

# Event Descriptions in Fon and Haitian Creole\*

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Lefebvre (1992, 1998) and Law and Lefebvre (1995) describe an interesting set of facts concerning the distribution and interpretation of definiteness markers in the Kwa language Fongbe (hereafter Fon), and in Haitian Creole (1a,b). In both Fon and Haitian, definiteness markers (hereafter abbreviated "DMs") occur in construction with nouns as garden-variety articles (2a,b):

- |     |  |         |
|-----|--|---------|
| (1) | Definiteness Markers                               |         |
|     | a. $\acute{s}$ (allomorph: $\acute{s}n$ )          | FON     |
|     | b. <i>la</i> (allomorphs: <i>lan, nan, an, a</i> ) | HAITIAN |
| (2) | a. $\grave{a}s\acute{s}n \acute{s}$                | FON     |
|     | b. <i>krab la</i>                                  | HAITIAN |
|     | crab <b>DM</b> 'the crab'                          |         |

But they are also reported to occur in construction with a clause, as shown in (3a,b):[1]

- |     |   |         |
|-----|---|---------|
| (3) | a. [ $\acute{S}un\grave{u} \acute{s}$ ] <i>gb\grave{a}</i> [ $m\acute{a}t\grave{o} \acute{s}$ ] $\acute{s}$ | FON     |
|     | b. [ <i>Moun nan</i> ] <i>detwi</i> [ <i>machin nan</i> ] <b>an</b>   | HAITIAN |
|     | man DM destroy car DM <b>DM</b>   |         |
|     | <u>Approx:</u> 'The man destroyed the car'  |         |

As described by Lefebvre (1992, 1998), the presence of a clausal DM produces a complex semantic effect on the presuppositions of its containing sentence. Furthermore, these effects are subject to a number of constraints, and appear to interact scopally with other elements in the sentence.

In this paper I suggest that clausal DMs can be given a revealing account under the view that they are **adverbs of quantification**, in the sense of Lewis (1975). Specifically, I propose that clausal DMs represent a new, and hitherto unattested item in the inventory of quantificational adverbs: a definite adverb with Russellian semantics. Under this proposal, Fon and Haitian clausal DMs fill an interesting paradigmatic "gap" that has existed up to this point. Whereas parallel determiner and adverbial quantifiers exist in many cases, with definite determiners this parallelism appears to break down (4a,b):

- |     |  |
|-----|--|
| (4) | a. Some / All / Most / <b>The</b> men ate potato chips.                |
|     | b. Sometimes / Always / Mostly / * <b>The-ly</b> men ate potato chips. |

I suggest that Fon and Haitian essentially complete this paradigm, showing both nominal and adverbial definites.

In section 1, I sketch the basic interpretation of Fon and Haitian clausal definiteness markers, and two important constraints on them observed by Lefebvre: one concerning definiteness, the other concerning telicity; I then state the central theoretical questions that these data raise. In section 2, I present the definite adverb analysis, drawing on recent semantic work concerning adverbs of quantification. In section 3, I consider the syntax of clausal DMs more fully, and in section 4, I show that this analysis yields an attractive account of the definiteness constraint noted above. Finally, in section 5, I address the telicity constraint, suggesting that it is parallel to a restriction observed by Johnston (1994) concerning temporal adverbs.

## 1.0 Clausal Definiteness Markers in Fon and Haitian

Lefebvre (1998) reports that, in the most general case, the presence of a clausal definiteness marker in Fon or Haitian sentences appears to yield three different possible interpretations. These are illustrated for a synonymous Fon-Haitian pair in (5a-c), from Lefebvre (1998):

- |     |      |   |         |        |     |           |           |
|-----|------|---|---------|--------|-----|-----------|-----------|
| (5) | Súnù | ś   | gbà     | mátò   | ś   | ś         | FON       |
|     | Moun | nan   | detwi   | machin | nan | <b>an</b> | HAITIAN   |
|     | man  | DM  | destroy | car    | DM  | <b>DM</b> |           |
|     | a)   | 'Actually, the man destroyed the car'                                 |         |        |     |           | Reading 1 |
|     | b)   | 'The man destroyed the car, as we knew the car would be destroyed'    |         |        |     |           | Reading 2 |
|     | c)   | 'The man destroyed the car, as we knew the man would destroy the car' |         |        |     |           | Reading 3 |

Lefebvre describes the first reading as one in which "the determiner asserts the content of the proposition, relating to something that has been said earlier in the conversation." (1998, p.95) This interpretation is marked by using 'actually' in the gloss. Consider, for instance the simple case in which an event of car-destroying is discussed at some point. Later someone refers to this event again. The definiteness marker is used to flag the event as one that was talked about earlier.

The second and third readings are described by Lefebvre as ones in which the clausal DM "identifies an event that is already part of the shared knowledge of the participants" - i.e., is discourse familiar. "It literally means 'this event in question/that we know of.'" (1998, p.95) Both readings 2 and 3 assume an event of the kind described by the verb - in the case of (5), an event of destroying. Where the two readings differ is in whether certain additional content is ascribed to the event. With reading 2 this content corresponds to what is given by the verb and its object - a destroying of the car. In the case of reading 3, the content corresponds to the whole clause - a destroying of the car by the man.

Although the three readings noted by Lefebvre are described in rather general terms, the key differences among them appear to be describable in terms of the notion "local presupposition", that is, presupposition generated by clause material itself (de Swart 1993). Specifically, Lefebvre's three readings seem to be distinguished by increasing local presuppositional content. To illustrate this idea with example (5), recall that the first reading (glossed with "actually") asserts the contents of the clause, carrying presuppositions that are derived from the discourse context, that is, non-local presuppositions. Using elementary event semantics to represent semantic contents, we might spell out Reading 1 of example (5) as in (6). This would amount to asserting (5) that there was an event whose agent was the man (m) and whose theme was the car (c) (6):

- |     |                      |   |           |
|-----|----------------------|---|-----------|
| (6) | <b>Local Presup:</b> | ∅                                       | Reading 1 |
|     | <b>Assertion:</b>    | destroying(e) & Agent(e,m) & Theme(e,c) |           |

The presuppositions of the sentence under this reading (which Lefebvre renders using "actually" in the gloss) would be strictly those inherited from the discourse context.

The second reading again appears to assert the content of the clause, but this time presupposes something determined locally by it. Specifically, it presupposes an event of the kind given by the verb and its object (VP). In the case of (5), we presuppose the existence of an event of car-destruction, and we assert an event of car-destroying by him (7):

- |     |                      |   |           |
|-----|----------------------|---|-----------|
| (7) | <b>Local Presup:</b> | destroying(e) & Theme(e,c)              | Reading 2 |
|     | <b>Assertion:</b>    | destroying(e) & Agent(e,m) & Theme(e,c) |           |

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Finally, the third reading seems to presuppose the entire content of the clause and to assert that the described event occurred. Thus in (5), we presuppose an event of car-destroying by him, and we assert its occurrence (8):

(8)	<b>Local Presup:</b>	destroying(e) & Agent(e,m) & Theme(e,c)	Reading 3
	<b>Assertion:</b>	occurred (e)	

Note that under this proposal, the key differences in readings amount to scope of presupposition - whether none, some, or all of the clausal material is presupposed. For the remainder of this paper I will assume that this is the correct formal characterization of Lefebvre’s informal descriptions, but it should be kept firmly in mind that this represents a working hypothesis about the basic factual domain, and in need of independent confirmation. My goal in pursuing this hypothesis is to sharpen the theoretical issues that arise under the assumed interpretation so as to lay out a possible course for further careful investigation of the data.

**1.1 Constraints on Definiteness Markers and Their Interpretation**

Examples like (5) display the broadest possible range of readings for clausal definiteness markers. However other examples may lack one or more of these interpretations. Specifically, although Reading 1 is freely available according to Lefebvre (1998), Readings 2 and 3 are more constrained. I will discuss two of Lefebvre’s constraints here: one concerning definiteness of nominal arguments and a second concerning aspect.[2] I will also note an interaction between telicity and negation in Fon.

**1.1.1 Definiteness Constraints**

The example in (5) contains both a definite subject and a definite object. Lefebvre (1992, 1998) observes that this fact is crucial to the availability of Readings 2 and 3. More concretely, the possibility of Reading 2, with the VP material presupposed, requires a definite object. As (9) shows, with an indefinite object like *mátò dé/yon machin*, ‘a car’, the reading disappears.[3]

(9)	<u>Súnù</u> <u>dé</u> gbà <u>mátò</u> <u>dé</u> <u>ś</u> <u>ś</u> FON
	man DM destroy <u>car</u> <u>INDEF</u> <u>DM</u>
	Moun nan detwi <u>yon</u> <u>machin</u> <u>an</u> HAITIAN
	man DM destroy <u>INDEF</u> <u>car</u> <u>DM</u>
	2. #‘The man destroyed a car, as we knew a car would be destroyed’

Likewise, the possibility of Reading 3, with all clausal material presupposed, requires a definite subject. (10) illustrates that an indefinite subject like *Súnù dé/ Yon moun*, ‘a man’, blocks the relevant reading:[4]

(10)	<u>Súnù</u> <u>dé</u> gbà <u>mátò</u> <u>ś</u> <u>ś</u> FON
	<u>man</u> <u>INDEF</u> destroy car DM <u>DM</u>
	<u>Yon</u> <u>moun</u> detwi machin nan <u>an</u> HAITIAN
	<u>INDEF</u> <u>man</u> destroy car DM <u>DM</u>
	3. #‘A man destroyed the car, as we knew a man would destroy the car’

### 1.1.2 A Telicity Constraint

Lefebvre observes that Reading 2, with VP material presupposed, carries the restriction that the VP must be telic (having an endpoint in time). The force of this constraint is illustrated in (11) and (12) below; (11) shows that the Fon and Haitian verbs for seeing, which are atelic, do not allow Reading 2.

- (11) Súnù ́ m̀ m̀tò ́ ́ FON  
 Moun nan wè machin nan an HAITIAN  
 man DM see car DM DM  
 2. #‘The man saw the car, as we knew the car would be seen’

Similarly, (12) shows that Reading 2 is unavailable with the verbs Fon and Haitian for understanding, which again are atelic predicates:

- (12) Súnù ́ sè flansè ́ FON  
 Moun nan kompran fransè an HAITIAN  
 man DM understand French DM  
 2. #‘The man understood French, as we knew French would be understood’

## 1.2 Interaction with Negation

Lefebvre (1992, 1998) notes a further interesting correlation between readings and the relative position of clausal DMs and negation in Fon. A DM may apparently precede or follow the Fon negative marker *a* (13a,b), however, the difference in position yields a semantic difference. When the DM precedes negation, as in (13a), negation is not part of the presupposed material. By contrast, when DM follows negation, as in (13b), negation is part of the presupposed material (13b):

- (13) a. Súnù ́ gbà m̀tò ́ ́ a  
 man DM destroy car DM DM NEG  
 ‘The man did not destroy the car, as we knew the car would be destroyed’  
 b. Súnù ́ gbà m̀tò ́ a ́  
 man DM destroy car DM NEG DM  
 ‘The man did not destroy the car, as we knew he would not destroy the car’

In slightly different terms, with the order DM - Neg, only the VP material is presupposed (verb+object), hence we get a type-2 reading. By contrast, with the order Neg - DM, all clausal material is presupposed (subject+verb+object+Neg) and we get a type-3 reading.

As Lefebvre (1992, 1998) observes, these results entail a further interaction with the telicity constraint. If a DM preceding negation yields a type-2 reading, then this order should be possible only with telic VPs, since only these allow type-2 readings. By contrast, the NEG-DM order should be possible in the context of an atelic VP, since this will yield a type-3 reading, and no telicity constraint holds of type-3 readings. As (14a,b) show, this prediction is correct:

- (14) a. \*Súnù ́ m̀ m̀tò ́ ́ a  
 man DM see car DM DM NEG  
 ‘The man did not see the car, as we knew the car would be seen’  
 b. Súnù ́ m̀ m̀tò ́ a ́  
 man DM see car DM NEG DM  
 ‘The man did not see the car, as we knew the man would not see the car’

### 1.3 Three Basic Questions

These data of Fon and Haitian raise a number of interesting analytical questions. First, what is the relation between the nominal DMs and the clausal DMs? There is a clear intuitive relation. Definiteness markers in nominals like *the crab* presuppose the existence of a thing - a crab; correlatively, definiteness markers in clauses appear to presuppose the existence of an event. How can we give an account that captures this intuitive relation?

Second, how are the three readings of the clausal DM derived and related to each other? We've seen that readings 1 - 3 appear to be scopal variants, differing by increasing local presuppositions. How are these presuppositions calculated?

Finally, we may ask: how are the various constraints explained? How is definiteness marking in the clause related to definiteness marking in nominal arguments? We've seen that Readings 2 and 3 require a definite object and a definite subject (respectively). What is the nature of this dependence? And how is the telicity requirement and its interaction with negation in Fon to be explained?

## 2.0 Clausal Definiteness Markers as Adverbs of Quantification

I wish to suggest these questions can be given a satisfying analysis under the fundamental idea that definiteness markers are quantificational elements, and that the relation between a nominal definiteness marker and a clausal definiteness marker is just the relation between a quantificational determiner and its corresponding quantificational adverb.

In many languages, quantificational determiners and quantificational adverbs display strong parallelism. This is seen in the English, for example. For each of the determiners in (15a) there is a corresponding adverb in (15b), which is often morphologically related:

- (15) a. **All** / **Some** / **Most** / **Few** men brought pets.  
b. **Always** / **Sometimes** / **Mostly** / **Rarely**, men brought pets.

Nonetheless, the parallelism between determiners and adverbs in English is not perfect, and breaks down in the case of definites. Whereas English contains a definite article, there is no corresponding definite adverb, morphologically related or otherwise (16):

- (16) a. **The** men brought pets.  
b. \***The-ly**, men brought pets.

This situation is quite general. To my knowledge, no language has yet been reported to contain the equivalent of a "definite adverb". Thus definite adverbs represent an interesting "gap" in the paradigm of determiner-adverb correspondences.[5]

I wish to suggest that Fon and Haitian definiteness markers fill the gap just referred to, and complete the expected paradigm. Specifically, I propose that whereas Fon and Haitian nominal definiteness markers are definite determiners, clausal definiteness markers represent the missing paradigm element: definite adverbs (17):

(17)	<u>Quantificational Determiner</u>	<u>Quantificational Adverb</u>	
	a. <i>the</i>	<i>the-ly</i>	ENGLISH
	b. <i>ś</i>	<i>ś</i>	FON
	c. <i>la</i>	<i>la</i>	HAITIAN

I'll call this account the "definite adverb analysis" of clausal DMs.

## 2.1 The Shared Semantics of Nominal & Clausal DMs: Quantificational Force

The definite adverb analysis offers a straightforward answer to the question about the semantic relation between nominal and clausal DMs, and what they share. The shared element is their **quantificational force**. Thus the standard semantics of *all* and *always* is that they both express universal quantification (18a). Likewise *most* and *mostly* both express the concept of "more than half" (18b).

- (18) a. ALL(X,Y) iff  $Y \subseteq X$   
 b. MOST(X,Y) iff  $|Y \cap X| > |Y - X|$

On the attractive proposals in de Swart (1993), the difference between the determiner and adverb lies simply in what the two quantify over. *All* quantifies over the entities denoted by nouns - things like men and pets, whereas *always* quantifies over events or situations. Similarly for *most* and *mostly*, etc.

This proposal can be extended directly to Fon & Haitian by assuming the classical analysis of definite descriptions introduced by Russell (1905), and defended forcefully in recent years by Kadmon (1987) and Neale (1990). Under this view, definite determiners are quantificational elements with the semantics in (19). According to (19), definite quantification involves universality ( $Y \subseteq X$ ) coupled with a uniqueness assertion ( $|Y| = 1$ ):

- (19) THE(X,Y) iff  $Y \subseteq X$  &  $|Y| = 1$

Following de Swart (1993), we can assume that definite determiners in Fon and Haitian quantify over the things picked out by nouns, whereas definite adverbs quantify over events or cases.

## 2.2 The Readings of Clausal DMs: Quantification and Information Structure

The definite adverb analysis also offers an attractive approach to how the various readings observed earlier are determined, and their association with scope.

As has been widely discussed, quantificational adverbs (like quantifiers generally) effect a basic, three-fold division of clausal material into a quantifier, a restriction, and a scope (20):

- (20) Quantifier - Restriction - Scope

This tripartite split in turn induces a further division of sentence material into presupposed and asserted content. Specifically, as discussed by Partee (1991), Diesing, (1992), Johnston (1994), and Herburger (1997) (among many others), the restriction in a quantificational structure typically represents presupposed material, whereas the quantifier & scope represent assertions.

- (21) Presupposed                      Asserted  
 Restriction                              Quantifier + Scope

By hypothesis we are taking clausal definiteness markers as quantificational. I have furthermore suggested that the differences between the three readings identified by Lefebvre (1998) amount to differences in what clause material is presupposed and what material is asserted. These points clearly imply that we should analyze the different readings of a definite adverb as arising from different ways in which clause material is assigned to its restriction and its scope.

### 2.2.1 Determining Restriction & Scope with Quantificational Adverbs

There are in fact a number of ways in which restriction and scope are determined with quantificational adverbs as discussed in de Swart (1993) and Johnston (1994). In simple cases like (22a), the scope is given by the main clause material, and the restriction is derived from context. The interpretation of (22a) is given informally in (22b). We can read this as saying that every situation of the contextually relevant kind *C* is (or is included in) one in which Marty shaves:[6]

- (22) a. Marty always shaves.  
b. **ALWAYS ( C ) { marty shaves }**

Here, what is presupposed are some contextually relevant situations, for example situations in which Marty's life follows its normal daily routine; the main clause material is asserted.

In other cases, the restriction is given explicitly by means of an adverbial clause, like the *when*-clause in (23a). The interpretation of (23a) is given informally in (23b). We can read this as saying that every situation where Marty is in the shower is (or is included in) one in which he shaves.

- (23) a. Marty always shaves when he is in the shower.  
b. **ALWAYS ( when marty is in the shower )  
{ marty shaves }**

Here the content of the *when*-clause is presupposed (there are events of Marty being in the shower); and the main clause material is asserted.

In both (22b) and (23b), main clause material contributes only to the scope. However, in certain cases, the main clause also appears to contribute the restriction. In fact (23a) is such a case, as observed by Johnston (1994). Alongside its (23b) interpretation, this sentence also has a reading where the restriction and scope are "switched". Under the latter, (23a) is taken as claiming that whenever Marty shaves he is in the shower. Johnston argues that these switched readings are derived by letting both the main and adjunct clause contribute to the scope, and by copying the main clause into the restriction. This yields a representation essentially as in (24b). We can read this as saying that every situation where Marty shaves is (or is included in) one in which he shaves and which occurs when he is in the shower:

- (24) a. Marty always shaves when he is in the shower.  
b. **ALWAYS ( marty shaves )  
{ marty shaves & when marty is in the shower }**

The redundancy of **marty shaves** has no effect on truth-conditions here, but does have an informational consequence: main clause material ends up being both presupposed and asserted. An alternative way of representing this reading is along the lines suggested by (25a), which appears to paraphrase (23a) accurately on its switched reading:

- (25) a. Always when Marty shaves, it occurs when he is in the shower.  
b. **ALWAYS** ( **marty shaves** )  
    { **occurs & when marty is in the shower** }

Note that rather than containing a second occurrence of the main clause material, (25b) includes the event predicate *occur*, which might be viewed as a "residue" of the copying process.[7] Under (25b), events of the main clause type are presupposed, and asserted to occur when Marty is in the shower. In what follows, I will assume (25b) as the representation of switched readings.

Johnston (1994) gives the additional examples in (26) as having both a normal reading in which the adverbial clause gives the restriction and the main clause gives the scope, and a very natural "switched" reading as well:

- (26) a. Frances always breaks up with lovers when it's raining.  
b. Sharks usually attack people when they are hungry.  
c. Edward always submits abstracts when the deadline is very near.  
d. Marcia always goes to the store before it gets dark.

## 2.2.2 Determining Restriction & Scope with Definite Adverbs

I wish to propose that the three readings of definite adverbs in Fon and Haitian arise by mappings of restriction and scope basically identical to those given above.

Specifically, I want to propose that Reading 1 of the definite adverb is the counterpart of case (22) above. It is the case where the main clause contributes nothing to the quantificational restriction, and the latter is determined wholly by context. Under this proposal, the Fon example (27a) gets the representation in (27b).

- (27) a. Súnù ù gbà mǎtò ù ù  
    man DM destroy car DM **DM**  
    'Actually, the man destroyed the car'  
b. **THE ( C ) { the man destroy the car }**

What this states is that a certain unique, contextually determined situation *C* is (or extends to) one in which the man in question destroys the car. Imagine, for example, a context in which we are discussing a certain individual, and have mentioned a serious automobile accident. Then (27), under the intended interpretation might serve to assert what we might express in English by something like "The accident was one in which the man destroyed the car." The accident event is the unique, contextually familiar event which is or can be extended to include one in which the man destroys the car. Clause material is asserted, but none of it is explicitly presupposed.

I suggest that Reading 2 is counterpart to (24), and arises by copying the main clause VP material into the restriction. This case is illustrated in (28):

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- (28) a. Súnù ò gbà mótò ò ò  
 man DM destroy car DM DM  
 'The man destroyed the car, as we knew the car would be destroyed'  
 b. **THE ( destroy the car ) { the man destroy the car }**

(28b) is to be understood as stating that there is a (contextually) unique situation in which the car is destroyed, and that situation is one in which the man destroys the car. This is basically equivalent to what is asserted by the English sentence *The destroying of the car was (a destroying of the car ) by the man.* Here the main clause material is asserted, but only the VP material is presupposed, as required.

Finally, I suggest that Reading 3 of the definite adverb is derived similarly to Reading 2, except that all of the main clause material is copied into the restriction (29b), with the event predicate *occur* left in its place.

- (29) a. Súnù ò gbà mótò ò ò  
 man DM destroy car DM DM  
 'The man destroyed the car, as we knew the man would destroy the car'  
 b. **THE ( the man destroy the car ) { occurred }**

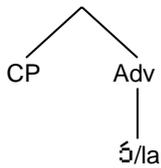
(29b) is to be understood as stating that there is a (contextually) unique situation in which the man in question destroys the car, and that event or situation occurred. This is basically equivalent to what is asserted by the English sentence *The destroying of the car by the man happened.* Here all the main clause material is presupposed, as required.[8]

It appears then that the three readings identified by Lefebvre (1998), which we took to correspond to increasing local presuppositions, can be appropriately understood as resulting from successively more inclusive copying of main clause material into the restriction of a definite adverbial quantifier. If this is correct, the analysis has the advantage of invoking no important mechanisms not already necessary to interpret adverbial quantification generally. These mechanisms simply extend in a natural way to the definite case.

### 3.0 The Syntax of Clausal Definiteness Markers

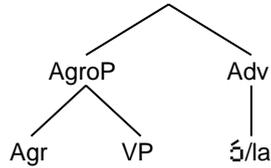
The semantics of clausal DMs sketched above can be mapped to a syntax for the construction that offers an attractive account of the data discussed earlier. The general view I wish to develop follows Lefebvre's (1998) general idea that the differences among the readings of the clausal DMs are fundamentally a matter of syntactic scope. The specific proposal I wish to advance is that Reading 1 corresponds to a high attachment of the definite adverb (*ò/ǎ*), sister to CP (30a). Reading 2 corresponds to a low attachment of the adverb, sister to what Chomsky (1993) identifies as *AgroP*, a category consisting of VP plus an object agreement element (30b). And, Reading 3 corresponds to an intermediate attachment, sister to what Chomsky (1993) identifies as *AgrsP*, which consists of TP plus a subject agreement element (30c):

(30) a.



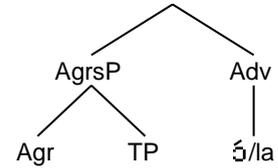
**Structure for Reading 1**  
(no local presupp.)

b.



**Structure for Reading 2**  
(predicate presupp.)

c.



**Structure for Reading 3**  
(clausal presupp.)

Note that under these structures we derive the result that whenever a clausal DM copies material for its restriction, the material copied always corresponds to its immediate scope. With Reading 2, the predicate is copied into the restriction. Correlatively in (30b), the predicate (more precisely, with Agr + VP) is the immediate scope of Adv. With Reading 3, the clause is copied into the restriction. Correlatively in (30c), the clause (more precisely, with Agr + TP) is the immediate scope of Adv.

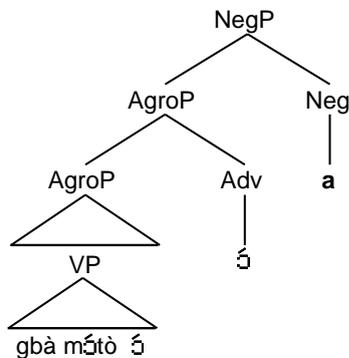
The structures in (30) offer a simple account of the interaction between Fon DMs and negation, discussed earlier in section 1.2. Recall that with the order DM - Neg in Fon, we get Reading 2, with negation excluded from the presupposition (31a). By contrast, with the order Neg - DM, we get Reading 3, with the negation included in the presupposition (31b):

(31)

- a. Súnù ǎ [ gbà mǎtò ǎ ǎ ] a  
 man DM destroy car DM **DM NEG**  
 |--PRESUPPOSED--|  
 'The man did not destroy the car, as we knew the car would be destroyed' (Reading 2)
- b. [ Súnù ǎ gbà mǎtò ǎ a ] ǎ  
 man DM destroy car DM **NEG DM**  
 |-----PRESUPPOSED-----|  
 'The man did not destroy the car, as we knew he would not destroy the car' (Reading 3)

This result follows directly under the usual assumption that negation resides in a phrase NegP lying between AgrsP and AgroP, and assuming a head final position for Neg.[9] If Reading 2 corresponds to an AgroP attachment for the definite adverb, this will place DM to the left of negation, and narrower in scope; hence negation will not form part of the copied restriction, and will not be presupposed (32):

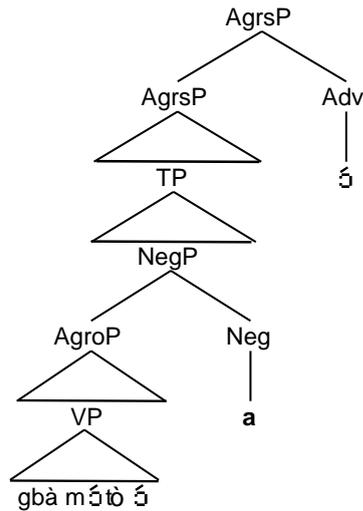
(32)



**Order:** DM - Neg  
**Interpretation:** Reading 2 (VP presupposed, Neg not presupposed)

By contrast, if Reading 3 corresponds to AgrsP attachment for the adverb, then will place DM to the right of negation and wider in scope; hence negation will form part of the copied restriction, and will be presupposed (33):[10]

(33)



**Order:** Neg - DM

**Interpretation:** Reading 3 (TP presupposed, Neg presupposed)

Under these proposals, then, DM/Neg order, structure and readings are directly accounted for.

### 3.1 On Head-Direction in Fon and Haitian

The analysis embodied in (30), (32) and (33) offers a straightforward account of the relations between scope and interpretation with clausal DMs; and it provides an attractive view of their interaction with negation. But the proposal also raises questions in several respects. For one thing, the trees provided for Fon and Haitian apparently require us to view these languages as showing "mixed head direction". Although the VP is head initial in (32) and (33), with *gbà* 'destroy' preceding the direct object *m'á-tò á* 'the car', some functional categories are represented with head-final order. Thus Neg follows AgroP, and the definite article *á* follows *m'á-tò* 'car', and the definite adverb follows AgrsP. Kayne (1994) has argued forcefully for an "antisymmetric" view of natural language syntax according to which all languages are underlyingly head-initial, and none is underlyingly head-final. The structures in (30), (32) and (33) run counter to this attractive general view.

Interestingly, in the case of Fon, the surface head-final distribution of DMs is part of a more general pattern. In Fon, indefinite articles, quantifiers and quantified frequency adverbs all appear to occur head-finally (see (34) and (35)):[11,12,13]

- (34) a. *m'á-tò dé*  
           car INDEF  
           'a car'

- b. mótò ɩ bi  
car PL all  
'all cars'
- c. mótò (ɩ) gégé  
car PL many  
'many cars'

(35) ji jà gbèbígbè/t<gb</hw<hw<  
rain fall **every-day/always/frequently**  
'Rain falls every day/always/frequently'

Nominal and clausal DMs follow this pattern, occurring in final position, as we have seen (36):

- (36) a. àsín é  
crab DM  
'the crab'
- b. [Súnù é ] gbà [mótò é ] é  
man DM destroy car DM **DM**  
'The man destroyed the car'

With Haitian the point assumes a somewhat sharper form. In Haitian, indefinite articles, quantifiers, and quantified frequency adverbs typically precede the elements they "modify" (see (37) and (38)): [14,15]

- (37) a. **yon** machin  
INDEF car  
'a car'
- b. **tout/anpil/patwòp/lède** machin  
every/many/few/both car (s)  
'every/many/few/both car(s)'
- (38) a. Jan **toujou** ap travay fò  
John always ASP work hard  
'John is always (in the process of) working hard'
- b. Jan **souvan** ap rakonte yon istwa  
John often ASP tell INDEF story  
'John is often (in the process of) telling a story'

In the case of Haitian DMs, however, the definite element occurs in final position, as in Fon:

- (39) a. krab **la**  
crab DM  
'the crab'
- b. [Moun nan ] detwi [ machin nan ] **an**  
man DM destroy car DM **DM**  
'The man destroyed the car' (Reading 2 or 3)

This shared distribution - and its shared departure from the usual Haitian pattern - supports the view that DMs should be analyzed together, in both their nominal and clausal occurrences. It would be an odd

coincidence if the two simply happened to violate the pattern together. At the same time, however, it raises the question of why Haitian DMs in particular should appear to be head-final, diverging from the pattern of other quantificational elements, and contravening the general requirement of antisymmetry.

### 3.2 A Movement Analysis

Kinyalolo (1993, 1995/96) advances an interesting analysis of the position of Fon determiners and number markers, which, I believe, offers a general resolution of the issues raised above. Kinyalolo argues that Fon is in fact uniformly head-initial, fully in accordance with antisymmetry. He proposes that apparent head-finality arises by movement of the nominal complement of D to the specifier position of DP (40a).[16] This movement is driven by the need to check a strong feature on the D head; this movement can strand number elements, which occur between D and N, (*é* 'pl.')

- (40) a.  $[_{DP} [_{NP} \text{mátò} ] [_{D'} \text{d}é \text{ t} ] ]$   
 (cf. *mátò dé* 'a car')
- b.  $[_{DP} [_{NP} \text{d}íde ] [_{D'} \text{é} [_{NumP} \text{lé t} ] ] ]$   
 (cf. *díde é é* 'the sketches')

Kinyalolo argues for this position based on the fact that adjunct elements can never separate a determiner and number marker (41). Briefly, under his head-initial account, this results straightforwardly from the fact that the head nominal *díde* 'sketches' raises leftward, away from the adjunct *nú Báyi* 'for Báyi', which may be analyzed as adjoined to NumP or DP (42).[17]

- (41) a. *díde é lé nú Báyi*  
 sketches the Num for Báyi  
 'the sketches for Báyi'
- b. \**díde é nú Báyi lé*  
 sketches the for Báyi Num  
 'the sketches for Báyi'
- (42)  $[_{DP} [_{NP} \text{d}íde ] [_{D'} \text{é} [_{NumP} \text{lé t} ] \dots [_{PP} \text{nú Báyi} ] \dots ]$   
 (cf. *díde é é nú Báyi* 'the sketches for Bayi')

Under an alternative analysis in which Fon is head-final, examples with a determiner and number marker like (40b) must be assumed to involve rightward movement of Num (43a). Hence *ceteris paribus* there is nothing to prevent Num from raising around the adjunct, incorrectly separating D and Num (43b):[18]

- (43) a.  $[_{DP} [_{NumP} [_{NP} \text{d}íde ] \text{ t} ] \text{ é} ] \text{ lé}$
- b. \* $[_{DP} [_{NumP} [_{NP} \text{d}íde ] \text{ t} ] \text{ é} ] \dots [_{PP} \text{nú Báyi} ] \dots ] \text{ lé}$   
 (cf. \**díde é nú Báyi é* 'the sketches for Bayi')

Assuming its general correctness, Kinyalolo's proposal for Fon nominals can be extended to Fon adverbial constructions as well, including constructions containing what we've analyzed as definite adverbs. Suppose these elements project their own maximal phrase AdvP, and that they can select either AgrP, AgrsP or CP as their complements (44):

- (44) a. [<sub>AdvP</sub> ... [<sub>Adv</sub> **an** /<sub>ǀ</sub> AgroP ]]  
 b. [<sub>AdvP</sub> ... [<sub>Adv</sub> **an** /<sub>ǀ</sub> AgrsP ]]  
 c. [<sub>AdvP</sub> ... [<sub>Adv</sub> **an** /<sub>ǀ</sub> CP ]]

In parallel with (40) we may assume that the definite adverb bears a strong feature which needs to be checked by an element in Spec. Once again the complement raises to check this feature on the head (45):

- (45) a. [<sub>AdvP</sub> **AgroP** [<sub>Adv</sub> **an** /<sub>ǀ</sub> t ]]  
 b. [<sub>AdvP</sub> **AgrsP** [<sub>Adv</sub> **an** /<sub>ǀ</sub> t ]]  
 c. [<sub>AdvP</sub> **CP** [<sub>Adv</sub> **an** /<sub>ǀ</sub> t ]]

This results in the surface head-finality observed in Fon. A similar analysis would apply to other Fon articles, quantifiers, and quantificational adverbs.

We can assume the same analysis for Haitian with the exception that in the latter only DMs bear the strong feature assumed to induce movement in Fon. Thus in Haitian definite nominals, NP will raise to Spec DP (46), yielding a surface head-final phrase. And in Haitian definite adverb constructions AgroP, AgrsP, or CP will raise to Spec of AdvP (47):

- (46) <sub>DP</sub> [<sub>NP</sub> **krab** ] [<sub>D'</sub> **la** t ]  
 (cf. *krab la* 'the crab')

- (47) a. [<sub>AdvP</sub> **AgroP** [<sub>Adv</sub> **la/a** t ]]  
 b. [<sub>AdvP</sub> **AgrsP** [<sub>Adv</sub> **la/a** t ]]  
 c. [<sub>AdvP</sub> **CP** [<sub>Adv</sub> **la/a** t ]]

Under this account the trees in (30a-c) remain essentially accurate, but the clausal-final position of the definite adverbs is now analyzed as a derived one. With other Haitian frequency adverbs such as the ones in (38a,b), no raising of the complement occurs and hence the underlying head-initial position surfaces directly.

## 4.0 Definiteness Constraints

The raising analysis adopted from Kinyalolo (1993, 1995/96) not only yields an appealing antisymmetric account of Fon and Haitian. It also provides an approach to the definiteness constraints observed earlier in Fon and Haitian definite adverb constructions. Recall that Reading 2, in which VP is presupposed, requires a definite object (see (9), repeated below):





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Johnston accounts for this asymmetry as follows: telic predicates are analyzed as count predicates of events. As such they are quantifiable and can serve as the restriction on a quantifier. By contrast atelic predicates are the equivalent of mass predicates of events, and are not directly quantifiable. Johnston suggests that a temporal operator like *when* can convert an atelic, noncountable predicate to a countable one (rather like a measure phrase converts a mass noun to a count noun). Accordingly atelic predicates can function as the restriction on an adverb of quantification when they occur in an adjunct temporal clause, but not generally when they appear in the main clause.

We can apply Johnston’s analysis directly to the facts of Fon and Haitian under our quantificational analysis of clausal DM, following the general idea is that a clausal determiner requires a "count" predicate to be used felicitously - either an inherently telic predicate, or one that has converted by a temporal operator. When the definite adverb attaches to AgroP, as in Reading 2, no temporal operator will intervene between it and the VP. Thus, we predict that in order to get Reading 2, we will require a telic predicate (53):

(53) Súnù ÷ T [[<sub>AgroP</sub> gbà mótò ÷ ] ÷ ]  
 man DM destroy car DM **DM**  
 ‘The man destroyed the car, as we knew the car would be destroyed’

As we have seen, this prediction is correct.

By contrast when the definite adverb attaches to the whole clause AgrsP, as in Reading 3, a temporal operator will intervene between it and the VP, namely T(ense). Assuming that tense performs the same conversion function as a temporal adverb on Johnston’s account, we correctly predict that Reading 3 will not require a telic predicate (53b).[21]

(54) [<sub>AgrsP</sub> Súnù ÷ T gbà mótò ÷ ] ÷  
 man DM destroy car DM **DM**  
 ‘The man destroyed the car, as we knew the man would destroy the car’

Thus Reading 2 will be sensitive to telicity of the main predicate, but Reading 3 will not.

If these remarks are on the right track, they support the essential correctness of analyzing Fon and Haitian clausal definiteness markers as (definite) adverbs of quantification, for we see what appears to be the same aspectuality constraints manifested independently in both, a very surprising result if the two phenomena are completely unrelated.

**Conclusion**

In this paper I have argued that the complex facts of clausal definiteness markers in Fon and Haitian can be given an attractive analysis if we assume the existence of a new, and hitherto unattested item in the inventory of quantificational adverbs: a definite adverb with Russellian semantics. If this claim is correct, it provides interesting further evidence for the fundamental parallelism between nominal and adverbial quantification, which has yielded many fruitful insights.

## Notes

\*This paper was originally presented at the 1998 Linguistic Society of America annual meetings (New York), and I am grateful to audience members for helpful comments. I also thank Claire Lefebvre and Michel DeGraff for useful discussion and comments, although (for different reasons) neither will agree with the analysis offered here. I am also grateful to Hiroko Yamakido for editorial assistance. Finally, I wish to express my particular indebtedness to Viviane Deprez for urging me to finish this work, and for many helpful and insightful suggestions on the final draft.

1. Unless otherwise noted, all data in this paper are drawn from Lefebvre (1992, 1998) or Law and Lefebvre (1995); the transcription follows Lefebvre (1992), except that *machin* replaces *manchin*. Some of the Haitian data cited here are questioned in DeGraff (1994). I note DeGraff's specific points in separate footnotes. For the purposes of this paper, I will assume that the data reported by Lefebvre (1992, 1998) and Law and Lefebvre (1995) represent the grammar of a subset of speakers. But the result must be regarded as tentative pending resolution of the factual points.
2. The constraints below pertain to what Lefebvre (1998) identifies as "Grammar 1" of Fon and Haitian. There is a second grammar, labelled "Grammar 2", which shows additional constraints. I will ignore the latter here, for simplicity, although there seem to be no barriers to bringing under the analysis developed in this paper.
3. DeGraff (1994) states that for himself, and other native speakers of the southern Haitian dialect that Lefebvre purports to describe, examples like (9), in which a clausal DM co-occurs with deictic subject and an indefinite object, and examples like (10), in which a clausal DM co-occurs with indefinite subject and an deictic object, are problematic. DeGraff labels them "at best extremely marginal", but acknowledges that they may come from a Southern dialect different from his and his informants. (p.373)
4. DeGraff (1994) offers the interesting pair in (ia,b) as potential counterexamples to the generalizations about definiteness proposed by Lefebvre. These examples contain apparent indefinites (*kimoun* 'who' and *pèsonn* 'nobody') co-occurring with a clausal DM:
  - (i) a. Kimoun ou kwè [<sub>CP</sub> ki vini a ]? (= DeGraff (1994) (2a))  
who 2sg believe COMP come DM  
'Who do you believe came? (it was expected that he/she/someone would come)'
  - b. Pèsonn pa te vote a (= DeGraff (1994) (2b))  
nobody NEG ANT vote DM  
'No one had voted (as it was expected that no one would)'Within Lefebvre's characterization of the data, one possibility is that (ia,b) represent cases of her Reading 1, in which the presuppositions associated with the DM are introduced wholly by the discourse, and which carries no definiteness constraint. An alternative, at least in the case of (ia) is that the sentence may accept the alternate gloss 'Which (of the people) do you believe came', where the *wh-* is understood as ranging over some definite set of individuals, understood as potential answers. This gloss is at least compatible with the presuppositions that DeGraff (1994) records.
5. Schwarzchild (1989) argues that definite adverbs are unavailable in principle, under a semantic analysis of quantificational adverbs as quantifying over cases (n-tuples) (see Lewis (1975)). Below I follow the event analysis of quantificational adverbs developed by de Swart (1993). So far as I can tell, Schwarzchild's arguments simply do not apply under the latter.
6. For purposes of this paper I adopt the simple notation from de Swart (1993) and Johnston (1994) where **marty shaves** abbreviates  $\lambda e[\mathbf{marty\ shaves}(e)]$  or  $\{\mathbf{e: marty\ shaves}(e)\}$ . I also adopt Johnston's convention of indicating the restriction on an adverbial quantifier in round brackets and its scope in curly

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brackets, e.g., **ALWAYS (marty in shower) {marty shaves}** to render *When Marty is in the shower he always shaves*.

7. See section 2.2 below for more on this.

8. Appeal to a predicate like *occur* appears to find independent motivation in the event partition analysis of focus argued for by Herburger (1997). In Herburger's framework (29b) (modulo the exact choice of quantifier) represents a natural analysis of so-called "verum focus" examples like "The man DID destroy the car." In the latter, we apparently presuppose a destroying of the car by the man and simply assert that it occurred.

9. See Pollock (1989), Belletti (1990), Ohualla (1991) and Zanuttini (1997), among others, for discussion of the position of NegP. Lefebvre (1992) assumes that the Fon negative particle *a* resides in the head of NegP. Lefebvre and Brousseau (forthcoming) reanalyze this element as a negative evidential marker. This change of analysis is not crucial to the points made here so long as the relative geometry of the negative evidential vis-a-vis AgroP and AgrsP remains the same.

10. This analysis is very close to those given in Lefebvre (1992, 1998) in taking the difference in readings and presuppositions in (31a,b) to result from a difference of relative scope between the DM and the negative marker. In Lefebvre (1992) the clausal DM is analyzed directly as an agreement element residing in Agr; DM in Agrs yields Reading 3, with Neg in its scope. DM in Agro yields Reading 2, with Neg outside its scope. In Lefebvre (1998) the clausal DM is analyzed as an mood element (Mood), a tense element (T), and an aspectual element (Asp). The relative heights of these elements yield different scopes vis-a-vis negation. The reader should consult Lefebvre (1992, 1998) for details.

Lefebvre (1998) briefly considers the possibility of analyzing DMs as adverbs, but rejects this possibility. For example, she argues that if the Reading 1 occurrence of DM is analyzed as an adverb, this will give no account of the non-cooccurrence of DM with question markers, which she independently wants to analyze as belonging to Mood. But this co-occurrence restriction is plausibly viewed as semantic, arising from the incompatibility of two markers which would simultaneously assert the contents of the clause and question its truth.

A second argument is that if we consider clausal DMs as adjuncts, we will have to regard them as adjuncts in their nominal occurrence as well. But this does not follow. As we've seen, quantifiers and quantification adverbs offer precisely a case of an adjunct element correlating with a non-adjunct nominal constituent.

Finally, Lefebvre argues that if clausal DMs are analyzed as tenses or aspects they can enter into Spec-Head relationships with the DPs in the clause; by contrast, "adverbs are not involved in Spec-Head relationships nor in agreement phenomena (Lefebvre (1998, p.143))." But the claim that adverbs don't enter into agreement relations is false, as discussed in an extensive survey by Vinokurova (1999). In the text below I propose exactly an account in which adverbs enter into a Spec-Head relation with DPs derivatively through Spec-Head relations with their agreement phrases.

11. The examples in (34) and (35) are drawn from Lefebvre and Brousseau (forthcoming).

12. Kinyalolo (pc.) gives the following additional form for universal quantification, which is again head-final:

- (i) Vi ɖokpo ɖokpo  
child every/each  
'every child/each child'

13. Lefebvre and Brousseau (forthcoming) refer to quantified frequency adverbs as "habitual adverbs".
14. I am grateful to Georges Fouron for the data in (37). The data in (38) are drawn from Leblanc (1989).
15. Leblanc (1989) reports that quantified temporal adverbs are excluded from initial position in Haitian (i)
- (i) \*Toujou Mari ap travay.  
always Mary ASP work

Note, however, that under the VP-internal subject hypothesis (Koopman and Sportiche 1991, among many others), the subject in (33a,b) will originate in VP Spec position; hence the adverb will in fact precede all clausal material at the point of merger, prior to raising of the subject.

Leblanc also notes that Haitian temporal adverbs can appear in final position, but that, when they do there is a shift in meaning away from their frequency meaning. Compare (iia,b) from Leblanc (1989):

- (ii) a. Mari toujou ap travay.  
Mary always ASP work  
'Mary is always (in the process of) working'
- b. Mari ap travay toujou.  
Mary ASP work again  
'Mary is again (in the process of) working'

In (iia), *toujou* appears initially and has the interpretation of a frequency adverb. In (iib), by contrast, it appears to lose this interpretation.

16. A movement to Spec analysis of the final position of Haitian Creole determiners is also proposed in Deprez (1999, 2000).

17. Kinyalolo (1993, 1995/96) assumes the influential analysis of Ritter (1991), in which NumP is c-commanded by D.

18. Head-final analyses of Fon nominals are given in Lumsden (1989) and Brousseau and Lumsden (1992).

19. I also assume that the definite article carries the [+DEF] feature, triggering raising of NP to DP Spec internally to DP.

20. Examples like (ia) in fn.4, cited from Degraff (1994), might provide a resolution for this choice. Recall that (ia) is a *wh*-interrogative containing a clausal DM, but no apparent definite DP:

- (i) a. Kimoun ou kwè [CP ki vini a ]? (= Degraff (1994) (2a))  
who 2sg believe COMP come DM  
'Who do you believe came (it was expected that he/she/someone would come)'

I suggested that this might represent case of Lefebvre's reading 1, which imposes no definiteness constraint. On the usual view that *wh*- moves through the lower CP Spec on its way to matrix position, the assumption that the lower C is [+DEF] may well be problematic.

21. This explanation may look dubious at first, given that the English example (52a) also contains a tense in the main clause. There is evidence, however, for an independent difference between Haitian/Fon and English in this respect. As discussed in Lefebvre and Ritter (1993), Haitian shows an interesting grammatical process for forming adverbial adjunct clauses involving so-called "predicate doubling" (PD); in PD, the main clause predicate is copied and placed in sentence-initial position. Haitian can form temporal adjuncts through predicate doubling, as illustrated in (i), and a similar phenomenon occurs in Fon (C. Lefebvre p.c.):

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- (i) [Bwè li bwè remèd la ], l ap geri (= L&R (9a))  
drink he drink medicine DM he FUT recover  
'As soon as he takes the medicine, he will get better'

Lefebvre and Ritter (1993) argue that in temporal PD adjuncts like (i), the higher doubled V is in the position of tense. It is quite suggestive that movement to T produces a temporal adjunct that is semantically close to an English when-clause. In particular, these data suggest that the Haitian and Fon T may independently contain an operator element similar to when which produces a count event predication, and which is the target of V movement in cases like (i). If so, then it is not simply the presence of T in (54) that is crucial, but rather the presence of the particular T found in Fon/Haitian.

## References

- Belletti, A. 1990 *Generalized Verb Movement*. Turin: Rosenberg and Sellier.
- Broussou, A-M. and J. Lumsden (1992) "Nominal Structures in Fongbe," *Journal of West African Languages* 22: 5-25.
- Chomsky, N. (1993) "A Minimalist Program for Linguistic Theory" in S.J. Keyser and K. Hale *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*. (pp. 1-52) Cambridge: MIT Press.
- DeGraff, M. (1994) "Review of C. Lefebvre, "The clausal determiners of Haitian and Fon," *Journal of Pidgin and Creole Languages* 9: 370-376.
- Deprez, V. (1999) "De la nature sémantique des nominaux sans déterminant en créole haïtien," *Langues* 2.4: 289-300. John Libbey Eurotext, Agencie Universitaire de La Francophonie.
- Deprez, V. (2000) "Parallel (A)symmetries and the Structure of Negative Expressions," *Natural Language and Linguistic Theory* 18.
- De Swart, H. (1993) *Adverbs of Quantification: A Generalized Quantifier Approach*. New York: Garland Publishing
- Diesing, M. (1992) *Indefinites*. Cambridge: MIT Press.
- Herburger, E. (1997) *In the Event of Focus*. unpublished Ph.D. thesis, USC
- Johnston, M. (1994) *The Syntax and Semantics of Adverbial Adjuncts*. unpublished Ph.D. thesis, UCSC.
- Kadmon, N. (1997) *On Unique and Non-unique Reference and Asymmetric Quantification*. unpublished Ph.D. thesis, University of Massachusetts - Amherst.
- Kayne, R. (1994) *The Antisymmetry of Syntax*. Cambridge: MIT Press.
- Kinyalolo, K. (1993) "Talking Heads and Cats," talk presented at Seminaire Projet Créole Haïtien, UQAM, Montreal, Canada.
- Kinyalolo, K. (1995/96) "Genitive Case Assignment and the Structure of DP in Fon," unpublished ms.
- Koopman, H. and D. Sportiche (1991) "The Position of Subjects," *Lingua* 85: 211-285.
- Law, P. and C. Lefebvre (1995) "On the Relationship Between Event Determiners and Predicate Clefts in the Kwa Languages: the Case of Fongbe" in A. Kihm and C. Lefebvre (eds.) *Linguistique africaine. No 14*: 4-47.
- Leblanc, A. (1989) "Le Statut Syntaxique des Adverbes de Temps en Créole Haïtien," *Revue Québécoise de Linguistique* 18.2: 41-61.
- Lefebvre, C. (1992) "AGR in Languages Without Person and Number Agreement: the Case of the Clausal Determiner in Haitian and Fon," *The Canadian Journal of Linguistics* 37: 137-156.

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- Lefebvre, C. (1998) "Multifunctionality and Variation Among Grammars: the Case of the Determiner in Haitian and in Fongbe," *Journal of Pidgin and Creole Languages* 13:93-150.
- Lefebvre, C. and A.M. Brousseau (forthcoming) *A Grammar of Fongbe*. Mouton de Gruyter.
- Lefebvre, C. and E. Ritter (1993) "Two Types of Predicate Doubling Adverbs in Haitian Creole," in F. Byrne and D. Winford (eds.) *Focus and Grammatical Relations in Creole Languages*. Amsterdam: Benjamins.
- Lewis, D. (1975) "Adverbs of Quantification," in E. Keenan (ed.) *Formal Semantics of Natural Language* (pp. 3-15). Cambridge: Cambridge University Press.
- Lumsden, J. (1989) "On the Distribution of Determiners in Haitian Creole," *Revue Québécoise de Linguistique* 18.2: 65-91.
- Neale, S. (1990) *Descriptions*. Cambridge: MIT Press.
- Ohualla, J. (1991) *Functional Categories and Parametric Variation*. London: Routledge.
- Partee, B. (1991) "Topics, Focus, and Quantification," in S. Moore and A.Z. Wyner (eds.) *Proceedings of SALT 1*. (pp. 159-187) Ithaca: Cornell University Working Papers in Linguistics no. 10.
- Pollock, J-Y. (1989) "Verb Movement, Universal Grammar and the Structure of IP," *Linguistic Inquiry* 20. 365-424.
- Ritter, E. (1991) "Two Functional Categories in Noun Phrases: Evidence from Modern Hebrew," in S. Rothstein (ed.) *Syntax and Semantics 26: Perspectives on Phrase Structure*. (pp. 37-62) New York: Academic Press.
- Russell, B. (1905) "On Denoting," *Mind* 14. 479-493. (Reprinted in R.C. Marsh (ed.) *Logic and Knowledge*. (pp. 177-281) London: George Allen and Unwin, 1956)
- Schwarzchild, R. (1989) "Adverbs of Quantification as Generalized Quantifiers," in J. Carter and R-M. Déchaine (eds.) *Proceedings of NELS 19*. (pp. 390-404) University of Massachusetts - Amherst Linguistics Department: GLSA.
- Vinokurova, N. (1999) "The Typology of Adverbial Agreement," unpublished ms., Utrecht Institute of Linguistics.
- Zanuttini, R. (1997) *Negation and Clausal Structure*. New York: Oxford University Press.