

The Syntax of doubled Arguments

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0. Introduction

Adopting one of the main tenets of the principles and parameters approach according to which the notion of grammatical construction is a "taxonomic artifact", a collection of phenomena accounted for through the interaction of various general grammatical principles (see Chomsky 1992), the purpose of this paper is to investigate the phenomena which have been regrouped under the titles of 'clitic doubled constructions', 'clitic doubling' or 'argument doubling'. These phenomena have been the subject of extensive discussions in contemporary linguistic studies. I believe that their interest ultimately resides in the fact they open a window on the formation of arguments; they allow us to better understand how argument-structures are formed and how they are syntactically projected.

In sentences involving doubling, the complementary distribution between clitics and lexical complements breaks down: the clitic and the lexical element co-occur:

- (1) a. ... Head+clitic lexical NP

Some of the main questions in this context focus on the relation between the clitic and the complex head+clitic and the lexical NP and on the status of this doubled NP. What is the nature of this relation? Is it a head-complement relation? Is the lexical NP generated in the same argument-position regular complements are generated in? It comes as no surprise that the possible answers to these questions have been put forward in the relevant literature (see Aoun 1979, 1981, Borer 1983, 1986, Dobrovie-Sorin 1990, Everett 1992, Franco 1991, Hurtado 1984, Jaeggli 1982, 1986, Iatridou 1991, Schneider-Zioga 1990, 1993, Sportiche 1992, Suñer 1988, 1992).

In this work, I propose a novel analysis of doubling based on the working of this phenomenon in Lebanese Arabic. I suggest that doubling in this language is to be viewed as a means for forming new functional structures. Specifically, I argue that in LA doubled elements are not generated in complement positions. Rather, the doubled element is to be analyzed as a subject in a predication relation holding between

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the doubled element and the minimal complete functional complex (CFC) containing the clitic. In this predication relation, the clitic-pro complex, i.e. the clitic and the non-overt pronominal coindexed with it, plays the role of predicate-variable. It is the open position which makes the CFC a one-place predicate:

- (1) b. ... [[CFC [... clitic-pro...]] doubled element]

The relation between the doubled element and the pronominal predicate-variable is shown to be subject to the standard disjointness effect applying to pronominals. This disjointness effect highlights the non-complement status of doubled elements and distinguishes them from non-doubled-elements. The phenomenon of doubling in LA, thus, is accounted for by the interaction of the rules constraining predication and by the binding theory. In this account, doubling is a means LA uses to create non-standard argument-relations, to superimpose new functional structures on conventional ones.

Section 1. Word-order in Lebanese Arabic

I will start by providing some information regarding structural aspects of Lebanese Arabic (LA) which will be relevant in the discussion of argument doubling. LA is a null subject language as illustrated in (2a-b):

- (2) a. Kariim ?akal suushi b) ?akal suushi
 Kariim ate_{3pms} suushi he ate sushi'
 'Kariim ate sushi'

Furthermore, the word order on a sentential level may be SVO as in (2a) or VOS as in (2c). The order VSO is also available (2d); it, however, is less common, and a pause is necessary before the subject:

- (2) c. ?akal suushi Kariim d) ?akal Kariim suushi
 'K. ate sushi'

Section 2. Distribution of clitics

In LA, a pronominal clitic appears with a verb (3a), a noun (3b) or a preposition (3c). In (3a-c), the clitic is underlined (non-relevant details omitted).

- (3) a. Kariim sheefo b) Kariim sheef kteebo
 Kariim saw-him aw book-his
 'Kariim saw him' 'Kariim saw his book'
- c. Kariim raaH ma9o
 went with-him
 'Kariim went with him'

As illustrated in (3a-c), each pronominal complement cliticizes onto the head it is selected by. In this respect, cliticization is a local phenomenon in Lebanese Arabic which does not have a process of 'clitic climbing' such as the one found in various Romance languages (see Kayne 1975, 1984, Rouveret and Vergnaud 1980 and the references mentioned there). The local nature of cliticization in LA will be discussed further in section (5).

A (morphological) distinction exists for some persons between accusative clitics (4a), dative clitics (4b) and genitive clitics attached to a noun or a preposition (4c-d). This distinction can be seen, for instance, in examples (4a-d) involving a first person singular clitic:

- | | |
|---|---|
| (4) a. Kariim <u>sheefne</u>
'Kariim saw me' | c. Kariim sheef <u>kteebe</u>
'Kariim saw my book' |
| b. Kariim Hikeele Hkeye
'Kariim told me a story' | d. Kariim raaH <u>ma9e</u>
'Kariim went with me' |

Section 3. What can be doubled?

All the clitics discussed in the previous section can be doubled. That is, an accusative clitic (5a), a dative clitic (5b), a genitive clitic attached to a noun (5c), or a preposition (5d), can be doubled. The doubled element and the doubling clitic are underlined in (5).

- | |
|---|
| (5) a. Kariim sheefo <u>la Saamii</u>
saw-him to Saamii
'Kariim saw Saamii' |
| b. Kariim Hikeelo <u>la Saamii</u> Hkeye
told-him
'Kariim told Saami a story' |
| c. Kariim sheef kteebo <u>la Saamii</u>
book-his
'Kariim saw Saamii's book' |
| d. Kariim raaH ma9o <u>la Saamii</u>
with-him
'Kariim went with Saamii' |

As illustrated in (5a-d), the doubled element appears with the preposition *la* ('to'). Thus conforming to Kayne's generalization informally stated in (6) (See Aoun 1981, Jaeggli 1982, 1986, Borer 1983, 1986, Dobrovie-Sorin 1990 and the references mentioned there).

Kayne's generalization

A Lexical NP may be doubled by a clitic only if this clitic is preceded by a (prepositional) case-assigner.

The nominal element following this case-assigner is assigned dative case: the pronominal element following it is morphologically dative.¹

(1) The pronominal element following the marker *la* is a dative pronoun that does not seem to be cliticized onto *la* as evidenced by the fact that, contrary to other clitics, it can be conjoined:

- | | |
|---|--|
| i a) *Kariim Hikeelo w@ la Hkeye
told-him and her story
'Kariim told him and her a story' | b) Kariim Hikeelun <u>la?ilo w@ ?ila</u> Hkeye
told-them to him and her
'Kariim told them a story' |
|---|--|

- (6) a. Kariim sheefo la?ilo
 saw-it to him
 ‘Kariim saw him’
- b. Kariim Hikeelo la ?ilo Hkeye
 told-him to him story
 ‘Kariim told him a story’
- c. Kariim sheef kteebo la ?ilo
 book-his to him
 ‘Kariim saw his book’
- d. Kariim raaH ma9o la ?ilo
 with-him to him
 ‘Karin went with him’

In (5a-d) and (6a-d), I gave examples where the complements of a verb, noun or preposition are doubled. Subjects cannot be doubled as illustrated in (7-8):

- (7) (*la) Kariim neem (8) neem (*la) Kariim
 (*to) slept-3ps ‘Kariim slept’
 ‘Kariim slept’

Sentences (7-8) indicate that the subject in SV or in VS sentences cannot be doubled. In Exceptional Case-marking constructions, however, the subject can be doubled:

- (9) badde-yee yruuH laKariim²
 want-I (acc)-him go3ps to K.
 ‘I want Kariim to go’
- (10) xallayto yruuH laKariim
 let1ps-him go3ps to K.
 ‘I let Kariim go’

It is worth mentioning that doubling is optional. In all the examples discussed, the clitic can appear by itself. Alternatively, the lexical NP can also appear by itself. In this case, the preposition *la* cannot occur with the non-doubled NP unless this NP is a dative complement as in (12):

- (11) Kariim sheef (*la) Saamii (see 5a)
 ‘Kariim saw Saamii’

In LA, clitics attach to prepositions (see section 2). The fact that the pronominal elements cannot cliticize to the doubling marker *la* suggests that this marker is not to be analyzed as a preposition. It may be considered as a non-prepositional case-marker. J. Ouhalla (personal communication) suggests that this marker may be considered as a focus marker akin to the focus marker *la* found in Standard Arabic.

(2) In a sequence of two clitics, the second clitic appears with *y* in LA:

i-9taytoye
 gavelps-it-him
 ‘I gave it to him’

- (12) Kariim Hike (*) laSaamii Hkeye (see 5b)
 'Kariim told Saami a story'
- (13) Kariim sheef kteeb (*la) Saamii (see 5c)³
 'Kariim saw Saamii's book'
- (14) Kariim raaH ma9 (*la) saamii (see 5e)
 'Kariim went with Saamii'
- (15) badde Kariim yruuH (see 7a)
 'I want Kariim to go'
- (16) xalleet Kariim yruuH (see 7b)
 'I let Kariim go'

The previous examples illustrated the syntactic positions (complements of V, N, P) that can be doubled.

Section 4: Interpretation of doubled elements

In the previous section, we indicated what elements can be doubled. In this section, we will start discussing how to structurally represent doubled elements. Are doubled elements generated in the same argument position as non-doubled elements?

Consider a sentence such as (17a):

- (17) a. shift suurit waladeen (min hal wleed)
 saw1ps picture boy (dual) from dem. det. boys
 'I saw a picture of two (of these) boys'

A sentence such as (17a) is ambiguous. The quantificational expression *waladeen* ('two boys') may have wide scope (or a distributive reading): 'I saw two pictures, each representing one boy'. The wide scope reading may be highlighted by adding the following paraphrase to the sentence in (17a): *w@Hde minnun keenit maxxuu?a* 'one of them was torn'. It may also have narrow scope: 'I saw one picture representing two boys'. With Fiengo and Higginbotham (1981), it is possible to assume that the wide scope reading is generated by covertly moving at LF the quantificational element out of the NP in which it is generated (see also May 1985, Aoun and Hornstein 1985).

In contrast to sentence (17a), sentence (17b) in which the whole NP *suurit waladeen* ('picture of two boys') is doubled is not ambiguous: the quantificational element has only an internal, narrow scope reading:

- (17) b. shifta la suurit waladeen (min halwleed)
 saw1ps-it to picture
 'I saw a picture of two (of these) boys'

The contrast between sentences (17a) and (17b) indicates that a quantificational element cannot be extracted at LF out of a doubled element, hence, the non-ambi-

(3) (9b) is acceptable with the reading where *laSaamii* is not the complement of book but rather is a benefactive: 'Kariim saw a book for Saamii'.

guity of (17b). The contrast between the two sentences may be made clearer with the following pair: since a back (bone) cannot be common to two persons, sentence (18b) is unacceptable:

(18) a. fHast dahr waladeen (min hal wleed)
 examined1ps back
 'I examined the back of two (of these) boys'

(18) b. *fHasto la dahr waladeen (min hal wleed)
 examined1ps-it to back
 'I examined the back of two (of these) boys'

In brief, in a configuration such as (19a) the quantificational element may have a wide and a narrow reading and in a configuration such as (19b), it only has a narrow reading:

(19) a. V [N QP] b. V+clitic la [N QP]

Consider now the following representation:

(19) c. V+clitic la N+clit la QP

Representation (19c) contains two doubled elements: the object of the verb and the adnominal complement have been doubled. If the doubled QP in (19c) were in the same position as the non-doubled QP in (18b) we would expect the doubled QP to only have narrow scope. The fact is that in a configuration like (19c), the doubled QP may have wide scope: in sentence (20), which corresponds to (19c), the quantificational element may have wide scope:⁴

(20) shifta saw1ps-it la suurit-un (mbeeriH) la waladeen (min hal wleed)
 to picture-them (yesterday) to boy (dual)
 'I saw a picture of two (of these) boys'

The contrast between (17b) and (20) indicates that the doubled quantifier is not in the same position as the non-doubled quantifier: it is in a position higher than the non-doubled element. The discussion of sentence (17b) also indicated that a quantificational element cannot be extracted at LF out of a doubled element. To the extent that this prohibition is assumed to operate in Syntax too, it provides evidence against assuming that the doubled element is generated in the same position as the non-doubled element and that subsequently it gets raised to a position higher than

(4) Once again, the wide scope reading may be highlighted by the acceptability of the following sentence (see 18a-b):

i) ? fHasto ladahrin (mbeeriH) la waladeen (min hal w@leed)
 'I examined the back of two boys yesterday'

There is another more natural form for inalienables. It is given in (ii):

ii) fHastillun dahrin (mbeeriH) la waladeen min hal wleed
 examined1ps-tothem back-them
 'I examined their back'

the one in which it has been base-generated. The facts discussed in the following sections will provide conclusive evidence against such a movement analysis.

For completeness, we provide sentence (21) in which the adnominal quantificational element is doubled. This doubled quantificational element may have wide scope:

- (21) shift suuritun la waladeen (min hal wleed)
 saw1ps picture-them
 'I saw a picture of two (of these) boys'

Section 5. Representation of doubled elements

In the previous section, we discussed interpretative evidence suggesting that a doubled element is not at S-structure generated in the same position as a non-doubled element. The evidence was based on the interpretation of doubled adnominal quantificational elements. The above discussion, however, does not establish where doubled adnominals and more generally, doubled elements are generated. For instance, is it the case that a doubled adnominal or a doubled prepositional complement form a constituent with the nominal or prepositional head they are related to? The syntactic representation of doubled elements will be investigated in the following sections.

Consider the following sentences:

- (22) shift ?@mmo lakariim mbeeriH
 saw2pms
 'you saw Kariim's mother yesterday'

In sentence (22), the doubled element, the doubling clitic and the element this clitic is attached to (the host) can be Clitic-Left-Dislocated: they can appear at the beginning of the clause and be coindexed with a clitic as in (23) (see Cinque 1977, 1990):

- (23) ?@mmo lakariim shifta mbeeriH
 saw2pms-her
 Kariim's mother you saw her yesterday'

They can also be pied-piped by *wh*-movement as in (24). Under standard assumptions according to which extraction processes affect single constituents, it is safe to conclude that in (22-24), the clitic, its host and the doubled element form a single constituent:

- (24) ?@mmo la?ayya walad shift mbeeriH
 saw2pms
 'which boy's mother did you see yesterday?'

Sentences (25-26) lead to the same conclusion:

- (25) Haddo la kariim sh@ft Hayye mbeeriH
 near-him to K.
 'Near Kariim you saw a snake yesterday?'
- (26) Haddo la ?ayya walad sh@ft Hayye mbeeriH
 near-him to which boy.
 'Near which boy did you see a snake yesterday?'

In (25-26), the preposition, the nominal host, the clitic and the doubled element may be treated as a single constituent and fronted by *wh*-movement.

The doubled element does not necessarily form a single constituent with the clitic and the host. It can be separated from the clitic and the host as in (27a-b):

- (27) a. shift ?@mmo mbeeriH lakariim
 'you saw Kariim's mother yesterday'
- b. sh@ft Hayye Haddo mbeerih la kariim
 saw2ps near-him yesterday to K.
 'you saw a snake near K. yesterday'

It is useful to point out in this respect that non-doubled complements cannot be separated from the head selecting them as evidenced by the ungrammaticality of sentences, (28b) and (29b):

- (28) a. sh@ft ?@mm Kariim mbeeriH
 saw2pms mother Kariim yesterday
 'you saw Kariim's mother yesterday'
- b. *sh@ft ?@mm mbeeriH Kariim
 saw2pms mother yesterday kariim
- (29) a. sh@ft Hayye Hadd Kariim mbberih
 saw2ps near K. yesterday
 'you saw a snake near K. yesterday'
- b. *sh@ft Hayye Hadd mbeeriH Kariim
 saw2ps near yesterday K.

In this section, we discussed syntactic evidence suggesting that doubled elements may form a single constituent with the phrase containing the clitic and its nominal or prepositional host. We also discussed evidence suggesting that this doubled element may be syntactically separated from the phrase containing the clitic and its nominal or prepositional host. The fact that a doubled element, contrary to an adnominal complement or a genitive element, can be separated from the phrase containing the nominal or prepositional head further highlights the difference between doubled and non-doubled elements.

The interpretative evidence discussed in the previous section indicated that the doubled element does not occupy the regular complement position that a non-doubled element (see 30) occupies:

- (30) [X complement]

We also saw in this section that the doubled element may form a single constituent with the doubling clitic and the host (see 31). It may also be separated from the doubling clitic and the host; in this case it is not part of the constituent containing the host and the doubling clitic (see 32).

- (31) [X+clitic doubled element]

- (32) [X+clitic..... doubled element]

Why can't the doubled element be in the same position as the non-doubled complement? A natural answer would be to say that the complement position is already filled. What are the likely candidates to occur in this position? At this point, it is possible to assume that the complement position is filled at D-structure by the prenominal clitic which gets incorporated into the head selecting it by S-structure (33).

(33) X clitic la NP —D-structure

(34) X+clitic_i t_i la NP —structure

Another possibility would be to assume that the clitic is not generated by movement. Rather, it binds a non-overt pronominal in the complement position (35) (as argued in Chomsky 1982 and Jaeggli 1986):

(35) X+clitic_i pro_i la NP_i

According to the analysis in (33-34), the clitic itself is a pronominal element and according to the one in (35), the clitic is rather an agreement marker and not a true argument. There are reasons to favor the analysis in (35), which considers that clitics in LA are agreement markers, over the one in (33-34):

(i) as mentioned earlier, cliticization in Lebanese Arabic has a strictly local character: the clitic is attached to the element it is selected by: clitics corresponding to a complement of a noun, a verb or a preposition get attached to this noun, verb or preposition respectively (36a-c). There is no process of 'clitic climbing' in this language as opposed, for instance, to Romance languages such as French, Spanish and Italian where the clitic does not necessarily appear attached to the head that selects it (see Kayne 1975, 1984, Rouveret and Vergnaud 1980):

(36) a. V+clitic b. N+clitic c. P+clitic

(ii) It also is the case that a clitic in LA may co-occur with an overt non-doubled argument. This is illustrated in (38): as argued in Benmamoun (1992) for Arabic and Schlonsky (1991) for Hebrew, the nominal element in (38a) occurs in the Specifier of the Quantifier and enters into spec-head agreement with this quantifier (see also Sportiche 1992 and Koopman 1991). This accounts for the occurrence of the agreeing clitic in (38a). If clitics were arguments we would not expect them to co-occur with another argument; otherwise we would have a violation of the Thematic Theory (see Chomsky 1991 chapter 2): two arguments would share a unique thematic role.

(37) shift kill lwleed
saw₁ps all the boys
'I saw all the boys'

(38) a. shift [QP [_{spec}lwleed] [Q' Kullun]]
all-them
'I saw all the boys'

(iii) Finally, two clitics may correspond to a unique argument as illustrated in

(38b) where the clitic attached to the verb and the one attached to the noun correspond to the same argument (see Benmamoun 1992 for an analysis of these constructions):⁵

- (38) b. *shiftun* [*Qp kullun*]
 saw1ps-them all-them
 'I saw all of them'

Representation (35) captures the fact that the doubled element is not generated in the same position as the non-doubled complement. There is a pronominal element, the non-overt *pro*,⁶ obligatorily coindexed with the doubled element.⁷ In the following section we provide evidence indicating that the relation between the doubled element and the non-overt pronominal is subject to a standard disjoint reference effect.

Section 6. Doubling Predication and Disjoint reference

In the previous sections, we provided evidence indicating that the doubled element is not generated in the regular complement position. Rather, this doubled element is coindexed with the clitic-pro complex.

At this point, two questions are to be raised: (i) why is it that the doubled element has to be coindexed with the clitic-pro complex? and (ii) since the *pro* is a pronominal element, is it the case that this type of coindexing is constrained by the grammatical principles, such as the binding principles, regulating pronominal elements?

(5) More generally, the distribution of clitics in LA may be accounted for if clitics are generated by the mechanism of specifier-head agreement in LA (as argued for Standard Arabic and Moroccan Arabic in Benmamoun 1992). As mentioned in the text, in (38), for instance, the clitic occurs when the nominal element is moved to the Specifier position of the quantifier (see Schlonsky 1991 and Benmamoun 1992). In (39), the clitic attached to the quantifier and the one attached to the verb are generated by moving a non-overt pronominal element through the Specifier of the quantifier to the Specifier of the the object agreement projection (the AGRO of Chomsky 1992), as argued for in Benmamoun (1992) for Standard Arabic and Moroccan Arabic.

(6) This non-overt-pronominal may end up in the specifier of the clitic if the clitic is analyzed as a head whose specifier gets filled with the element it agrees with as in Chomsky (1991), Franco (1991), and Sportiche (1992). In Browning (1987), it is argued that non-overt operators are pure pronominals, *pro*. Even though her analysis does not mean that every *pro* is to be characterized as a non-overt operator, it raises the possibility of treating the *pro* coindexed with the clitic as a non-overt operator. In this paper, further discussion of this possibility will not be entertained. Some relevant considerations may be found in Schneider-Zioga (1993).

(7) One may wonder why the non-overt pronominal is necessary. In other words, why is it the case that the doubled element in LA cannot be generated in the same position as non-doubled complement? I would like to surmise that the answer is to be provided by Case Theory. The doubled element in LA is dative (see footnote 1). In Chomsky (1992), it is argued that case assignment to a complement is done via agreement: the Case of the complement is sanctioned by virtue of being related to the specifier of the agreement. We indicated that clitics in LA are to be analyzed as agreement markers. As such, the doubled element which is dative *er* cannot be in a complement position. The Case of the doubled element in this position would not match the Case sanctioned by agreement. These considerations have obvious implications for doubled datives and may help to explain some peculiarities these elements display with respect to extraction processes. We intend to address these peculiarities in future work. In this approach, the primary function of the marker *la* would not be to provide Case to the doubled element; otherwise, it would be possible for the doubled element to appear in complement position without a dative marker. Rather the primary function of the marker would be to signal the existence of a focused element (see footnote 1) or that of a 'secondary subject' (see footnote 11).

Starting with question (i), what forces the doubled element and the clitic-pro complex to be coindexed? We argued in the previous sections that the doubled element is not in a complement position. There are two means for an argument to be interpreted: an argument may be interpreted by virtue of receiving a thematic role from a head X^0 that governs it or by virtue of being coindexed with a predicate. The first situation obtains with complements which get their thematic roles directly from the head selecting them. The second situation obtains with subjects which get interpreted with respect to a predicate. As in Williams (1980), the predicate may be a simple predicate; in this case, the subject is the external argument of the head of the predicate and appears outside the maximal projection of the head as in (39a). In (39a), the subject is underlined:

(39) a. John [vp ate my lunch]

The predicate may also be 'complex'; complete functional complexes (CFC see Chomsky 1986) may be used as complex predicates. They are able to function as such only when they contain a 'predicate variable' linked to the subject. This predicate-variable is the open position in the CFC which makes it a one place predicate (see Williams 1980). This predicate variable may be a pronominal (PRO or pro) or an operator such as a wh-element (see Williams 1980, Iatridou 1991, Browning 1987, Rothstein 1983). In Williams S and S' are possible complex predicates; for reasons that will become clear, we adopted the more general characterization of Chomsky's complete functional complex:

(39) b. [CFC ...pro or PRO or WH...]

Returning to doubling in LA. The doubled element in LA is not in a complement position; it has to be interpreted with respect to a predicate. The forced co-indexing between the doubled element and the clitic-pro complex may be viewed as resulting from the predication relation holding between the doubled element and the phrase it is attached to. In other words. I am suggesting that the doubled element has the role of a subject, the phrase it is attached to is a predicate and the clitic-pro is the open position, or, the predicate variable.⁸ We will return to this proposal and discuss its empirical advantages.

Let us turn now to question (ii): pronominals are subject to a disjointness effect accounted for in terms of principle B of the binding theory. Assuming that the

(8) Our analysis of doubling is parallel to the analysis of Modern Greek clitic-left-dislocation in Iatridou 1991 which is accounted for in terms of predication. In Schneider-Zioga (1993), it is argued that the disjointness analysis we put forward accounts for the distribution of clitics as well as the behavior of clitic doubling in Modern Greek.

The relation between the doubled element and the predicate it is related out is somewhat reminiscent of that found in complex adjectival constructions such as the following:

i) John is easy [CP Op [PRO to please t]]

In both constructions, the argument (the subject 'John' in the English adjectival construction and the doubled element in LA) is not in a thematic position and is interpreted with respect to a complex predicate. In Chomsky (1992), complex adjectival constructions are viewed as involving generalized transformations. Such an approach readily extends to doubled constructions in LA.

doubled element is obligatorily coindexed with a pronominal element —the clitic-pro complex— leads us to expect a disjointness effect to exist between the clitic-pro and the doubled element. We will argue that this indeed is the case.

In Lebanese Arabic, disjointness holds between a subject and an object or between a subject and certain prepositional complements. In sentences (40a-c), the pronominal object and the subject must be disjoint in reference:

- (40) a. Kariim sheefo
 saw3pms-him
 ‘Kariim saw him’
 b. Kariim H@keelo Hkeye
 told3pms-him story
 ‘Kariim told him a story’
 c. Kariim Hike ma9o
 spoke3pms with-him
 ‘K. spoke with him’

In these sentences, an anaphor bound to the subject can occur in object position:

- (41) a. Kariim sheef Haalo
 ‘Kariim saw himself’
 b. Kariim Hike laHaalo Hkeye
 ‘Kariim told himself a story’
 c. Kariim Hike ma9 Haalo
 ‘Kariim spoke with himself’

It goes without saying that an object or a prepositional complement can be coreferential with another noun phrase when a subject intervenes between them. In (42a-c), the matrix subject and the embedded pronoun can be coreferential:

- (42) a. Kariim ?aal ?@nno zena seefito
 K. said3pms that Z. saw3pfs-him
 ‘Kariim said that Zena saw him’
 b. Kariim ?aal ?@nno zena Hikitlo Hkeyeye
 told3pfs-him story
 ‘Kariim said that Zena told him a story’
 c. Kariim ?aal ?@nno zena Hikit ma9o
 spoke3pfs with-him
 ‘Kariim said that Zena spoke with him’

On the other hand, disjointness does not hold between an adnominal complement and a subject:

- (42) d. Kariim sheef suurto
 K. saw3pms picture-his
 ‘Kariim saw his picture’

An anaphor cannot occur in an adnominal complement position:

- (42) e. *Kariim sheef suurit Haalo
 K. picture himself
 'K. saw a picture of himself'

In brief, there are at least two opaque domains in which a pronoun has to be free: the minimal phrase containing a subject or the minimal noun phrase in which it is contained. What is the minimal phrase, or in Chomsky (1986)'s terms, the minimal Complete Functional Complex (CFC) containing a subject? Assuming the internal subject hypothesis developed in Koopman and Sportiche (1991), Kitagawa (1986), Kuroda (1985), Speas (1986) and Zagana (1982), the VP would count as the minimal phrase containing a subject or complete functional complex.⁹ Thus, there are at least two domains in which a pronoun has to be free: they are the minimal VP containing a subject and this pronoun or the minimal noun phrase in which this pronoun occurs.

Returning to question (ii), I would like to argue that a disjointness effect regulates the relation between a doubled element and the doubling clitic-pro. As a consequence of the existence of this disjointness, the doubled element has to occur outside the domain in which the doubling clitic-pro must be free. A noun phrase or a VP constitute such a domain. However, a PP such as the one in (40c) does not constitute an opaque domain. A doubled element can be adjoined to a VP (43a), to an NP (43b) but not to a PP such as the one in (40c) or (43c). If it were adjoined to such a PP, the doubled element will have to be disjoint from the doubling clitic-pro. Since the doubling clitic-pro functions as a predicate variable, failure of a well-formed predication will occur when the doubled element cannot be coindexed with a predicate variable:

- (43) a. ... [vp [Subject V+clitic...] doubled NP]
 b. ... [NP [N+clit...] doubled NP]
 c. *... [pp [pp P+clit...] doubled NP]

Direct evidence for the analysis put forward can be provided. Recall that in section (5), we indicated that the doubled element, the doubling clitic and the nominal element the clitic is attached to can be pied piped by clitic-left-dislocation or wh-movement (see examples 25a-d repeated for convenience). This was taken to provide direct evidence for the assumption according to which these elements form a single constituent as in (43b):

- (25) a. ?@mmo lakariim shifta mbeeriH
 saw2pms-her
 'Kariim's mother you saw her yesterday'

(9) The empirical motivation for the existence of an internal subject within VP in standard Arabic is to be found in Mohammad (1990) and in Koopman and Sportiche (1991). The analysis of standard Arabic put forward in these references could be transposed to Lebanese Arabic.

- b. ?@mmo lakariim Hkiiitilla Hkeye mbeeriH
 'Kariim's mother you told her a story yesterday'
- c. ?@mmo la ?ayya walad sheefit film mbeeriH
 mother-his of which boy
 'which boy's mother saw a movie yesterday?'
- d. ?@mmo la?ayya walad shift mbeeriH
 saw2pms
 'which boy's mother did you see yesterday?'

If we are right in saying that the doubled element cannot be attached to a PP such as the one in (40c), we expect that a rule such as *wh*-extraction will not be able to treat the preposition, the doubling clitic and the doubled NP as a single unit. As such, no pied piping of these elements by clitic-left-dislocation or *wh*-extraction should occur. This expectation is borne out as evidenced by the ungrammaticality of (44a-b):

- (44) a. *9anno la kariim Hkiiit
 about-him to K. spoke2pms
 'about Kariim you speak'
- b. *9anno la ?ayya walad Hkiiit
 about-him to which boy spoke2pms
 'about which boy did you speak'

In this respect, sentences (44) are to be contrasted with sentences (26) repeated below. In (26), the doubled element is outside the opaque domain (?@mmo 'his mother') in which the doubling clitic (or the pro) ought to be free. The preposition, the nominal element, the doubling clitic and the doubled element can all form a single constituent and be pied piped:

- (26) a. 9ann?@mmo lakariim Hkiiit mbeeriH
 about
 'you spoke about Kariim's mother yesterday'
- b. 9ann ?@mmo la ?ayya walad Hkiiit mbeeriH
 'about which boy's mother did you speak yesterday?'

We said that the doubled element cannot adjoin to a PP such as the one in (40c) because this PP does not constitute an opaque domain for the clitic (or pro) attached to it. There, however, exist PPs which constitute an opaque domain for the pronominal element occurring within them. An instance of such a PP is given in (45):

- (45) a. Kariim sheef Hayye Haddo
 K. saw3pm snake near-him
 'Kariim saw a snake near him'

In (45a), the subject and the pronominal clitic can be understood as coreferential. Given the discussion of the previous paragraphs, we expect the doubled element to be able to adjoin to the PP *hadd* ('near') in a sentence such as (45b):

- (45) b. sh@ft Hayye Haddo la kariim mbeeriH
 saw2ps near-him to K. yesterday
 'you saw a snake near K. yesterday'

This expectation is borne out: the preposition, the doubling clitic and the doubled element can all be pied piped by clitic-left-dislocation and wh-movement as illustrated in sentences (25a-b) repeated as (46a-b):

- (46) a. Haddo la kariim sh@ft Hayye mbeeriH
 near-him to K.
 'Near Kariim you saw a snake yesterday'
- b. Haddo la ?ayya walad sh@ft Hayye mbeeriH
 near-him to which boy
 'Near which boy did you see a snake yesterday'

Sentences (46a-b) contrast with the ungrammatical sentences (44a-b). This contrast is due to the fact that the PP in (46) but not the one in (44) constitutes a domain in which the clitic or the pro is free.

Sentences (47) minimally contrast with sentences (45-46). In (47), as is the case in the corresponding English sentences, the PP does not constitute an opaque domain. The doubled element cannot attach to this PP: the PP and the doubled element cannot be treated as single constituent and fronted by clitic-left-dislocation (47c) or wh-movement (47d). Sentences (47c-d) contrast with sentences (46a-b):

- (47) a. Kariim neem Haddo
 K. slept3pm near-him
 'Kariim slept near him'
- b. n@mt Haddo lakariim
 near-him
 'I slept near Kariim'
- c. *Haddo la kariim n@mt
 slept1ps
 'Near Kariim I slept'
- d. *Haddo la ?ayya walad n@mt
 near-him to which boy
 'Near which boy did you sleep?'

We argued in this section that the doubled element and the phrase it is attached to are in a predication relation and that the clitic-pro functions as predicate variable. We also argued that since the pronominal clitic-pro is subject to a disjointness effect, the phrase to which the doubled element may attach must form an opaque domain. Under the assumption that a predicate is the minimal complete functional complex containing the predicate-variable and that the subject and the predicate must m-command each other (as argued in Iatridou 1991, Rothstein 1983, Verg-

naud & Zubizarreta 1992, Williams 1980),¹⁰ it comes as no surprise that the relation between the doubled element and the clitic-pro is local. To illustrate this local relation, consider the following pair in (48a-b):

- (48) a. *laH?uul lam9allimto lakariim ?inne giit mbeeriH*
 will-say1ps to-teacher-his toK that came1ps yesterday
 'I will say to Kariim's teacher that I came yesterday'
- b. **laH?uul lam9allimto ?inne giit lakariim mbeeriH*
 will-say1ps to-teacher-his that came1ps to K. yesterday.

In (48 a), the doubled element is adjoined to the noun phrase *m9allimto* 'his teacher') and stands in a m-command relation with it (see representation 43b). In sentence (48b), on the other hand, the doubled element could not have been base-generated in the embedded clause because it would not m-command the noun-phrase *m9allimto* ('his teacher'). It could not have been moved to the embedded clause because the empty category generated by this extraction process would not be properly bound. Sentence (48b), therefore, is ill-formed.

Similarly consider the following pair of sentences:

- (49) a. *lm9allme yalli sheefito lakariim bissaf*
 the-teacher (fem) that saw3fs-him to K. in-the classroom
 'the teacher that saw Kariim is in the classroom'
- b. **lm9allme yalli sheefito bissaf lakariim*
 the-teacher (fem) that saw3fs-him in-the-classroom

Sentence (49a) is well-formed: the doubled element is base-generated within the relative clause and m-commands the VP *sheefito*. Sentence (49b), on the other hand, is ill-formed: it violates the Complex-NP-Constraint (see Ross 1967, Chomsky 1972). If a predicate were not characterized as the *minimal* complete functional complex containing a predicate-variable, we would expect sentence (49b) to be well-formed: the matrix complete functional complex would have qualified as predicate and the doubled element could have been underlyingly adjoined to it.

Finally sentences (50a-b) are both well formed. The doubled NP is underlyingly adjoined to the NP *kreebo* ('his book') in (50a) which constitutes a complete functional complex (see Chomsky 1986) (see representation 43b). In this position, the doubled element is lexically governed by the verb (or by the trace of the verb if it is assumed that verbs in LA raise to Infl see Mohammad 1990, Benmamoun 1992 and Aoun, Benmamoun, Sportiche 1992; see also Borer 1983 for relevant discussions concerning the interaction of ECP and doubling). As such, the doubled element can be raised and adjoined to the VP in (50b).

(10) In Iatridou (1991), the predicate in clitic-left-dislocated constructions is characterized as the minimal maximal projection containing the predicate variable. Our characterization of the predicate as minimal complete functional complex containing the predicate variable is necessary in order to account for the disjointness effect between the doubled element and the clitic-pro.

- (50) a. shift [NP [NP kteebo]] lakariim] mbeeriH
 sawlp book-his to K. yesterday
 'I saw Kariim's book yesterday'
- b. shift [NP [NP kteebo] t_i] mbeeriH lakariim_i
 'I saw Kariim's book yesterday'

In this respect, doubled adnominals differ from their non-doubled counterparts which cannot be separated from the nominal head selecting them (50d). Nouns, and prepositions for this matter, are not lexical governors (see Kayne 1984 and Chomsky 1981). In sentence (50d) the empty category left by the extraction of the complement would not be properly governed, thus violating the Empty Category Principle:

- (50) c. shift [NP kteeb Kariim] mbeerih
 book K.
 'I saw Kariim's book yesterday'
- d. *shift [NP kteeb t_i] mbeeriH Kariim_i
 book yesterday K.

The same analysis accounts for the difference between doubled prepositional objects and non-doubled ones: the former, but not the latter can be separated from the prepositional head as illustrated in the pair (45b) and (29b) repeated below:

- (45) b. sh@ft Hayye Haddo la kariim mbeeriH
 saw2ps near-him to K. yesterday
 'you saw a snake near K. yesterday'
- (29) b. *sh@ft Hayye Hadd mbeerih Kariim
 saw2ps near yesterday K.

Section 7. Other accounts of doubling

We are now in a position to briefly discuss various accounts of doubled elements put forward in the relevant literature. These accounts essentially can be regrouped into two main classes. The first assumes that doubled elements are generated in the same argument position in which standard complements are generated (see Jaeggli 1982, Borer 1983 among many others). An interesting variant assumes that doubled elements are generated in the regular complement position (DP*) and are then raised to the Specifier position (DP[^]) of the clitic which is treated as a head (see Franco 1991, Sportiche 1992). In this approach, clitic doubled constructions differ from non-doubled constructions in that DP* is overt in the first ones and covert in the second ones (see Sportiche 1992):

- (51) [DP[^] [[clit.]... DP*]]

The second assumes that doubled elements occupies the position of right-dislocated phrases (Hurtado 1984). For the sake of completeness, let me mention that a hybrid proposal is put forward in Aoun (1981) where it is argued that some doubled elements are to be treated as arguments and some are not even though the exact

position of non-argument doubled elements is not made explicit. In this paper, I am not in a position to discuss the cross-linguistic adequacy of each account. The behavior of doubled elements across various languages is not uniform. For instance, a reflexive anaphor can be doubled in various Romance languages (see the above mentioned references). This is not the case in LA as we mentioned earlier (see example 16). It may very well be the case that the various proposals, ultimately, will turn out to be necessary to account for the differences between doubled elements across languages.

My purpose is to review the various proposals in the light of the working of doubled elements in LA. I will investigate the adequacy of the various proposals for LA. I will discuss three alternative analyses for doubled elements in LA:

i) the doubled element in LA is generated in argument position (DP* in 51) and stays in this position in Syntax,

ii) the doubled element in LA is generated in argument position (DP[^] in 51) and then is overtly moved to the Specifier position of the clitic (DP[^] in 51). This possibility is the one explicitly assumed in Sportiche (1992) for LA.

iii) the doubled element is directly generated in the Specifier of the clitic (DP[^] in 51) in Syntax.

The major problem all three analyses face in LA is the problem of disjointness between the doubled element and the pronominal clitic-pro sequence. As mentioned in the previous section, the doubled element can only attach to the minimal complete functional complex dominating the clitic. This accounted for the fact that doubled elements can form a constituent and be pied-piped only with phrases that form an opaque domain. In particular, this accounted for the contrast between sentences (44a-b) and sentences (46a-b) repeated below:

- (44) a. *9anno la kariim Hkiit
 about-him to K. spoke2pms
 'about Kariim you spoke'
- b. *9anno la ?ayya walad Hkiit
 about-him to which boy spoke2pms
 'about which boy did you speak'
- (46) a. Haddo la kariim sh@ft Hayye mbeeriH
 near-him to K.
 'Near Kariim you saw a snake yesterday'
- b. Haddo la ?ayya walad sh@ft Hayye mbeeriH
 near-him to which boy.
 'Near which boy did you see a snake yesterday?'

Such contrasts are problematic for analysis (i) which assumes that doubled arguments are in the regular complement position. The problem is compounded by the fact that a regular non-doubled complement corresponding to (44a-b) forms a constituent with the preposition and can be piedpiped along with the preposition as illustrated in (52a-b). It is not clear how to account for the difference between (44a-b) and (52a-b) in case analysis (i) is adopted.

- (52) a. 9ann Kariim Hkiit
 about K. spoke2pms
 'about Kariim you spoke'
- b. 9ann ?ayya walad Hkiit
 about which boy spoke2pms
 'about which boy did you speak?'

This analysis also faces the problem of accounting for the difference in scope between doubled and non-doubled quantifier in sentences such as (18-20) repeated below: the doubled element in (20) contrary to its non-doubled counterpart in (18) can have wide scope:

- (17) b. shifta la suurit waladeen (min halwleed)
 sawlps-it to picture
 'I saw a picture of two (of these) boys'
- (20) shifta la suuritun (mbbeeriH) la waladeen (min hal wleed)
 to picture-them (yesterday) to boy (dual)
 'I saw a picture of two (of these) boys'

Similarly, it is not clear how to account for the contrast between sentences (44) and (46) in case analyses (ii) and (iii) are adopted. Why is it possible to piedpipe a doubled element with the prepositional phrase in (46), but not with the one in (44)? Furthermore, in a sentence such as (38) repeated below, the noun phrase occurs in the Specifier of the Q and enters into Spec-head agreement with this Q (as argued in Benmamoun 1992 and Schlonsky 1991, see also Sportiche 1992, Koopman 1991 and footnote 5); this accounts for the occurrence of the agreeing clitic. Notice that this noun phrase does not enter into disjointness with the agreeing clitic. In other words, a non-doubled nominal element occurring in the specifier of the Q+clitic complex does not enter into disjointness with the clitic whereas a doubled element does enter into such disjointness. It is difficult to account for this distinction if analyses (ii) and (iii) are adopted.

- (38) shift [Qp lw@leed [Q' kullun]]
 the boys all-them
 'I saw all the boys'

We saw that clitics in LA are best analyzed as agreement markers. This being the case, it is difficult to assume that an agreement marker enters into disjointness with the element it agrees with. In this respect, other instances of agreement, such as the agreement between the subject and the verb in LA, are not subject to disjointness (see Aoun, Benmamoun, Sportiche 1992). On the other hand, the existence of a disjointness effect between the doubled element is expected if a (non-overt) pronominal, *pro* is involved, i.e. if a doubled element is coindexed with a non-overt pronominal. Finally, assuming with Sportiche (1992), that a non-overt pronominal, *pro*, ends up in the Specifier of the agreement/clitic amounts to saying that this *pro*, and not the doubled element as analyses (ii-iii) assume, is in the specifier of the agreement/clitic.

Section 8. Conclusion

Let us recapitulate the main features of the analysis advocated so far:

Analysis

-The doubled element is to be analyzed as a subject in a predication relation holding between the doubled element and the minimal complete functional complex containing the clitic-pro. In this predication relation, the clitic-pro plays the role of predicate-variable.

-A standard disjointness effect exists between the doubled element and the pronominal predicate variable coindexed with it.

This analysis accounts for the following descriptive generalizations:

Generalizations

i) the doubled element is not generated in the argument position selected by the head to which the clitic is attached.

ii) the doubled element is generated in a position higher than this argument position.

iii) a non-overt pronominal, pro, fills this argument position.

iv) the doubled element is obligatorily coindexed with the clitic-pro complex.

v) the doubled element can form a constituent with the minimal phrase containing the clitic-pro only if this phrase constitutes a complete functional complex.

vi) a doubled element can be separated from the NP or PP to which it is attached whereas a corresponding non-doubled argument cannot be so separated.

vii) the relation between the doubled element and the clitic-pro complex is local.

As stated in the introduction, these constructions are of interest in that they open a window on the formation of arguments and argument-structures and thus allow us to better understand how some argument-relations are formed and how they get to be syntactically projected. Doubling in LA is used to form new functional structures. It is to be viewed as a means to create non-standard argument-relations, to superimpose new functional structures on conventional ones.¹¹

(11) In this respect, doubling is similar to the process of clitic-left-dislocation (see Cinque 1990, Iatridou 1991, Demirdache 1991). It is to be added to the list of mechanisms grammars use to create new arguments such as benefactive dative constructions, benefactive applicative constructions, etc... (see Borer and Grodzky 1986, Baker 1988, Marantz 1992, see also Vergnaud and Zubizarreta 1992 for relevant discussions concerning the projection for argument-structures). It is interesting to note in this connection that doubled elements like benefactive datives, are marked datives. This may be taken to suggest that dative is a way to mark the occurrence of non-conventional subjects. That is along the lines of Kayne (1984) and of Aoun and Li (1989), who develop a variant of Larson (1988), it seems that datives are to be analyzed as secondary-subjects and conventional subjects of clauses as 'major' subjects. In this approach the doubled element would be generated as specifier and the minimal complete functional complex (XP₀) containing the predicate variable as predicate. Specifiers in LA are usually to the left of the predicate. This being the case, the doubled element would be generated to the left of XP₀ as in (i). Subsequently, either the Spec would be postposed or XP₀ would be fronted to ensure the proper surface order:



Needless to say that these remarks are speculative at this point.

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