbaro ʃʃabe yalli jeef-a?  
 what heard.2SM that Nadia told.3P the-boy that saw.3SM-her  
 ‘What did you hear that Nadia, they told the boy who saw her?’  
 b. \*Nəkte sməŋt ʔənno **Naadya** ɣabbaro ʃʃabe yalli jeef-a.  
 joke heard.2SM that Nadia told.3P the-boy that saw.3SM-her  
 ‘A joke, you heard that Nadia, they told the boy who saw her.’
- (37) a. \*ʔala miin sməŋt ʔənno **Naadya** ʔarrafo rrəʒʒeel yalli  
 to whom heard.2SM that Nadia introduced.3P the-man that  
 zaar-a?  
 visited.3SM-her  
 ‘To whom did you hear that Nadia, they introduced the man who visited her?’

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phrase or the topicalized phrase and its gap, on one hand, and the CLLDed NP and its corresponding clitic, on the other hand, involves crossing paths. A ‘crossing’ account for the ungrammaticality of (31)–(32) would not extend to (27)–(30), which do not involve ‘crossing’ paths.

- b. \*ʕan ssaʕra sməʕt ʔənno **Naadya** ɣabbaro rɾəʒʒeel yalli  
 about the-trip heard-2SM that Nadia introduced.3P the-man that  
 zaar-**a**.  
 visited.3SM-her  
 ‘About the trip, you heard that Nadia, they told the man that visited her.’

*Adjunct islands*

- (38) a. \*ʕu sməʕt ʔənno **Naadya** ɣabbaro Kariim ʔabl ma ʕeef-**a** ʔənno  
 what heard.2SM that Nadia told.3P Karim before COMP saw.3SM-her that  
 l-mʕallme ʔaalit?  
 the-teacher.F said.3SF  
 ‘What did you hear that Nadia, they told Karim before he saw her that the teacher  
 said?’
- b. \*Fard sməʕt ʔənno **Naadya** ɣabbaro Kariim ʔabl ma ʕeef-**a**  
 homework heard.2SM that Nadia told.3P Karim before COMP saw.1S-her  
 ʔənno l-mʕallme ʕətyit ttlemiiz.  
 that the-teacher.F gave.3SF the-students  
 ‘Homework, you heard that Nadia, they told Karim before he saw her that the  
 teacher gave the students.’
- (39) a. \*ʕan miin sməʕt ʔənno **Naadya** ɣabbaro Kariim ʔabl ma  
 about whom heard.2SM that Nadia told.3P Karim before COMP  
 ʕeef-**a** ʔənno l-mʕallme ɥkyit?  
 saw.3SM-her that the-teacher.F talked.3SF  
 ‘About whom did you hear that Nadia, they told Karim before he saw her that the  
 teacher talked?’
- b. \*ʕan l-faḥṣ sməʕt ʔənno **Naadya** ɣabbaruune ʔabl ma ʕəft-**a**  
 about the-test heard.2SM that Nadia told.3P-me before COMP saw.1S-her  
 ʔənno l-mʕallme ɥəkyit.  
 that the-teacher.F talked.3SF  
 ‘About the test, you heard that Nadia, they told me before I saw her that the teacher  
 talked.’

*Wh-islands*

- (40) a. \*Miin sməʕt ʔənno **Naadya** saʔalit l-mʕallme ʔəza Kariim  
 who heard.2SM that Nadia asked.3SF the-teacher.F whether Karim  
 ʕeef-**a**?  
 saw.3SM-her  
 ‘Who did you hear that Nadia, the teacher asked whether Karim saw her?’
- b. \*L-mudiir sməʕt ʔənno **Naadya** saʔalo ʔəza l-mʕallme  
 the-principal.M heard.2SM that Nadia asked.3P whether the-teacher.F  
 ʕeefət-**a**.  
 saw.3SF-her  
 ‘The principal, you heard that Nadia, they asked whether the teacher saw her.’

- (41) a. \*Mən miin ʔəlt ʔənno **Naadya** baddun yaʔrfo ʃu ʔatayt-a?  
 from whom said.2SM that Nadia want.3P know.3P what gave.1s-her  
 ‘From whom did you say that Nadia, they wanted to know what I gave her?’  
 b. \*Mən l-mudiir ʔəlt ʔənno **Naadya** baddun yaʔrfo ʃu ʔatayt-a.  
 from the-principal said.2SM that Nadia want.3P know.3P what gave.1s-her  
 ‘From the principal, you said that Nadia, they want to know what I gave her.’

The basic generalizations are given in (42).

- (42) a. . . . (P)Wh/(P)Topic<sub>i</sub>. . . [CP . . . CLLDed-NP<sub>j</sub>. . . V + (Dat. or Acc.)Clitic<sub>j</sub> . . .] . . . t<sub>i</sub>  
 b. \* . . . (P)Wh/(P)Topic<sub>i</sub> . . . [CP . . . CLLDed-NP<sub>j</sub>. . . [Island . . . Clitic<sub>j</sub>. . .] . . . t<sub>i</sub><sup>4</sup>

To sum up the generalizations discussed so far: CLLDed NPs do not display a uniform behavior with respect to their interaction with *wh*-extraction and topicalization. *Wh*-movement or topicalization across a CLLDed NP related to a clitic within an island is consistently ruled out (43b). On the other hand, *wh*-movement or topicalization across a CLLDed NP that is not separated from its corresponding clitic by an island is possible (43a).

- (43) a. [(Wh/Top)-NP/PP]<sub>j</sub> . . . CLLDed-NP<sub>i</sub>. . . V + Clitic<sub>i</sub>. . . t<sub>j</sub>  
 b. \*[(Wh/Top)-NP/PP]<sub>j</sub> . . . CLLDed-NP<sub>i</sub>. . . [Island . . . Clitic<sub>i</sub>. . .] . . . t<sub>j</sub>

We have pointed out that the same contrast obtains regardless of whether the CLLDed NP and the *wh*-phrase or the topicalized phrase are generated within the same clause or in separate clauses. In what follows, we will offer an account for the contrast between (43a) and (43b).

### 3 Analysis

#### 3.1 The Generation of CLLDed Elements

Previously, we have indicated that CLLD constructions violate various conditions on movement. We have pointed out that this may follow from an analysis according to which the base-generated CLLDed element is related to a pronominal clitic, as illustrated in (44).

- (44) CLLDed-NP<sub>i</sub>. . . [Island . . . pronoun<sub>i</sub>. . .

On the other hand, CLLD constructions that do not involve islands (43a) could actually correspond to two different representations: one where the clitic is coindexed with a lexical NP that can later undergo movement (45a), and another where the clitic is coindexed with a null pronominal that is related to a base-generated CLLDed NP (45b).<sup>5</sup>

- (45) a. CLLDed-NP<sub>i</sub>. . . t<sub>i</sub>-X + Clitic  
 b. CLLDed-NP<sub>i</sub>. . . pro<sub>i</sub>-X + Clitic

<sup>4</sup> The sentences in (40) and (41) involve ‘‘crossing’’ and can be represented as in (i) (see footnote 3).

(i) . . . [(P)Wh/(P)Topic]<sub>i</sub>. . . [CP . . . CLLDed-NP<sub>j</sub>. . . t<sub>i</sub>. . . [Wh-island . . . Clitic<sub>j</sub>. . .]]

<sup>5</sup> The two alternative strategies (the movement strategy (45a) and the base-generation strategy (45b)) that we argue are at work in the derivation of CLLD constructions do not block each other. In minimalist terms, they involve different

(45b) parallels the standard constructions with resumptive pronouns where a nominal element binds a pronoun within an island. (45a) is a representation that, we contend, must be added to the inventory of representations available to languages such as LA. (45a) patterns with the standard gap strategy (46) in that they both involve movement.

(46) *Constructions with the gap strategy*

$XP_i \dots t_i$

(46) is available for constructions involving topicalization, fronted PPs, and *wh*-questions. (45a) differs from (46) only in that the moved element in the former is coindexed with a pronominal element, the clitic. One way to implement this distinction between (52) and (46) is to posit a projection such as the CIP in (45a) (Sportiche 1992). The specifier of this projection may be occupied by a nonovert NP or an overt one. A nonovert NP in the specifier position may be a *pro*. A lexical NP generated in this position may not remain there. This could be due to a version of the Doubly Filled Specifier/Head Filter that applies at the level of CIP, as argued in Sportiche 1992. In that case the lexical NP will have to vacate the specifier position, leaving a trace.<sup>6</sup> The only property that (45a) shares with (45b) is the presence of an element in the projection in question: a *pro* in (45b) and a trace in (45a).

Reconstruction is a property of chains: it applies only to elements generated by movement (Hornstein 1984, Barss 1986, and Chomsky 1993). This being the case, we expect reconstruction to apply to constructions where the CLLDed NP is generated by movement, that is, when it has the representation in (45a).<sup>7</sup> By contrast, we expect the CLLDed NP related to a clitic within an island—which has the representation in (45b)—never to display reconstruction effects. In the following sections we argue that the two types of CLLD elements indeed differ with respect to reconstruction; we then show that this distinction provides an account for the interception effects.

### 3.2 *Reconstruction Effects and the Reconstruction Site*

Consider the following sentences:<sup>8</sup>

- (47) a. **Təlmiiž-a ʃʃitaan**      btaɣrfo ʔənno kəll mɣallme ʔaaʃaʃət-o.  
 student-her the-naughty.MS know.2P that every teacher.F punished.3SF-him  
 ‘Her naughty student, you know that every teacher punished him.’
- b. \***Təlmiiž-a ʃʃitaan**      fallayto ʔablma kəll mɣallme tʔaaʃaʃ-o.  
 student-her the-naughty.MS left.2P before every teacher.F punished.3SF-him  
 ‘Her naughty student, you left before every teacher punished him.’

numerations; namely, the base-generation strategy, but not the movement strategy, involves an instance of *pro*. Hence, they cannot be compared with respect to economy.

<sup>6</sup> Below we will propose that CLLDed NPs that display reconstruction effects undergo movement in the PF component. This may indicate that the Doubly Filled Specifier/Head Filter is a condition on PF well-formedness (see Zubizarreta 1998 for a similar suggestion regarding left-dislocation in Spanish).

<sup>7</sup> Cases of reconstruction in constructions involving resumptive chains in English are discussed in Safir 1996.

<sup>8</sup> The examples in (47) involving islands are restricted to adjunct clauses. However, the facts extend to constructions involving the other types of islands examined at the beginning of the article.

In (47a) the pronoun within the CLLDed NP can be interpreted as bound by the quantifier phrase (QP) *kəll mʕallme* ‘every teacher’. Bound pronouns must be c-commanded at LF by the elements that bind them (Chomsky 1976, Higginbotham 1980, and Hornstein and Weinberg 1990). The relevant bound reading in (47a) follows from the assumption that the CLLDed NP reconstructs below the subject QP. The pronoun in (47b) cannot be interpreted as bound by the QP. This is precisely as expected. Recall that extraction from islands, such as an adjunct island, is not possible. The CLLDed NP related to a clitic within an adjunct clause does not undergo reconstruction since reconstruction is a property of chains created by movement (see Chomsky 1993). The main configurations before and after reconstruction are schematized in (48) and (49), respectively (*BP* stands for the pronoun and *QP* for the subject quantifier).

(48) [<sub>CLLDed-NP</sub> . . . BP<sub>i</sub> . . .] . . . QP<sub>i</sub>

(49) . . . QP<sub>i</sub> . . . [<sub>DP</sub> . . . BP<sub>i</sub> . . .]

In (49) the phrase containing the bound pronoun has been reconstructed to a position where it can be c-commanded by the subject QP.

So far we have observed that CLLD constructions do not behave alike with respect to reconstruction. CLLDed elements that are not separated from their corresponding clitics by an island reconstruct; the others do not. This is accounted for if the former are generated by movement (45a) whereas the latter are not (45b).

To identify the position to which moved CLLDed elements reconstruct, consider the following paradigm:<sup>9</sup>

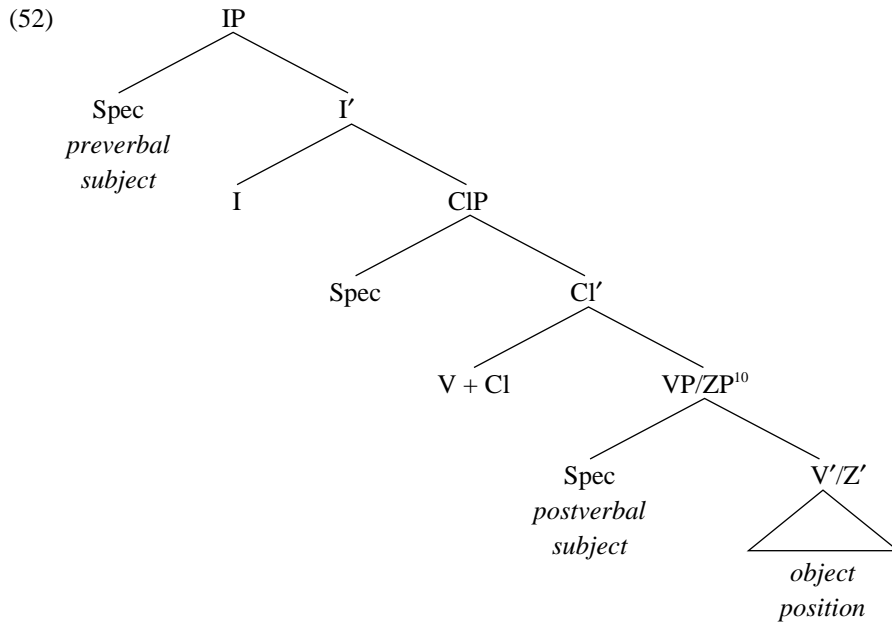
(50) **Mʕalləmt-o** fakkarto ʔənnə kəll walad ʕaʕee-**ha** hdiyye.  
 teacher.F-his thought.2P that every boy gave.3SM-her gift  
 ‘His teacher, you thought that every boy gave her a gift.’

(51) **Mʕalləmt-o** fakkarto ʔənnə ʕaʕee-**ha** kəll walad hdiyye.  
 teacher.F-his thought.2P that gave.3SM-her every boy gift  
 ‘His teacher, you thought that every boy gave her a gift.’

In (50) the pronoun within the CLLDed indirect object *mʕalləmtə* ‘his teacher’ can be bound by the subject QP *kəll walad* ‘every boy’. This is not the case in (51). In brief, the pronoun contained within a CLLDed object can be bound by a subject QP only when the latter is preverbal. The CLLDed indirect object reconstructs to a position c-commanded by the subject in (50), but not in (51).

If reconstruction took place to the (original) object position shown in (52), the contrast between (50) and (51) would remain unclear. On the other hand, this contrast can be understood if reconstruction takes place to a functional position higher than the postverbal subject but lower than the preverbal subject. We will refer to this position as the specifier of the clitic ([Spec, CIP]).

<sup>9</sup> A contrast similar to the one illustrated in (50)–(51) has been pointed out for Spanish by Zubizarreta (1993), who also argues that left-dislocated elements are reconstructed to [Spec, CI].



If reconstruction targets [Spec, CIP] and if the postverbal subject is in a position lower than [Spec, CIP], the facts follow. In (51) the indirect object ends up in a position higher than the one containing the postverbal subject. The bound interpretation is not available for this sentence. In (50) the preverbal subject is in [Spec, IP]. After reconstruction to the clitic projection, the QP subject c-commands the pronoun contained within the indirect object; the bound pronoun interpretation is available.

### 3.3 Interception Effects

Having observed that CLLD constructions do not uniformly display reconstruction effects, we now provide an account for interception effects in terms of reconstruction.

The facts presented earlier on the interaction between CLLD constructions and *wh*-movement or topicalization indicated that only those CLLDed elements that are separated from their corre-

<sup>10</sup> In case the postverbal subject remains in [Spec, VP], CIP may immediately dominate VP. However, Aoun, Benmamoun, and Sportiche (1994) argue that the postverbal subject in LA is located higher than [Spec, VP]. We refer to this position as [Spec, ZP]. For the purpose of our discussion, it is important to note that, whether the postverbal subject position is [Spec, ZP] or [Spec, VP], this position c-commands the object position.

sponding clitic by an island intercept *wh*-movement and topicalization (generalization (43) is repeated here).

- (43) a. [(*Wh/Top*-) NP/PP]<sub>j</sub> . . . CLLDed-NP<sub>i</sub> . . . V + Clitic<sub>i</sub> . . . t<sub>j</sub>  
 b. \*[(*Wh/Top*-) NP/PP]<sub>j</sub> . . . CLLDed-NP<sub>i</sub> . . . [<sub>Island</sub> . . . Clitic<sub>i</sub>] . . . t<sub>j</sub>

This contrast can be understood if we assume that CLLD constructions do not form a natural class, given that they can correspond to the two different representations (45a) and (45b), repeated here.

- (45) a. CLLDed-NP<sub>i</sub> . . . t<sub>i</sub>-X + Clitic  
 b. CLLDed-NP<sub>i</sub> . . . pro<sub>i</sub>-X + Clitic

The difference between the two types of CLLDed elements with respect to interception (43a–b) can be accounted for in terms of reconstruction. Specifically,

- (53) a. A moved CLLDed NP (45a) reconstructs and therefore does not intercept *wh*-movement and topicalization.  
 b. A base-generated CLLDed NP (45b) cannot reconstruct and therefore does intercept *wh*-movement and topicalization.

*3.3.1 Wh-Extraction and Topicalization Intercepted by CLLD* Consider the ill-formed sentences in (54).

- (54) a. \*ʃu sməʔt ʔanno **Naadya** ɣabbaro ʃʃabe yalli ʃeef-a?  
 what heard.2SM that Nadia told.3P the-boy that saw.3SM-her  
 ‘What did you hear that Nadia, they told the boy who saw her?’  
 b. \*Nəkte sməʔt ʔanno **Naadya** ɣabbaro ʃʃabe yalli byaʔrəf-a.  
 joke heard.2SM that Nadia told.3P the-boy that know.3SM-her  
 ‘A joke, you heard that Nadia, they told the boy that knows her.’

In (54) *wh*-movement and topicalization have applied across a CLLDed NP related to a clitic within a complex NP island. The relevant representation is given in (55).

- (55) \*[(*Wh/Top*)<sub>i</sub>] . . . CLLDed-NP<sub>j</sub> . . . V . . . [<sub>Island</sub> . . . pro<sub>j</sub>-V + Clitic] . . . t<sub>i</sub>

In this context the CLLDed element is base-generated in its surface position. No reconstruction of the CLLDed element can take place; hence, *wh*-movement and topicalization are intercepted.

The same analysis extends to *wh*-PPs or topicalized PP<sub>s</sub> intercepted by CLLDed elements, as in (56).

- (56) a. \*ʔala miin sməʔt ʔanno **Naadya** ʔarrafo rreʒʒeel yalli  
 to whom heard.2SM that Nadia introduced.3P the-man that  
 zaar-a?  
 visited.3SM-her  
 ‘To whom did you hear that Nadia, they introduced the man who visited her?’

- b. \*ʕan ssafra sməʕt ʔanno **Naadya** ɣabbaro rrəʒʒeel yalli zaar-a.  
 about the-trip heard.2SM that Nadia told.3P the-man that visited.3SM-her  
 ‘About the trip, you heard that Nadia, they told the man that visited her.’

On the other hand, the well-formed sentences in (57) have the representation in (58).

- (57) a. ʃu **Naadya** ɣabbaruw-a?  
 what Nadia told.3P-her  
 ‘What Nadia, did they tell her?’  
 b. Nəkte **Naadya** ɣabbaruw-a.  
 joke Nadia told.3P-her  
 ‘A joke, Nadia, they told her.’

(58) [*Wh/Top*]<sub>i</sub> . . . CLLDed-NP<sub>j</sub> . . . t<sub>j</sub>-V + Clitic . . . t<sub>i</sub>

In this representation the CLLDed NP, derived by movement, binds a trace. At LF the CLLDed NP is reconstructed and thus will not intercept the *wh*-element or the topicalized phrase. The alternative representation, (59), in which the CLLDed NP is base-generated and binds a pronominal, is ill formed: since it is not derived by movement, the CLLDed NP cannot reconstruct, and both *wh*-movement and topicalization will be intercepted.<sup>11</sup>

(59) \*[*Wh/Top*]<sub>i</sub> . . . CLLDed-NP<sub>j</sub> . . . pro<sub>j</sub>-V + Clitic<sub>j</sub> . . . t<sub>i</sub>

The sentences in (60) receive the same analysis. The *wh*-PP in (60a) and the topicalized PP in (60b) are not intercepted given that the CLLDed NP reconstructs at LF.<sup>12</sup>

<sup>11</sup> There are two assumptions underlying our discussion of the interaction between reconstruction and interception of *wh*-movement: (a) The surface position of the CLLDed element is an  $\bar{A}$ -position. Therefore, if the CLLDed element does not reconstruct, it can intercept another  $\bar{A}$ -element, namely, a *wh*-phrase or a topicalized phrase—a Minimality effect (Rizzi 1990, Aoun and Li 1993a, and Chomsky 1993). (b) [*Spec, Cl*], to which the CLLDed element reconstructs, is an A-position. In that case, neither *wh*-movement nor topicalization is intercepted.

<sup>12</sup> Extraction of *wh*-adjuncts across CLLDed NPs displays the same asymmetry as extraction of *wh*-arguments. If the CLLDed NP is separated from its corresponding clitic by an island, *wh*-movement across that CLLDed element is blocked. By contrast, if the CLLDed NP is not separated from the clitic by an island, *wh*-movement is possible.

- (i) Lee **l-kteeb** ʕiti-i la-ʕomar?  
 why the-book gave.2SF-it to-Omar  
 ‘Why the book, did you give it to Omar?’  
 (ii) Ween **Naadya** ʕəftiy-a?  
 where Nadia saw.2SF-her  
 ‘Where Nadia, did you see her?’  
 (iii) \*Lee **Naadya** zərte nnees yalli byaʕrfuw-a?  
 why Nadia visited.2SF the-people that know.3P-her  
 ‘Why Nadia, did you visit the people who know her?’  
 (iv) \*Ween **Naadya** ʕəfte rrəʒʒeel yalli bidarrəs-a?  
 where Nadia saw.2SF the-man that teach.3SM-her  
 ‘Where Nadia, did you see the man who teaches her?’



- (60) a.  $\zeta$ an miin **Naadya** hkituu-la?  
 about whom Nadia told.2P-her.DAT  
 ‘About whom Nadia, did you tell her?’  
 b.  $\zeta$ an l-masrahiyye **Naadya** hkituu-la.  
 about the-play Nadia told.2P-her.DAT  
 ‘About the play, Nadia, you told her.’

To summarize: our analysis has relied on reconstruction to account for the interaction of CLLD with *wh*-extraction and topicalization.

- (61) a. A nonmoved CLLDed element always intercepts *wh*-movement and topicalization.  
 b. A CLLDed element generated by movement does not intercept *wh*-extraction or topicalization.

It is possible to assume, as indicated in footnote 11, that a nonmoved CLLDed element intercepts *wh*-movement and topicalization because it occurs in an  $\bar{A}$ -position. The interception comes as a result of a Minimality effect (see Rizzi 1990, Chomsky 1993, 1994, and Aoun and Li 1993a,b). In the case where the CLLDed element is generated by movement, it reconstructs to an  $\bar{A}$ -position, thus vacating the  $\bar{A}$ -position, which becomes invisible to the computation. As a result, no interception effects are observed.

3.3.2 *Interception and Binding* Further support for our analysis comes from the interaction of reconstruction, interception, and binding. Consider the following paradigm:

- (62) a.  $\zeta$ atit  $\zeta$ sabe yalli Naadya htammit fii  $\zeta$ irweel.  
 gave.3SF the-boy that Nadia cared.3SF for-him pants  
 ‘She gave the boy that Nadia took care of pants.’  
 b.  **$\zeta$ sabe yalli Naadya htammit fii**  $\zeta$ at-**o**  $\zeta$ irweel.  
 the-boy that Nadia cared.3SF for-him gave.3SF-him pants  
 ‘The boy that Nadia took care of him, she gave him pants.’

In (62a) the NP *Naadya* contained within the direct object cannot be coreferential with the pronominal subject of the main verb  $\zeta$ atit ‘she gave’; if it were, a violation of Principle C would ensue. In (62b), however, the coreferential reading is possible. This may be taken to indicate that the CLLDed NP in (62b) need not reconstruct. In other words, CLLD provides a means to extend the binding possibilities of a given sentence. We have also argued that CLLDed elements that do not reconstruct intercept *wh*-movement and topicalization. Therefore, in contexts similar to (62), tension will arise between reconstruction and binding.

- (63) a.  $\zeta$ u  **$\zeta$ sabe yalli Naadya htammit fii**  $\zeta$ at-**o**?  
 what the-boy that Nadia cared.3SF for-him gave.3SF-him  
 ‘What the boy that Nadia took care of him, she gave him?’  
 b.  $\zeta$ irweel  **$\zeta$ sabe yalli Naadya htammit fii**  $\zeta$ at-**o**.  
 pants the-boy that Nadia cared.3SF for-him gave.3SF-him  
 ‘Pants, the boy that Nadia took care of him, she gave him.’

(63a–b) are ungrammatical under the reading where *Naadya* is coreferential with the main-clause pronominal subject. They are well formed under the disjoint reading. Two possibilities are to be considered in (63): either the CLLDed NP reconstructs or it does not. If it reconstructs, the fronted *wh*-element and the topicalized phrase are not intercepted; however, a binding violation occurs if *Naadya* and the pronominal subject are coreferential. On the other hand, if the CLLDed NP does not reconstruct, *Naadya* and the pronominal subject can corefer, but the fronted *wh*-element and the topicalized phrase are intercepted.

#### 4 The Nature of Minimality

Throughout our discussion of the interaction of *wh*-movement and topicalization with CLLD constructions, we have referred to interception effects without specifying their nature, an issue we will now address. Specifically, we will try to answer the following two questions:

- (64) a. What grammatical objects are affected by interception?  
 b. If interception is to be accounted for by Minimality, what is the status of Minimality in the grammar?

##### 4.1 Minimality as a Condition on Movement Chains

A CLLDed NP that does not undergo reconstruction intercepts a *wh*-element binding a gap. Interestingly, in the case of *wh*-elements related to resumptive pronouns, no interception effects obtain.

In section 1 we showed that, unlike a *wh*-element that binds a gap, a *wh*-element that is related to a resumptive pronoun does not obey island constraints (the *wh*-phrase and its corresponding clitic are italicized).

- (65) *ʔayya walad rəht*      *ʔabəlma tʃuuf-o/\*θ?*  
 which boy    went.2SM before    saw.2SM-him  
 ‘Which boy did you go before you saw him?’

Consider the following sentence involving a *wh*-element related to a resumptive pronoun:

- (66) *ʔayya rəʒzeel Naadya* *χabbarto l-bənt* *yalli ʃeefət-a*    *ʔənnə laħtəʔəzmu-u?*  
 which man    Nadia    told.2P    the-girl that saw.3SF-her that    FUT-invite.2P-him  
 ‘Which man Nadia, did you tell the girl that saw her that you will invite him?’

Although in (66) the CLLDed NP is related to a clitic within an island, no interception takes place if the *wh*-phrase binds a clitic. Since the clitic may indicate the presence of a pronominal in the clitic projection, and hence the absence of movement, it follows that the sentence in (66) is well formed because the *wh*-phrase binds a pronoun. In other words, no movement has taken place in (66). Thus, the representation of (66) is as shown in (67).

- (67) *Wh-NP<sub>i</sub> . . . CLLDed-NP<sub>j</sub> . . . [CNP . . . pro<sub>j</sub>-V + Clitic] . . . pro<sub>i</sub>-V + Clitic*

We have also shown that the presence of a clitic does not always indicate the absence of movement

(see (45a)). Such is the case when [Spec, CI] is occupied by a lexical NP, which then moves out of its base-generated position. Thus, consider the following *wh*-question:

- (68) *ʔayya dor mən ʔadwaar-[a]<sub>i</sub> Kariim ʔabbartu-u ʔanno [kəll mmasle]<sub>i</sub>*  
 which role of roles-her Karim told.2P-him that every actress  
*bəthibb təlʔab-o?*  
 like.3SF play.3SF-it  
 ‘Which one of her roles Karim, did you tell him that every actress likes to play it?’

In (68) the bound reading of the pronoun contained within the fronted *wh*-phrase is available. We have taken this fact to indicate that, at LF, the pronoun is in a position c-commanded by the QP that binds it—a typical reconstruction effect. (68) has the following representation:

- (69) [<sub>wh-NP</sub> . . . pronoun<sub>i</sub> . . .]<sub>k</sub> . . . CLLDed-NP<sub>j</sub> . . . t<sub>j</sub>-V + Clitic . . . [<sub>CP</sub> QP<sub>i</sub> . . . t<sub>k</sub>-V + Clitic]

At LF the *wh*-phrase reconstructs (at least) to the clitic projection, which—we have shown—is c-commanded by the preverbal subject position, and the bound reading obtains. The relationship between the *wh*-phrase and its trace is not intercepted by the CLLDed element, since the latter may reconstruct to the A-position—that is, the specifier position of the clitic to which it is related. In case the CLLDed element is base-generated in its surface  $\bar{A}$ -position and cannot reconstruct, it will intercept the relation between the fronted *wh*-phrase and its trace. Hence, the relevant bound reading is not available in (70).

- (70) \**ʔayya dor mən ʔadwaar-[a]<sub>i</sub> Kariim ʔabbarto rəʔʔeel yalli byaʔrf-o*  
 which role of roles-her Karim told.2P the-man that know.3SM-him  
*ʔanno [kəll mmasle]<sub>i</sub> bəthibb təlʔab-o?*  
 that every actress like.3SF play.3SF-it  
 ‘Which one of her roles Karim, did you tell the man that knows him that every actress likes to play?’

(70) has the representation given in (71).

- (71) \* [<sub>wh-NP</sub> . . . pronoun<sub>i</sub> . . .]<sub>k</sub> . . . CLLDed-NP<sub>j</sub> . . . pro<sub>j</sub>-V + Clitic [<sub>CP</sub> QP<sub>i</sub> . . . t<sub>k</sub>-V + Clitic]

The main generalization that emerges from the above facts is that the CLLDed NP intercepts the relation between the *wh*-phrase and its trace but not the relation between the *wh*-phrase and the resumptive pronoun it binds, since this *wh*-phrase may be generated without movement. A CLLDed NP intercepts a *wh*-phrase on its way to [Spec, CP].<sup>13</sup> This discussion provides an

<sup>13</sup> This generalization has so far been illustrated with sentences involving fronted *wh*-phrases. In fact, it also extends to cases involving *wh*-in-situ. In LA, *wh*-fronting is optional (iib). *Wh*-elements in situ are intercepted by a base-generated CLLDed element ((ia) and (iia)), but not by a moved one ((ib) and (iib)).

- (i) a. \**ʔemtiin Naadya farʔayto rəʔʔeel yalli zaar-a ʔayya madiine?*  
 when Nadia showed.2P the-man that visited.3SM-her which city  
 ‘When Nadia, did you show the man that visited her which city?’  
 b. *ʔemtiin Naadya farʔaytuw-a ʔayya madiine?*  
 when Nadia showed.2P-her which city  
 ‘When Nadia, did you show her which city?’

answer to question (64a). We have accounted for interception effects in terms of Minimality. Minimality only affects chains generated by movement (see Chomsky 1993) and hence will only affect the relation between a *wh*-phrase and its gap (or, as already observed, a topicalized phrase and its gap). In the following section we address question (64b) concerning the status of Minimality in the grammar.

#### 4.2 *The Status of Minimality: A Constraint on Representations or a Condition on Derivations?*

We have established that CLLD involving the movement strategy displays reconstruction effects and does not intercept *wh*-movement or topicalization. The relevant generalizations are expressed in (72).

- (72) a. CLLDed NPs derived by movement display reconstruction effects.  
 b. CLLDed NPs derived by movement do not intercept *wh*-extraction or topicalization.

These generalizations were accounted for as follows. A CLLDed element that has been fronted from the specifier of the clitic projection appears to be (re)located at LF to the position of its trace within the clitic projection, which can be considered an A-position. As a result of reconstruction, at LF there no longer is an  $\bar{A}$ -element that could intercept the fronting of *wh*-elements or topicalized elements. This account crucially assumes that the minimality constraint in question is a condition on LF representations rather than derivations. Otherwise, the extraction of a *wh*-element or a topic across a CLLDed NP would always violate Minimality.

Although the above account captures the correlation between reconstruction and Minimality, it leads us to expect that CLLDed NPs generated by movement should not be intercepted. The reason is that these moved CLLDed NPs reconstruct. As a result, they should not be sensitive to Minimality construed as a condition on LF representations. This expectation is not borne out. Moving a CLLDed NP across another CLLDed NP, or for that matter across a *wh*-phrase or a topicalized phrase, is consistently ill formed, as schematized in (73) and illustrated in the LA sentences in (74).

- (73) a. \*CLLDed-NP<sub>i</sub>. . . CLLDed-NP<sub>j</sub>. . . t<sub>j</sub>/pro<sub>j</sub>. . . t<sub>i</sub>  
 b. \*CLLDed-NP<sub>i</sub>. . . Wh<sub>j</sub>. . . t<sub>j</sub>/pro<sub>j</sub>. . . t<sub>i</sub>  
 c. \*CLLDed-NP<sub>i</sub>. . . Top<sub>j</sub>. . . t<sub>j</sub>. . . t<sub>i</sub>

- 
- (ii) a. \*Baddna naʕrif **Naadya** ʕarrafto rɾɔ33eel yalli zaar-a ʕa-miin.  
 want.1P know.1P Nadia introduced.2P the-man that visited.3SM-her to-who  
 ‘We want to know to whom Nadia, you introduced the man that visited her.’  
 b. Baddna naʕrif **Naadya** ʕarraftuw-a ʕa-miin.  
 want.1P know.1P Nadia introduced.2P-her to-who  
 ‘We want to know to whom Nadia, you introduced her.’

- (74) a. \***ṣaahəbt-[a]**<sub>i</sub> fakkaro ʔənno **Kariim**<sub>j</sub> ʔarrafaət-**o**<sub>j</sub> [kəll mʔallme]<sub>i</sub>  
 friend.F-her thought.3P that Karim introduced.3SF-him every teacher.F  
 ʔalay-**a**.  
 to-her  
 ‘Her friend, they thought that Karim, every teacher introduced her to him.’
- b. \***ṣaahəbt-[a]**<sub>i</sub> saʔalo ʔayya rəʔʒeel<sub>j</sub> ʔarrafaət(-**o**<sub>j</sub>) [kəll mʔallme]<sub>i</sub>  
 friend.F-her asked.3P which man introduced.3SF-him every teacher.F  
 ʔalay-**a**.  
 to-her  
 ‘Her friend, they asked which man every teacher introduced (him) to her.’
- c. \***ṣaahəbt-[a]**<sub>i</sub> fakkaro Kariim ʔarrafit [kəll mʔallme]<sub>i</sub> ʔalay-**a**.  
 friend.F-her thought.3P Karim introduced.3SF every teacher.F to-her  
 ‘Her friend, they thought that Karim, every teacher introduced to her.’

In these sentences the pronoun contained within the CLLDed NP *ṣaahəbt-a* ‘her friend’ cannot be bound by the QP subject *kəll mʔallme* ‘every teacher’ in the embedded clause. Binding the pronoun requires reconstruction of the CLLDed NP, in order for c-command to obtain between the QP subject and the pronoun. Since only elements derived by movement can undergo reconstruction, it follows that the CLLDed NP must have been extracted across the embedded CLLDed NP, the *wh*-phrase, or the topicalized phrase. The unavailability of a bound reading in (74a–c) indicates that CLLDed elements that are moved are sensitive to Minimality. This conclusion is further confirmed by the fact that, in the absence of an intervening  $\bar{A}$ -element, the bound reading of the pronoun contained within the CLLDed NP is available.<sup>14</sup>

<sup>14</sup> It should be noted that the bound reading of the pronoun contained within the CLLDed NP in (75) obtains whether the subject QP is postverbal, as in (75), or preverbal, as in (i).

- (i) **ṣaahəbt-[a]**<sub>i</sub> fakkaro ʔənno [kəll mʔallme]<sub>i</sub> ʔarrafaət-**ne** ʔalay-**a**.  
 friend.F-her thought.3P that every teacher.F introduced.3SF-me to-her  
 ‘Her friend, they thought that every teacher introduced her to me.’

This fact indicates that the position of the genitive clitic, unlike that of the accusative or dative clitic, is lower than that of the postverbal subject. Unlike cliticization in Romance languages such as French or Italian, cliticization in LA is a local phenomenon. Each clitic is attached to the head that selects it. Adnominal clitics attach to N (iia), dative and accusative clitics to V (iib–c), and oblique clitics to P (iic).

- (ii) a. **kteeb-un**  
 book-their  
 ‘their book’
- b. ʔəltə-**llo** ʔan l-**haadis**.  
 told.1S-him.DAT about the-accident  
 ‘I told him about the accident.’
- c. ʔəft-**a** mbeerih.  
 saw.1S-her.ACC yesterday  
 ‘I saw her yesterday.’
- d. həkya maʔ-**na** ʔan-**kun**.  
 talked.3P with-us about-you.P  
 ‘They talked with us about you.’

- (75) **ṣaaḥəbt-[a]<sub>i</sub>** fakkarə ʔənnə ʔarrafaʔtne [kəll mʔallme]<sub>i</sub> ʔalay-**a**.  
 friend.F-her thought.3P that introduced.3SF-me every teacher.F to-her  
 ‘Her friend, they thought that every teacher introduced her to me.’

By contrast, CLLDed elements that are directly generated in their surface position and bind a null pronominal are not sensitive to Minimality. This is schematized in (76) and illustrated in (77).

- (76) a. CLLDed-NP<sub>i</sub> . . CLLDed-NP<sub>j</sub> . . t<sub>j</sub>/pro<sub>j</sub> . . pro<sub>i</sub>  
 b. CLLDed-NP<sub>i</sub> . . Wh<sub>j</sub> . . t<sub>j</sub>/pro<sub>j</sub> . . pro<sub>i</sub>  
 c. CLLDed-NP<sub>i</sub> . . Top<sub>j</sub> . . t<sub>j</sub> . . pro<sub>i</sub>
- (77) a. **Kariim** sməʔt ʔənnə **Naadya** ʔaʔʔaadu-w-**a** hadd-**o**.  
 Karim heard.1s that Nadia seated.3P-her near-him  
 ‘Karim, I heard that Nadia, they seated her near him.’  
 b. **Naadya** saʔalo ʔayya rəʔʔeel ʔabbarto(-u) ʔann-**a**.  
 Nadia asked.3P which man told.2P-(him) about-her  
 ‘Nadia, they asked which man you told (him) about her.’  
 c. **Naadya** ʔaalo ʔənnə maʔ Kariim ḥkiito ʔann-**a**.  
 Nadia said.3P that with Karim talked.2P about-her  
 ‘Nadia, they said that with Karim, you spoke about her.’

The facts in (74) and (77) come as no surprise if Minimality constrains, not LF representations, but syntactic derivations, as argued in the previous section.

In brief, an analysis that considers Minimality to be a constraint on LF representations will not account for the fact that a CLLDed element cannot move across another CLLDed element, a *wh*-element, or a topicalized phrase. On the other hand, an analysis that considers Minimality to be a constraint on derivations will account for the fact that a moved CLLDed element is intercepted by an intervening CLLDed element, a *wh*-element, or a topicalized phrase but will not account for the fact that a moved CLLDed element does not intercept a moved *wh*-element or a topicalized phrase.

#### 4.3 CLLD as a PF Operation and Minimality

Let us once more recapitulate the generalizations for which we need an account.

- (78) a. Only CLLDed NPs derived by movement display reconstruction effects.  
 b. CLLDed NPs derived by movement intercept neither *wh*-extraction nor topicalization but CLLDed NPs not generated by movement do intercept *wh*-extraction and topicalization.  
 c. The relation between a moved CLLDed element and the trace it binds is intercepted by another CLLDed element, a topicalized phrase, or a *wh*-phrase.  
 d. The relation between a CLLDed element and the pronominal to which it is related is not intercepted by another CLLDed element, a topicalized phrase, or a *wh*-phrase.

Under the assumption that the interception effects described in (78b–d) are to be accounted for as Minimality violations, the discussion in the previous section led to the conclusion that Minimality, whether construed as a constraint on derivations or on LF representations, cannot account for all the generalizations in (78). Underlying the discussion of CLLD so far has been the assumption that movement in those constructions is on a par with movement found in *wh*-interrogatives and topicalization. We would like to question this assumption now and propose that CLLD movement is a post-Spell-Out operation taking place in the PF component of the grammar. Assuming that extraction of a CLLDed element is a PF operation, the issue of why such a PF operation does not intercept the extraction of a *wh*-element or a topicalized phrase (78b) does not arise. Pre-Spell-Out, the CLLDed element is still in CIP, an A-position, and therefore not in a position that can intercept the movement of a *wh*-element or a topicalized phrase. On the other hand, a CLLDed element that binds a pronominal is generated in a dislocated  $\bar{A}$ -position and intercepts both *wh*-extraction and topicalization.

This proposal also accounts for the ‘reconstruction’ effects that CLLD constructions display (78a).<sup>15</sup> In a generative model that considers that PF operations do not feed LF operations, the movement of a CLLDed element in the PF component will have no LF import. That is, in the LF component, the PF fronted CLLDed element is located in CIP; hence the ‘reconstruction’ effects. On the other hand, a CLLDed element directly generated in the dislocated  $\bar{A}$ -position binds a pronominal and will not display ‘reconstruction.’

Generalizations (78c–d) may be accounted for if Minimality, taken as a constraint on derivations, also constrains PF movement. Since fronted CLLDed elements are intercepted by other CLLDed elements, *wh*-elements, and topicalized phrases, it is possible to assume that they are intercepted by elements in an  $\bar{A}$ -position. This result obtains within a minimalist framework since Minimality is part of the formulation of the operation Move: Minimality applies whenever Move applies, as argued in Chomsky 1995.<sup>16</sup>

<sup>15</sup> This type of reconstruction is referred to in Chomsky 1995 as radical reconstruction. As discussed there, reconstruction may be partial or total. It is partial when part of the fronted element is reconstructed. It is radical otherwise (see also Saito 1989). With this in mind, consider (i) and (ii).

(i) fu **ṣṣabe yalli Naadya hتامmit fii** ʕaʕət-o? (= (63a))  
 what the-boy that Nadia cared.3SF for-him gave.3SF-him  
 ‘What the boy that Nadia took care of him, she gave him?’

(ii) fu **ha-l-walad** mən bayn l-wleed yalli Naadya hتامmit fiyun ʕaʕət-o?  
 what this-the-boy of among the-boys that Nadia cared.3SF for-them gave.3SF-him  
 ‘What this boy among the boys that Nadia took care of, did she give him?’

Recall that sentence (i) (= (63a)) is ungrammatical under the reading where *Naadya* is coreferential with the main-clause pronominal subject and is well formed under the disjoint reading. In section 3.3.2 this was taken to indicate that when the CLLDed element reconstructs, the fronted *wh*-element is not intercepted. The same coreference possibilities hold in (ii). The unavailability of a coreferential reading in (i) and (ii) indicates that reconstruction of a CLLDed element is total or radical: it is not possible to reconstruct part of the CLLDed element (e.g., the head); rather, the whole CLLDed phrase (the relative clause and its head) reconstructs.

<sup>16</sup> The various island effects that constrain this PF movement are to be incorporated in the formulation of Move as well (see Chomsky 1995).

In brief, we are assuming that fronting of CLLDed elements applies in the PF component<sup>17</sup> and that Minimality constrains all applications of Move.<sup>18</sup> Such PF movement has no LF import. Conversely, in cases where movement has an LF import, this movement cannot take place in the PF component. Obviously, overt *wh*-extraction has an LF import and affects scope and coreference possibilities; it is therefore a syntactic operation. We have also assumed that topicalization is a syntactic operation; topicalization behaves like *wh*-extraction with respect to interception/Minimality (see generalization (78b)).<sup>19</sup> There is one major difference between CLLDed elements in LA, on one hand, and *wh*-phrases and topicalized phrases, on the other: CLLDed elements in LA are unambiguously interpreted as sentence topics, in the sense of Reinhart 1982.<sup>20</sup> Informally speaking, a CLLDed element is what the sentence it introduces is about. On the other hand, a *wh*-phrase is always interpreted as a focused element (see Rizzi 1995 and Zubizarreta 1998 and references cited there).<sup>21</sup> Similarly, a topicalized phrase in LA is interpreted as a contrastive

<sup>17</sup> CLLDed elements are specific. The PF operation that moves the CLLDed NP does not actually refer to the specific character of this element. Indeed, the CLLDed element, in syntax, is generated in [Spec, CI] (possibility 1) or in a preverbal ( $\bar{A}$ -) position higher than [Spec, CI] (possibility 2). Possibility 2 obtains, for instance, when the CLLDed element is related to a pronominal clitic within an island. In LA, elements generated in CIP need to be specific and elements that directly  $\bar{A}$ -bind a pronominal clitic are also specific (see also footnote 2).

<sup>18</sup> We have assumed that the conditions on Move are the property of the operation itself and constrain all its applications. One may assume that the constraints on Move vary with respect to the components where it applies. On this view, in the syntactic component Move may be subject to Minimality as a condition on LF representations, but in the PF component it is subject to Minimality as a constraint on derivations (which could be expressed as “Target the closest  $\bar{A}$ -position,” for instance). This is an option we will not pursue here.

<sup>19</sup> Thus, although PF movement has the effect of (radical) reconstruction, the latter cannot be taken to always indicate PF movement. Topicalized phrases display (radical) reconstruction to the original object position, as evidenced by the fact that both preverbal and postverbal subjects can bind into a topicalized phrase.

- (i) a. ?əmm-[o]<sub>i</sub> kəll walad<sub>i</sub> bihibb.  
 mother-his every boy love.3SM  
 ‘His mother, every boy loves.’  
 b. ?əmm-[o]<sub>i</sub> bihibb kəll walad<sub>i</sub>.  
 mother-his love.3SM every boy  
 ‘His mother, every boy loves.’
- (ii) a. L-mara yalli htammit fi-[i]<sub>i</sub> kəll walad<sub>i</sub> bihibb.  
 the-woman that cared.3SF in-him every boy love.3SM  
 ‘The woman that took care of him, every boy loves.’  
 b. L-mara yalli htammit fi-[i]<sub>i</sub> bihibb kəll walad<sub>i</sub>.  
 the-woman that cared.3SF in-him love.3SM every boy  
 ‘The woman that took care of him, every boy loves.’

<sup>20</sup> Zubizarreta (1998) makes the same observation about left-dislocated elements in Spanish.

<sup>21</sup> Following a long tradition and more recently Zubizarreta 1998, we take the notion “focus” to be defined in terms of the notions “presupposition” and “assertion”: the presupposition part of a sentence S is the part of S that constitutes an assumption shared by the speaker and the hearer, in a given context, at a given point in time. The part of S that is not presupposed is the assertion, or focus. Thus, in the sentence *It is a book that John bought*, the presupposition is that *John bought X* and the assertion is the value assigned to the variable in object position, that is, *X = a book*. Therefore, the focus in the above sentence is the clefted constituent. This definition extends easily to *wh*-questions, under the assumption that the meaning of a question is the set of possible answers.

- (i) A: What did John buy?  
 B: John bought a book.



focus.<sup>22</sup> To see this point, consider the following question-answer pair:

- (79) A:  $\int$ u  $\int$ tara Kariim mən l-maktabe l-kteeb  $\int$ am l-zariide?  
 what bought.3SM Karim from the-bookstore the-book or the-newspaper  
 ‘What did Karim buy at the bookstore? the book or the newspaper?’  
 B: L-KTEEB  $\int$ tara Kariim mən l-maktabe.  
 the-book bought.3SM Karim from the-bookstore  
 ‘The book Karim bought at the bookstore.’

The topicalized phrase *L-KTEEB* ‘the book’ in (79) is distinguished prosodically by bearing an extraheavy pitch accent (indicated in small caps), which is a typical way to mark contrastive foci. It is possible to attach a phrase introduced by *mif* ‘not’ to B’s answer in (79), thus excluding the other possible alternative provided by A (i.e., *l-zariide* ‘newspaper’), but it is infelicitous to attach a phrase that includes this other alternative.

- (80) a. L-KTEEB  $\int$ tara Kariim mən l-maktabe mif l-zariide.  
 the-book bought.3SM Karim from the-bookstore not the-newspaper  
 ‘The book Karim bought at the bookstore not the newspaper.’  
 b.  $\int$ L-KTEEB  $\int$ tara Kariim mən l-maktabe wəl-zariide (kameen).  
 the-book bought.3SM Karim from the-bookstore and-the-newspaper (too)  
 ‘The book Karim bought at the bookstore and the newspaper as well.’

Following Ouhalla (1992), we assume the existence of a focus projection (FP) between CP and IP,<sup>23</sup> whose head F bears a [+f(ocus)] feature. We further assume that this feature needs to be checked in the course of the derivation by an element assigned the same feature specification (see Rizzi 1995). This element will receive the extraheavy accent and will be interpreted as (contrastive) focus. The assumption that topicalization is syntactically driven by feature checking accounts for the fact that in LA there can be only one fronted topicalized phrase in a given clause.

- (81) \**LA-KARIIM KTEEB*  $\int$ atit Zeena.  
 to-Karim book gave.3SF Zeina  
 ‘To Karim a book Zeina gave.’

In B’s answer, *book* is the focus. It is also substituting for the *wh*-phrase in A’s question. Thus, it is possible to assume that a *wh*-phrase constitutes the placeholder for the assertion part of the sentence; that is, it is the focused phrase in the question. When the value assigned to the variable is taken from among a set of alternatives that are salient in the discourse, focus is said to be contrastive.

<sup>22</sup> For this reason, topicalized phrases would be better referred to as focused phrases.

<sup>23</sup> In embedded clauses, focused elements follow the complementizer.

- (i) a.  $\chi$ abbaruu-ne  $\int$ ənnə ZEENA  $\int$ arab Kariim.  
 told.3P-me that Zeina hit.3SM Karim  
 ‘They told me that Zeina, Karim hit.’  
 b.  $\int$ əft  $\int$ səbe yalli ZEENA  $\int$ arab.  
 saw.1s the-boy that Zeina hit  
 ‘I saw the boy that hit Zeina.’

In this respect, in LA, topicalization patterns with *wh*-extraction (82a) and contrasts with CLLD (82b).<sup>24</sup>

- (82) a. \*La-miin ʔayya kteeb ʔaʔit Zeena?  
 to-whom which book gave.3SF Zeina  
 'To whom which book did Zeina give?'  
 b. \*Kariim Zeena ħkiit maʕ-o ʔann-a.  
 Karim Zeina talked.1s with-him about-her  
 'Karim, Zeina, I talked to him about her.'

The restriction on the number of fronted topicalized phrases follows since once the [+f] feature in the head of FP is checked, movement to this projection is no longer necessary and is therefore prohibited, under minimalist assumptions. On the other hand, since CLLD is not driven by feature checking, but perhaps by a version of the Doubly Filled Specifier/Head Filter, the number of CLLDed elements can exceed one, as (82b) illustrates.

## 5 Conclusion

In this article we studied the interaction of clitic left-dislocation (CLLD), *wh*-extraction, and topicalization in LA. We uncovered the following generalizations:

- (83) a. CLLDed elements that are not separated from their corresponding clitic by an island do not intercept a fronted *wh*-phrase or a topicalized phrase.  
 b. Conversely, CLLDed elements that are separated from their corresponding clitic by an island intercept a fronted *wh*-phrase or a topicalized phrase, but do not intercept a *wh*-phrase directly generated in [Spec, C].  
 c. The relation between a CLLDed phrase and the trace it binds is intercepted by another CLLDed element, a topicalized phrase, or a *wh*-phrase.  
 d. The relation between a CLLDed element and its corresponding pronominal is not intercepted by another CLLDed element, a topicalized phrase, or a *wh*-phrase.

These generalizations were accounted for by assuming that

- (84) a. Fronting of CLLDed elements is a post-Spell-Out operation applying in the PF component.<sup>25</sup>

<sup>24</sup> If topicalized phrases and *wh*-phrases are focused phrases, they cannot both occur in a clause (see Ouhalla 1992, Rizzi 1995, and Modesto 1997).

(i) \*ʃu kariim ʔabbart ʔanno Zeina ʃarit.  
 what Karim told.2SM that Zeina bought  
 'What did you tell Karim that Zeina bought?'

<sup>25</sup> A question we have not addressed so far is the position from which the moved CLLDed element originates. Two possibilities are to be examined. First, the CLLDed element might be base-generated in [Spec, CIP] and then fronted to its surface position at PF. In that case the CLLDed element would be coindexed with a null pronominal in argument position. Second, the CLLDed element might be moved to [Spec, CIP] from the argument position. The latter is the

- b. Minimality, part of the formulation of the operation Move, applies whenever Move applies. As such, Minimality constrains movement operations only (see Chomsky 1995).

We suggested that movement operations driven by feature checking apply in syntax (pre-Spell-Out or at LF) and that movement operations purely driven by various filters (e.g., the Doubly Filled Specifier/Head Filter)<sup>26</sup> are to be viewed as post-Spell-Out operations applying in the PF component. A distinction is thus made between two types of movement operations: operations that have an LF import and “stylistic” operations that do not. Given the minimalist model assumed here (see Chomsky 1995), the latter operations are to be viewed as necessarily applying post-Spell-Out, in the PF component.

Furthermore, this model leads us to expect post-Spell-Out operations applying in the PF component to be sensitive to the output of pre-Spell-Out operations (such as *wh*-movement or topicalization), but not to affect those operations. We showed that this indeed is the case: the PF fronting of CLLDed elements is intercepted by fronted *wh*-elements or topicalized phrases, even though this PF fronting does not intercept fronted *wh*-elements or topicalized phrases.

Within generative grammar, the conception of the mapping between overt syntax and the Conceptual-Intentional level has undergone a radical rethinking. In the 1970s it was suggested that this mapping involves full-fledged movement operations (see Chomsky 1976 and May 1977). Further, these covert movement operations were argued to be constrained by various principles (such as Subjacency, the Empty Category Principle) that regulate overt (i.e., pre-Spell-Out) movement operations (see Chomsky 1981 and Kayne 1984, among others). Recent studies (Zubizarreta 1998 and Aoun and Benmamoun 1997) and this article suggest that the mapping between overt syntax and the Articulatory-Perceptual level is not trivial either: the PF component does not just involve spelling out terminal elements of the syntactic phrase markers. Rather, the operation Move—incorporating Minimality—operates in this PF component. We also suggested that movement operations applying in syntax (i.e., pre-Spell-Out or at LF) are driven by feature checking, but that movement operations applying in PF are driven by filters (or prosodic considerations; see footnote 26). If these studies are on the right track, it becomes necessary to investigate the working of Move in PF more systematically. The discussion of general concepts that govern the preferential application of Move in one component rather than another (e.g., Procrastinate) will also have to be extended to include the PF component. We hope that our study has provided evidence and suggestions bearing on these issues.

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derivation assumed for clitic-doubled constructions in Sportiche 1992. The evidence provided by the reconstruction facts (section 3.2) favors the first possibility. If the CLLDed element is indeed generated in argument position, why can it not “reconstruct” below [Spec, CIP], to this argument position? If, on the other hand, the CLLDed element is generated in [Spec, CIP], it follows directly that it cannot “reconstruct” below this position. In Aoun 1996 it is shown that, in LA, the doubled NP in clitic-doubled constructions is never generated in argument position.

<sup>26</sup> Or even by prosodic considerations (see Zubizarreta 1998). A filter such as the Doubly Filled Specifier/Head Filter is crucially sensitive to whether the relevant projection contains elements with a phonological matrix. The only component with the vocabulary necessary to determine that is PF.

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(Aoun)

*Department of Linguistics*

*GFS 301*

*University of Southern California*

*Los Angeles, California 90089-1693*

*aoun@hermes.usc.edu*

(Benmamoun)

*Department of Linguistics*

*University of Illinois at Urbana-Champaign*

*Urbana, Illinois 61801*

*benmamou@cogsci.uiuc.edu*