

NEW FACTS FROM FONGBE ON THE DOUBLE OBJECT CONSTRUCTIONS

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0. Introduction

The analysis of the double object construction (NP NP) raises several important theoretical issues. What is the parameter which allows the construction in some grammars and not others? What are the semantic properties of the construction with respect to those of the double complement construction (NP PP)? How are double object constructions derived? What is the role of dominance/precedence in the account of the Theme/Goal asymmetries exhibited by the construction? The particular data of Fon (a West African language of the Kwa family spoken mainly in Benin) leads to a clarification of these issues.

The Fon grammar presents a quite interesting cluster of phenomena with respect to issues related to the double object construction. First, Kayne (1984) proposes that a language which has double object constructions will also allow P-stranding. While Fon has double object constructions, P-stranding is impossible. Johnson (1991) and Tremblay (1991) propose that a language which allows double object constructions will also have a possessor phrase marked for structural genitive Case in nominal phrases (e.g. 's in English). The Fon data do support this correlation (section 1).

Second, the Fon double object construction exhibits two surface word orders: the word order Goal/Theme as in (1) and the word order Theme/Goal as in (2) ¹.

- (1) a. Kòkú ná Àsíbá àsón. Goal/Theme
 Koku give Asiba crab
 'Koku gave Asiba (some) crab.'
- b. Kòkú xéílé Àsíbá xwé ó.
 Koku show Asiba house DET
 'Koku showed Asiba the house.'
- c. Kòkú kplón Àsíbá flànségbé.
 Koku teach Asiba French
 'Koku taught Asiba French.'
- (2) a. Kòkú ná àsón Àsíbá. Theme/Goal
 Koku give crab Asiba
 'Koku gave Asiba (some) crab.'
- b. Kòkú xéílé xwé ó Àsíbá.
 Koku show house DET Asiba
 'Koku showed Asiba the house.'
- c. Kòkú kplón flànségbé Àsíbá.
 Koku teach French Asiba
 'Koku taught Asiba French.'

Tests show that the two word orders do not involve a difference in meaning. With both word orders, there is a possession relationship between the Theme and the Goal of the construction. With both word orders the Goal (of possession) is an affected argument (section 2.1). Both word orders constitute an instantiation of the double object construction (NP NP). The alternation in word order is thus purely syntactic.

Third, the Fon double object construction manifests the same Theme/Goal asymmetries as in English (cf. Barss and Lasnik, 1986). There is a debate in the literature

as to whether these should be accounted for in terms of dominance (e.g. Larson, 1988; 1990; Aoun and Li, 1989; den Dikken, 1991)) or precedence (e.g. Barss and Lasnik, 1986; Jackendoff, 1990; Tremblay, 1991). The two surface word orders of the Fon double object construction provide data which lead to a clarification of this issue. Data involving binding of a pronoun by a quantifier and *each...the other* asymmetries show that in double object constructions, the Goal must asymmetrically c-command the Theme: word order is irrelevant in these cases. Data pertaining to binding of a reflexive, however, show that precedence must also play a role in the account of this asymmetry. This sets the binding facts apart from the others (section 2.2.).

Fourth, Fon is a verb serializing language. Verbs which enter in the double object construction also participate in the serial verb construction. An example is given in (3).

- (3) Kòkú sɔ asón ɔ ná Àsíbá
 Koku take crab DET give Asiba
 'Koku gave the crab to Asiba' (from Lefebvre, 1992: 39)

This construction shares semantic properties with the double complement construction in English (NP PP). In Fon as well as in English, the Goal of the construction is interpreted as a Goal of Location (rather than as a Goal of Possession) and the Theme (rather than the Goal) is the affected object of the construction (section 3.1). Furthermore, the serial verb construction exhibits the same Theme/Goal asymmetries as those exhibited by the double complement construction in English (section 3.2). It is argued that the serial verb construction is, so to speak, the double complement construction of Fon.

Fifth, there is a debate in the literature as to whether there is a transformational relationship between the double object construction and the double complement construction. In Fon, for any one verb, there can be only two overtly realized arguments. PPs never occur in an argument position in this language. There are thus no double

complements of the type NP PP in Fon. Hence the postulation that there is a transformational relationship between the double object and the double complement constructions is not born out by the Fon data.(section 4.1).

As was mentioned above, the serial verb construction of Fon shares semantic and syntactic properties with the double complement construction of English. A series of facts argue against a transformational relationship between the double object and the serial verb constructions. *A.* In each construction, the two NPs have different D-Structure positions: in the double object construction, the Goal c-commands the Theme, while in the serial verb construction, the Theme c-commands the Goal. *B.* The aspectual properties of the Goal (which are established at D-Structure, cf. Tenny, 1987) are different in the two constructions: in the double object construction, the Goal is the affected argument while in the serial verb construction the Theme is. *C.* While the Theme can be pronominalized in serial verb construction it cannot be pronominalized in the double object construction (section 4.2).

Sixth, the double object construction in (1) and (2) exhibits three overtly realized 'arguments'. This construction appears to be the sole exception to the general pattern of Fon according to which, for any one verb, there can be only two overtly realized arguments (section 3.3; 4.1). The hypothesis that verbs entering in the double object construction take a small clause complement in which the Goal and the Theme are in a predication relationship completes the generalization: for all Fon verbs there can be only two overtly realized arguments.

Independent evidence shows that the small clause of the double object construction has the inner structure of nominal structures in the language. On this analysis, the word order in (2) parallels the word order possessed/possessor in nominal structures. It is argued that the word order in (1) is obtained by movement of the Goal to Spec of DP. The distribution of weak pronouns shows that with both word orders, the Goal is being

assigned structural Case by the verb. This is in line with the fact that with both word orders, the Goal is the affected argument. (section 5). The striking parallel between the inner structure of the small clause of the Fon double object construction and of the inner structure of nominal structures in this language, brings independent and additional support to Johnson's (1991) claim that double object constructions are DPs.

Seventh, since there is no transformational relationship between the double object and the double complement/serial verb constructions, the two constructions have to be generated independently. It is argued that verbs entering in the double object as well as in the serial verb constructions have a unique semantic representation. This unique semantic representation is mapped onto two different syntactic structures thus allowing for the two possible derivations (section 6).

The range of verbs participating in the double object construction varies from language to language. On what basis is the list of verbs participating in the double object construction established? The Fon data show that if a possession relationship must hold between the Theme and the Goal of the construction, it is not a sufficient condition. It is argued that verbs participating in the double object construction must also have the appropriate Case specification (section 7).

The last section of the paper is dedicated to the discussion of the consequences of the analysis for a theory of acquisition (section 8).

1. Parameters

Kayne (1984) proposes that a language which has double object constructions will also have P-stranding. Johnson (1991) and Tremblay (1991) propose that a language which allows double object constructions will also have a possessor phrase marked for structural genitive Case in nominal phrases. In this section, I discuss these two proposals in light of the Fon data.

1.1. Availability of double object and of preposition stranding

The general proposal advocated in Kayne (1984) is that the availability of double object constructions in a given language correlates with the availability of preposition stranding in that language (e.g. English). Hence, French does not have dative shift for the same reason that it does not have preposition stranding. The two constructions have in common the Case assigning properties of verbs and prepositions. In English, the preposition *to*, for example, has the property of assigning objective Case, the Case normally assigned by a verb to its direct object. In French, while the verb assigns objective Case to its direct object, the preposition *à* 'to' assigns dative Case.

The correlation proposed by Kayne is not born out by the Fon data. While the double object construction is available, in this language, preposition stranding is not. (See also Zhang, 1990, for similar facts drawn from Chinese). In (4b) the preposition *nú* which translates as 'to/for' has been stranded and the resulting sentence is not grammatical.²

- (4) a. Kòkú sà àsón nú Àsíbá.
 Koku sell crab to Asiba
 'Koku sold crab to Asiba.'
- b. * Mě/Àsíbá wè Kòkú sà àsón nú.
 who/ Asiba FO Koku sell crab to
 'It is who/Asiba that Koku sold crab to.'

Moreover, in Fon, both the NP governed by the preposition *nú* and the NP governed by a verb, are being assigned structural [+objective] Case. This data is directly accessible in pronouns. For example, the third person weak pronoun bears a low tone ([+objective] Case) when it is governed either by a verb as in (5) or by the preposition *nú* 'to/for' as in (6).

- (5) a. Kòkú mɔ è.
 Koku see 3RD
 'Koku saw her/him/it.'
- b. Kòkú zón è.
 Koku order 3RD
 'Koku ordered her/him (a book).'
 or 'Koku ordered it.'
- (6) Kòkú zón wèmá ɔ nú è.
 Koku order book DET for 3RD
 'Koku ordered the book for her/him.'

In contrast, the third person pronoun bears a high tone ([-objective] Case) in other contexts. In (7a) the pronoun is in SpecIP (a [-objective] Case context) and in (7b) it is in SpecKP (cf. Lamontagne and Travis, 1992) headed by the Case marker *jí* (another [-objective] Case context).

- (7) a. É yì.
 3RD go
 '(S)he left.'
- b. Wèmá ɔ dɔ é jí.
 book the at it on
 'The book is on it.'

The fact that both the verb and the preposition *nú* assign structural [+objective] Case to their object creates a situation which is much like English (in contrast with French). Consequently, Kayne's proposal predicts that Fon should allow preposition stranding as well as double object constructions, but it does not.

1.2. Availability of double object and of Genitive Case in nominal structures

Johnson (1991) and Tremblay (1991) propose a direct correlation between the availability of double object constructions and the availability of structural genitive Case (e.g. 's in English) in nominal structures. Hence, the double object construction as in (8) is available in a given grammar because structural Genitive Case as in (9) is available in the nominal structure of that same grammar.

(8) John gave Mary a book.

(9) Mary's book

The motivation for this proposal is the claim that the two NPs involved in the double object construction are in a possession relationship which parallels the possession relationship observed in nominal structures between the possessed and the possessor marked for Genitive Case.

This parameter is born out by the Fon data. In Fon nominal structures, Genitive Case is available as shown in (10). Note, however, that the KP (cf. Lamontagne and Travis, 1992) headed by the Genitive Case marker in Fon appears to the right of the head of the construction. In Fon nominal structures, the complement occurs to the left, and the specifier to the right of the head noun (cf. Brousseau and Lumsden, 1992; for a detailed discussion of the nominal structure of Fongbe, see section 5).

(10) wèmá Kòkú tòn
book Koku GEN
'Koku's book'

Thus in Fon nominal structures, the possessor is marked for Genitive Case and the double object construction is available. At first glance, then, the Fon data appear to support the

parameter proposed in Johnson (1991) and in Tremblay (1991). The Fon data presented in the remainder of this paper strongly support this correlation.

2. The double object construction in English and in Fon

In this section, I argue that the two word orders exhibited by the Fon double construction (cf. (1) and (2)) are in fact two instantiations of the construction. With both word orders, the Fon double object construction shares the properties of the double object construction of English. In the literature it has been argued that the double object construction in English involves possession and that the Goal is the affected argument of the construction. I argue that in Fon, both word orders involve possession and that the Goal is the affected argument of the construction regardless of whether the Goal precedes or follows the Theme. Since the article in Barss and Lasnik (1986), it is a well known fact that the English double object construction exhibits Theme/Goal asymmetries. I show that with both word orders, the Fon double object construction presents the same asymmetries as the double object construction of English. Since with both word orders we find the same semantic properties and the same syntactic asymmetries as those found in the double object construction of English, I conclude that both word orders constitute an instantiation of the double object construction. The alternation in word order exhibited by the Fon double object construction must be purely syntactic. Hence, one of the two surface positions for the Goal will be a derived position.

2.1. Semantics

2.1.1. Possession

In the literature on Dative Shift in English, it has long been observed that while double object constructions (NP NP) involve possession, double complement constructions (NP PP) involve location (cf. Greene, 1974; Oehrle, 1976; Grimshaw, 1989;

Pinker, 1989; Johnson, 1991; Tremblay, 1991, etc.). Hence, in the double object construction, the Goal is interpreted as a Goal of Possession (cf. Tremblay, 1991) or Recipient (cf. Pinker, 1989), and in the double complement construction, the Goal is interpreted as a Goal of Location. This interpretive difference determines the semantic relationship between the Theme and the Goal in the two constructions: in the former, a possession relationship between the two arguments is involved, while in the latter, a locative relationship is involved. In this section I summarize the facts which led to establishing the semantic distinction between the two constructions.³ I will use the noted differences as a tool in arguing that, with both word orders, the Fon data parallel the semantics of the double object construction of English: with both word orders, possession (i.e. ownership) is involved.

While the Goal of the double object construction is interpreted as a Goal of Possession, the Goal of the double complement construction is interpreted as a Goal of Location. This semantic contrast is illustrated in (11) and (12). While (11a) entails that 'Mary has become the possessor of the book', (11b) does not (cf. Pinker, 1989; Johnson, 1991).

- (11) a. John gave Mary a book.
b. John gave a book to Mary.

Similarly, while (12a) entails that 'Mary has acquired at least some French', (12b) does not (cf. Greene, 1974; Pinker, 1989; Johnson, 1991).

- (12) a. Gary taught Mary French.
b. Gary taught French to Mary.

As has been pointed out by Pinker (1989:48), "possession need not be literal; [...] verbs of communication are treated as denoting the transfer of messages or stimuli which the

The facts in (17) support this claim. Although (17a) and (17b) are syntactically grammatical, they are not acceptable because they contain two contradictory semantic proposals: 'Asiba has become the possessor of the crab' and 'the crab is not her's'.

- (17) a. * Kòkú ná Àsíbá àsón vǔ àsón nyì Àsíbá tòn ǎ Goal/Theme
 Koku give Asiba crab but crab is Asiba GEN NEG
 'Koku gave Asiba (some) crab but the crab is not her's.'
- b. * Kòkú ná àsón Àsíbá vǔ àsón nyì Àsíbá tòn ǎ Theme/Goal
 Koku give crab Asiba but crab is Asiba GEN NEG
 'Koku gave Asiba (some) crab but the crab is not her's.'

Similarly, when we add the prepositional phrase *nú Sícá* 'for Sica' to the sentences in (16), the clause becomes uninterpretable: the prepositional phrase adds a possessor to the already possessed Theme.

- (18) a. * Kòkú ná Àsíbá àsón nú Sícá Goal/Theme
 Koku give Asiba crab for Sica
 'Koku gave Asiba (some) crab for Sica.'
- b. * Kòkú ná àsón Àsíbá nú Sícá Theme/Goal
 Koku give crab Asiba for Sica
 'Koku gave Asiba (some) crab for Sica.'

When we consider the verb *kplón* 'teach', we find similar facts. Both (19a) and (19b) entail that 'Asiba has acquired some French'.

- (19) a. Kòkú kplón Àsíbá fìànségbé.
 Koku teach Asiba French
 'Koku taught Asiba French.'

- b. Kòkú kplón flànségbé Àsfbá.
 Koku teach French Asiba
 'Koku taught Asiba French.'

The sentences in (20) support this claim. Although (20a) and (20b) are syntactically grammatical, they are not acceptable because they contain two contradictory semantic proposals: 'Asiba has learned some French' and 'she has not learned any of it'.

- (20) a. ? Kòkú kplón Àsfbá flànségbé vǝ é kplón dè sín é mè ǻ Goal/Theme
 Koku teach Asiba French but she learn any of it in NEG
 'Koku taught Asiba French but she did not learn any of it.'
- b. ? Kòkú kplón flànségbé Àsfbá vǝ é kplón dè sín é mè ǻ Theme/Goal
 Koku teach French Asiba but she learn any of it in NEG
 'Koku taught Asiba French but she did not learn any of it.'

The data in (16)-(20) show that with both word orders, the Goal of the construction is interpreted as a possessor. This predicts correctly that with both word orders, the Goal must be a possible possessor.⁴ (21a) and (21b), which parallel the English sentence (15a), are bad because the city of 'Cotonou' is not a possible possessor.

- (21) a. * Kòkú ná Kútónù àkwé Goal/Theme
 Koku give Cotonou money
 'Koku gave Cotonou money.'
- b. * Kòkú ná àkwé Kútónù Theme/Goal
 Koku give money Cotonou
 'Koku gave Cotonou money.'

The fact that the Goal must be a possible possessor is a necessary but not a sufficient condition for the double object construction to be licit. It has been argued in the literature that the Goal of the double object construction must be a possible possessor for a

specific Theme (cf. Greene, 1974; Oehrle, 1976; Mazurkewich and White, 1984; Pinker, 1989; Johnson, 1991; Tremblay, 1991). The following example is taken from Tremblay (1991). (22a) shows that the NP 'a new government' can enter in the double object construction: it can be possessed. (22b) shows that 'Mary' can be a possible possessor. (22c) is bad because 'Mary' is not a possible possessor for the specific object 'the new government'.

- (22) a. The revolution gave Romania a new government.
 b. The revolution gave Mary a new status.
 c. ?* The revolution gave Mary a new government.

Furthermore, the possession relationship that holds between the Theme and the Goal of the construction parallels the possession relationship that exists between a noun and its possessor marked for Genitive Case in nominal structures. The grammaticality judgements on the nominal structures in (23) parallel the grammaticality judgements on the sentences in (22). Hence, (22a and b) are good for the same reason that (23a and b) are, and (22c) is bad for the same reason that (23c) is bad.

- (23) a. Romania's new government
 b. Mary's new status
 c. * Mary's new government

Compare the Fon data in (24) with the English data in (22). With both word orders, the Fon data parallel exactly the English double object construction facts. The sentences in (24a) and (b) show, respectively, that the NP 'the Fons' can be possessed and that the NP 'Kòkú' is a possible possessor. The sentences in (24c) are ungrammatical because 'Kòkú' is not a possible possessor for the specific object 'the new government'.

- (24) a. Hùzùhúzú ́ ná fɔn léé àcèkpíkpa. Goal/Theme
 change DET give Fon PL government
 'The revolution gave the Fons a government.'
- a'. Hùzùhúzú ́ ná àcèkpíkpa fɔn léé. Theme/Goal
 change DET give government Fon PL
 'The revolution gave the Fons a government.'
- b. Hùzùhúzú ́ ná Kòkú t́nmì. Goal/Theme
 change DET give Koku status
 'The revolution gave Koku status.'
- b'. Hùzùhúzú ́ ná t́nmì Kòkú. Theme/Goal
 change DET give status Koku
 'The revolution gave Koku status.'
- c. * Hùzùhúzú ́ ná Kòkú àcèkpíkpa Goal/Theme
 change DET give Koku government
 'The revolution gave Koku a government.'
- c'. * Hùzùhúzú ́ ná àcèkpíkpa Kòkú Theme/Goal
 change DET give government Koku
 'The revolution gave Koku a government.'

The semantic relationship that holds between the two NPs in the double object construction in (24) finds its parallel in nominal structures (cf. (25)) involving a possession relationship between two NPs. The grammaticality judgements on the sentences in (24) parallel the grammaticality judgements on the nominal structures in (25). With both word orders, the sentences in (24a) entail the possession relationship expressed by the nominal structure in (25a). Similarly, with both word orders, the sentences in (24b) entail the possession

- b. Kòkú ná àsón Àsíbá. Theme/Goal
 Koku give crab Asiba
 'Koku gave Asiba (some) crab.'
- (27) a. àsón Àsíbá tòn
 crab Asiba GEN
 'Asiba's crab'
- b. Àsón húzú Àsíbá tòn.
 crab become Asiba GEN
 'The crab has become Asiba's.'
- c. Àsón nyì Àsíbá tòn.
 crab is Asiba GEN
 'The crab is Asiba's.'

Similarly, the two word orders in (28) entail the possessive relationship expressed in (29).

- (28) a. Kòkú kplón Àsíbá flànségbé. Goal/Theme
 Koku teach Asiba French
 'Koku taught Asiba French.'
- b. Kòkú kplón flànségbé Àsíbá. Theme/Goal
 Koku teach French Asiba
 'Koku taught Asiba French.'
- (29) Flànségbé Àsíbá tòn (mè).
 French Asiba GEN (good)
 'Asiba's French (is good).'

The correlation between the possession relationship that holds between the two NPs in the double object construction and the possessive relationship that holds between the

possessed and the possessor marked for genitive Case in nominal structures is further supported by facts involving verbs which do not enter in the double object construction. The verbs *sà* 'sell' and *nyà* 'loan' are such verbs. (30a) shows that a Theme and a Goal, realized as a PP, may occur with the verb *sà* 'sell'. The sentence in (30b) shows that *sà* 'sell' does not enter in the double object construction. The nominal structure in (30c) containing a Genitive phrase is not possible in relationship with (30a).

- (30) a. Kòkú sà àsón nú Àsíbá.
 Koku sell crab to Asiba
 'Koku sold crab to Asiba.'
- b. * Kòkú sà àsón Àsíbá/ Àsíbá àsón
 Koku sell crab Asiba/ Asiba crab
 'Koku sold Asiba some crab.'
- c. * àsón Àsíbá tòn
 crab Asiba GEN
 'Asiba's crab'

The data in (31) show parallel facts for the verb *nyà* 'loan'.

- (31) a. Kòkú nyà àkwé nú Àsíbá.
 Koku loan money to Asiba
 'Koku loaned money to Asiba.'
- b. * Kòkú nyà àkwé Àsíbá/ Àsíbá àkwé
 Koku loan money Asiba/ Asiba money
 'Koku loaned Asiba some money.'
- c. * àkwé Àsíbá tòn
 money Asiba GEN
 'Asiba's money'

The fact that verbs such as *sà* 'sell' and *nyà* 'loan' do not participate in the double object construction as is illustrated by the ungrammaticality of the (b) sentences in (30) and (31) respectively, and the fact that in exactly these cases the nominal structure involving a relationship between a possessed and a possessor marked for Genitive Case is also impossible, as is shown in the (c) examples, further supports the claim that these two constructions are semantically related.

The data discussed in this section show that in Fon, as well as in English, there must be a possession relationship that holds between the Theme and the Goal of the double object construction. This possession relationship parallels the possessive relationship that holds between a noun and its possessor marked for genitive Case in nominal structures. This relationship holds for both word orders and hence both word orders in Fon constitute an instantiation of the double object construction.⁵ This will become even more evident when we compare the data discussed in this section with Fon data comparable to the English double complement constructions (cf. section 3). The fact that in both of its surface positions, the Goal is being interpreted as a Goal of possession argues for the claim that the alternation in word order is purely syntactic. Hence, one of the two surface positions of the Goal must be a derived position.

2.1.2. Affectedness

Another semantic characteristic of the double object construction has to do with affectedness. While the Theme is generally the affected argument of a verb of change ⁶, in double object constructions, it is the Goal which is the affected object. In Pinker's (1989:212) terms, the Goal (or Recipient) is the argument which is being 'acted on'. The fact that we interpret a sentence like *John taught Mary English* as meaning that *Mary has learned (at least) some French* shows that the Recipient of the construction, that is 'Mary', is affected. Furthermore, the contrast in grammaticality between (32a) and (32b) (from

Pinker, 1989:212) shows that the Recipient is the affected argument of the double object construction.

- (32) a. What John did to Bill was give him a book.
 b. ? What John did to Bill was give a book to him

Being the affected argument of the construction, the Recipient is also the patient of the construction. Since patienthood and passivization are linked, the claim that the Goal is the affected argument of the double object construction can be tested with the passive construction. In passive constructions corresponding to double object constructions, it is the Goal (not the Theme), which occurs in subject position, as shown in (33b). Although (33c) is syntactically grammatical, it does not semantically correspond to (33a).

- (33) a. John gave Mary a book.
 b. Mary was given a book by John.
 c. * A book was given to Mary by John

Tenny (1987) further argues that in the double object construction the Goal presents the canonical aspectual properties of a direct argument. First, being the affected argument of the construction, the Goal delimits the event denoted by the verb in the sense that it imposes an end point to that event. In (33a) 'Mary' delimits the event of giving. Second, like direct arguments, the Goal is assigned structural accusative Case by the verb. The latter property is directly accessible in languages which have morphological Case markers such as Quechua. In Quechua double object constructions the Goal is marked for accusative Case *-ta* while in the double complement construction it is marked for dative Case *-man*. (cf. Lefebvre and Muysken, 1988).

In the Fon double object construction, the Goal is the affected argument with both word orders. The argument supporting this claim comes from the distribution of the event determiner in this language.⁷ Fon presents a class of event determiners, among which *ɔ*

which signals known information (cf. Lefebvre, 1992). The presence of this determiner within the clause correlates with the property [+specific] either of the subject of the clause or of the affected argument which delimits (in the sense of Tenny, 1987) the event denoted by the verb. The sentence in (34) provides an example in which the presence of the event determiner within the clause correlates with the property [+specific] of the affected argument which delimits the event denoted by the verb.⁸ (In the examples below, the affected argument is underlined and the event determiner appears in bold). In (34) the affected argument delimits the event denoted by the verb, in that it imposes an end point to that event: when the car has been destroyed, the event of destroying it is over.

- (34) Súnù ǫ́é gbà mótò ǫ́ ǫ́.
 man a destroy car DET DET
 'A man destroyed the car (known information: the car would be destroyed).'

In (35) the affected argument is [-specific] and the event determiner is not permitted.

- (35) * Súnù ǫ́é gbà mótò ǫ́é ǫ́
 man a destroy a car a DET
 [Litt.: 'A man destroyed a car (known information: a car would be
 destroyed).']

In (36) the object is not affected by virtue of the semantics of the verb.⁹ It does not delimit the event denoted by the verb. The event determiner is not permitted in this context.

- (36) a. * Súnù ǫ́é mó mótò ǫ́ ǫ́
 man a see car DET DET
 [Litt.: 'A man saw the car (known information: the car would be seen).']

- b. * Súnù dẹ sẹ flánsègbé 5
 man a understand French DET
 [Litt.: 'A man understood French (known information: French would be understood).']

The facts in (34), (35) and (36) show that the presence of the event determiner within the clause correlates with the property [+specific] of the affected object which delimits the event denoted by the verb.

Given the distribution of the event determiner described above, we expect that in the context of the double object construction, the presence of the event determiner will correlate with the property [+specific] of the affected object of the construction, that is with the property [+specific] of the Goal. With both word orders, when the Goal is [-specific], the event determiner is not permitted even if the Theme is [+specific].

- (37) a. * Súnù dẹ ná àsón dẹ/5 vĩ dẹ 5
 man a give crab a/the child a DET
 [Litt.: 'A man gave a child a/the crab (known information: a/the crab would be given to a child).']
- b. * Súnù dẹ ná vĩ dẹ àsón dẹ/5 5
 man a give child a crab a/the DET
 [Litt.: 'A man gave a child a/the crab (known information: a child would be given a/the crab).']

In contrast, with both orders, when the Goal is [+specific], the event determiner is permitted.

- (38) a. Súnù dḗ ná àsón dḗ/ó vĩ ó ó.
 man a give crab a/the child DET DET
 'A man gave the child a crab (known information: somebody would give the child a/the crab).'
- b. Súnù dḗ ná vĩ ó àsón dḗ/ó ó.
 man a give child DET crab a/the DET
 'A man gave the child a crab (Known information: the child would be given a/the crab).' ¹⁰

The fact that the event determiner correlates with the property [+specific] of the affected object, together with the fact that it can appear only in the context of a [+specific] Goal (regardless of the order of arguments) in the double object construction, provides strong evidence for the claim that, with both word orders, the Goal is the affected argument of the construction. This is further supported by the argument in section 5.6 that the Goal of the construction is being assigned structural Case by the verb in both of its surface positions.

The fact that with both word orders the Goal is the affected argument of the construction further supports the claim that both word orders constitute an instantiation of the double object construction. Furthermore, it supports the claim that the alternation in word order exhibited by the construction is purely syntactic.

2.2. Asymmetries

Double object constructions in English exhibit several Theme/Goal asymmetries (cf. Barss and Lasnik, 1986). In this section I show that with both word orders the double object construction of Fon exhibits the same Theme/Goal asymmetries as in English. This argues for the fact that both word orders constitute an instantiation of the double object construction.

The asymmetries discussed in Barss and Lasnik (1986) are widely attributed in the literature to the dominance relationship that holds between the Goal and the Theme in the construction. On this view, the Goal asymmetrically c-commands the Theme (e.g. Larson, 1988, 1990). Barss and Lasnik (see also Jackendoff, 1990 and Tremblay, 1991), suggest that the Theme/Goal asymmetries might be accounted for by a precedence relationship. On this view, the Goal and the Theme of the construction may symmetrically c-command each other and the requirement that the Goal precede the Theme accounts for the asymmetries. This proposal is captured in their definition of *domain of*.

(39) Y is in the domain of X iff X c-commands Y and X precedes Y.

(Barss and Lasnik, 1986:352)

In English, the double object construction allows for only one word order: the Goal always precedes the Theme. This fact creates a situation which makes it difficult to test the contribution of linear precedence to these asymmetries. In the Fon double object construction, however, the Goal can either precede or follow the Theme. Given the fact that the two word orders do not entail a difference in meaning (as was argued in section 2.1.), Fon offers a most interesting set of data with respect to the debate on dominance versus precedence.

I begin with the discussion of **Binding** facts involving a reflexive. Consider the facts from English in (40).

- (40) a. I showed Mary herself.
b. * I showed herself Mary

On Larson's account, (40b) is bad because the reflexive is not hierarchically c-commanded by its antecedent. On Barss and Lasnik account, (40b) is bad because the antecedent does not precede the pronoun it binds. In Fon, although in other contexts, both word orders are

possible (cf. (1) and (2)), the only word order available in this case is the word order Goal/Theme as is shown in (41).

- (41) a. N xélé Àsíbá; éǰé t_i Goal/Theme
 I show Asiba herself
 'I showed Asiba herself.'
- b. * N xélé éǰé Àsíbá Theme/Goal
 I show herself Asiba
 'I showed Asiba herself.'

Since both the Goal/Theme and Theme/Goal word orders are otherwise permitted, (41b) can be ruled out on the basis of the fact that the antecedent does not precede the pronoun it binds at S-Structure. On the basis of this data, we might be led to the conclusion that the Fon data support the precedence account of the Theme/Goal asymmetries in the double object construction. The situation becomes more, complex however, when we look at data involving other asymmetries.

Consider the facts involving **Binding of a pronoun by a quantifier** as in (42).

- (42) a. I showed every_i man his_i picture.
 b. * I showed his_i picture every_i man

Under Larson's (1988) account, (42b) is bad because the NP containing the quantifier does not asymmetrically c-command the pronoun it binds. Under Barss and Lasnik's (1986) account, (42b) is bad because the NP containing the quantifier does not precede the pronoun it binds. The Fon data in (43) show that the Goal NP, containing the quantifier can either precede (43a) or follow (43b) the Theme NP containing the bound pronoun. Hence, precedence does not appear to play a role in the account of this asymmetry.

- (43) a. N xélé /ná mé d́́kpó d́́kpó; fótò tòn; Goal/Theme
 I show/give man every picture his
 'I showed/gave every man his picture.'
- b. N xélé /ná fótò tón; mé d́́kpó d́́kpó; Theme/Goal
 I show/give picture his man every
 'I showed/gave every man his picture.'

The grammaticality of the sentences in (43) contrasts with the ungrammaticality of the sentences in (44) in which the quantifier is part of the Theme NP and the bound pronoun is part of the Goal NP. The sentences are ungrammatical with both word orders.

- (44) a. * N xélé /ná fótò d́́kpó d́́kpó; fótò tòn; Theme/Goal
 I show /give picture every owner his
 'I showed/gave every picture to its owner.'
- b. * N xélé /ná fótò tòn; fótò d́́kpó d́́kpó; Goal/Theme
 I show/give owner his picture every
 'I showed/gave every picture to its owner.'

The contrast in grammaticality between the sentences in (43) and those in (44) argues that the two word orders in (43) are parallel to the double object construction of English (cf. (42a)). Furthermore, it shows that the ungrammaticality of the sentences in (44) cannot be attributed to precedence: both word orders are allowed when the quantifier is part of the Goal NP (cf. (43)), and both word orders are disallowed when the quantifier is part of the Theme NP (cf. (44)). The contrast in grammaticality between the sentences in (43) and those in (44) thus has to be attributed to an asymmetrical relationship between the Goal and the Theme of the construction. Regardless of word order, the sentences are grammatical only when the quantifier is contained within the Goal NP (cf. (43) versus (44)). Therefore, it is the Goal which must asymmetrically c-command the Theme. Since

the Goal can either precede or follow the Theme, this relationship must hold at S-structure. Thus in both of its surface positions, the Goal asymmetrically c-commands the Theme.

Data involving *each...the other* asymmetry show a similar pattern. Consider the English data in (45).

- (45) a. I showed each man the other's child.
 b. * I showed the other's child each man

Again, under Larson's account, (45b) is ungrammatical because the '*each*-phrase' does not asymmetrically c-command '*the other*- phrase'. On Barss and Lasnik account, (45b) is bad because the '*each*-phrase' does not precede '*the other*- phrase'. The data in (46) show that, in Fon, the Goal NP containing the *each*-phrase can either precede or follow the Theme. Hence, here again precedence does not appear to play a role in the account of this asymmetry.

- (46) a. N xélé mé d́ókópód́ókópó v́ m̀èd́íyó tòn. Goal/Theme
 I show man each child other GEN
 'I showed each man the other's child.'
 b. N xélé v́ m̀èd́íyó tòn mé d́ókópód́ókópó. Theme/Goal
 I show child other GEN man each
 'I showed each man the other's child.'

In contrast when the '*each*-phrase' is contained within the Theme NP and the '*other*-phrase' is contained within the Goal NP the sentence is ungrammatical with both word orders as shown in (47).

- (47) a. * N xélé v́ d́ókópód́ókópó m̀èd́íyó sín t́ó Theme/Goal
 I show child each other GEN father
 'I showed each child to the other's father.'

- b. * N xélé mèdǵyó sǵn tó vǵ dǵkpó dǵkpó Goal/Theme
 I show other GEN father child each
 'I showed each child to the other's father.'

The contrast in grammaticality between the sentences in (46) and those in (47) argues that the two word orders in (46) are parallel to the double object construction of English (cf. (45a)). Furthermore, it shows that the ungrammaticality of the sentences in (47) cannot be attributed to precedence. Both word orders are allowed when the quantifier is part of the Goal NP (cf. (46)) and both word orders are disallowed when the quantifier is part of the Theme NP (cf. (47)). Hence, the contrast in grammaticality between the sentences in (46) and those in (47) can only be attributed to an asymmetrical relationship between the Goal and the Theme of the construction. Regardless of word order the sentences are grammatical only when the '*each*-phrase' is contained within the Goal NP (cf. (46)). Therefore, the Goal must asymmetrically c-command the Theme. Since both word orders are possible this relationship must hold at S-Structure. Thus, in both of its surface positions, the Goal asymmetrically c-commands the Theme.

On the basis of the Fon data involving Binding of a pronoun by a quantifier and *each...the other* asymmetries, I conclude, first, that the two word orders exhibited in Fon parallel the double object construction in English, and, second, that an asymmetrical c-command relationship between the two NPs of the construction is required in an account of the Theme/Goal asymmetries exhibited by the construction: the Goal asymmetrically c-commands the Theme. Since an asymmetrical c-command relationship is required in the account of these two asymmetries, I will assume that this relationship is required in the account of all the other asymmetries, including the asymmetry involving the Binding facts in (41). In the latter case, precedence is also required since the Goal must precede the Theme at surface structure. This requirement sets Binding facts apart from the others.¹¹

Pending further research on binding facts in the language, I do not discuss this matter further.

I now turn to the discussion of the Theme/Goal asymmetries exhibiting Superiority Effects and Weak cross-over violations. In English, both the double object and the double complement constructions exhibit **Superiority Effects** (cf. (48) and (49) respectively).

(48) a. Who did you show what?

b. * What did you show who?

(49) a. * Whom did you show what to?

b. What did you show to who?

The asymmetrical c-command analysis (cf. Larson, 1988) can account in a unified way for the above facts. In the double object construction, if the Goal c-commands the Theme at D-Structure (but not vice-versa), the contrast in grammaticality between the sentences (48a) and (48b) is explained: (48b) is bad because the Wh-phrase (Theme) has moved over another Wh-phrase (Goal) that asymmetrically c-commands it in underlying representation. Similarly, in the double complement construction exhibited in (49), if the Theme asymmetrically c-commands the Goal (but not vice-versa), the contrast in grammaticality between the sentences in (49a) and (49b) is explained: (49a) is bad because the Wh-phrase (Goal) has moved over another Wh-phrase (Theme) that asymmetrically c-commands it in underlying representation.

In Fon, in unmarked contexts, it is possible to extract either the Goal or the Theme of the construction as shown in (50) and (51) respectively.

(50) a. Mě_i wè, Kòkú xélé xwé ́ t_i? QUESTION
 who FO Koku show house DET
 '(To) who(m) did Koku show the house?'

- b. Àsíbá_i wè, Kòkú xélé xwé ́ _i FOCUS
 Asiba FO Koku show house DET
 'It is (to) Asiba that Koku showed the house.'
- c. nyónú_i [dè Kòkú xélé xwé ́ _i] ́ RELATIVE CLAUSE
 woman that Koku show house DET DET
 'the woman (to) whom Koku showed the house'
- (51) a. Étè_i wè, Kòkú xélé _i Àsíbá? QUESTION
 what FO Koku show Asiba
 'What did Koku show Asiba?'
- b. Xwé ́_i wè, Kòkú xélé _i Àsíbá. FOCUS
 house DET FO Koku show Asiba
 'It is the house that Koku showed Asiba.'
- c. xwé_i [dè Kòkú xélé _i Àsíbá] ́ RELATIVE CLAUSE
 house that Koku show Asiba DET
 'the house that Koku showed Asiba'

Nonetheless, the Fon double object construction also exhibits Superiority Effects. The data in (52) show that, when both the Goal and the Theme of the construction are being questioned, only the Goal can be extracted.

- (52) a. Mě_i wè, ă xélé/ná éù _i?
 who FO you show/give what
 'Who did you show/give what?'
- b. * Éù_i wè, ă xélé/ná _i mē?
 what FO you show/give who
 * 'What did you show/give who?'

The facts in (52) parallel the possibility of extraction out of the double object construction in English (cf. (48)) and contrasts with the possibility of extraction out of the double complement construction in English (cf. (49)). Hence, they show that the Goal must c-command the Theme at D-Structure.

Both the double object and the double complement constructions in English exhibit **Weak cross-over asymmetries**.

(53) a. 'Which_i man did you show his_i picture?'

b. * 'Whose_i picture did you show his_i mother?'

(54) a. * Which_i man did you show his_i picture to?

b. Whose_i picture did you show to his_i mother?

The asymmetrical c-command analysis of Theme/Goal asymmetries can account for the data in (53) and (54) in a unified way. If the Goal asymmetrically c-commands the Theme (but not vice versa) in the double object construction, (53b) is bad because the Wh-phrase c-commanded at D-Structure by an NP containing a pronoun coreferential with the Wh- word has been moved over that NP. If the Theme c-commands the Goal (but not vice-versa) in the double complement construction, (54a) is bad because the Wh-phrase (Goal) has moved over another Wh-phrase (Theme) that c-commands it in underlying representation. As shown in (55), Fon also exhibits this Theme/Goal asymmetry.

(55) a. Mě_i wè ă xélé/ná fótò éḍè tón_i?

which-man FO you show/give picture himself his

'Which_i man did you show/give his_i picture?'

b. * Mě_i sín fótò wè ă xélé/ná nò tòn_i?

who of picture FO you show/give mother his

* 'Whose_i picture did you show/give his_i mother?'

Once again, the Fon data pattern with the English double object construction (cf. (53)), not with the English double complement construction: while it is possible to extract the Goal out of the construction, it is not possible to extract the Theme. The data show that the Goal must c-command the Theme at D-Structure.

The data discussed in this section show that in Fon, both word orders manifest the same Theme/Goal asymmetries as in the English double object construction ¹². This argues for the claim that both word orders constitute instantiations of the double object construction. On the basis of the fact that, when the quantifier is part of the Goal NP, both word orders are permitted in the context of 'Binding of a pronoun by a quantifier' and of '*each...the other*' asymmetries, and provided that in the same context both word orders are bad when the quantifier is part of the Theme NP, it has been argued that the Goal must asymmetrically c-command the Theme in the account of the asymmetries involved in the double object construction. Binding facts were shown to require precedence of the Goal in addition to the hierarchical relationship that holds between the two NPs.

2.3. Summary

The facts discussed in this section argue for the claim that the two word orders Goal/Theme and Theme/Goal exhibited in Fon constitute instantiations of the double object construction. First with both word orders, the Goal is interpreted as a Goal of possession. There is a possession relationship between the Theme and the Goal of the construction which parallels the possession relationship found between the possessed and the possessor marked for structural Genitive Case in nominal structures. Second, with both word orders, the Goal is the affected argument of the construction. Third, with both word orders, the facts involving Goal/Theme asymmetries parallel the facts exhibited by the double object construction in English (not those exhibited by the double complement construction). On the basis of this series of arguments, I conclude that the alternation in word order is purely

syntactic. On the basis of facts involving Theme/Goal asymmetries exhibited by the construction, I argued that the Goal must asymmetrically c-command the Theme, both at S- and at D-Structure.¹³ The syntactic proposal (cf. section 5) will thus have to account both for the semantic properties discussed in this section and for the asymmetrical hierarchical relation that holds between the two NPs in the construction.

3. The double complement construction in English and the *Take* serial verb construction in Fon

Fon is a verb serializing language. Verbs which enter in the double object construction participate in the serial verb construction. The sentences in (56) show that the verbs *ná* 'give', *xélé* 'show' and *kplón* 'teach' may combine with the verb *só* 'take'. (For an extensive discussion of the *Take* serial verb construction, see Lefebvre, 1991).

- (56) a. Kòkú só àsón ó ná Àsíbá.
 Koku take crab DET give Asiba
 'Koku gave the crab to Asiba.'
- b. Kòkú só xwé ó xélé Àsíbá.
 Koku take house DET show Asiba
 'Koku showed the house to Asiba.'
- c. Kòkú só flànségbé kplón Àsíbá.
 Koku take French teach Asiba
 'Koku taught French to Asiba.'

The Fon *Take* serial verb construction shares semantic properties with the double complement construction of English (NP PP). In both constructions, the Goal is interpreted as a Goal of Location and the Theme is the affected argument of the construction. Furthermore, both the Fon serial verb construction and the English double complement

construction exhibit the same Theme/Goal asymmetries. The Fon *Take* serial verb construction and the English double complement constructions share semantic and syntactic properties which set them apart from the double object construction in a systematic way in both languages.

3.1. Semantics

3.1.1. Location

In the literature on double complement constructions in English the claim is made that the Goal of the construction is interpreted as a Goal of Location (e.g. Pinker, 1989; Johnson, 1991; Tremblay, 1991) and that therefore, in this construction, the Theme and the Goal are in a locative relationship. Recall from section 2 that while (57a) (= (14b)) is not grammatical because 'the border' is not a possible possessor, (57b) (= (13b)) is grammatical because 'the border' is a possible location.

- (57) a. * I sent the border the package
b. I sent the package to the border.

Similarly, while (58a) (= (15a)) is not grammatical because a city is not a possible possessor, (58b) (= (15b)) is grammatical because a city is a possible location.

- (58) a. * John gave New York money
b. John gave money to New York.

As is the case in the English double complement construction, in the Fon serial verb construction exhibited in (56), the Goal of the construction is interpreted as a Goal of Location. Several facts support this claim. First, in Lefebvre (1991), it is argued that verbs which combine with *só* 'take' in serial verb constructions share the common semantic property of being verbs of transfer involving a Theme undergoing a change of Location. (Verbs which do not have this semantic property cannot participate in the *Take*

serial verb construction. cf. Lefebvre, 1991: 62). For example, the verb *só* may combine with *yì* 'come', *wá* 'go', *dó* 'put', etc., as shown in (59), as well as with *ná* 'give', *xélé* 'show' and *kplón* 'teach' (cf. (56)).

- (59) a. Kòkú só àsón yì àxì.
 Koku take crab go market
 'Koku brought (direction away the speakers) the crab to the market.'
- b. Kòkú só àsón wá àxì.
 Koku take crab come market
 'Koku brought (direction towards the speakers) the crab to the market.'
- c. Kòkú só àsón dó távò-ǵí.
 Koku take crab put table-on
 'Koku put the crab on the table.'

Hence, in the sentences in (56), *Àsibá* is interpreted as a Goal of Location in the same way as *àxì* 'market' or *távò ǵí* 'on the table' are interpreted as Goals of Location in (59). (56a) means that 'the crab has undergone a change of location to (physical possession of) Asiba'. (56b) means that 'the house has undergone a change of location to (possession/sight of) Asiba', and (56c) means that 'French has undergone a change of location to (possession/knowledge of) Asiba'.

Second, in the sentences of (56), the notion 'possession' does not necessarily involve ownership. Rather it is interpreted as physical (either literally or metaphorically). I take physical possession to be a type of location. This claim is supported by the following data. While (56a) entails that 'Asiba' is in physical possession of the 'crab' it does not necessarily entail that 'Asiba owns the crab'. This is shown by the data in (60) and (62). The grammatical sentence in (60) contains two semantic propositions: 'Koku gave the crab to Asiba' and 'the crab is not her's'. These two semantic propositions are compatible only

if the Goal of the serial verb construction is interpreted as a Goal of Location (physical possession), rather than as a Goal of Possession (ownership).

- (60) Kòkú sɔ àsón ɔ ná Àsɪbá vɔ àsón nyɪ Àsɪbá tòn ǎ.
 Koku take crab DET give Asiba but crab be Asiba GEN NEG
 'Koku gave the crab to Asiba but the crab is not her's.'

The grammaticality of (60) contrasts with the ungrammaticality of parallel data provided for the double object construction in (17), repeated here as (61) for convenience.

- (61) a. * Kòkú ná Àsɪbá àsón vɔ àsón nyɪ Àsɪbá tòn ǎ
 Koku give Asiba crab but crab is Asiba GEN NEG
 'Koku gave Asiba (some) crab but the crab is not her's.'
- b. * Kòkú ná àsón Àsɪbá vɔ àsón nyɪ Àsɪbá tòn ǎ
 Koku give crab Asiba but crab is Asiba GEN NEG
 'Koku gave Asiba (some) crab but the crab is not her's.'

Similarly, when we add the prepositional phrase *nú Sícá* 'for Sica' to (56a), thus adding a potential possessor to the initial proposition, the clause is perfectly acceptable as shown by the grammaticality of (62).

- (62) Kòkú sɔ àsón ɔ ná Àsɪbá nú Sícá.
 Koku take crab DET give Asiba for Sica
 'Koku gave the crab to Asiba for Sica.'

The grammaticality of (62) contrasts with the ungrammaticality of (63) (= (18)) exhibiting similar facts for the double object construction.

- (63) a. * Kòkú ná Àsɪbá àsón nú Sícá
 Koku give Asiba crab for Sica
 'Koku gave Asiba (some) crab for Sica.'

- b. * Kòkú ná asón Àsíbá nú Sícá
 Koku give crab Asiba for Sica
 'Koku gave Asiba (some) crab for Sica.'

The grammaticality of (62) follows from the fact that the Goal of the serial verb construction is interpreted as a Goal of Location rather than as a Goal of Possession as in (63).

Furthermore, (56c) does not necessarily entail that 'Asiba has learned (at least some) French'. This is shown by the grammaticality of the sentence in (64) which contains two semantic propositions: 'Koku taught French to Asiba' and 'Asiba has not learned any of it'. These two semantic proposals are compatible because the Goal of the serial verb construction is interpreted as a Goal of Location rather than as a Goal of Possession as is the case in the double object construction in (65) (= (20)).

- (64) Kòkú sò flànségbé kplón Àsíbá vǒ é kplón dè sín é mè ǎ.
 Koku take French teach Asiba but 3rd learn any of it in NEG
 'Koku taught French to Asiba but she has not learned any of it.'

- (65) a. ? Kòkú kplón Àsíbá flànségbé vǒ é kplón dè sín é mè ǎ
 Koku teach Asiba French but she learn any of it in NEG
 'Koku taught Asiba French but she did not learn any of it.'

- b. ? Kòkú kplón flànségbé Àsíbá vǒ é kplón dè sín é mè ǎ
 Koku teach French Asiba but she learn any of it in NEG
 'Koku taught Asiba French but she did not learn any of it.'

Third, while a city cannot occur as the Goal of the verb *ná* 'give' in the double object construction as shown in (66) (= (21)), it can occur as the Goal of this verb in the serial verb construction as shown in (67) (which parallels the English data in (58)). While a city is not a possible possessor, it is a possible location.

- (66) a. * Kòkú ná Kútónù àkwé
 Koku give Cotonou money
 'Koku gave Cotonou money.'
- b. * Kòkú ná àkwé Kútónù
 Koku give money Cotonou
 'Koku gave Cotonou money.'
- (67) Kòkú sọ àkwé ná Kùtónú.
 Koku take money give Cotonou
 'Koku gave money to Cotonou.'

The data reported on in this section show that in both the Fon serial verb construction and the English double complement construction, the Goal is interpreted as a Goal of Location. This semantic property sets these two constructions apart from the double object construction in which the Goal is interpreted as a Goal of Possession in both languages.¹⁴

3.1.2. Affectedness

With verbs of transfer occurring in the double complement construction (NP PP) in English, the Theme of the construction is the argument undergoing the change and therefore, it is the affected argument of the construction (e.g. Hale and Laughren, 1983; Tenny, 1987; Pinker, 1989). For example, the meaning of the verb 'give' occurring in the double complement construction can be described 'as an Agent causing an object, the Theme, to undergo a change of location to a location z'. Being the affected argument of the construction, the Theme is also the patient of the construction. The fact that this is so is reflected in the passive construction in which it is the Theme which occurs in subject position, as shown in (68b). Although (68c), in which the Goal occurs in subject position, is syntactically grammatical, it is not semantically equivalent to (68 a) (cf. Pinker, 1989).

- (68) a. John gave a book to Mary.
 b. A book was given to Mary by John.
 c. * Mary was given a book by John.

This contrasts with the double object construction in which the Goal is the affected argument of the construction. Recall from section 2 that in the latter case, the Goal occurs as the subject of the passive construction (cf. (33)).

The Fon data pertaining to the *Take* serial verb construction parallel the English data of the English double complement construction. In this case also, the Theme is the affected argument. It is the Theme of change of location of each of the verbs taken separately as well as the Theme of change of location of the serial verb construction. On Lefebvre's (1991:55) account of the semantics of the verbs participating in the *Take* serial verb construction, the verb *só* 'take' describes an event for which 'an Agent causes a Theme to undergo a change of location'. In (69), 'the crab' is the Theme of change of location and hence it is the affected argument of the verb *só* 'take'.

- (69) Kòkú só àsón ó.
 Koku take crab DET
 'Koku took the crab.'

In Lefebvre (1991), it is argued that the verbs which combine with *só* 'take' also all denote an event involving a Theme undergoing a change of location. Hence, the verb *yì* 'go' describes an event involving a participant, the Theme, undergoing a change of location. Similarly, the verbs *ná* 'give', *xélé* 'show' and *kplón* 'teach' describe events involving a participant, a Theme, undergoing a (physical) change of location (literally or metaphorically). The embedded component of the LCSs of these verbs provided in Lefebvre (1991: 57 and ff.) is reproduced in (70).

- (70) a. *yì* 'go': [y undergo change of location to (location) z]
 b. *ná* 'give': [y undergo change of location to (possession of) z]
 c. *xélé* 'show': [y undergo change of location to (sight of) z]
 d. *kplón* 'show': [y undergo change of location to (knowledge of) z]

Hence, for each of the verbs participating in the Take- serial verb construction, the Theme is the argument undergoing the change and therefore it is the affected argument of the construction.

The Theme is also the Theme of change of location of the serial verb constructions in (56). In recent literature, it has been proposed that verb serialization forms complex predicates (e.g. Déchaine, 1988; Lefebvre, 1991, etc.). The nature of the operation which produces these complex predicates and the identification of the module of the grammar where these complex predicates are formed is still a question of debate. For the sake of the present discussion, I will use the proposal in Lefebvre (1991) according to which the operation of serialization consists in the association of the LCSs of two verbs yielding a derived Lexical Conceptual Structure. For example, the serial verb construction exhibited in (56a) is produced by the association of the LCS of *só* 'take', in (71a), and of the LCS of *ná* 'give' in (71b). This association produces the derived LCS in (71c) from which (56a) is derived.

- (71) a. LCS of *só* 'take':
 [x cause[y undergo change of location]]
 b. LCS of *ná* 'give':
 [x cause[y undergo change of location to (possession of) z]]
 c. derived LCS of *só...ná* 'take...give':
 [x cause [y undergo change of location to (possession of) z]]

On this proposal, the Theme of change of location (represented in the LCSs above by the variable *y*) of each verb participating in the serial verb construction, becomes the shared argument (in the sense of Baker, 1991) of both verbs of the serial construction. Hence, in (56a), *àsón* 'crab' is interpreted as the Theme of location of both *só* 'take' and *ná* 'give'. The Theme is thus the affected argument of the serial verb construction (cf. 71c).

Since the Theme is the participant undergoing the change, it is the affected argument of the construction. Since there is no 'standard' syntactic passive in the language (cf. note 8) I cannot provide data comparable to the English data in (68). Let us consider, however, the distribution of the event determiner in the context of the serial verb construction. Recall from section 2.1.2. that the event determiner is licensed by the property [+specific] of the affected argument which delimits the event denoted by the verb (cf. (34)- (36)). In the double object construction, the presence of the event determiner was shown to correlate with the property [+specific] of the Goal (of possession) of the construction (cf. (37), (38)), the affected argument which also delimits the event. In the *Take* serial verb construction, the event determiner is not allowed as is shown by the ungrammaticality of (72). Note that in (72) both the Theme and the Goal of the construction are [+specific].

- (72) * Kòkú só àsón ó ná Àsibá/ví ó ó
 Koku take crab DET give Asiba/child DET DET
 [Litt.: 'Koku gave the crab to Asiba/the child (Known information: the crab would be given to Asiba/the child).']

A cluster of properties accounts for the ungrammaticality of (72). In (72), although the Goal delimits the event denoted by the verb, it is not the affected argument of the construction. Hence, the property [+specific] of the Goal cannot license the event determiner. This is in line with the analysis that in this construction the Goal is interpreted as a Goal of Location (rather than a Goal of Possession, as in the double object construction). While the Theme is the affected argument of the construction, it does not

delimit the event denoted by the verb. Consequently, the event determiner cannot be licensed in the *Take* serial verb construction because neither of the two internal arguments present the required cluster of properties to license it. The data in (72) provide only indirect syntactic evidence for the claim that in the *Take* serial verb construction, the Theme is the affected argument. However, it provides direct evidence that the Goal is not the affected argument of the construction, since, unlike in the double object construction, in this construction, it does not license the event determiner.

The data discussed in this section show that the Theme is the affected argument of the serial verb construction. This parallels the double complement construction of English in which the Theme is also the affected argument of the construction. This semantic property sets these two constructions (the serial verb and the double complement constructions) apart from the double object construction, in which the Goal is the affected argument in both languages (cf. section 2.1.2).

3.2. Asymmetries

In section 2.2. we saw that the double object construction exhibits Theme/Goal asymmetries in Fon as well as in English. It was argued that an asymmetrical c-command relationship between the Goal and the Theme of the construction, where the Goal dominates the Theme, is required in the account of these asymmetries. Theme/Goal asymmetries are also exhibited by the double complement construction (NP PP) in English. In the latter case, the asymmetries manifest an opposite pattern as in the double object construction. In this section I show that the Theme/Goal asymmetries exhibited by the serial verb construction of Fon parallel the Theme/Goal asymmetries exhibited by the double complement construction (NP PP) in English. Since an asymmetrical c-command relationship between the Theme and the Goal was shown to be required in the account of the Theme/Goal asymmetries in the double object construction, I will assume (with e.g.

Larson, 1988) that in the double complement construction this asymmetrical relationship also holds between the two arguments of the construction.

Binding facts involving a reflexive in (73) show that the Fon data parallel the English data. In the Fon serial verb construction as well as in the English double complement construction, the reflexive must be part of the Goal NP. (The English data are not presented separately since the grammaticality judgements for English (cf. Larson, 1988: 338) correspond exactly to the translation of the Fon sentences).

- (73) a N sɔ Àsɪbá xɛlé éǰé.
 I take Asiba show herself
 'I showed Asiba to herself.'
- b. * N sɔ éǰé xɛlé Àsɪbá
 I take herself show Asiba
 * 'I showed herself to Asiba'

This contrasts with the double object construction in which the reflexive has to be part of the Theme NP (cf. (44) and (45)).

Consider the facts involving **Binding of a pronoun by a quantifier** in (74). Here again the facts from the serial verb construction parallel those of the double complement construction in English. In both languages the quantifier must be contained within the Theme NP as in (74a). The presence of the quantifier within the Goal NP, as in (74b), yields an ungrammatical sentence.

- (74) a. N sɔ fɛ̀tò ǰɛ̀kpóǰɛ̀kpó xɛlé/ná fɛ̀tòxɔ tòn.
 I take picture every show/give owner its
 'I showed/gave every picture to its owner.'

- b. * N sɔ́ fɛ̀tò tòn xélé/ná mè ɖɔ́kpóɖɔ́kpó
 I take picture his show/give man every
 * 'I showed/gave his picture to every man'

This contrasts with the double object construction in which the quantifier must be part of the Goal NP (cf. (47) and (48)).

With respect to *each...the other* asymmetry, the Fon serial verb construction also parallels the double complement facts of English. The contrast in grammaticality between (75a) and (75b) shows that the *each*-phrase must be part of the Theme NP in both languages.

- (75) a. N sɔ́ vɛ́ lélé ɖɔ́kpóɖɔ́kpó xélé mèɖíyó sɛ́n tɔ́.
 I take child PL each show other of father
 'I showed each child to the other's father.'
- b. * N sɔ́ vɛ́ mèɖíyó tòn xélé mè ɖɔ́kpóɖɔ́kpó
 I take child other GEN show man each
 * 'I showed the other's child to each man'

This contrasts with the double object construction in which the *each*-phrase must be part of the Goal NP (cf. (49)-(51)).

In the context of **Superiority Effects**, while the Theme can be extracted out of the construction, the Goal cannot. This holds for both the Fon serial verb construction and the double complement construction of English.

- (76) a. ètɛ́; wè Kòkú sɔ́ t_i ná mè?
 what FO Koku take give who
 'What did Koku give to whom?'

- b. * Mě_i wè Kòkú sɔ́ ètè ná t_i
 who FO Koku take what give
 * 'What did Koku give to whom?'

Again the facts in (76) contrast with those exhibited by the double object construction: in the latter case, while the Goal can be extracted, the Theme cannot (cf. (52), (56)).

Finally, the Fon data of the serial verb construction parallel the English data of the double complement construction for the asymmetry involving **Weak cross over** phenomena. While the Theme can be extracted out of the construction, the Goal cannot.

- (77) a. Mě_i sɛ́n fɔ̀tò wè ǎ sɔ́ t_i xélé/ná nò tòn_i?
 who of picture FO you take show/give mother his
 'Whose picture did you show/give to his mother?'
 b. * Mě_i wè ǎ sɔ́ fɔ̀tò éḍé tòn_i xélé/ná t_i
 who FO you take picture himself GEN show/give
 * 'To which man did you show/give its picture'

Again, this data contrasts with those exhibited by the double object construction. In the latter case, the Goal can be extracted but the Theme cannot (cf. (57) and (59)).

The data discussed in this section show two things. First, the Theme/Goal asymmetries found in the Fon serial verb construction parallel those found in the double complement construction of English. Second the Theme/Goal asymmetries exhibited by these two constructions contrast with those exhibited by the double object construction in both languages. On a dominance account of these asymmetries then, while in the double object construction the Goal asymmetrically c-commands the Theme, in the serial verb (Fon)/ double complement (English) constructions, the Theme asymmetrically c-commands the Goal.

3.3. For any one verb there can be only two overtly realized arguments

The fact that the Fon *Take* serial verb construction shares semantic (section 3.1.) and syntactic (3.2.) properties with the English double complement construction is not surprising when we consider a more general property of Fon. In this language, for any one verb, there can be only two overtly realized arguments.¹⁵

Consider the Fon sentences in (78) and (79) involving two verbs 'put' and 'send' which are typical double complement verbs in English. Both sentences are ungrammatical.

(78) * Kòkú ɖó àsón távò jí
 Koku put crab table on

(79) * Kòkú sé wémá Àsíbá
 Koku send letter Asiba

Verb serialization is the means by which more than two obligatory arguments can be overtly realized in the syntax. Hence, the verbs ɖó 'put' and sé 'send' must appear in a serial verb construction as illustrated in (80) and (81) (from Lefebvre, 1991).

(80) a. Kòkú sɔ àsón ɖó távò jí.
 Koku take crab put table on
 'Koku put crab(s) on the table.'

b. Kòkú ɖó àsón ɖó távò jí.
 Koku put crab put table on
 'Koku layed out crab(s) on the table.'

(81) Kòkú sé àsón ɖó Àsíbá.
 Koku send crab put Asiba
 'Koku send crab to Asiba.'

The serial verb construction thus appears to be, so to speak, the double complement construction of Fon. This claim is further supported by facts discussed in section 4.1. which show that there are no double complement of the type NP PP in Fon.

The double object construction appears to be the sole counter example to the generalization that, in this language, for any one verb, there can be only two overtly realized arguments. In section 5, however, it will be argued that this is only an apparent counter example to the forementioned generalization.

3.4. Summary

The Fon *Take* serial verb construction shares semantic properties with the double complement construction of English (NP PP). In both constructions, the Goal is interpreted as a Goal of Location and the Theme is the affected argument of the construction. Furthermore, both the Fon serial verb construction and the English double complement construction exhibit the same Theme/Goal asymmetries. Hence, the Fon *Take* serial verb construction and the English double complement constructions share properties which set them apart from the double object construction in a systematic way in both languages.

4. Is there a transformational relationship between the double object and the double complement/serial verb constructions?

There is a debate in the literature as to whether there is a transformational relationship between the double object and the double complement constructions. On a transformational account of the relationship between the two constructions, we find two proposals. The double object construction is derived from the double complement construction (e.g. Emonds, 1976; Baker, 1988; Larson, 1988). The double complement construction is derived from the double object construction (e.g. Fillmore, 1965; Aoun and Li, 1989). Several scholars have argued that the two constructions must be independently

generated (e.g. Oehrle, 1976; Kayne, 1984; Pinker, 1989; Grimshaw, 1989; Tremblay, 1991). In this section, I argue that in Fon, there are no double complements of the type we find in English, that is NP PP. Hence, the postulation that there is a transformational relationship between the double object and the double complement construction is not borne out by the Fon data (section 4.1.). The Fon grammar exhibits the serial verb construction. As was shown in section 3, the semantic and syntactic properties of the serial verb construction parallel those of the double complement construction in English. Hence, it is possible to hypothesize a transformational relationship between the double object and the serial verb construction in this language (cf. den Dikken, 1991, for a proposal along these lines based on data drawn from Igbo). I argue that such a proposal is not borne out by the Fon data (section 4.2.). Hence, the two constructions have to be generated independently.

4.1. There are no double complement constructions in Fon

In English, the verbs 'send' and 'give' are typical double complement verbs. They select two internal arguments: a Theme and a Goal. The Goal is realized as a PP. The construction is exhibited in (82).

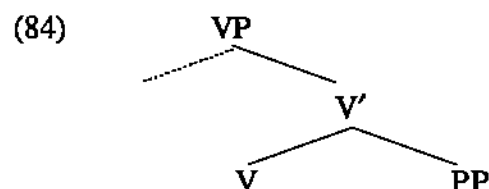
- (82) a. John sent a letter to Mary.
b. John gave a book to Mary.

The preposition occurring in the sentences in (82) can be stranded as shown in (83).

- (83) a. Who did John send a letter to?
b. Who did John give a book to?

Only PPs in the domain of V can be stranded (cf. Hornstein and Weinberg, 1981: 63). Hence, in the English double complement construction, the PP must be in the domain of V. If the PPs occurring in (82) are base generated in the direct argument position of the verb as

in (84), (along the lines of the proposal in Larson, 1988) (rather than adjoined to the projection of V), the required relationship obtains.



In Fon, we find sentences presenting the surface sequence NP PP as depicted in (85).

- (85) Kòkú sà àsón nú Àsíbá.
 Koku sell crab to Asiba
 'Koku sold crab to Asiba.'

I argue that unlike in English, in Fon, the PP headed by the preposition *nú* 'to'¹⁶ is not base generated in the direct argument position of the verb. Rather, it is a syntactic adjunct.

In arguing that the PP headed by the preposition *nú* 'to' in Fon is a syntactic adjunct, I contrast the properties of the Goal PP as it occurs in (85) with those of the Goal NP occurring in the serial verb construction discussed in section 3. The contrast between the syntactic properties of the Goal in the two constructions leads to the conclusion that, while in the serial verb construction the Goal NP has the properties of arguments, in the sequence NP PP the Goal PP has the properties of syntactic adjuncts.

First, in the serial verb construction, the Goal of the construction is obligatorily realized in the syntax. (86b) in which the Goal is not realized is not grammatical.

- (86) a. Kòkú sò àsón ó ná Àsíbá.
 Koku take crab DET give Asiba
 'Koku gave the crab to Asiba.'

b. * Kòkú sọ àsón ọ ná.

Koku take crab DET give

In contrast, a PP headed by *nú* is always optional as shown in (87). (Optionality of the PP is indicated by parentheses).

(87) a. Kòkú sọ àsón ọ (nú Àsfbá).

Koku give crab DET to Asiba

'Koku gave the crab (to Asiba).'

b. Kòkú sà àsón (nú Àsfbá).

Koku sell crab to Asiba

'Koku sold crab (to Asiba).'

While arguments are obligatory, adjuncts are optional. (cf. e.g. Randall, 1987; Pinker, 1989)

Second, in the serial verb construction, the Goal can surface as a clitic on the verb as in (88).

(88) Kòkú sọ àsón ọ ná è.

Koku take crab DET give her

'Koku gave the crab to her.'

In this case, the clitic corresponding to the Goal can even undergo clitic climbing and attach to the first verb of the construction as illustrated in (89) (= (13b) in Lefebvre, 1992:42).

(89) Kòkú sọ è àsón ọ ná (è).

Koku take her crab DET give (her)

'Koku gave the crab to her.'

In contrast, a clitic cannot be interpreted as referring to a PP headed by *nú* as shown by the ungrammaticality of (90b).

- (90) a. Kòkú sà àsón ó nú è.
 Koku sell crab DET to her
 'Koku sold the crab to her.'
- b. * Kòkú sà è àsón ó
 Koku sell her crab DET

While arguments can cliticize onto the verb, adjuncts generally cannot (Baker, 1988: 467 n 17). If the Goal is in the direct argument position of the verb in (88, 89) and if it is in an adjunct position in (90), the contrast between the two sets of facts finds a natural explanation.

A third set of data distinguishing the behavior of the Goal in the two constructions comes from extraction facts. When the Goal NP is extracted out of a serial verb construction, the extraction site is empty.

- (91) Àsfbá;_i wè, Kòkú só àsón ó ná t;_i
 Asiba FO Koku take crab DET give
 'It is to Asiba that Koku gave the crab.'

When a PP headed by *nú* is extracted, the extraction site must contain a resumptive preposition (cf. Seguro, 1963; Brousseau, in preparation). This is illustrated in (92).

- (92) a. * [Nú Àsfbá;_i wè, Kòkú sà àsón ó t;_i
 to Asiba FO, Koku sell crab DET to
- b. [Nú Àsfbá;_i wè, Kòkú sà àsón ó [ná]_i
 to Asiba FO, Koku sell crab DET RP
 'It is to Asiba that Koku sold the crab'

The contrast in grammaticality between (91) and (92b) follows from the ECP (cf. Chomsky, 1981). In (91) the trace of the moved element is properly governed by the

verb. In (92) it is not and hence it has to be spelled out. This distribution follows naturally if the Goal is in the direct argument position of the verb in (91) and in an adjunct position in (92).

A fourth set of data distinguishing the behavior of the Goal in the two constructions comes from facts involving the Theme/Goal asymmetries. Recall from section 3 that the serial verb construction exhibits Theme/Goal asymmetries which parallel those exhibited by the double complement (NP PP) construction of English. If the Theme (NP) and the Goal (PP) under discussion in this section were in a similar structural relationship as the Theme (NP) and the Goal (PP) in English, we would expect them to present the same Theme/Goal asymmetries as those exhibited by the double complement construction in English (and the serial verb construction in Fon). This prediction is not born out by the data. On the contrary, the Theme (NP) and the Goal (PP) do not present the Theme/Goal asymmetries exhibited by the double complement/serial verb constructions. For example, with respect to *each...the other* asymmetry, we saw that in the serial verb construction the *each*-phrase must be contained inside the Theme (NP) (cf. (75)). In contrast, with the NP PP sequence, the *each*-phrase can either occur as part of the Theme NP or as part of the Goal PP as shown in (93a) and (93b) respectively.

- (93) a. Kòkú sọ vǐ ɖ́sɔkpóɖ́sɔkpó nú m̀ɛɖ́íyó sín tò.
 Koku give child each to other of father
 'Koku gave each child to the other's father.'
- b. Kòkú sọ vǐ m̀ɛɖ́íyó tòn nú m̀ɛ ɖ́sɔkpóɖ́sɔkpó.
 Koku give child other of to person each
 'Koku gave the other's child to each person.'

The serial verb construction exhibits Theme/Goal asymmetries involving **Superiority effects** (cf. (76)) and **Weak cross over** phenomena (cf. (77)). The NP PP sequence

does not exhibit these asymmetries. In both contexts, either the Theme (NP) or the Goal (PP) can be extracted. This is shown in (94) and (95) respectively.

- (94) a. Étè wè ǎ só nú mǝ? THEME
 what FO you give to whom
 'What did you give to whom?'
 b. Nú mǝ wè ǎ só étè ná? GOAL
 to whom FO you give what RP
 'To whom did you give what?'
- (95) a. Mǝ; sín fótò wè ǎ só nú nò tòn;? THEME
 who of picture FO you give to mother his
 'The picture of whom did you give to his mother?'
 b. Nú mǝ sín nò wè ǎ só fótò tòn ná? GOAL
 to whom of mother FO you give picture his RP
 'To the mother of whom, did you give his picture?'

The fact that the Theme (NP) and the Goal (PP) do not present the Theme/Goal asymmetries observed in the serial verb construction of Fon (and hence in the double complement construction of English) argues for the claim that the Goal PP in the sequence NP PP is not in the same position as the Goal NP is in the serial verb construction. Hence, it is not in the direct argument position of the verb.

The lack of Theme/Goal asymmetry in the sequence NP PP correlates with a fifth property of PPs in Fon. Syntactic adjuncts exhibit more freedom than arguments in terms of their position in the tree. Facts drawn from the progressive construction illustrate this point. The progressive construction makes use of *dò* 'at' which takes a complement phrase headed by *wè*. The phrase headed by *wè* is head final. *Wè* takes a nominalized VP as its complement.¹⁷ (96b) illustrates the progressive form of (96a). (96c) shows that the

internal argument of the verb cannot occur to the right of the head of the construction, that is to the right of *wè*.

- (96) a. Kòkú ðù àsón.
 Koku eat crab
 'Koku ate crab.'
- b. Kòkú ðò àsón ðù wè.
 Koku at crab eating POST
 'Koku is eating crab.'
- c. * Kòkú ðò ðùðù wè àsón¹⁸
 Koku at eating POST crab

(97b) provides parallel facts for a double object verb. Again, (97c) shows that the Goal of the construction cannot occur to the right of *wè*.

- (97) a. Kòkú ná àsón Àsfbá.
 Koku give crab Asiba
 'Koku gave Asiba crab.'
- b. Kòkú ðò àsón ná Àsfbá wè.
 Koku at crab giving Asiba POST
 'Koku is giving Asiba crab.'
- c. * Kòkú ðò àsón ná wè Àsfbá
 Koku at crab giving POST Asiba

Finally, (98b) provides parallel facts for the serial verb construction. (98c) shows again that the Goal of the construction cannot occur to the right of *wè*.

- (98) a. Kòkú sọ àsón ọ ná Àsíbá.
 Koku take crab DET give Asiba
 'Koku gave the crab to Asiba.'
- b. Kòkú ọ̀ò àsón sọ ná Àsíbá wẹ.
 Koku at crab take give Asiba POST
 'Koku is giving Asiba crab.'
- c. * Kòkú ọ̀ò àsón sọ ná wẹ Àsíbá
 Koku at crab take give POST Asiba

The sentences in (99) provide comparable data for the sequence NP PP. (99b) is the progressive form of (99a). (99c) shows that, unlike in the other cases, the PP can occur to the right of the constituent headed by *wẹ*.

- (99) a. Kòkú sà àsón nú Àsíbá.
 Koku sell crab to Asiba
 'Koku sold crab to Asiba.'
- b. Kòkú ọ̀ò àsón sà nú Àsíbá wẹ.
 Koku at crab sell to Asiba POST
 'Koku is selling crab to Asiba.'
- c. Kòkú ọ̀ò àsón sà wẹ nú Àsíbá.
 Koku at crab sell POST to Asiba
 'Koku is selling crab to Asiba.'

The fact that the PP can surface to the right of the constituent headed by *wẹ* is difficult to explain if the PP headed by *nú* is in an argument position of the verb. It follows naturally, however, if the PP is an adjunct. In (99b) it is adjoined to VP and hence it occurs to the left of *wẹ*. In (99c) it is adjoined to the phrase headed by *wẹ* and hence it occurs to the right of *wẹ*. A direct consequence of this proposal is that when the constituent headed by *wẹ* is

fronted to the focus position (leaving the lexical trace *è* in the extraction site) the PP can be left behind as shown by the grammaticality of (100b).¹⁹

- (100) a. [Àsón sà nú Àsíbá wè]_i Kòkú dò è_i.
 crab sell to Asiba POST Koku at it
 'It is selling crab to Asiba that Koku is doing.'
- b. [Àsón sà wè]_i Kòkú dò è_i nú Àsíbá.
 crab sell POST Koku at it to Asiba
 'It is selling crab that Koku is doing to Asiba.'

The grammaticality of (100b) contrasts with the ungrammaticality of the sentences in (101), in which the Goal NP of the construction has been left behind. The examples involve a transitive verb, a double object verb and a serial verb construction, respectively.

- (101) a. * [dùdù wè]_i Kòkú dò è_i àsón
 eating POST Koku at it crab
- b. * [Àsón ná wè]_i Kòkú dò è_i Àsíbá
 crab giving POST Koku at it Asiba
- c. * [Àsón só ná wè]_i Kòkú dò è_i Àsíbá
 crab take give FO Koku at it Asiba

The proposal that PPs headed by *nú* 'to' are syntactic adjuncts accounts for the properties of the Goal PP headed by this preposition. The PP is optional. It cannot cliticize onto the verb because it is not in the domain of the verb. There has to be a resumptive preposition in the extraction site because the trace is not properly governed by the verb. The Theme and the Goal do not exhibit the Theme/Goal asymmetries observed in the Fon serial verb nor in the English double complement constructions. Finally the Goal PP is freer than the Goal NP with respect to its position in the tree.

In Lefebvre (1990) it has been argued that PPs headed by other prepositions in Fon (e.g. *kpódó* 'with', *sín* 'from', *dò* 'at') are also syntactic adjuncts. The analysis of PPs headed by *nú* as adjuncts thus completes the generalisation: all Fon prepositional phrases are adjuncts. The fact that prepositional phrases are adjuncts explains why preposition stranding is not available in the language (cf. section 1.1). Only PPs in the domain of V can be stranded (cf. Hornstein and Weinberg (1981:63)). If PPs are adjuncts, it predicts that prepositions cannot be incorporated into the verb (cf. Baker, 1988: 283, 288) nor absorbed by the verb (cf. Larson, 1988; Kayne, 1984): both incorporation and absorption require adjacency of the preposition and the verb.

If all prepositional phrases are adjuncts, it follows that in Fon, there are no double complement constructions of the type we find in English. The fact that all prepositional phrases are adjuncts in the language argues against the postulation of a derivational relationship between the double object and the NP PP sequence in Fon. For an alternation to apply, it is a necessary condition that all the affected phrases be arguments of the verb (cf. Pinker, 1989: 40).

4.2. Is there a transformational relationship between the double object construction and the serial verb construction?

As we have seen in section 3, the Fon serial verb construction and the English double complement construction share semantic and syntactic properties which make them on a par. This situation raises the possibility of a transformational relationship between the double object and the serial verb construction in languages of the type of Fon (cf. den Dikken, 1991, for a proposal along these lines on the basis of data drawn from Igbo). Several arguments speak against a transformational relationship between the double object and the serial verb constructions in Fon.

First the D- structure position for the Goal is not the same in the two constructions. Data involving Theme/Goal asymmetries show that while the Goal of the double object construction must asymmetrically c-command the Theme at D-structure (section 2.2), the Goal of the serial verb construction must be asymmetrically c-commanded by the Theme at that same level of representation (section 3.2.). Since a transformational relationship between the two constructions would require a single D-Structure position for the Goal, it follows that the two constructions cannot be transformationally related.

Second, the aspectual properties of the Goal are different in the two constructions. While in the double object construction, the Goal is the affected argument (cf. section 2.1.2), in the serial verb construction it is not (cf. section 3.1.2). The aspectual properties of arguments are determined at D-structure (cf. Tenny, 1987: 238). If the Goal is base generated in different D-Structure positions in the two constructions, these aspectual properties can be accounted for at the relevant level of representation. Since a transformational relationship between the two constructions would require a single D-Structure position for the Goal, it follows that the two constructions cannot be transformationally related.

A third argument against a transformational relationship between the two constructions comes from the distribution of pronouns in the two constructions. In the double object construction, while the Goal can be pronominalized, the Theme cannot. This is shown in (102) and (103) respectively.

- (102) a. Kòkú xélé éyè vǐ ́.
 Koku show her child DET
 'Koku showed her the child.'

- b. Kòkú xélé vǐ ́ éyè.
 Koku show child DET her
 'Koku showed her the child.'

- (103) a. * Kòkú xélé éyè Àsíbá
 Koku show him Asiba

- b. * Kòkú xélé Àsíbá éyè
 Koku show Asiba him

In the serial verb construction, however, both the Goal and the Theme can be pronominalized.

- (104) a. Kòkú ś ́ àsón ná éyè.
 Koku take crab give her
 'Koku gave the crab to her.'

- b. Kòkú ś éyè ná Àsíbá.
 Koku take it give Asiba
 'Koku gave it to Asiba.'

The postulation of a transformational relationship between the two constructions could not account for the above facts without recourse to additional ad hoc assumptions.(cf. Oehrly, 1976, for a discussion of similar facts in English).

On the basis of these arguments, I conclude that there is no transformational relationship between the serial verb and the double object constructions.

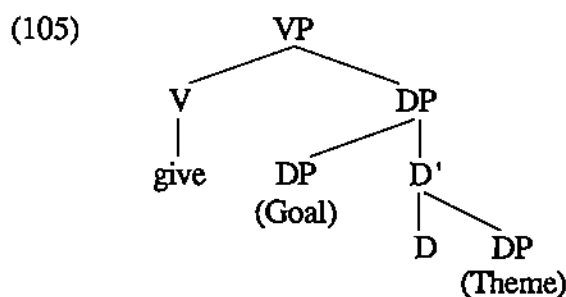
4.3. Summary

Given that there cannot be a transformational relationship between the double object and the serial verb / double complement constructions, I conclude that the two constructions must be independently generated (see also Oehrly, 1976; Kayne, 1984;

Pinker, 1989; Grimshaw, 1989; Tremblay, 1991, etc.). Section 6 provides a specific proposal as to how this is achieved.

5. The syntax of the Fon double object construction

In the literature on double object constructions, it has been proposed that the Theme and the Goal of the construction form a small clause in which the Theme and the Goal are in a predication relationship (e.g. Kayne, 1984; Larson, 1988; Aoun and Li, 1989; Johnson, 1991; Tremblay, 1991). There is a debate as to what the categorial status of the small clause is²⁰ and as to whether it is the Theme or the Goal of the construction which is the subject of predication of the small clause. On Johnson's (1991) proposal, the small clause of the double object construction is a DP in which the Goal of possession appears in the same position as the NP marked for genitive Case in nominal structures and the Theme appears in the same position as the possessed NP in nominal structures. The Goal is the subject of predication. The structure he proposes is represented in (105).

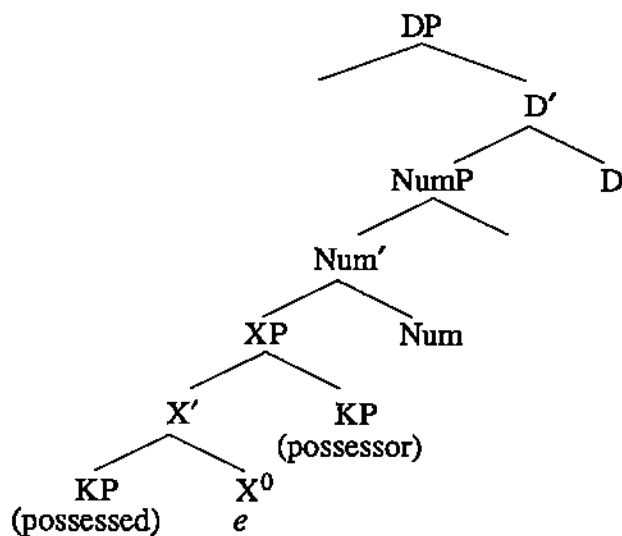


In this section, I provide a detailed analysis of the Fon double object construction along the general proposal in Johnson. The particularities of the Fon data will be shown to bring independent additional support to Johnson's general proposal. I begin with an overview of the nominal structure of Fon.

5.1. The nominal structure of Fon

Following the analysis in Brousseau and Lumsden (1992), I assume that the D-structure of the nominal phrase of Fon is as in (106). In (106), D selects a Num(ber)P (cf. Ritter, 1992). Num selects a XP headed by a phonologically null head. The specifier of XP is the basic position for the possessor, the affected argument of the nominal structure. The complement of XP is the position for the possessed.

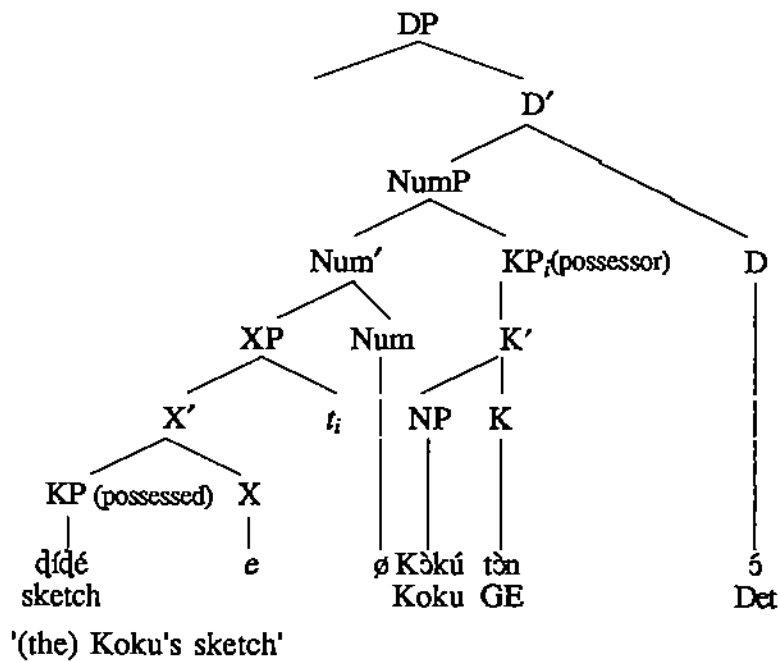
(106) D-structure of nominal phrases



On Brousseau and Lumsden's analysis, XP is a functional category. On this point, I depart from their analysis; I take XP to be a lexical category headed by a phonologically null nominal predicate of possession taking the possessed as its complement. On this view, the configuration in (106) presents a structure of predication. The possessor is the subject of predication and the possessed is the visible part of the predicate phrase.

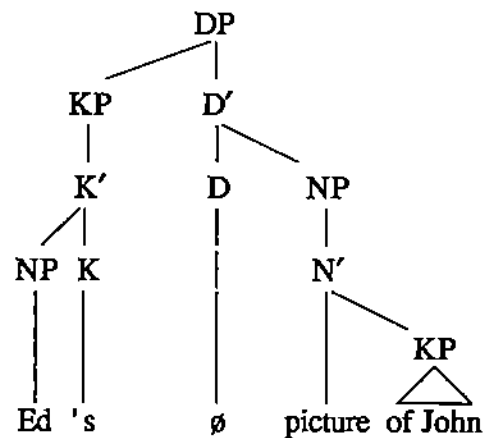
By S-structure (cf. 107), the possessor phrase will have moved to Spec of NumP to be assigned structural Genitive Case under Spec-Head agreement. Genitive Case is realized as *tɔn* (= 's in English).

(107) S-structure of nominal phrases



The nominal structure of Fon appears to be the mirror image of that of English. As can be observed from a comparison between the structures in (107) and in (107') (from Abney, 1987), in Fon, the possessor occurs on the right of the head noun while in English, it appears to its left.

(107')

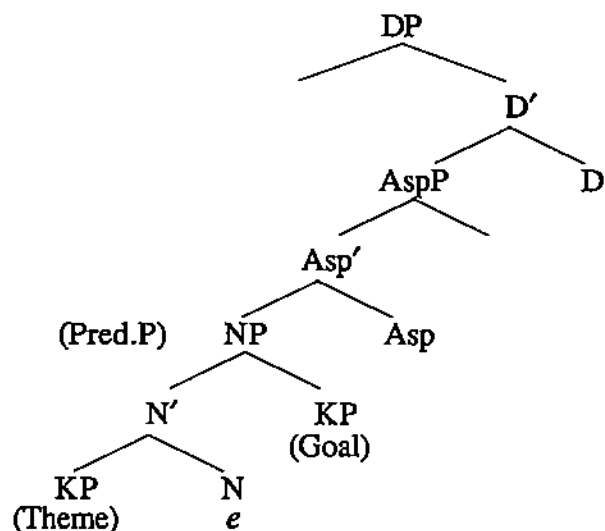


Not that unlike in English, in Fon, the determiner may appear in nominal structure containing a genitive phrase (cf. 107).

5.2. The inner structure of the small clause

I propose that small clause involved in the Fon double object construction has the inner structure of nominal phrases. I propose the structure in (108).

(108) D-structure of small clause



In (108) the small clause is a DP. D selects a functional category AspP which corresponds to NumP in (106). Independent arguments that D may select an AspP in Fon are provided in Law and Lefebvre (1992). That Aspect is the functional category of the clausal system which is the counterpart of Number in the nominal system, has long been noted (cf. Ken Hale) and argued for (cf. Travis, 1992, and the references therein)). I assume the specifier position of AspP to be on the right side of the projection just like that of NumP in nominal structures. Asp selects a nominal Predicate Phrase. The head of the predicate phrase takes its complement to the left just like in nominal structures. (The position assigned to specifiers and complements with respect to their heads will be justified below).

The Goal NP is base generated in the specifier position of the nominal predicate phrase, that is in the same position as the possessor in (106). The Theme NP is base generated in the complement position of the nominal predicate phrase, that is in the same position as the possessed in (106). The head of the Predicate Phrase is usually

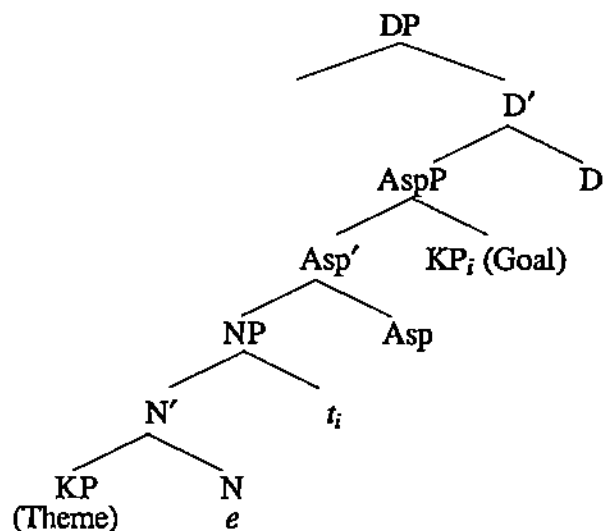
phonologically null. In the progressive construction, however, it is lexically filled by the nominalized verb as depicted in (109).²¹

- (109) Kòkú òò [[[àsón ná] Àsíbá]] wè].
 Koku at crab giving Asiba POST
 'Koku is giving Asiba crab.'
 [Litt.: 'Koku is crab-giving Asiba.']

The NP base generated in the specifier position of the nominal Predicate Phrase is assigned the thematic role Goal through predication achieved by co-condensation of the 'subject' of the small clause with the Predicate Phrase. The NP base generated in the complement position of the nominal predicate is assigned the thematic role Theme by the nominal predicate.²²

By S-structure, the Goal NP will have moved to the specifier position of AspP as in (110). The specifier position of AspP is a natural position for the Goal of the double object construction: being the affected argument of the construction, the Goal has aspectual properties (cf. section 2.1.2). Unlike Num(ber) the functional category Asp has no structural Case to assign (cf. Avolonto, 1992). This explains why the Goal is not marked for Genitive Case marker *tòn* nor assigned structural Case by Asp (cf. section 5.7. on Case).

(110) S-structure of small clause



Since the nominal predicate is usually phonologically empty, the Theme is the visible part of the Predicate Phrase. The analysis that the Theme of the double object construction is the predicate of the construction finds support in the fact that it shares properties with other nominal predicates in the language. Recall from section 4.2. that the Theme of the double object construction cannot be pronominalized. This was shown in (103) repeated here as (111) for convenience.

- (111) a. * Kòkú xélé éyè Àsíbá
 Koku show him Asiba
- b. * Kòkú xélé Àsíbá éyè
 Koku show Asiba him

In some languages, like French for exemple, it is possible to pronominalize nominal predicates as in *Jean est-il docteur? Oui il l'est*. Interestingly enough, in Fon, comparable data are ungrammatical.

- (112) Dótò wè é nyì à? Dotò wè é nyì / * é(yè) wè é nyì
 doctor FO 3rd be Q doctor FO 3rd be 3rd FO 3rd be
 'Is he a doctor? It is doctor that he is.' * [Lit.: He is it]

Thus, the fact that the Theme of the double object construction cannot be pronominalized correlates with a more general property of nominal predicates in the language.

5.3. The nominal structure and the inner structure of the small clause

The inner structure of the small clause involved in the double object construction proposed in (108) and (110) parallels exactly the structure of nominal phrases in the language (cf. (106), (107)). On this proposal the two constructions present a structure of predication headed by a phonologically null predicate of possession. The D- and S-structure positions of the Theme parallel those of the possessed and the D- and S- structure positions of the Goal parallel those of the possessor.

The proposal that the small clause involved in the double object construction has the inner structure of nominal structures presents several advantages. First, it determines the D-Structure position of the Goal (cf. (108)). From this position the Goal asymmetrically c-commands the Theme of the construction. This hierarchical relationship was argued to be needed at D-Structure in the account of the Theme/Goal asymmetries exhibited by the construction (cf. section 2.2).

Second, this proposal accounts for the possession relationship that holds between the Theme and the Goal of the construction (cf. section 2.1.1). We have a possession interpretation because we have a possessive construction (cf. also Johnson, 1991; Tremblay, 1991). The possession relationship is captured by a predication relationship between the Goal (the subject of predication) and the predicate of the construction, which the Theme is part of.

Third, the proposal that the small clause has the inner structure of the nominal structure provides a natural access to the semantic correlation that exists between the Theme and the Goal of the double object construction, and the possessed and the possessor marked for genitive Case in nominal structures. Recall from section 2.1.1. that the relationship between the Theme and the Goal of verbs which participate in the double object construction can be translated into nominal structures exhibiting a possessor marked for structural genitive Case (cf. (24)-(29)). In contrast, the relationship between the Theme and the Goal of verbs such as *nyà* 'loan' and *sà* 'sell' cannot be translated into nominal structures exhibiting a possessor marked for structural genitive Case (cf. (30), (31)) and these verbs do not participate in the double object construction. Under the present proposal, this correlation is well motivated.

Fourth, the pattern of pronominalization in the double object construction and the nominal structure respectively parallel one another. The data in (113) show that the Goal of the double object construction as well as the possessor of the nominal structure can be pronominalized.

- (113) a. *Kòkú* *xélé* *éyè* *ví* *ó*.
 Koku show her child DET
 'Koku showed her the child.'
- b. *Kòkú* *xélé* *ví* *ó* *éyè*.
 Koku show child DET her
 'Koku showed her the child.'
- c. *ví* *éyè* *tón* *ó*
 child her GEN DET
 'the child of her's'

The data in (114) show that neither the Theme of the double object construction nor the possessed of the nominal structure can be pronominalized.

- (114) a. * Kòkú xélé éyè Àsfbá
 Koku show him Asiba
- b. * Kòkú xélé Àsfbá éyè
 Koku show Asiba him
- c. * éyè Àsfbá tón
 it/he/she Asiba GEN

There should be a unique account for this constellation of facts. Interestingly enough, nominal predicates cannot be pronominalized (cf. (112)). If the Theme and the possessed are the nominal predicates of the double object construction and of the nominal structure respectively, it follows that they cannot be pronominalized.

5.4. DP

Aside from the fact that DP is the functional category dominating the nominal structure, there is another piece of evidence which supports the proposal that DP is the functional category dominating the small clause in double object constructions. Recall from section 2.1.2 that the determiner *ó* in Fon may also surface as an event determiner. Recall also that in the context of the double object construction, the presence of the event determiner correlates with the property [+specific] of the affected argument, that is with the property [+specific] of the Goal of the construction as depicted in (38) repeated here as (115) for convenience.

- (115) a. Súnù dẹ ná àsón dẹ/ó ví ó ẹ.
 man a give crab a/the child DET DET
 'A man gave the child a crab (known information: somebody would give the
 child a/the crab).'
- b. Súnù dẹ ná ví ó àsón dẹ/ó ẹ.
 man a give child DET crab a/the DET
 'A man gave the child a crab (known information: the child would be given
 a/the crab).'

I propose that the event determiner in (115) heads the DP in (108), (110). The distribution of the event determiner in the context of double object constructions, thus provides additional motivation for the proposal that the small clause involved in the double object construction of Fon is a DP. In turn, the configuration in (108), (110) provides a local context for the relationship that exists between the Goal of the double object construction and the event determiner occurring in the context of this construction.

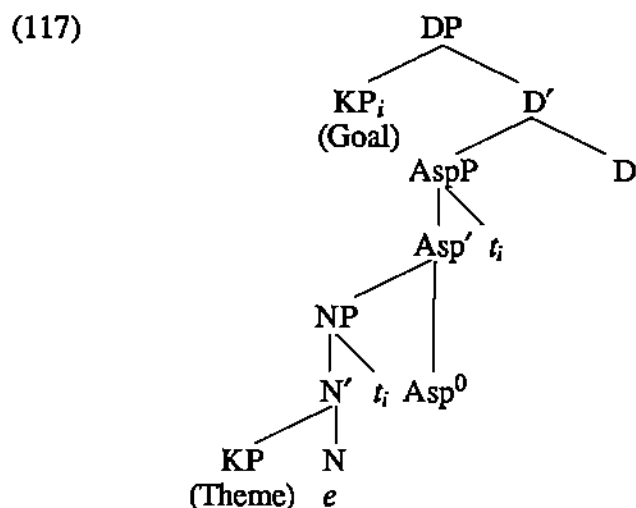
5.5. Word order

The Structure in (110) generates the surface word order Theme/Goal as in (116) and the surface word order Theme/Goal/event determiner illustrated in (115a).

- (116) Kòkú ná àsón Àsíbá.
 Koku give crab Asiba
 'Koku gave Asiba (some) crab.'

This word order parallels the word order possessed/possessor in nominal structures (cf. (107)).²³

I propose to account for the derived word order Goal/Theme exhibited by the double object construction by movement of the Goal to the specifier position of the DP dominating the small clause as in (117).



The structure in (117) produces the surface word order Goal/Theme depicted in (118).

- (118) Kòkú ná Àsfbá asón.
 Koku give Asiba crab
 'Koku gave Asiba (some) crab.'

It also produces the surface word order Goal/Theme/event determiner depicted in (115b).

Movement to the specifier position of DP is independently motivated in the language by facts involving relative clauses. In Fon, the relative clause is a DP/IP (=CP/IP) headed by the clausal determiner²⁴ as shown in (119). The Wh- moved element occurs at the beginning of the relative clause in the specifier of DP.

- (119) Xásù ó ǵě [DP é mɛ́; [IP Kòkú só àsón ɔ̀o t_i] ó]
 basket DET REL of in Koku take crab put DET
 'The basket in which Koku put the crab'

The facts in (119) independently motivate the specifier position of DP as a landing site for movement. They also independently motivate the position attributed to the specifier position of the projection of D, in (108), that is to the left of the projection.

In (115b), the Goal of the construction is in a Spec/Head relationship with the event determiner (cf. 117) while in (115a) it is not. The different structural relationships between the Goal and the event determiner in the two surface configurations accounts for the slightly different interpretations assigned to the clause in the context of the event determiner. In (115b), the small clause is assumed to be part of known information. In (115a) what is assumed to be part of known information is the whole clause.

The analysis accounts for the two surface word orders exhibited by the construction. It accounts for the fact that there is no difference in meaning between the two word orders exhibited by the construction (cf. section 2.1): there is only one D-Structure position for the Goal (and the Theme) of the construction. In both of its surface positions, the Goal asymmetrically c-commands the Theme (cf. (110), (117)). On this analysis, the Theme/Goal asymmetries, which were argued to require an asymmetrical c-command relationship between the Theme and the Goal at S-structure (cf. section 2.2.) can be accounted for.

5.6. Spec of DP as an escape hatch for movement

The specifier of DP is a landing site for the Goal of the construction. I propose that the position is also an escape hatch for movement out of the small clause. That the specifier position of DP is an escape hatch for movement is independently motivated by long distance movement out of relative clauses as shown in (120).

- (120) Xásù ɔ dɛ [ɛ mɛ_i [Sícá dɔ̃ [DP_i [IP Kòkú sɔ àsón dɔ t_i] ɔ]]
- basket DET REL of in Sica say Koku take crab put DET
- 'The basket in which Sica said that Koku put the crab'

On this proposal, either the Theme or the Goal can be extracted out of the small clause through this COMP-like position. This accounts correctly for the extraction facts in (50) and (51) reproduced here as (121) and (122) respectively. In (121) the Goal has been extracted while in (122) the Theme has been extracted.

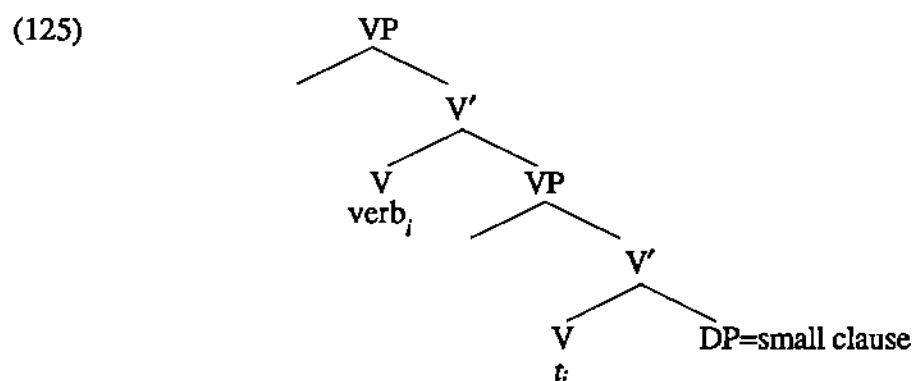
- (121) a. Mě_i wè, Kòkú xélé *t_i* xwé ́ *t_i*? QUESTION
 who FO Koku show house DET
 '(To) who(m) did Koku show the house?'
- b. Àsfbá_i wè, Kòkú xélé *t_i* xwé ́ *t_i* FOCUS
 Asiba FO Koku show house DET
 'It is (to) Asiba that Koku showed the house.'
- c. nyónú_i [dè Kòkú xélé *t_i* xwé ́ *t_i*] ́ RELATIVE CLAUSE
 woman that Koku show house DET DET
 'the woman (to) whom Koku showed the house'
- (122) a. Étè_i wè, Kòkú xélé *t_i* Àsfbá? QUESTION
 what FO Koku show Asiba
 'What did Koku show Asiba?'
- b. Xwé ́_i wè, Kòkú xélé *t_i* Àsfbá. FOCUS
 house DET FO Koku show Asiba
 'It is the house that Koku showed Asiba.'
- c. xwé_i [dè Kòkú xélé *t_i* Àsfbá] ́ RELATIVE CLAUSE
 house that Koku show Asiba DET
 'the house that Koku showed Asiba'

On this proposal, the Theme can only be Wh-moved out of the small clause when the Goal has remained in its basic position. Otherwise the specifier of DP is either filled by the Goal or by its trace and the Theme has no position available to leave the small clause. This

- b. * Kòkú xélé Àsfbá è
 Koku show Asiba 3RD
 'Koku showed it/him/her (to) Asiba.'

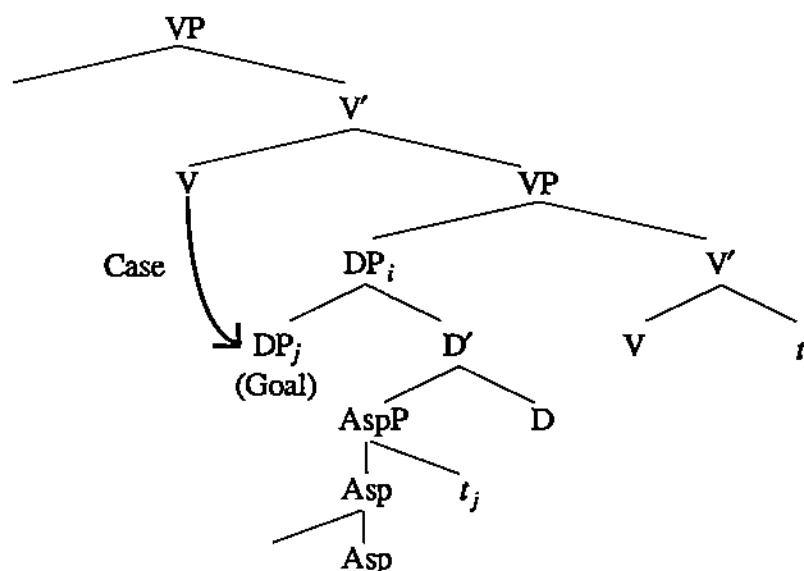
From this data I conclude that the Goal of the construction has to be assigned structural Case by the verb in both of its surface positions and that the Theme is not being assigned structural Case by the verb.

I will assume that verbs participating in the double object construction project a complex VP of the type proposed in Larson (1988) and that the small clause containing the two objects is base generated in the position sister to the verb.²⁵ I will further assume, with Larson, that by S-Structure, the verb will have moved to the higher V position within the complex VP. This is represented in (125).



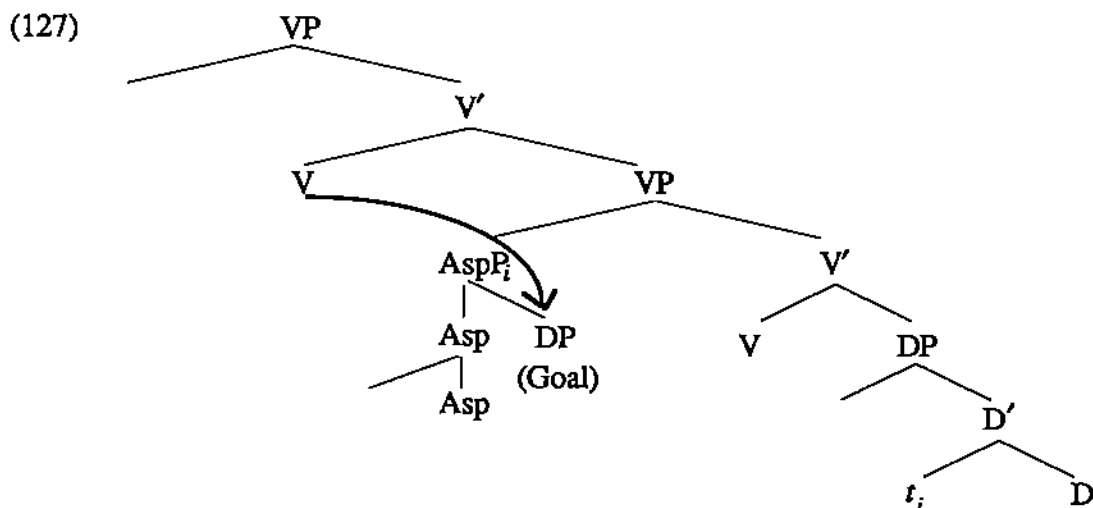
By S-Structure, the small clause containing the double object will have moved to the specifier position of the lower VP as in (126). In this configuration, the verb can assign structural Case to the Goal.

(126)



This proposal accounts for structural Case assignment to the Goal in a straightforward way providing that the Goal of the double object construction has moved to the specifier position of the DP dominating the small clause. When the Goal has stayed in Spec of AspP, however, the functional category DP intervenes between the verb and the Goal of the construction. Since structural Case assignment requires structural adjacency (cf. Chomsky, 1981), the verb cannot assign its structural Case to the Goal, when the latter is embedded within the small clause.

Suppose that, in the latter case, AspP, rather than DP, moves to the specifier position of VP, thus producing the configuration in (127).

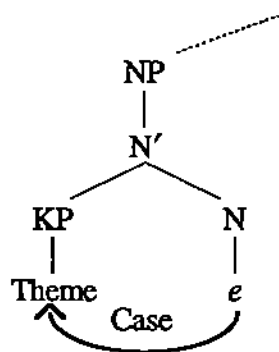


This would produce a proper configuration for Case assignment to the Goal by the verb under structural adjacency.

On this account D has been stranded. Independent evidence for availability of D stranding in natural languages is provided for Fon in Lefebvre (in preparation), for Mohawk, Onongada, Southern Tiwa and Eskimo in Baker (1988) and for Walpiri in Hale (1983). Note that the reported cases of D stranding all involve languages in which, in addition to being [+definite], the determiner is also [+deictic].

As for the Theme of the construction, I assume that it is being assigned Case by the phonologically null nominal predicate as shown in (128). (For a similar proposal see Aoun and Li, 1989).²⁶

(128)



5.8. The small clause analysis of the double object construction

Recall from section 3.3. that in Fon, for any one verb, there can be only two overtly realized arguments. The small clause analysis of the double object construction completes the generalization. The small clause uses only one argument position. Hence, the double object construction is not an exception to the general Fon pattern.

The small clause analysis of the double object construction also accounts for facts reported on in note 7 but remained unexplained. Fon presents a passive-like construction. The derivation of this construction involves NP-movement of the direct argument to a specifier position in the tree. This argument surfaces as the subject of the verb producing a passive-like construction depicted in (129b) derived from (129a). Note that in this passive-like construction, the Agent has to remain implicit.

- (129) a. Kòkú gbà xwé ́.
 Koku destroyed house DET
 'Koku destroyed the house.'
- b. Xwé ́ nyì gbìgbà.
 house DET is destroyed
 'The house is destroyed.'

This alternation is not available with the double object construction.

- (130) a. Kòkú ná Àsíbá àsón ó
 Koku give Asiba crab Det
 'Koku gave Asiba crab.'
- b. * Àsíbá nyì àsón ó ná
 Asiba be crab Det given
 'Asiba has been given the crab.'
- c. * Àsón ó nyì ná Àsíbá
 crab Det be crab given
 'The crab has been given Asiba.'

The ungrammaticality of (130b and c) follows directly from the small clause analysis of the double object construction. Following the proposal in (125), the small clause is the direct argument of the verb. The Goal and the Theme are only part of that direct argument. If they can be Wh-moved out of that direct argument through Spec of DP (=Spec of CP), they cannot be NP-moved out of it. Hence, the ungrammaticality of (130b, and c).

5.9. Summary

The analysis proposed in this section supports the view that the double object construction involves a small clause in which the Theme and the Goal are in a predication relationship. It strongly supports the proposal in Johnson (1991) according to which the small clause has the inner structure of DP. Empirical evidences argue that it is the Theme of the construction (not the Goal) which is the predicate of the double object construction.

The particular aspects of the Fon grammar motivate the proposed analysis. The availability of the event determiner motivates DP as the projection dominating the small clause of the double object construction. The positions of the possessor in nominal structures determines the D- and one of the S-Structure positions of the Goal, thus

accounting for the surface word order Theme/Goal exhibited in the language. The word order Goal/Theme is derived by movement of the Goal to the specifier position of DP; that Spec of DP is a landing site for movement is independently motivated by data provided by relative clauses. From its D- and S- structure positions, the Goal asymmetrically c-commands the Theme. This relationship was argued to be required in the account of the asymmetries exhibited by the construction (cf. section 2.2). Finally, on the basis of the distribution of weak pronouns in the language, it was argued that the Goal is assigned structural Case by the verb in both of its surface positions. This is an expected result since the Goal is the affected argument of the construction (cf. section 2.1.2).

6. The semantic representation of *ná* 'give', *xélé* 'show' et *kplón* 'teach'

In section 4, it has been argued that there is no transformational relationship between the double object and the serial verb, double complement constructions and that consequently, the two constructions must be derived independently. According to current proposals in the literature, the serial verb/double complement constructions consist of a small clause which has the inner structure of VP (for the serial verb construction, see e.g. Lefebvre, 1991; Larson, 1991; Law and Veenstra, 1992; for the double complement construction, see e.g. Larson, 1988; den Dikken, 1992). According to the proposal in section 5 for the Fon double object construction (see also Johnson, 1991, for English) the double object construction consists of a small clause which has the inner structure of DP. The Fon verbs *ná* 'give', *xélé* 'show' and *kplón* 'teach' participate in both the double object (cf. (1) and (2)) and the serial verb (cf. (56)) constructions. The clusters of basic properties that characterize these verbs entering in each of the two constructions are summarized in (131) and (132).

(131) Double object construction (cf. section2):

- a. the Goal of the construction is the affected argument (that undergoing the change) of the construction;
- b. possession is interpreted as involving ownership and hence the Goal is interpreted as a Goal of Possession ;
- c. the Goal c-commands the Theme at D- and at S-structure.

(132) Serial verb construction (cf. section 3):

- a. the Theme is the affected argument (that undergoing the change) of the construction;
- b. possession is interpreted as physical possession and hence the Goal is interpreted as a Goal of Location;
- c. the Theme c-commands the Goal at D- and at S- structure.

On the assumption that the syntax consists in the projection of the lexico- semantic properties of words, this situation immediately raises the question as to whether these verbs need two semantic representations. It is widely assumed, in current literature on lexical semantics, that verbs presenting argument alternations should be represented by two LCSs (cf. e.g. Levin and Rapoport, 1988; Lumsden, 1992). In this section, I take the point of view that it is possible to derive the alternations exhibited by the verbs *ná* 'give', *xéle* 'show' and *kplón* 'teach' from a unique LCS. I argue for the proposal in (133).

- (133) a. verbs presenting the alternations of the type in (131) and (132) have a unique semantic representation;
- b. this unique semantic representation is mapped onto two syntactic structures;

- c. mapping of the LCS onto syntactic structures is achieved by linking rules (which associate variables with syntactic positions to which thematic roles are assigned). These rules may assign a given variable to a position in more than one syntactic structure, yielding the possibility for a given verb of entering in more than one syntactic construction.

6.1. The core meaning of *ná* 'give', *xéle* 'show' and *kplón* 'teach'

In providing a LCS for these verbs, I will assume the following. First, I will assume that the verbs *ná* 'give', *xéle* 'show', *kplón* 'teach' in Fon are verbs of change of possession. Possession can be interpreted as involving ownership as in the double object construction or as involving physical possession (or location) as in the serial verb/double object constructions. These three verbs require three participants: an Agent, a Theme and a Goal.

Second, I will assume the theoretical framework developed in Jackendoff (1990 and related work). This framework includes the following components. The representation of the meaning of verbs uses two tiers: a thematic tier and an action tier. Participants in the event denoted by the verb are represented in the LCS by variables which will be linked to syntactic positions where they will be assigned a thematic role. MOVE TO is the abstract predicate which represents the notion of change on the thematic tier. AFFECT is the abstract predicate which represents the notion cause incorporated into the verb on the action tier. With Lumsden (1992) I assume that the notion 'possession' is best represented as an implicit argument, represented as POSSESSION in the LCS.

On the basis of these assumptions, the core meaning of the verbs *ná* 'give', *xéle* 'show', *kplón* 'teach' is as in (134).

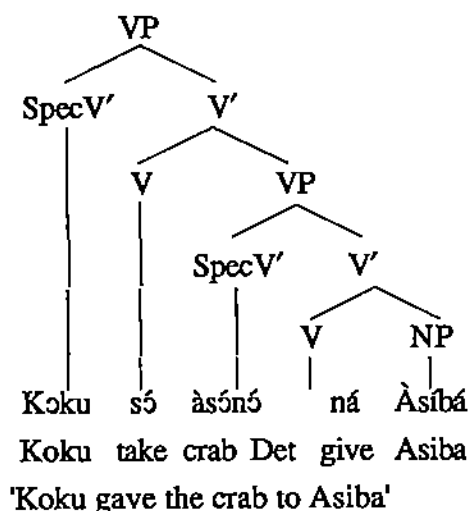
- (134) thematic tier: y MOVE TO [POSSESSION of z]
 action tier: x AFFECT y

If we let linking rules associate the variables of the LCS to syntactic positions in more than one syntactic structure, more than one syntactic construction can be derived from the LCS in (134). Suppose then, that in the serial verb construction (and the English double complement construction), the variable *y* is assigned to a syntactic position where it can be assigned the thematic role Theme and *z* is assigned to a syntactic position where it can be assigned the thematic role Goal. The interpretation of (134) would then be something like: 'Theme moves to (physical) possession (location) of Goal' and 'Agent affects Theme'. This would account for the fact that in this construction the Theme is the affected argument and for the fact that the Goal is interpreted as a Goal of Location. Similarly, suppose that in the double object construction the variable *y* is assigned to a position where it can be assigned the thematic role Goal and the *z* variable is assigned to a position where it can be assigned the thematic role Theme. The interpretation of (134) would then be something like: 'Goal moves to possession (ownership) of Theme (i.e. Goal acquires possession of Theme)' and 'Agent affects Goal'. This would account for the fact that in this construction the Goal is the affected argument and for the fact that it is interpreted as a Goal of Possession.

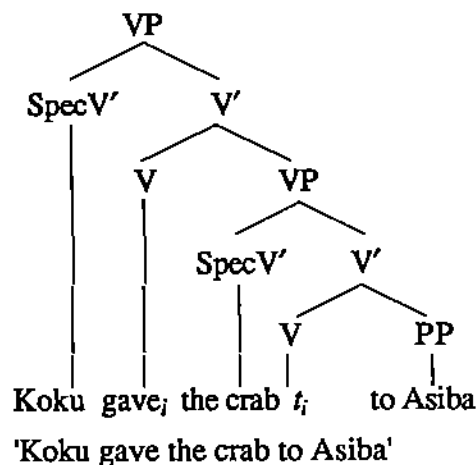
6.2. The derivation of the serial verb/ double complement constructions

The serial verb/ double complement constructions will be derived from the LCS in (134) in the following way. For the sake of this discussion, I will assume a structure of the type of that proposed in Larson (1988) for the double complement construction of English and the justifications there in. For the serial verb construction, I assume the structure proposed in Lefebvre (1991) and the justifications therein.²⁷ Hence, let the structure in (135) be the relevant one for deriving the serial verb and the double complement constructions.

(135) Fon serial verb construction
(from Lefebvre, 1991)



English double complement construction
(from Larson, 1988)

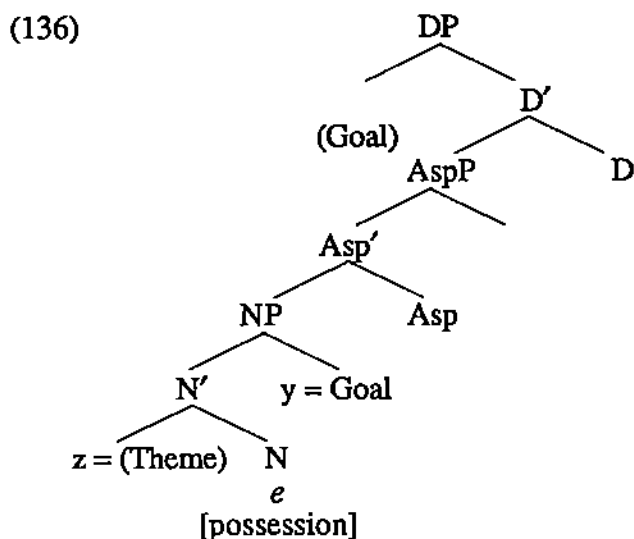


In (135), the variable *y* has been assigned to the specifier position of the lower VP. The argument in this position is the syntactic subject of the lower VP. It is being assigned the thematic role Theme through predication achieved by co-indexation of the specifier position with the V' node (along the analysis in Larson, 1988). The variable *z* has been assigned to the direct argument position of the verb where it is assigned the thematic role Goal by the verb. From this structure, the expected interpretation obtains: the Theme is the subject of predication, and as such, it is interpreted as the affected argument of the construction, that is, the participant undergoing the change. The Goal is interpreted as the Goal of physical possession and hence as a Goal of Location. Furthermore in the configurations in (135), the Theme asymmetrically c-commands the Goal both at D- and at S- structure. The properties of the construction listed in (132) are thus being accounted for.

6.3. The derivation of the double object construction.

The derivation of the double object construction will require that the variables of the LCS in (134) be assigned to different positions, hence using a different syntactic structure, which will allow for an account for the properties listed in (131). Given the correlation

established in section 1.2. between availability of the double object construction and availability of Genitive Case in nominal structures in particular grammars, and given the syntactic account of the double construction in section 5 that the small clause involved in the double object construction has the inner structure of DP, let the LCS in (134) be mapped onto the structure proposed in (108) as in (136) .



The variable *y* will be assigned to the specifier position of the nominal predicate phrase. The phonologically empty head of the nominal predicate stands for the implicit argument POSSESSION in the LCS. The variable *y* is assigned the thematic role Goal through predication. As the subject of predication of the construction, the Goal is the affected argument, the argument undergoing the change. The variable *z* is assigned to the complement position of the nominal predicate where it is assigned the thematic role Theme. The interpretation of 'ownership' entailed by the construction is forced by the fact that we have a possession construction. In the configurations in (136), the Theme asymmetrically c-commands the Goal both at D- and at S- structure. The properties of the construction listed in (131) are thus being accounted for.

6.4. Summary

In this section, I have shown that there is no need to postulate two semantic representations for a given set of verbs presenting argument alternations of the type discussed here, if we let a single LCS to be mapped onto more than one syntactic structure. The possibility of mapping a unique LCS onto more than one syntactic structure rests on properties of liking rules which associate the variables of the LCS to syntactic positions. The variables of the thematic tier of a given set of verbs may be mapped onto a small clause which has the inner structure of VP thus producing the serial verb/double complement constructions. Or they can be mapped onto a small clause which has the inner structure of DP thus producing the double object construction. The analysis that verbs presenting the argument alternations of those of the type under analysis in this paper need only one semantic representation is a welcome result since it reduces redundancies in the lexicon.

7. Range of verbs participating in the double object construction

The range of verbs participating in the double object construction varies between speakers of a given language and between languages. Not all Fon speakers have exactly the same range of double object verbs. Furthermore, while English has a wide range of verbs which can participate in the double object construction, Fon presents a rather narrow range of such verbs (cf. note 1). How can this variation be accounted for?

In section 2.1.1. it was shown that the Theme and the Goal of the double object construction must be in a possession relationship. Verbs for which there is no possession relationship between the Theme and the Goal cannot participate in the double object construction. *Sà* 'sell' and *nyà* 'loan' were shown to be such verb (cf. (30), (31)). The verbs *xò* 'buy' and *qò* 'tell' can be added to this list on the basis of this semantic criterion. In this section, I show that, although this semantic correlation must hold between the Theme and the Goal of the double object construction, it is not a sufficient condition for

establishing whether a verb can participate in the construction. I argue that the Case feature specification of individual verbs is also a required feature.

Consider data involving the verb *sú* 'pay' as depicted in (137).

- (137) Kòkú sú xòkwé ́ nú xwétò ́
 Koku pay rent Det to owner Det
 'Koku payed the rent to the owner'

For all informants, the relationship between the Theme and the Goal in (137) entails the possession relationship found between the possessed and the possessor in the corresponding nominal structure (138).

- (138) xòkwé nyì/ húzú xwétò tòn
 rent be/become owner GE
 'The rent(money) is/has become the owner's'

Half of the informants have *sú* as a double object verb: for them the sentence in (139) is grammatical. The other half do not have *sú* as a double object verb: for them the sentence in (139) is not grammatical.

- (139) ok/ * Kòkú sú xwétò ́ xòkwé ́/ xòkwé ́ xwétò ́
 Koku pay rent Det owner Det/ owner Det rent Det
 'Koku payed the owner the rent'

The constellation of facts in (137)-(139) constitutes evidence supporting the claim that the possession relationship that holds between the Theme and the Goal of a given verb cannot constitute the only criterion for establishing whether a verb can participate in the double object construction. For if it were there would be no explanation for the variation between informants exhibited for the verb *sú* in (139).

I propose that the variation observed in (139) rests on the Case feature specification of verbs. Suppose that for speakers of the first group, the verb *sú* 'pay' is specified for assigning structural Case to the argument bearing the thematic role Goal and that for the second group of speakers it is not. This would explain why the first group has *sú* as a double object verb and why the second group does not.

Data involving the serial verb construction support this claim. Recall from section 3 that verbs which participate in the double object construction may also participate in the serial verb construction. An example sentence from (56) is reproduced as (140) for convenience.

- (140) Kòkú sɔ́ àsón ɔ́ ná Àsíbá.
 Koku take crab DET give Asiba
 'Koku gave the crab to Asiba.'

Following the analysis in section 6 (cf.(135)), in (140), the Goal occupies the direct argument position of the verb *ná*. Assuming the analysis in Lefebvre (1991), the verb *ná* assigns structural Case to the Goal NP in this position.

Now, let us consider verbs which can participate in the serial verb construction but which do not participate in the double object construction. Examples are provided in (141).

- (141) a. Kòkú sɔ́ àkwé nyà nú Àsíbá
 Koku take money loan to Asiba
 'Koku loaned money to Asiba'
- b. Kòkú sɔ́ xwénúxò ɖò nú Àsíbá
 Koku take story tell to Asiba
 'Koku told a story to Asiba'

Notice that in (141), the Goal is realized as a PP rather than as a NP as in (140). The contrast between (140) and (141) follows from the Case feature specification of the verb. In (141) the second verb of the serial verb construction has no structural Case to assign to the Goal and hence, the Goal has to be realized as a PP. The contrast between the data in (140) and in (141) thus supports the claim that verbs which participate in the double object construction must also have the property of assigning structural Case to the argument bearing the thematic role Goal.

With this tool in hand, we have a means of explaining the variation between informants with respect to the verb *sú* 'pay' (cf. (139)). The proposal above predicts two possible realizations for the Goal of the verb *sú* when the latter appears as the second verb in a serial verb construction: one in which the Goal is realized as an NP (as in (140)) and one in which the Goal is realized as a PP (as in (141)). This prediction is born out by the data as shown in (142).

- (142) a. Kòkú sɔ́ xòkwé sɔ́-sú Àsíbá
 Koku take rent pay Asiba
 'Koku payed the rent to Asiba'
- b. Kòkú sɔ́ xòkwé sɔ́ - sú nú Àsíbá
 Koku take rent pay to Asiba
 'Koku payed the rent to Asiba'

Speakers for whom *sú* is a double object verb accept (142 a) and reject (142b). Speakers for whom *sú* is not a double object verb accept (142b) but reject (142a).

The data discussed in this section show that in order to participate in the double object construction, a verb must have the appropriate Case feature specification, that is, it must be specified for assigning structural Case to the argument bearing the thematic role Goal. On this view, the Case feature specification of verbs accounts for variation between

speakers, and presumably between languages, with respect to the range of verbs participating in the double object construction.

8. Acquisition

The particular data of Fon bring the following clarifications on the theoretical issues raised by the double object construction. First, the Fon data strongly support the proposal in Johnson (1991) and in Tremblay (1991) that the availability of the double object construction in a given grammar correlates with the availability of the Genitive Case in nominal structures (section 1). Second, the two surface word orders of the Fon double object construction provide data which support the dominance account of the Theme/Goal asymmetries exhibited by the construction (section 2). Third, the Fon data support the view that the double object and the serial verb/ double complement constructions are not transformationally related and that therefore, they must be independently generated (section 4). The Fon data strongly support the general proposal in Johnson (1991) that the small clause involved in the double object construction has the inner structure of DP (section 5). Providing that linking rules are allowed to map the variables of a given LCS to positions in more than one syntactic structures it is possible to represent the verbs under analysis by a unique LCS (section 6). Hence, the LCS of the class of verbs under analysis can be mapped onto a small clause having the inner structure of VP yielding the serial verb/ double complement constructions with the appropriate meaning and hierarchical relationships (section 3). Or the LCS of the same class of verbs can be mapped onto a small clause having the inner structure of DP yielding the double object construction with the appropriate meaning and hierarchical relationships (sections 3 and 5). Finally, it has been argued that verbs participating in the double object construction must be specified for structural Case assignment to the Goal. What are the consequences of these findings for acquisition?

The language learner has a unique representation for verbs of change of possession. (S)he will deduce the availability of the double object construction from the availability of Genitive Case in the nominal structure of the language (s)he is faced with. The basic position of the Goal of the double object construction will be deduced from the position of the possessor in nominal structures. Thus the Fon learner will deduce the basic word order Theme/Goal from the word order found in nominal structures. This will also provide him/her with the appropriate hierarchical relationship holding between the Goal and the Theme in the construction. In order to establish the range of verbs participating in the construction, the language learner will have to learn the Case specification feature of verbs. Fon, the Case specification of particular verbs can be deduced from the realization of the Goal as a PP or as a NP in the serial verb construction.

References

- Anonymous. 1983. *Éléments de recherche sur la langue Fon*. Cotonou.
- Abney, Steven. 1987. *The English Nouns Phrase in its Sentential Aspect*. Cambridge, MA: MIT Doctoral Dissertation.
- Aoun, J. and Audrey Li. 1989. "Scope and Constituency". *Linguistic Inquiry* 20.2: 141-172.
- Avolonto, Aimé. 1992. "De l'étude sémantico-syntaxique des marqueurs préverbaux à la structure de la phrase en fõngbè". Université du Québec à Montréal. Mémoire de maîtrise.
- Baker, Mark. 1991. "On the Relation of Serialization to Verb Extensions". *Serial Verbs: Grammatical, Comparative and Cognitive Approaches* ed. by Claire Lefebvre, Studies in the Sciences of Language Series 8, 79-102. Amsterdam/ Philadelphia: John Benjamins.

- Baker, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.
- Barss, A. and H. Lasnik. 1986. "A note on Anaphora and Double Objects". *Linguistic Inquiry* 17.2: 347-352.
- Brousseau, Anne-Marie. (in preparation) "Les alternances argumentales en Fon" Ph D. Thesis. UQAM.
- Brousseau, Anne-Marie and John S. Lumsden. 1992. "Nominal Structure in Fongbe". *Journal of West African Languages* XXII.1: 1-22.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Déchainé, Rose-Marie. 1988. "Opérations sur les structures argumentales: Le cas des constructions sérielles en créole haïtien" in C. Lefebvre (éd.) *Travaux de recherche sur le créole haïtien*. no.1 UQAM.
- den Dikken, Marcel. 1991. "Serial Verbs, 'Object Sharing', and the Analysis of Dative Shift". *Linguistics in the Netherlands* ed. by Frank Drijkoningen and Ans van Kemenade, AVT Publications 8, 31-40. Amsterdam/Philadelphia: John Benjamins.
- Emonds, J. 1976. *A Transformational Approach to English Syntax*. New York: Academic Press.
- Fabb, Nigel. 1992. "The Licensing of Fon Verbs". *Journal of West African Languages* XXII.1: 27-34.
- Fillmore, Charles, J. 1965. *Indirect Object Constructions in English and the Ordering of Transformations*. The Hague: Mouton.
- Greene, G. 1974. *Semantics and Syntactic Regularity*. Bloomington: Indiana University Press.

- Grimshaw, Jane. 1989. "Getting the Dative Alternation". *Functional Heads and Clause Structure* ed. by Itziar Laka and Anoop Mahajan, *MIT Working Papers in Linguistics* 10: 113-122. Cambridge, MA: Department of Linguistics and Philosophy, MIT.
- Hale, Ken. 1983. "Walpiri and the Grammar of Non-Configurational Languages". *Natural Language and Linguistics Theory* 1: 5-48.
- Hale, Ken and Jay Keyser. 1987. "A View from the Middle". *MIT Lexicon Project Working Papers* 10. MIT Center for Cognitive Science.
- Hale, K. and M. Laughren. 1983. "The Structure of Verbal Entries: Preface to Dictionary Entries of Verbs". *Walpiri Lexicon Project* Cambridge: MA.MIT.
- Hornstein, Norbert and Amy Weinberg. 1981. "Case Theory and Preposition Stranding". *Linguistic Inquiry* 12.1: 55-91.
- Jackendoff, Ray. 1990. "On Larson's Account of the Double Object Construction". *Linguistic Inquiry* 21.3: 427-455.
- Johnson, Kyle. 1991. *Object Positions*. *NLLT*. no9: 577-636.
- Kayne, Richard S. 1984. *Connectedness and Binary Branching*. Dordrecht: Foris.
- Kinyalolo, Kasangati K. W. 1992. "A Note On Word Order in the Progressive and Prospective in Fòn". *Journal of West African Languages* XXII.1: 35-51.
- Lamontagne, Greg and Lisa Travis. 1992. "The Case Filter and Licensing of Empty K". In Claire Lefebvre, John Lumsden and Lisa Travis (eds). *Functional categories*. Special issue of the *Revue canadienne de linguistique*. April.
- Larson, Richard. 1988. "On the Double Object Construction". *Linguistic Inquiry* 19.3: 335-391.
- Larson, Richard. 1990. "Double Objects revisited: Reply to Jackendoff". *Linguistic Inquiry* 21.4: 589-632.

- Larson, Richard. 1991. "Some Issues in Verb Serialization" in C.Lefebvre (ed.) *Serial verbs: grammatical, comparative and cognitive approaches*. John Benjamins Publishing co. Amsterdam: 185-207.
- Law, Paul and Claire Lefebvre. 1992. "On Predicate Cleft". Paper given at the parasession of the GLOW conference, Lisbon, April 1992.
- Law, Paul and Veenstra. 1992. "Preliminaries on the syntactic structure of serial verb construction" in C. Lefebvre and P. Law (eds). *Travaux de recherche sur le créole haïtien*. UQAM. no7: 1-17.
- Lefebvre, Claire.1992. "AGR in languages without person and number agreement: the clausal determiner in Haitian and Fon ". In Claire Lefebvre, John Lumsden and Lisa Travis (eds.) *Functional categories*. Special issue of the *Revue canadienne de linguistique*. April.
- Lefebvre, Claire. 1991. "Take Serial Verb Constructions in Fon". *Serial Verbs: Grammatical, Comparative and Cognitive Approaches* ed. by Claire Lefebvre, Studies in the Sciences of Language Series 8, 37-78. Amsterdam/Philadelphia: John Benjamins.
- Lefebvre, Claire. 1990. "Establishing a Syntactic category P in Fon". *The Journal of West African Languages* 20.1: 45-63.
- Lefebvre, Claire and Pieter Muysken. 1988. *Mixed Categories: Nominalizations in Quechua*. Studies in Natural Language and Linguistic Theory. Dordrecht: Kluwer Academic Press.
- Levin, Beth and T.R. Rapoport. 1988. "Lexical Subordination". *Chicago Linguistic Society* 24.
- Lumsden, John. 1992. "Possession: substratum semantics in Haitian creole". in C. Lefebvre (ed.) *Travaux de recherche sur le créole haïtien*. no 10: 23-35. UQAM.
- Mazurkevich, I. and L. White. 1984. "The Acquisition of the Dative Alternation: Unlearning Overgeneralizations". *Cognition* 16: 261-283.

- Oehrle, R.T. 1976. *The Grammatical Status of the English Dative Alternation*. Cambridge, MA: MIT Doctoral Dissertation.
- Pinker, Steven. 1989. *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge, MA: MIT Press.
- Randall, J.H. 1987. "Indirect positive evidence: Overtuning overgeneralisations in language acquisition". Unpublished ed. ms. Indiana University Linguistics Club. Bloomington.
- Ritter, Elizabeth. 1992. "Cross-Linguistic Evidence for Number Phrase". In C. Lefebvre, J. S. Lumsden and L. Travis (eds), *Functional Categories*. Special Issue of the *Revue canadienne de linguistique*. April.
- Segurola, P. 1963. Dictionnaire fon. Cotonou
- Tenny, Carol. 1987. *Grammaticalizing Aspect and Affectedness*. Cambridge, MA: MIT Doctoral Dissertation.
- Travis, Lisa. 1991. "Inner Aspect and the structure of VP". NELS. XXII. University of Delaware.
- Travis, Lisa. 1992. "Inner Tense in NPs: the position of Number" Proceedings of the CLA meeting held in Charlottown.
- Tremblay, Mireille. 1991. "An Argument Sharing Approach to Ditransitive Constructions". Proceedings of the *Ninth West Coast Conference on Formal Linguistics*, ed. by Aaron L. Harpen. Conference held at Stanford University, Stanford:CA.
- Tremblay, Mireille. 1991. *Possession and Datives: Binary Branching from the Lexicon to Syntax*. McGill University Doctoral Dissertation.
- Zhang, Shi. 1990. "Correlations Between the Double Object Construction and Preposition Stranding". *Linguistic Inquiry* 21.2: 312-316.

Notes

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1. The range of verbs participating in the Fon double object construction is rather limited. The verbs in (1) and (2) represent the core list for all the speakers interviewed on this construction. For a discussion on factors which determine the range of verbs participating in the construction, see sections 2.1 and 7.

2. See also Lefebvre (1990) for a detailed analysis of the full range of prepositions in Fon and for the unavailability of preposition stranding in the language. Lefebvre (1990) also presents data on the resumptive strategy which is available in some cases.

3. Whether the difference in meaning between the two constructions is as sharp as has been suggested in the literature is a debatable question. For a discussion of fuzzy data, see Oehrle (1976). For a general discussion, see Pinker (1989).

4. Since the verb *sé* 'send' in Fon is not a double object verb, I cannot provide data which are comparable to the English data in (13) and (14). For a discussion of this verb, see section 3.3.

5. I would like to point out another difference between the double object construction and the double complement construction which involves the property of the subject of

verbs entering in the constructions. In English, in sentences involving verbs like 'give', occurring with an inanimate subject and a psychological state, the inanimate NP can surface in the double object construction, but it cannot in the double complement construction.

- (i) a. The accident gave John a scare.
- b. ?? The accident gave a scare to John.

In Fon, both word orders allow for an inanimate subject and a psychological state.

- (ii) a. Àwóvì ò ná nǔ-nyóé Kòkú.
- accident DET give scare Koku
- 'The accident gave Koku a scare.'
- b. Àwóvì ò ná Kòkú nǔ-nyóé.
- accident DET give Koku scare
- 'The accident gave Koku a scare.'

So in this respect as well, the two word orders of the Fon double object construction parallel the double object construction of English. I am indebted to John Lumsden for bringing this fact to my attention.

6. In the terminology of current research in Lexical Semantics, the affected argument is the argument corresponding to the variable that undergoes a change of state or a change of location in the Lexical Conceptual Structure of a verb (cf. Hale and Keyser, 1987). For example, on Levin and Rapoport's (1988) analysis of the LOAD verbs alternation, in 'John loaded the corn in the wagon', 'corn' is the affected argument (it is the Theme of change of location) and in 'John loaded the wagon with corn', 'wagon' is the affected argument (it is the Theme of change of state): from the state of being empty, the 'wagon' has undergone a change to the state of being full.

7. Since there is no 'standard' syntactic passive in the language, it is not possible to provide Fon data similar to (33) in English: The Fon construction closest to the English passive is illustrated in (ii) derived from (i). Note that in (ii) the Agent must remain an implicit argument (cf. Brousseau, in preparation, for an extensive discussion of this construction).

- (i) Kòkú gbà xwé ́.
 Koku destroy house DET
 'Koku destroyed the house.'
- (ii) Xwé ́ nyì gbìgbà.
 house DET be destroyed
 'The house has been destroyed.'

The alternation exhibited above, which allows for the direct argument of a verb to appear in the subject position of this verb, is not available with the double object construction as is illustrated by the ungrammaticality of (iii b and c).

- (iii) a. Kòkú ná Àsfbá àsón/àsón Àsfbá.
 Koku give Asiba crab/crab Asiba
 'Koku gave Asiba crab.'
- b. * Àsfbá nyì àsón ná
 Asiba is crab given
 'Asiba has been given crab.'
- c. * Àsón nyì Àsfbá ná
 crab is Asiba given
 'Crab has been given Asiba.'

The reason as to why this is so will follow from the analysis proposed in section 5. For a specific discussion on this issue, see section 5.8.

8. In (34), the internal argument of the verb 'destroy' is the affected argument both semantically and syntactically according to the definitions provided in Tenny (1997: 80):

"A syntactic argument is an affected argument iff it is the direct argument of an affectedness verb, and its referent delimits the event described by the verb" (p.80).

"A semantic argument is an affected argument iff it independently delimits the event in which it participates" (p. 80).

9. The verbs 'see' and 'understand' do not correspond to the definition of an affectedness verb provided in Tenny (1987:75): "Affectedness may be defined as the property of a verb, such that it describes a situation or happening that can be delimited by the direct argument of the verb".

10. Note the subtle difference in the presupposition between the (a) and the (b) sentences of (38). The discussion of this difference will be taken up in section 5.5.

11. All Fon speakers interviewed on the Theme/Goal asymmetries agree on the data in (41). As for the data involving binding of a pronoun by a quantifier and *each...the other* asymmetries, speakers divide into two groups. For the speakers of the dialect under discussion in this paper, the data are as reported in the main text. Speakers of another dialect tend to prefer the word order Goal/Theme for the latter two asymmetries (cf. (43a) and (46a). For these speakers then it appears that precedence is a generalized requirement in the account of the Theme/Goal asymmetries. However, for this latter group of speakers, an asymmetrical c-command relationship between the Goal and the Theme of the construction is also required since for these speakers, as well as for the speakers of the first group, the sentences in (44), in which the quantifier is part of the Theme NP and the

bound pronoun is part of the Goal NP, and the sentences in (47), in which the '*each*-phrase' is contained within the Theme NP and the '*other*-phrase' is contained within the Goal NP, are also ungrammatical.

12. Pending further research on negation in Fon, the Theme/Goal asymmetry involving negative polarity items is not discussed in this paper.

13. For a different analysis, see Lumsden (1992).

14. There is another difference between the serial verb construction and the double object construction in Fon which involves the property of the subject of verbs entering in the constructions. Recall from note 6 that the double object construction allows for an inanimate subject and a psychological state. This is shown in (i) (= (ii) in note 6).

- (i) a. Àwóvì ɔ ná nũ-nyóé Kòkú.
 accident DET give scare Koku
 'The accident gave Koku a scare.'
- b. Àwóvì ɔ ná Kòkú nũ-nyóé.
 accident DET give Koku scare
 'The accident gave Koku a scare.'

Fon speakers do not allow for an inanimate subject in the serial verb counterpart of (i) as shown by the ungrammaticality of (ii).

- (ii) * Àwóví ɔ sɔ nunyóé ná Kòkú
 accident DET take scare give Koku
 'The accident gave a scare to Koku.'

The ungrammaticality of (ii) parallels the ungrammaticality of parallel data from the double complement construction in English in (iii) (= (ib) in note 6).

- (iii) ?? The accident gave a scare to John.

15. For a more elaborate discussion on this property of Fon verbs see Lefebvre (1991). The discussion as to why Fon presents this property is beyond the scope of this paper.

16. Segurola (1963:409) defines *nú* as a preposition. The preposition *nú* translates as 'to' or 'for'. It selects a NP which is interpreted either as a Goal or as a Benefactive. A PP headed by *nú* may occur in the context of the verbs participating in the double object construction. In this case, the PP is always interpreted as a Benefactive. Compare the meaning of the (a) and (b) sentences in (i)-(ii).

- (i) a. Kòkú ná àsón Àsíbá.
Koku give crab Asiba
'Koku gave Asiba crab.'
- b. Kòkú ná àsón nú Àsíbá.
Koku give crab for Asiba
'Koku gave crab for Asiba.'
- (ii) a. Kòkú kplón flánsègbé Àsíbá.
Koku teach French Asiba
'Koku taught Asiba French.'
- b. Kòkú kplón flánsègbé nú Àsíbá.
Koku learn French for Asiba
'Koku learned French in the interest of Asiba.'

A PP headed by *nú* may also occur in the context of verbs which do not participate in the double object construction. In this context, the NP selected by the preposition *nú* may be interpreted as a Goal, as in the examples in (iii).

-
- (iii) a. Kòkú sá àsón nú Àsfbá.
 Koku sell crab to Asiba
 'Koku sold crab to Asiba.'
- b. Kòkú ɖó xwènúxó nú Àsfbá.
 Koku tell story to Asiba
 'Koku told a story to Asiba.'
- c. Kòkú nyà àkwé nú Àsfbá.
 Koku loan money to Asiba
 'Koku loaned money to Asiba.'

In some cases the NP selected by the preposition *nú* may be interpreted either as a Goal or as a Benefactive as in (iv).

- (iv) Kòkú sú àxò nú Àsfbá
 Koku pay dept to/for Asiba
 'Koku payed the dept to/for Asiba'

The syntactic properties of PPs headed by *nú* are the same whether the PP is interpreted as a Goal or as a Benefactive, or whether it occurs in the context of verbs which participate or not in the double object construction.

17. While in tensed clauses the Theme follows the verb, in nominalization contexts, the Theme precedes it. Nominalization of the verb consists in duplicating the verb stem: e.g. *yí* 'go; *yíyí* 'going'. When the nominalized verb is preceded by an object, the verb is not reduplicated (cf. 96b). For extensive discussions on the progressive construction, see Kinyalolo (1992) and Fabb (1992).

18. Note that (96c) is also impossible under Heavy NP shift as is shown in (i):

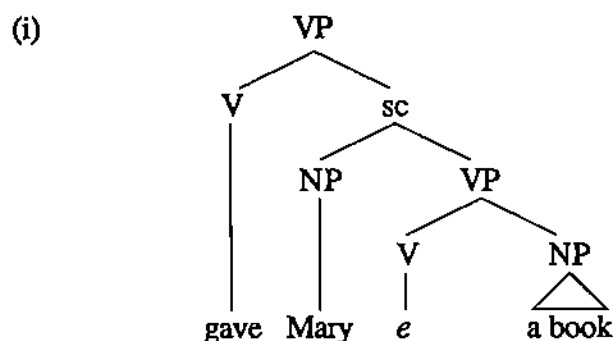
- (i) * Kòkú dò t_i yìyì wè [àxì dè mè mi yì 5]_i
 Koku at going POST market that in we went DET
 [Lit.: 'Koku is going to the market that we went to.']

19. We could hypothesize that the rightmost position for the PP is a case of extraposition. This hypothesis falls short, however, in light of the previous four arguments.

20. It has been advocated that the Theme and the Goal of the double object construction form a small clause. For Kayne (1984), that small clause has the following structure: [_{sc} PP NP]. For Larson (1988), the small clause is [_{vp} NP V PP]. For Tremblay (1991) the small clause is comprised of two NPs: [_{sc} NP NP]. For Aoun and Li (1989) the small clause has the following inner structure: [_{sc} NP [_{vp} V NP]] . For Johnson (1991), the small clause has the inner structure of a DP: [_{dp} DP DP].

21. cf.note (17) on nominalizations.

22. The structure proposed in (108) minimally differs from that in Johnson's: in the latter proposal, the Theme is the predicate of the construction while in mine the Theme is part of the predicate phrase: it is the complement of the phonologically null nominal predicate of possession. In this respect, my proposal is very similar to that of Aoun and Li (1989) for English. As can be seen in (i), they also propose that the Theme is the complement of a phonologically null predicate. While they propose that this predicate is verbal, I propose that this predicate is nominal.



23. This is consistent with the fact that in unmarked contexts the word order Theme/Goal is preferred over the word order Goal/Theme.

24. The clausal determiner is homophonous with the event determiner. It is distinct from the latter in two major ways: while the clausal determiner occurs as the head of DP (=CP/IP), the event determiner is the head of a functional projection within IP (cf. Lefebvre, 1992, for an extensive discussion on the distribution of the event determiner). While the event determiner induces a presupposition on what is 'known information' (cf. section 2.1.2.), the clausal determiner does not induce such a meaning.

25. cf. Travis (1991) who argues that in spite of the fact that the double object construction involves a small clause, the VP containing that small clause is a complex VP.

26. The proposal that the Theme of the double object construction is being assigned Case by the phonologically null predicate raises the question as to how the Theme is marked for accusative Case (in addition to the Goal) in languages such as Quechua in which Case is morphologically visible. I propose that in languages of the type of Quechua, Case assignment proceeds in the same way as in Fon. I further assume that in these languages there is a Case agreement rule (just like person agreement) taking place between the subject of the construction (the Goal) and the predicate of the construction. The accusative Case feature thus found on the predicate phrase as a result of Case agreement. It cannot be realized onto the nominal predicate because the latter is phonologically null. It thus attaches to the closest lexical item available within the projection, that is, the Theme.

27. Variants of these proposals have been made in recent literature. For the serial verb construction see e.g. Larson (1991) Law and Veenstra (1992). For the double object construction, see e.g. denDikken (1991). With respect to the discussion at stake in this section, nothing hinges on the differential features between these proposals.