

# Verb Movement in French Revisited: Syntactic Theory and Experimental Data

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This paper revisits Pollock's (1989, 1997) account of verb movement phenomena in French in the light of experimental data elicited from two groups of native speakers. The results of four different tasks indicate that the minimalist principle, according to which only strong [+finite] verbs may raise to Infl to check and erase their features, does not apply in a systematic and consistent fashion. It appears that 1) weak [-finite] lexical verbs systematically raise past adverbs; 2) weak [-finite] auxiliaries do raise past negation and adverbs, and optionality appears to be excluded. It is argued that carefully elicited experimental data should inform syntactic theory to achieve greater descriptive accuracy.

## INTRODUCTION

From Standard Theory to the Minimalist Program, syntactic theory has been undergoing constant revisions and changes to incorporate new developments and conceptual shifts with drastic consequences for both theoretical and applied linguistics. As noted by Lightfoot and Hornstein (1994), the nature and availability of functional phrases and head movement have generated a wealth of studies covering a wide range of languages (*e.g.*, Belletti, 1990; Bolotin, 1996; Diesing, 1990; Lust *et al.*, 1994; Meisel, 1992; Ouhalla, 1991, 1994; Roberts, 1998; Zanuttini, 1997). Several of these studies focused on the verb movement parameter, alternatively referred to as the Verb Raising Parameter (Culicover, 1997), V-to-I parameter (Deprez, 1994) or (strength of) AGR parameter (Williams, 1994), since the systematic differences are due to the [ $\pm$ strong] feature of AGR), which subsumes several seemingly unrelated syntactic properties initially analyzed in Emonds (1978, 1985) and later developed and elaborated in Pollock (1989),

and more recently in Pollock (1997) within the Minimalist approach (Chomsky, 1993, 1995) of the Principles-and-Parameters model<sup>1</sup>.

Within the Barriers framework (Chomsky, 1986), the syntactic phenomena examined could all be explained by the Empty Category Principle, or more specifically by the Head Movement Constraint, Theta-theory, and Quantification theory. These phenomena showed that Inflection should not be viewed as a single constituent with two sets of features, [+Tense] or [-Tense] and [+Agr] or [-Agr], but that each of these features was the syntactic head of a maximal projection: IP (or TP) and AgrP respectively. An additional maximal projection, NegP was also posited to account for the placement of negative elements. Within the Minimalist framework then, verb movement simply depends on the existence and strength of verbal morphological features: strong verbs must raise to have their features checked and erased at LF.

The variety of the analyses proposed from Emonds (1978) to Pollock (1997) illustrates the rapid changes that syntactic theory has undergone. Since syntactic theory is then used to make claims about linguistic theory and language acquisition theory, it is crucial that it meets its initial goal of descriptive adequacy. It must therefore correctly describe the grammatical and ungrammatical strings of words and their interpretations by native speakers. However, and in spite of its importance, we may have lost sight of the information provided by native speakers. As the theory strives to achieve descriptive adequacy, it has become more and more abstract and possibly somewhat removed from the grammar of native speakers who were initially, and rightly so, at the center of our endeavor, as noted by Chomsky (1965, p. 4):

The problem for the linguist [...] is to determine from the data of performance the underlying system of rules that have been mastered by the speaker-hearer and that he puts to use. After some of the premises of Pollock's account came under criticism for their partial inadequacy (*e.g.*, Iatridou, 1990; Baker, 1991; Williams, 1994), different accounts became increasingly complex and abstract without necessarily considering native speakers' intuitions, and it is time to ask what these intuitions may actually tell us about the verb movement parameter. It will thus be argued that native speakers' judgments should be one of the elements to inform syntactic theory. To this end, this paper will first present Pollock's minimalist account of the French setting of the verb movement parameter. Then experimental data from French native speakers will be introduced in an attempt to better define which properties are actually subsumed under this parameter by examining some points of contention. No attempt will be made to propose a different syntactic analysis, but it will be argued that carefully elicited experimental data from native speakers should be one of the elements taken into account by syntactic theory as it aims for greater descriptive adequacy.

#### VERB MOVEMENT IN FRENCH

Verb movement phenomena include several apparently unrelated syntactic structures – sentence negation, inverted questions, adverb placement, floating quantifiers and quantification at a distance – in both tensed or [+finite], and infinitive or [-finite] clauses. The following account is taken directly from Pollock (1989, 1997).

##### Finite Contexts

Both French and English are assumed to have the D-structure presented in (1):

- (1) [IP NP I ([Neg not/pas]) [VP (Adv) V...]]

The adverb precedes the verb within VP, with NegP to its left. Thus, whenever the verb ends up preceding adverbs or negation, it has been raised out of its initial position.

##### Negation, Inversion and Adverbs

Let us consider the following well-known examples contrasting French and English structures:

- (2) a. \*John sees not Mary.  
 b. Jean (ne) voit pas Marie.
- (3) a. \*Sees he Mary?  
 b. Voit-t-il Marie?
- (4) a. \*John sees often Mary.  
 b. Jean voit souvent Marie.  
 c. John often sees Marie.  
 d. \*Jean souvent voit Marie.

In the French examples, the verb must move, while in English, it cannot because its verbal morphology is considered to be poor. However, this was not always the case. The sentences in (2a), (3a), (4a) were all grammatical in English up until the XVIth century after which they evolved and disappeared altogether (Kroch, 1990; Roberts, 1993) due to a change in their morphology. The English verbal paradigm was morphologically rich prior to the XVIth century in that the first three persons of the singular had different, distinct endings which also distinguished them from the plural persons. The only remaining morpheme in modern English is the *-s* of the third person singular. This morphological weakness is a characteristic of the modern English verbal structure with important consequences within the Minimalist framework. Assuming that the morphological features of poor suffixes are invisible at LF, one would expect that from the D-structure in (5a), only morphologically rich verbal forms would require movement as shown in (5b):

- (5) a. [Infl  $\emptyset$ ][V N [V ]]  
 b. Adjunction of V to Infl  $\rightarrow$  [Infl [V ]][Infl  $\emptyset$ ][V N [t]]

A lexical verb moves only if it contains features that must be checked and erased at LF. But in order to be erased, these features must be visible at some level which is not the case in modern English. Thus, there is no thematic verb movement in English since the features that motivate this movement cannot violate the Full Interpretation principle. To account for the examples in (4), Pollock suggests the structure in (6a):

- (6) a. [Infl  $\emptyset$ ] (not) (Adv) [ V N [V ] ]  
 Adjunction of V to Infl  $\rightarrow$   
 b. [Infl [V ]][Infl  $\emptyset$ ] (not) (Adv) [V N [t]]

Thus, after movement to Infl, a tensed verb *is*, morphologically rich, would precede the negation *not* and adverbs like *never*, explaining the grammaticality of (4b) and the ungrammaticality of (4d), contrasting with the English examples in (4a,c).

Still according to Pollock (1997), the inversion pronominal subject-verb in questions as exemplified in (3) results from the adjunction of Infl to C as in (7):

- (7) [[C  $\emptyset$ ][Infl [V N [V ]]]]  $\Rightarrow$  [C Infl + C] [t [V N [V ]]]

Inverted questions are possible only following (5b): for (7) to move to [V ], the verb must be part of Infl which is the case after the verb movement to Infl, ruled out in English by its weak morphological features.

The first apparent exception to the systematic raising of a strong lexical verb to Infl comes from the following examples in (8) which show that the negative *ne personne* 'nobody/no one' behaves differently than the other negatives *ne pas* 'not' and *ne rien* 'nothing':

- (8) a. Pierre n'a pas vu le film.  
 'Peter did not see the film'  
 b. \*Pierre n'a vu pas le film.

- c. Pierre n'a rien vu au cinéma.  
'Peter did not see anything at the movies'
- d.\*Pierre n'a vu rien au cinéma.
- e. Pierre n'a vu personne au cinéma.  
'Peter did not see anyone at the movies'
- f.\*Pierre n'a personne vu au cinéma.

The examples in (8a) and (8c) are well-formed due to the fact that the auxiliary avoir, but not the participle, may move to Infl, but why is (8f) ungrammatical since the participle remains *in situ*? Pollock (1989, p. 418) suggests that "personne and ne do not form a constituent – in particular, that personne is the head of its own NP and that ne is plausibly base-generated in the specifierless NegP above the participial SC." Thus ne pas and ne personne behave differently, and the placement of personne may not be an indication of verb movement at all. This is also the case for nonfinite contexts as we will see below with example (28).

#### Floating Quantifiers

The verb movement parameter also includes floating quantifiers. French has both floating quantifiers (tout 'all' and chacun 'each one') and non-floating quantifiers (chaque 'each')<sup>2</sup>. In French, tout and chacun "float" or move to the right of the verb as exemplified in (9b):

- (9) a.\*My friends love all Mary.
- b. Mes amis aiment tous Marie.
- c. My friends all love Mary.
- d.\*Mes amis tous aiment Marie.
- e. All my friends love Mary.
- f. Tous mes amis aiment Marie.

Pollock, following Sportiche's (1988) analysis, assigns the following structure in (10) to account for the ungrammatical example in (9a):

- (10) [Infl [V [all + they][V[V kissed] Mary]]]

Since the verb 'kissed' is morphologically poor, it does not raise to Infl and the quantifier all ends up preceding instead of following the verb, while the corresponding French structure in (9d) is ungrammatical.

#### Quantification at a Distance

Quantification at a distance shows that the past participle optionally raises along with the auxiliary as shown in (11a) and (11b):

- (11) a. Pierre a lu beaucoup de livres.
- b. Pierre a beaucoup lu de livres.  
'Peter has read a lot of books'
- c. Pierre lit beaucoup de livres.
- d.\*Pierre beaucoup lit de livres.  
'Peter reads a lot of books'

By comparing (11c) with (11d), we see again that the lexical verb must raise to Infl.

#### Nonfinite Contexts

French infinitives can be negated and used in combination with adverbs yielding a variety of structures slightly more difficult to account for than tensed clauses.

#### Negation

Auxiliaries seem to behave differently than lexical verbs, in that (12a) is usually assumed to coexist with (12b), whereas (13b) is ungrammatical and only its counterpart in (13a) is well-formed:

- (12) a. Ne pas avoir faim, ce n'est pas un crime.  
 b. N'avoir pas faim, ce n'est pas un crime.  
 'To not be hungry, is not a crime'
- (13) a. Ne pas manger, c'est dommage.  
 b. \*Ne manger pas, c'est dommage.  
 'To not eat, is a pity'

These examples show that the auxiliaries avoir and être optionally move to [-finite] Infl, whereas verb movement cannot apply to infinitival lexical verbs which are weak. Pollock argues that the ungrammaticality of (13b) must be paralleled with (2a) in English repeated in (14):

- (14) \*John likes not Mary.

especially since the position preceding the negation can be occupied by être/avoir as in the following examples (Pollock, 1997, p. 152):

- (15) a. He says that he has not understood your theory.  
 b. He says he is not against your theory.
- (16) a. Il dit n'avoir pas compris ta théorie.  
 b. Il dit n'être pas contre ta théorie.

To provide a common analysis to (15) and (16), Pollock makes the assumption that finite and nonfinite sentences share the structure in (17):

- (17) [Infl (negation) [ $\bar{V}$  ... [ $\bar{V}$  ]]]

Further assuming that the French infinitive suffixes, -er, ir, etc. are morphologically poor, it follows, from Checking theory and Economy constraints, that [ $\bar{V}$  ] cannot be adjoined to the infinitive Infl in (17). The grammaticality of (15) and (16) is explained by assuming that verbs without thematic grids (*i.e.*, être, avoir, be, have, do) can be the lexical head of Infl. So [-finite] auxiliaries optionally move, whereas [-finite] verbs cannot, once again due to the poor morphological features of the verb.

#### Adverbs

Pollock accounts for the placement of adverbs in nonfinite structures in (18) as follows:

- (18) a. Parler à peine/mal l'italien après cinq ans d'étude c'est décevant  
 b. A peine/mal parler l'italien après cinq ans d'étude c'est décevant  
 'to barely speak Italian after five years of study is disappointing'

Both (18a) and (18b) are well-formed although (18a) should be excluded since [-finite] forms are not strong enough to move to Infl. So the grammaticality of the first example forces Pollock to assume the existence of another Infl as in (19):

- (19) [ $\text{Infl}^{\circ}_1 \emptyset$ ] (negation) [ $\text{Infl}_2$  [ $\bar{V}$  ] [ $\text{Infl}^{\circ}_2 \emptyset$ ]] mal/à peine [ $\bar{V}$  t N]]  
 |\_\_\_\_\_ \* \_\_\_\_\_||\_\_\_\_\_ (a) \_\_\_\_\_|

where long movement to  $\text{Infl}^{\circ}$  is not allowed. Instead, the verb undergoes short movement to another Infl,  $\text{Infl}_2$ , which must have features visible to infinitives since the verb moves to it in visible syntax to check them. Following Kayne (1991), Pollock assumes that  $\text{Infl}_1$  has an infinitive functional category for head, and that  $\text{Infl}_2$  is the mode as follows:

- (20) [PRO (ne) [ $\text{Infiniteive} \emptyset$ ] (pas) [ $\text{mode} \emptyset$ ] [mal/bien/à peine V]]]

Pollock (1997) covers other related phenomena in an in-depth diachronic analysis of French (see also Martineau 1994), as well as other Romance and Scandinavian languages which is beyond the scope of this paper, but to which interested readers are referred. For our purposes, we will simply reiterate that French exhibits verb movement in a variety of structures in both tensed and

infinitival clauses, in contrast with English which allows only have/be raising (Roberts, 1998), to form a verb movement parameter. These structures are summarized in Table 1 for finite contexts and in Table 2 for nonfinite contexts:

Table 1: French [+finite] contexts

| Property                                     | Mechanism                    | Effect            |
|--|------------------------------|-------------------|
| Ne pas, ne rien placement with lexical verbs | V mvt to Infl <sup>o</sup> 1 | S ne V pas O      |
| Adverb placement with lexical verbs          | V mvt to Infl <sup>o</sup> 1 | V adv O           |
| Inverted questions with lexical verbs        | V mvt to Infl <sup>o</sup> 1 | V S O             |
| Tout subject placement                       | V mvt to Infl <sup>o</sup> 1 | S V tout O        |
| Ne personne placement with lexical verbs     | Aux mvt<br>No PP mvt         | ne aux V personne |
| Quantification at a distance                 | No V mvt                     | V beaucoup NP     |

Table 2: French [-finite] contexts

| Property                                     | Mechanism                                 | Effect                   |
|--|---|--------------------------|
| Ne pas, ne rien placement with lexical verbs | No V mvt to Infl <sup>o</sup> 1           | ne pas V O               |
| Ne pas, ne rien placement with auxiliaries   | Optional auxiliary mvt                    | ne aux pas<br>ne pas aux |
| Adverb placement with lexical verbs          | Optional short mvt to Infl <sup>o</sup> 2 | V adv<br>adv V           |
| Adverb placement with auxiliaries            | Optional short mvt to Infl <sup>o</sup> 2 | aux adv<br>adv aux       |

The column labelled “Mechanism” refers to the syntactic mechanism, i.e., verb raising, which results in a surface structure in the column labelled “Effect”. Table 1 shows that [+finite] lexical verbs raise past negation and adverbs as predicted. Table 2 indicates that [-finite] lexical verbs remain *in situ* following Pollock’s (1997) assumption which states that they are too weak to move. If this assumption is correct, it naturally leads us to raise the following two questions: first, why do the [-finite] lexical verbs optionally move past adverbs? And second, why do [-finite] auxiliaries optionally move past not only adverbs, but also negation? A third criticism of Pollock’s account may now be added.

#### VERB MOVEMENT REVISITED

The criticism the verb movement parameter has come under was based on Pollock (1989), rather than on Pollock (1997), but some of this criticism is still relevant particularly for lexical verbs in nonfinite contexts<sup>3</sup>.

First, Iatridou (1990), while agreeing with Pollock “that both auxiliaries and main verbs move to Tense in tensed sentences and that in infinitival sentences, only auxiliaries move to

Tense”, argues that “apparent movement of the main verb in infinitival sentences to the left of the VP-initial adverb is not movement of the same sort at all” (p.553). Iatridou is referring to sentences such as (21) and (22):

- (21) a. Souvent être triste, c’est dommage.  
b. Être souvent triste, c’est dommage.  
‘To often be sad is a pity’
- (22) a. A peine comprendre l’italien, c’est étonnant.  
b. Comprendre à peine l’italien, c’est étonnant.  
‘To barely understand Italian is surprising’

These sentences illustrate the optionality of Short Movement for both nonfinite auxiliaries and main verbs past adverbs.

As far as negation in nonfinite contexts goes, Iatridou does follow Pollock in assuming that only auxiliaries can undergo movement as shown in (23):

- (23) a. N’être pas triste, c’est normal.  
b. \*Ne comprendre pas l’italien, ce n’est pas grave.

However, Iatridou suggests that these facts are not accounted for by verb raising. She briefly suggests two alternatives to Pollock’s analysis without favoring either one of them, however it is noteworthy that neither involves movement. The first alternative, following Di Sciullo and Williams (1987), states that “the morphological component provides [V Adv] words” (Iatridou, 1990, p.563). The second alternative, according to Travis (1988), is that “some adverbs are heads without a maximal projection and can be sisters to the verb. This would imply that comprendre à peine in [22b] is a sort of a complex verb” (Iatridou, 1990, p. 563). However, both these alternatives leave unexplained why verb movement would take place in some instances and not in others, and how language learners would know which adverbs are part of [V Adv] words and which are not.

Next, Iatridou presents additional examples to argue against the finite structure [V Adv] as an instance of verb movement. First, consider the data in (24) and (25) illustrating adverb placement with a past participle:

- (24) Pierre a à peine vu Marie.  
‘Peter has barely seen Mary’
- (25) Pierre a vu à peine Marie.  
‘Peter has seen barely Mary’

According to Iatridou, Pollock’s analysis of these facts results in a loss of the arguments for AgrP: if both the auxiliary and the verb have undergone movement, Pollock must propose an *ad hoc* structure. However, Iatridou does not explain why à peine would be optionally appearing before or after the past participle, in contrast with all other adverbs which must intervene between the auxiliary and the past participle for the sentence to be well-formed.

The second objection Iatridou makes against Pollock’s (1989) analysis is that it cannot derive two VP-initial adverbs as shown in (26):

- (26) Souvent mal faire tes devoirs, c’est stupide.  
‘To often do your homework poorly is stupid’

or a [Adv V Adv] structure as in (27):

- (27) Souvent faire mal tes devoirs, ce n’est pas intelligent.  
‘To often do poorly your homework, it’s not intelligent’

Pollock (1997) does not address this potential structure either.

Finally, there is an additional problem, which neither Pollock or Iatridou consider: the

placement of ne personne in nonfinite contexts as exemplified in (28a) with lexical verbs and in (28b) with an auxiliary verb:

- (28) a. C'est dommage de n'inviter personne/\*ne personne inviter.  
'It's a pity not to invite anyone'  
b. N'avoir personne/\*Ne personne avoir, c'est triste.  
'not to have anyone, it's sad'

Thus, and contrary to theoretical predictions, weak nonfinite lexical verbs and auxiliaries do raise past the negation in the case of personne. There is no principled explanation for this. Even if we accept Pollock's suggestion presented above that personne heads its own NP, we still do not know why a weak nonfinite verb raises, which brings us back to the questions raised at the end of the preceding section. First, why do the [-finite] lexical verbs optionally move past adverbs? Second, why do [-finite] auxiliaries optionally move past, not only adverbs, but also negation? There is no principled answer to these questions in the literature and this apparent optionality remains very problematic<sup>4</sup>. This paper is thus concerned with the following theoretical issues: 1) The optionality of movement of [-finite] auxiliaries past negation as in (29) and adverbs as in (30) according to Pollock (1989, 1997):

- (29) Ne pas être fatigué... / ? N'être pas fatigué....  
'To not be tired...'  
(30) Avoir souvent faim... / ? Souvent avoir faim...  
'To be often hungry...'

The question mark in front of these examples is to indicate that I find them to be marginal at best.

2) The optionality of movement of [-finite] lexical verbs past adverbs as in (31) following Pollock (1989, 1997):

- (31) Aller souvent au cinéma... / ? Souvent aller au cinéma...  
'To go often to the movies...'

3) The placement of one or more adverbs in [-finite] structures as proposed by Iatridou in (32):

- (32) ? Souvent bien travailler...  
'To often well work...'

3) The optionality of past participle movement past adverbs in [+finite] structures as claimed by Iatridou in (33):

- (33) Elles ont à peine regardé le film / ? Elles ont regardé à peine le film.  
'They have barely watched the film'

And finally, 5) an instance of floating quantifier suggested by Sportiche (1988, p. 427) and replicated in (34):

- (34) ? Les enfants verront ce film tous.  
'The children will all see this movie'

Since there is no principled account for the optionality of verb movement in these structures, one may ask if they are really part of the grammar of French native speakers (FNSs). If FNSs were administered elicitation tasks, would they consistently produce, accept and/or reject some structures and not others? Theory and experimental data are in a two-way relationship as stressed by Roeper (1981, p. 4):

The evolution of a theory causes an evolution in the role of data. There are no preordained limits on the domain of relevant data. In fact, both acquisition data and adult linguistic intuitions may contribute to either a theory of acquisition or a theory of adult comprehension and then to the interpretation by adults of the non-linguistic contexts in

which children talk.

In other words, the experimental data produced by native speakers may be used to inform syntactic theory. As a matter of fact, “there is no doubt that we now have access to an enormous treasure of descriptive generalizations about sentence structure in a wide range of languages that could never have been acquired without reliance on judgment data” (Cowart, 1997, pp. 1-2). Native speakers’ intuitions are also helpful for more fine-grained analysis as in the case of the apparently optional structures with verb movement. This is especially important when the properties being considered fall under a syntactic parameter of Universal Grammar with far-reaching consequences on the grammar, as is the case for the verb movement parameter. The next section thus presents the results of two experimental studies conducted with FNSs in an attempt to provide an answer to the theoretical questions raised above.

## EXPERIMENTAL STUDIES

### First Study

All the participants ( $n=73$ ) were living in the same metropolitan area in the south of France: 54 high-school students (23 males and 31 females) and 19 adults (8 males and 11 females). Participants indicated their age (which ranged from 13 to 59) and their profession. The researcher administered the test individually to the adult participants, and the high-school students voluntarily participated during a regular class session with the collaboration of their professors over a two week period. The participants performed a written pencil-and-paper acceptability judgment task combined with a correction task. They were asked to read 18 sentences in French to place them in one of the following categories:

- A: phrase tout à fait grammaticale, je la dirais certainement  
‘sentence completely grammatical, I would probably say it’
- B: phrase sans doute grammaticale, mais je ne la dirais pas  
‘sentence probably grammatical, but I wouldn’t say it’
- C: phrase non grammaticale  
‘ungrammatical sentence’

In addition, they were asked to provide a written correction for all the sentences placed in the B or C categories. They were instructed not to think too much and to rely on their first reaction and intuition as native speakers. To encourage them to do so, they were also told that there were no right or wrong answers.

The stimuli included a total of 18 sentences, 5 of which were distractors and were consequently excluded from the analysis of the results. The remaining 13 sentences illustrated each of the properties subsumed under the Verb movement parameter and which are being questioned here: floating quantifiers, adverb placement in infinitival sentences and past participles, negation in infinitival sentences with lexical verbs and auxiliaries.

### Results

The results indicate that all stimuli, with the exception of the first one – manger souvent... which 59% of French native speakers (FNSs) accepted – were found to be either ungrammatical (rated C) or sentences most participants would not say (rated B) as Table 3 shows:

Table 3: Acceptability judgment task results (first study)

| Stimuli   | A   | B   | C   | Property  |
|---|-----|-----|-----|-----------|
| Manger souvent des choux à la crème fait grossir.       | 59% | 37% | 3%  | AdvInf    |
| ?Souvent arriver en retard, ce n'est pas professionnel. | 12% | 59% | 29% | AdvInf    |
| ?Toujours mal faire ses devoirs, ce n'est pas malin.    | 16% | 47% | 37% | AdvAdvInf |

|  |     |     |     |           |
|--|-----|-----|-----|-----------|
| ?Souvent choisir bien, ce n'est pas facile.                    | 3%  | 51% | 47% | AdvAdvInf |
| ?Pierre a vu à peine Marie.                                    | 3%  | 53% | 44% | AdvFin    |
| ?J'ai aperçu à peine Paul.                                     | 8%  | 63% | 29% | AdvFin    |
| ?Il a regardé à peine son nouveau-né.                          | 14% | 58% | 29% | AdvFin    |
| ?Il a travaillé beaucoup.                                      | 15% | 67% | 18% | AdvFin    |
| ?Jean a mis les lettres toutes dans la boîte.                  | 0%  | 25% | 75% | FQ        |
| ?Les filles ont mis les ballons tous les uns après les autres. | 4%  | 48% | 48% | FQ        |
| *Ne voir pas ses parents, ce n'est pas sympa.                  | 0%  | 19% | 79% | NegFin    |
| ?N'avoir pas faim, ce n'est pas un crime!                      | 15% | 44% | 41% | NegInf    |
| ?Etre ou n'être pas, telle est la question.                    | 8%  | 63% | 29% | NegInf    |

It is important to specify that when counting how many sentences were classified as B or C, the correction provided for each one of them was also carefully considered: if the proposed correction showed only a stylistic variation or a different word/ constituent order without altering the relevant structure, the sentence was counted as an A sentence. It is significant that practically all B sentences were corrected: it shows that although the FNSs did not reject them as 'ungrammatical', they would not say them either. It appears that the participants hesitated to reject a sentence as ungrammatical since even sentences such as ne voir pas... and Jean a mis les lettres toutes..., which are clearly ungrammatical, were rated C by only 79% and 75% of the FNSs respectively.

Let us now consider how the stimuli were corrected. The numbers to the right correspond to the number of corrections provided for all of the participants ( $n=73$ ). We will examine each structure in the order in which they were presented at the end of the preceding section.

1) [-finite] auxiliaries with negation and adverbs

- (35) a. N'avoir pas faim, ce n'est pas un crime!  
b. Ne pas avoir faim, ce n'est pas un crime! 40  
'Not to be hungry is not a crime'
- (36) a. Etre ou n'être pas, telle est la question.  
b. Etre ou ne pas être, telle est la question. 52  
'To be or not to be, that is the question'

Most of the FNSs, 85% for (35a) and 89% for (36a) thus objected to nonfinite auxiliaries raising past negation which provides evidence against the optionality of this Short Movement.

However, there is some evidence of variability by gender and by age as indicated in the results in Appendix A. The majority of the female high-school students (90%) rated the sentence (35a) as B or C and all rewrote it as (35b); only 3 accepted (35a) while rejecting (36a). We see a similar pattern with male high-school students: the majority (82.6%) favor (35b) while only two accept (35a) and two others accept (36a). These results do not support Roberts' (1998, p.122) suggestion that the apparent optionality of auxiliary movement can be attributed to a register difference:

the auxiliaries are able to precede pas in a "higher," more literary, and more conservative variety of French without it, rather than a single variety of French with optional have/be raising. The difference between the two varieties must reside in whether nonfinite T has a V-feature to check. In the more conservative variety, it does; have/be raising therefore raises in nonfinite clauses exactly as they do in finite clauses in English. In the less conservative variety, nonfinite T presumably lacks this feature.

In other words, Roberts is suggesting that "different registers correspond to different grammars,

one requiring and one disallowing have/be raising” (personal communication, 1998). Pollock’s (1995) younger speakers were 40 years old and above, while the participants in the present study ranged from young adults (17-18 years old) to mature adults (30-59 years old). But as indicated by the results in Appendix A, no correlation was found between their age and their choice of structure. Older participants did not exhibit a strong tendency to accept both n’être pas and ne pas être. Even if they had, it would be difficult to see how a register difference would account for the optionality of a syntactic process. Although the use of ne pas être versus n’être pas is unlikely to result in a communication breakdown, it is equally unlikely that such a change would occur among speakers so close in age. What is triggering such a change? We may be observing a diachronic change in progress<sup>5</sup>. Once completed, this change will bring more consistency to the grammar of French speakers in that auxiliary verbs will behave in the same way lexical verbs already do: their weak morphological features should not and will no longer trigger movement and ne pas parler and ne pas être/avoir will remain the only acceptable structures.

Results are not so clear for the stimuli illustrating adverb placement in infinitives, although the sentences generated a great number of corrections. No less than 84% of the participants, and as many as 97% of them, rewrote the sentences. But while other structures generated only one type of correction, the stimuli for adverb placement in [–finite] lexical verbs resulted in as many as 16 different corrections which indicates that these stimuli created some difficulties or confusion for the FNSs’ grammar. A wide variety of corrections reveal that the [Adv + Adv + V] structure was completely discarded in favor of other more common and stylistically elegant structures such as [V + Adv] as shown in (37):

- (37) Souvent arriver en retard, ce n'est pas professionnel.
- |  |    |
|--|----|
| a. Arriver souvent en retard, ce n'est pas professionnel.  | 38 |
| b. Ce n'est pas professionnel d'arriver souvent en retard. | 4  |
- ‘To arrive late often is not professional’

The majority of the corrections show a clear preference for the structure V + Adv as opposed to Adv + V. This correction is consistent with the fact that most participants (59%) accepted stimuli illustrating the V + Adv order.

Moreover, once again, detailed results by gender and age as displayed in Appendix A, indicate variability among NSs. Two stimuli are directly compared to test for consistency:

- (38) a. Manger souvent des choux à la crème fait grossir.  
‘To eat cream puffs often makes you gain weight’
- b. Souvent arriver en retard, ce n'est pas professionnel.  
‘To arrive late often is not professional’

If Pollock’s (1989, 1997) account is correct and FNSs allow the optionality of movement of nonfinite verbs past adverbs, participants should accept both (38a) and (38b) as grammatical. On the other hand, if optionality is not part of their grammar, and if it is correct that nonfinite lexical verbs are too weak to move, FNSs should accept (38b) as grammatical and reject (38a) as ungrammatical. Neither of these two predictions are supported by the results in Appendix A.

FNSs do allow movement of nonfinite lexical verbs past adverbs. This is true for female high-school students (61.3%) and female adults (63.6%) who rated (38a) as A and (38b) as B or C; but less so for male highschoolers (43.5%) or male adults (36.5%) respectively. Some participants did not like either structure, rating both of them B or C. This is the case for 32.2% of female high-schooler students but only one (9%) female adult. In addition, 39.1% of the male high-schooler students and 37.5% (only 3) male adults rated both (38a) and (38b) as B, and provided a correction favoring a structure with movement of the nonfinite verb past the auxiliary.

The stimuli testing double adverb placement in infinitives generated the most corrections with a variety of structures. It turned out that 84% of the participants rejected the [Adv+Adv+V] structure, and five different structural patterns were extracted from the corrections, the majority of which placed the verb before the adverbs, which is similar to the results obtained with a single adverb.

The following corrections were extracted from the stimuli with a past participle:

- |      |                                      |    |
|------|--------------------------------------|----|
| (39) | Pierre a vu à peine Marie.           |    |
|      | Pierre a à peine vu Marie.           | 39 |
|      | Pierre vient à peine de voir Marie.  | 1  |
|      | ‘Peter barely saw Mary’              |    |
| (40) | J’ai aperçu à peine Paul.            |    |
|      | J’ai à peine aperçu Paul.            | 48 |
|      | ‘I barely saw Paul’                  |    |
| (41) | Il a regardé à peine son nouveau-né. |    |
|      | Il a à peine regardé son nouveau-né. | 49 |
|      | ‘He barely looked at his new-born’   |    |

These corrections show that the majority of FNSs in this study prefer that the adverb intervene between the auxiliary and the past participle. Thus, there is no need to introduce an *ad hoc* structure that would account for both the auxiliary and the main verb to undergo Short Movement as suggested by Iatridou (1990).

Finally, two stimuli tested Sportiche’s (1988) claim regarding floating quantifiers as follows:

- |      |   |    |
|------|---|----|
| (42) | Jean a mis les lettres toutes dans la boîte.                  |    |
|      | Jean a mis toutes les lettres dans la boîte.                  | 31 |
|      | ‘John put all the letters in the box’                         |    |
| (43) | Les filles ont mis les ballons tous les uns après les autres. |    |
|      | Les filles ont mis tous les ballons les uns après les autres. | 37 |
|      | ‘The girls put all the balls one after the others’            |    |

These examples show, contra Sportiche (1988), that the quantifier tous modifying the object is not as free to “float” as his theoretical framework allows. It is interesting to note that although none of the FNSs accepted (42), 4% did accept (43) while both sentences are ungrammatical.

Thus the FNSs’ grammar seems to allow fewer options than predicted by the theory although there is some variability between and among the participants. This finding eliminates some theoretical problems such as explaining “why raising should be optional just in the case of the infinitive” (Chomsky, 1995, p. 138); or how to account for double adverbs in an infinitival clause (Iatridou, 1990). Thus, if we are to rely on, and use native speakers’ judgements, we have to conclude that in the case of the verb movement parameter, these theoretical predictions are not supported.

Let us see if these findings were confirmed by the second study in which three different experimental tasks were administered a year later to another group of FNSs from the same city.

#### Second Study

Another group of FNSs ( $n=85$ , age range=16–50) were administered a grammaticality judgment task (GJT), a production task and a grammaticality/preference task.

#### Grammaticality Judgment Task

Participants were asked to rate sentences on a scale from 1 to 5:

- 1: ‘completely ungrammatical’

- 2: ‘ungrammatical’
- 3: ‘I don’t know’
- 4: ‘grammatical’
- 5: ‘completely grammatical’

For the sake of brevity and to better focus on the structures at issue, the results of the grammaticality judgment task reported below in Table 4 presents 11 out of the 25 sentences, organized by property. The remaining 14 stimuli were either correctly accepted or rejected by 95% to 100% of the participants and are presented in appendix B.

Table 4: Grammaticality judgment task results (second study)

| Stimuli   | A   | R   | Prop.      |
|---|-----|-----|------------|
| Ne pas être en retard c’est important.          | 84% | 16% | NegInf     |
| ?N’être pas avec sa famille, c’est triste.      | 9%  | 91% | NegInf     |
| ?N’avoir pas d’amis, c’est triste.              | 28% | 68% | NegInf     |
| Ne pas sortir souvent, c’est ennuyeux.          | 62% | 38% | Neg/AdvInf |
| *N’écrire jamais de lettres, c’est égoïste.     | 29% | 71% | NegInf     |
| ?Souvent choisir bien, ce n’est pas facile.     | 8%  | 92% | AdvAdvInf  |
| ?Souvent arriver en retard? Quelle grossièreté! | 15% | 85% | AdvInf     |
| ?Toujours bien réussir, c’est difficile.        | 52% | 38% | Adv/AdvInf |
| Nous avons beaucoup acheté de CDs.              | 26% | 64% | QD         |
| Paul a beaucoup lu de livres.                   | 38% | 62% | QD         |
| *Je n’ai vu rien sur le bureau.                 | 22% | 78% | NegFin     |

First, percentages for both accepted and rejected sentences seem relatively low for native speakers (see further discussion below); for example only 62% of the FNSs accepted *ne pas sortir souvent...*, a sentence supposed to be perfectly grammatical, and only 78% and 71% rejected the ungrammatical instances of negation placement illustrated in *je n’ai vu rien sur le bureau* and *n’écrire jamais de lettres, c’est égoïste*. It is rather surprising, then, that so many participants (62% for *Paul a beaucoup lu de livres* and 64% for *nous avons beaucoup acheté de CDs*) rejected these grammatical sentences exemplifying quantification at a distance. One may speculate that when the verb is used with an object NP, it seems more intuitive to ‘quantify’ the NP rather than the verb:

- (44) a. Paul a lu beaucoup de livres.
- b. Nous avons acheté beaucoup de CDs.

It is also possible that structures with quantification at a distance are ‘moving out’ of the FNSs’ grammar: another diachronic change similar to the exclusion of *n’être/avoir pas* in *avoir* of *ne pas être/avoir*. An in-depth analysis may confirm this possibility, but is beyond the scope of this study.

It is also interesting to note that both *n’avoir pas d’amis* and *n’être pas avec sa famille*,

which illustrate negation placement with the auxiliaries être and avoir, were rejected (by 91% and 68%, respectively), showing that auxiliaries are not optionally raised, which confirms the results of the first study. Finally, the high rejection rates (92% and 85%) of the nonfinite structures with double adverbs also confirm the results of the first study and suggest that they are not part of FNSs' grammar so there is no need to try to account for them.

#### Production Task

Participants were asked to produce new sentences by placing one or two elements (adverbs, floating quantifiers, negatives) in 49 grammatical sentences presented in a written questionnaire. For example, when prompted with:

45. Manger des pâtisseries, quel plaisir! Souvent  
 'to eat pastries, what a pleasure' 'often'

most FNSs wrote:

46. Manger souvent des pâtisseries, quel plaisir!

Once again, for the sake of brevity, only the most notable results for the apparently optional structures are discussed (see appendix C for complete results). Between 98% and 100% of the participants produced the same structures on the stimuli not reported in Table 5:

Table 5: Production task result

| Stimuli                                     | Results                 | FNSs | Property |
|---|-------------------------|------|----------|
| Dormir à la plage, quel plaisir!            | Ne pas dormir...        | 99%  | NegInf   |
| Etre malade, quelle poisse!                 | Ne pas être...          | 94%  | NegInf   |
| Avoir réussi, c'est bien.                   | Ne pas avoir réussi...  | 95%  | NegInf   |
| Avoir faim, quelle horreur!                 | Ne pas avoir faim...    | 90%  | NegInf   |
| Etre en vacances, quel bonheur!             | Etre souvent...         | 99%  | AdvFin   |
| Se reposer, quelle chance!                  | Se reposer longtemps... | 95%  | AdvInf   |
| Manger des pâtisseries, quelle gourmandise! | Manger souvent...       | 92%  | AdvInf   |

The high percentages obtained with adverb and negation placement in nonfinite clauses are a solid confirmation of the preceding GJT results. Participants produced structures with verb movement on adverb placement with lexical verbs and auxiliaries, but not on negation placement as exemplified by ne pas avoir faim... or ne pas avoir réussi. Thus, these results do not support theoretical predictions according to which both types of structures (ne pas être/avoir and n'être/avoir pas) are possible (Pollock, 1989, 1997; Roberts, 1998). The following preference/grammaticality task was also administered to obtain additional evidence.

#### Preference/Grammaticality Task

The preference/grammaticality task included 5 sets of sentences: participants indicated their preference by circling the letter (a) or (b); furthermore, they were asked to judge the grammaticality of the rejected sentences by circling NG for 'non grammatical' or G for 'grammatical'. Thus, the participants did not merely express a preference, but also indicated whether the other sentences were actually ungrammatical or simply represented an equally possible and grammatical alternative.

Table 6: Preference task results

|   |    |      |        |
|---|----|------|--------|
| 1.a. Ne pas avoir mal au cœur en bateau? Quelle chance! | P  | 93%  | NegInf |
| b.?N'avoir pas mal au cœur en bateau? Quelle chance!    | NG | 60%  |        |
| 2.a. Ne pas être de bonne humeur, c'est énervant.       | P  | 100% | NegInf |
| b.?N'être pas de bonne humeur, c'est énervant.          | NG | 65%  |        |
| 3.a. Ne pas boire en conduisant, c'est plus sûr.        | P  | 100% | NegInf |

|  |    |     |           |
|--|----|-----|-----------|
| b.*Ne boire pas en conduisant, c'est plus sûr.             | NG | 99% |           |
| 4.a. S'habiller toujours bien, c'est rare.                 | P  | 61% | AdvAdvInf |
| b.?Toujours bien s'habiller, c'est rare.                   | NG | 21% |           |
| 5.a. Sortir souvent le soir avec ses copains, c'est sympa. | P  | 92% | AdvInf    |
| b.?Souvent sortir le soir avec ses copains, c'est sympa.   | NG | 61% |           |

The results displayed in Table 6 indicate once again that FNSs not only overwhelmingly prefer for nonraised auxiliaries (93% for *ne pas avoir* and 100% for *ne pas être*), but also that at least half of FNSs reject the counterpart structures with movement as being ungrammatical (50% and 65% respectively). These preference task results also provide further support for the [V + Adv] structure, chosen by 92% of the participants, with its alternative being judged ungrammatical by 61% of the FNSs (as found in Hawkins *et al.*, 1993).

The only low percentage of preference (61%) is from the [Adverb + Adverb + Verb] structure which was rejected as ungrammatical by only 21% of the participants. This finding confirms the results of the other tasks obtained by this group as well as by the first group of FNSs. However, it is somewhat surprising that sentences such as *s'habiller toujours bien* were not rejected as ungrammatical by a greater number of participants since they do not show movement of the verb past the adverbs. You may recall that when performing production, preference and GJTS, FNSs definitely require movement of a nonfinite verb past an adverb as illustrated in *sortir souvent le soir*.

To sum up, the results of a variety of written tasks – acceptability/correction task, grammaticality judgment task, production task and grammaticality/preference task – showed that the grammar of FNSs presents a different picture of the verb movement parameter than the one predicted by the theory and allows us to answer the questions we set out to address: 1) there is no or little optionality of movement of [–finite] auxiliaries past negation and adverbs; 2) there is no optionality of movement of [–finite] lexical verbs past adverbs; 3) the placement of one or more adverbs in nonfinite structures is not allowed; 4) there is no optionality of past participle movement past adverbs in [+finite] structures; and finally, 5) the floating quantifier *tous* does not “float” as freely as suggested by Sportiche (1988).

In addition, and in spite of the native speaker variability, it was found that *ne pas être/avoir* is strongly preferred by an overwhelming majority of participants regardless of their age. Finally, quantification at a distance with *beaucoup* was rejected as ungrammatical. Since this last structure was not a question in designing this study, this is another unexpected result. Thus, the elicited experimental data presented in this study has answered some theoretical questions, but at the same time has raised others that need to be addressed in further work.

#### CONCLUSION

The importance of descriptive accuracy cannot be understated, for it has far-reaching consequences in both theoretical and applied linguistics. Nor does it seem to be disputed by either theoretical or applied researchers who share at least this one goal. The following questions are of particular concern to issues of data analysis: first, how do language acquisition data test linguistic theory (Gass, 1992; Rutherford, 1993) when linguistic theory itself does not appear to be on firm grounds since it is constantly being revised? Second, how do we test for parameter resetting in second language acquisition (Meisel, 1998; White, 1995)? For this, we need an accurate description of the properties subsumed under the parameters we investigate. If some syntactic properties do not appear in carefully elicited native speakers' performance, they may not be a part of the input language learners are exposed to through contact with native speakers

in the case of naturalistic second language acquisition, or in textbooks and other instructional sources as in the case of formal foreign language learning. If we are correct in assuming with others (e.g., Lightfoot, 1991) that the input to language learners contains properties which trigger parameter (re)setting, this input must be correctly defined. Focusing on the triggering properties of the input may in turn help us understand the results of studies which tested the acquisition of the verb movement parameter by Francophone and Anglophone learners (Antes *et al.*, 1995; Ayoun, 1999; Hawkins *et al.*, 1993; Schwartz & Gubala-Ryzak, 1992; Trahey, 1992; White, 1991a,b/1992a). These studies produced mixed results which may be partly explained by the language exposure learners receive. For example, White (1992b) disagrees with the type of triggering data proposed by Schwartz & Gubala-Ryzak (1992) arguing it is too “marginal and obscure” as well as “irrelevant” to be effective. Structures rarely used by native speakers also fall in the category of ineffective or unlikely triggering data<sup>6</sup>.

If the importance and relevance of descriptive accuracy and triggering data are not disputed, the reliability on native speakers’ judgments may be. The crucial distinction between *langue* and *parole* (de Saussure, 1949) or competence and performance (Chomsky, 1981) is well understood but it does not follow that we may easily tap into speakers’ competence. The traditional use of grammaticality judgment tasks to get an insight into native speakers’ or language learners’ competence has come under close scrutiny (e.g., Birdsong, 1989, 1992; Cowart, 1997; Schütze, 1996). For example, Sorace (1996) points out that acceptability and grammaticality judgments may not coincide and may be influenced by a variety of extra-grammatical factors; intuitions and judgments may be at odds; and native speakers’ grammars may reflect some indeterminacy defined as “variability in the speaker’s acceptability judgments” (p. 381). However, if reasonably consistent evidence is obtained through a variety of tasks as in the present study, we have sufficient grounds to follow Sorace (1996, p. 376) in concluding that:

Although the psychological laws of the intuitional process are poorly understood, it is indisputable that these results would hardly be explainable if no more than a chance relationship was assumed between grammatical knowledge and expressed linguistic intuitions. Moreover, acceptability judgments and linguistic performance have often been shown to be highly correlated (Greenbaum & Quirk, 1970; Quirk & Svartvik, 1966): This suggests that NSs tend to rely on the same grammar for both the sentences they accept and those they are able to produce. There are therefore sufficient grounds to disregard the claim that there is no orderly relationship between linguistic competence and intuitional processes, and between intuitional processes and linguistic performance. This study has shown that carefully elicited data from native speakers in appropriately designed studies can inform syntactic theory as it strives for descriptive accuracy which in turn, has direct implications in first and second language acquisition research.

#### Endnotes

<sup>1</sup> See also Williams (1994) for a discussion of Emonds (1978) and Pollock (1989) as well as a suggestion that the syntactic differences under consideration are due to the strength of an AGR parameter. Similarly, Roberts (1998) follows Chomsky (1992, 1993) in referring to an inflectional parameter with two values, one strong and one weak. And to provide a parametric account of VSO agreement in Arabic, Bolotin (1996) posits four inflectional parameters based on the same premise: features of AGR and T may be strong or weak. This study assumes the same theoretical claims and the use of the term ‘verb movement parameter’ is not intended to suggest a new parameter, but simply follows common usage.

<sup>2</sup> See Sportiche (1989) for a detailed account.

<sup>3</sup> This paper focuses on French but it should be mentioned that Baker (1991, pp. 427, 428) argues that “English is an Infl-lowering language pure and simple, and those English phenomena that mimic core phenomena of French are to be accounted for not by core grammar, but by rules of the periphery”. He nevertheless acknowledges that “the risk obviously resides in the possibility that we will fail to discover some basic unifying principle underlying a wide range of separate syntactic phenomena”. A parametric account of English may indeed create unnecessary complications in the base component of the grammar.

<sup>4</sup> Furthermore, and even if Pollock’s (1989) hypothesis for a separate NegP has proven to have tremendous explanatory power for a wide range of languages such as Basque (Laka, 1990), German (Hauptmann, 1994; Santelmann, 1994), Bengali (Núñez del Prado & Gair, 1994) and Korean (Yi, 1994), some syntacticians question the position of NegP in English (*e.g.*, Belletti, 1990; Foley, 1994; Haegeman, 1992; Ouhalla, 1990) or its very existence, suggesting that *not* is better analyzed as an AdvP (*e.g.*, Ernst, 1992).

<sup>5</sup> See Lightfoot (1997) for a discussion of diachronic perspectives on parameter (re)

setting.

<sup>6</sup> See also Antes *et al.* (1995) for a discussion of input and parameter resetting in the acquisition of the verb movement parameter by adult learners of French and Spanish.

#### References

- Antes, T., Moritz, C. & Roebuck, R. (1995). Input and parameter resetting in second language acquisition. *Language Acquisition*, 2, 103-125.
- Ayoun, D. (1999). Verb Movement in French L2 acquisition. *Bilingualism: Language & Cognition*, 2, 103-125.
- Baker, C.L. (1991). The syntax of English *not* : the limits of core grammar. *Linguistic Inquiry*, 10, 533-81.
- Belletti, A. (1990). *Generalized verb movement*. Turin: Rosenberg and Tellier.
- Birdsong, D. (1989). *Metalinguistic performance and interlinguistic competence*. Berlin: Springer-Verlag.
- Birdsong, D. (1992). Ultimate attainment in second language acquisition. *Language*, 68, 706-55.
- Bolotin, N. (1996). Arabic and parametric VSO agreement. In M. Eid (Ed.), *Perspectives on Arabic Linguistics* (Eds.), 1-15. Cambridge: Cambridge University Press.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge: MIT Press.
- Chomsky, N. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, N. (1986). *Barriers*. Cambridge: MIT Press.
- Chomsky, N. (1992). A minimalist program for linguistic theory. *MIT Occasional Papers in Linguistics* (Eds.), 1-15.
- Chomsky, N. (1993). A minimalist program for linguistic theory. In K. Hale & S. J. Keyser (Eds.), *The Minimalist Program*. Cambridge: MIT Press.
- Chomsky, N. (1995). *The Minimalist Program*. Cambridge: MIT Press.
- Cowart, W. (1997). *Experimental syntax. Applying objective methods to sentence judgments*. Thousand Oaks: Sage.
- Culicover, P. (1997). *Principles and Parameters. An introduction to syntactic theory*. New York: Oxford University Press.
- Deprez, V. (1994). Under-specification, functional projections, and parameter setting. In B. Lust, M. Suñer & J. Whitman (Eds.), *Syntactic theory and first language acquisition. Heads, projectors and barriers*. Dordrecht: Foris.
- Diesing, M. (1990). Verb movement and the subject position in Yiddish. *Natural Language & Linguistic Theory*, 8, 1-45.
- Di Sciullo, A.-M. & Williams, E. (1987). *On the definition of word*. Cambridge: MIT Press.
- Emonds, J. (1978). The verbal complex V' -V in French. *Linguistic Inquiry*, 9, 49-77.
- Emonds, J. (1985). *A unified theory of syntactic categories*. Dordrecht: Foris.
- Ernst, T. (1992). The phrase structure of English negation. *The Linguistic Review*, 9, 109-144.
- Foley, C. (1994). Negation and the Tense-Agreement relationship in French and English. *Cornell Working Papers in Linguistics*, 12, 26-45.
- Gass, S. (1992). The need to win fields and influence disciplines. Paper read at the Second International Conference on Second Language Acquisition, Cambridge.
- Greenbaum, S. and R. Quirk. (1970). *Elicitation experiments in English: linguistic studies in use and attitude*. Cambridge: Cambridge University Press.
- Haegeman, L. (1992). *Theory and description in generative syntax: a case study in West Flemish*. Cambridge: Cambridge University Press.
- Hauptmann, R. (1994). Sentential negation in German: evidence for NegP. *Cornell Working Papers in Linguistics*, 12, 26-45.
- Hawkins, R., Towel, R. & Bazergui, N. (1993). Universal Grammar and the acquisition of French Verb Movement by native speakers of English. *Second Language Research*, 9, 189-233.

- Iatridou, S. (1990). About Agr(P). Linguistic Inquiry, 21, 551-577.
- Kayne, R. (1991). Romance clitics, Verb Movement and PRO. Linguistic Inquiry, 22, 647-686.
- Kroch, A. (1990). Reflexes of grammar in patterns of language change. Language Variation and Change, 2, 398-426.
- Laka, I. (1990). Negation in syntax: on the nature of functional categories and projections. Doctoral dissertation, MIT.
- Lightfoot, D. (1991). How to set parameters: arguments for language change. Cambridge: MIT Press.
- Lightfoot, D. (1997). Shifting triggers and diachronic reanalyses. In A. van Kemenade & N. Vincent (Eds.), Parameters and language change. Cambridge: Cambridge University Press.
- Lightfoot, D. & Hornstein, N. (Eds.). (1994). Verb Movement. Cambridge: Cambridge University Press.
- Lust, B., Suñer, M. & Whitman, J. (Eds.) (1994). Syntactic theory and first language acquisition. Hillsdale, NJ: Erlbaum.
- Martineau, F. (1994). Movement of negative adverbs in French infinitival clauses. French Language Studies, 14, 1-15.
- Meisel, J. (Ed.) (1992). The acquisition of verb placement. Functional categories and V2 phenomena in language acquisition. Dordrecht: Kluwer Academic Publishers.
- Meisel, J. (1998). Parametric change in language development: psycholinguistic and historical perspectives. In J. Meisel & J. Hulst (Eds.), Parametric change in language development. Amsterdam: John Benjamins.
- Newmeyer, F. (1983). Grammatical theory: its limits and its possibility. Chicago: University of Chicago Press.
- Núñez Del Prado, Z. & Gair, J. (1994). The position of negation in Bengali: an account of synchronic variation. In J. Meisel & J. Hulst (Eds.), Parametric change in language development. Amsterdam: John Benjamins.
- Ouhalla, J. (1990). Sentential negation, relativized minimality and the aspectual status of auxiliaries. The Linguistic Review, 20, 365-424.
- Ouhalla, J. (1991). Functional categories and parametric variation. Oxford: Oxford University Press.
- Ouhalla, J. (1994). Verb movement and word order in Arabic. In D. Lightfoot & N. Hornstein (Eds.), Parameters and language change. Cambridge: Cambridge University Press.
- Pollock, J.-Y. (1989). Verb movement, Universal Grammar, and the structure of IP. Linguistic Inquiry, 20, 365-399.
- Pollock, J.-Y. (1995). Paper read at the Fourth Diachronic Generative Syntax Conference. University of Chicago.
- Pollock, J.-Y. (1997). Langage et cognition. Introduction au programme minimaliste de la grammaire. Paris: L'Harmattan.
- Quirk, R. & Svartvik, J. (1966). Investigating linguistic acceptability. The Hague: Mouton.
- Roberts, I. (1993). Verbs and diachronic syntax. Dordrecht: Kluwer Academic Publishers.
- Roberts, I. (1998). *Have/Be* raising, Move F, and Procrastinate. Linguistic Inquiry, 29, 113-125.
- Roeper, T. (1981). Introduction. In S. Tavakolian (Ed.), Language acquisition and linguistic theory (pp. 1-10). Amsterdam: John Benjamins.
- Rutherford, W. (1993). Linguistics and SLA: the two-way street phenomenon. In F. Eckman (Ed.), Case studies in second language acquisition. Amsterdam: John Benjamins.
- Santelmann, L. (1994). Evidence for NegP and Object Shift in German. Cornell Working Papers in Linguistics, 12, 154-82.
- Saussure de, Ferdinand. (1949). Cours de linguistique générale. Paris: Payot.
- Schütze, C. (1996). The empirical base of linguistics. Chicago: University of Chicago Press.
- Sorace, A. (1996). The use of acceptability judgments in second language acquisition research. In W. Ritchie & T. Bhatia (Eds.), Handbook of second language acquisition (pp. 375-409). San Diego: Academic Press.
- Sportiche, D. (1988). A theory of floating quantifiers and its corollaries for constituent structure. Linguistic Inquiry, 19, 1265-1298.
- Schwartz, B. & Gubala-Ryzak, M. (1992). Learnability and grammar reorganization in L2A: against narrow scope. In J. Meisel & J. Hulst (Eds.), Parametric change in language development. Amsterdam: John Benjamins.
- Trahey, M. (1992). Positive evidence, pre-emption and parameter resetting in second language acquisition. Ph.D. dissertation, University of California, San Diego.
- Travis, L. (1988). The syntax of adverbs. McGill Working Papers in Linguistics, 280-310.
- White, L. (1991a). Adverb placement in second language acquisition: some effects of positive and negative evidence in the classroom. Second Language Research, 7, 133-161.
- White, L. (1991b). The verb-movement parameter in second language acquisition. Language Acquisition, 1, 1-24.
- White, L. (1992a). Long and Short verb movement in second language acquisition. Canadian Journal of Linguistics, 37, 1-24.
- White, L. (1992b). On triggering data in L2 acquisition: a reply to Schwartz and Gubala-Ryzak. Second Language Research, 8, 1-15.
- White, L. (1995). Chasing after linguistic theory. How minimal should it be? In L. Eubank, W. Rutherford & J. Hulst (Eds.), Parameters and language change. Cambridge: Cambridge University Press.
- Williams, E. (1994). A reinterpretation of evidence for verb movement in French. In D. Lightfoot & N. Hornstein (Eds.), Verb Movement (pp. 189-205). Cambridge: Cambridge University Press.

University Press.

Yi, E.-Y. (1994). NegP in Korean. *Cornell Working Papers in Linguistics*, 12, 193-208.

Zanuttini, R. (1997). *Negation and clausal structure. A comparative study of Romance languages*. New York: Oxford University Press.

Appendix A: Nonfinite Negation Placement

| Female HS <i>n</i> =31     |       | N'avoir pas faim... | Etre or n'être pas... | Corrected |
|----------------------------|-------|---------------------|-----------------------|-----------|
| 11                         | 35.5% | B                   | B                     | yes       |
| 9                          | 29.0% | C                   | B                     | yes       |
| 6                          | 19.4% | B                   | C                     | yes       |
| 2                          | 6.5%  | C                   | C                     | yes       |
| 1                          | 3.2%  | A                   | C                     | yes       |
| 1                          | 3.2%  | A                   | B                     | yes       |
| 1                          | 3.2%  | A                   | B                     | no        |
| Male HS <i>n</i> =23       |       | N'avoir pas faim... | Etre or n'être pas... | Corrected |
| 8                          | 34.8% | B                   | B                     | yes       |
| 6                          | 26.1% | C                   | B                     | yes       |
| 5                          | 21.7% | C                   | C                     | no        |
| 1                          | 4.3%  | B                   | A                     | yes       |
| 1                          | 4.3%  | B                   | A                     | no        |
| 1                          | 4.3%  | A                   | B                     | yes       |
| 1                          | 4.3%  | A                   | A                     | n/a       |
| Female adults <i>n</i> =11 |       | N'avoir pas faim... | Etre or n'être pas... | Corrected |
| 4                          | 36.4% | C                   | C                     | no        |
| 3                          | 27.3% | B                   | B                     | yes       |
| 2                          | 18.2% | A                   | B                     | yes       |
| 1                          | 9%    | A                   | B                     | no        |
| 1                          | 9%    | A                   | A                     | n/a       |
| Male adults <i>n</i> =8    |       | N'avoir pas faim... | Etre or n'être pas... | Corrected |
| 2                          | 25%   | C                   | C                     | no        |
| 2                          | 25%   | C                   | A                     | no        |
| 2                          | 25%   | B                   | B                     | yes       |
| 1                          | 12.5% | B                   | C                     | no        |
| 1                          | 12.5% | A                   | B                     | yes       |

Appendix B: Grammaticality judgment task results (second study)

| Stimuli   | A    | R    | Prop.      |
|---|------|------|------------|
| Il ne pas être en retard c'est important.         | 84.0 | 16.0 | NegInf     |
| Il n'être pas avec sa famille, c'est triste.      | 9.0  | 91.0 | NegInf     |
| Il n'avoir pas d'amis, c'est triste               | 28.0 | 68.0 | NegInf     |
| Il ne pas sortir souvent, c'est ennuyeux          | 62.0 | 38.0 | Neg/AdvInf |
| Il ne rien aimer, c'est bizarre.                  | 98.0 | 2.0  | NegInf     |
| Il ne dîner pas au restaurant, c'est rare.        | 5.0  | 95.0 | NegInf     |
| Il n'écrire jamais de lettres, c'est égoïste.     | 29.0 | 71.0 | NegInf     |
| Il ne préférer rien, c'est bizarre.               | 9.5  | 90.5 | NegInf     |
| Il ne demande rien au prof!                       | 90.5 | 9.5  | NegFin     |
| Il ne n'ai vu rien sur le bureau.                 | 22.0 | 78.0 | NegFin     |
| Ils nous avons beaucoup acheté de CDs.            | 26.0 | 64.0 | QD         |
| Il a beaucoup lu de livres.                       | 38.0 | 62.0 | QD         |
| Il toujours bien réussir, c'est difficile         | 52.0 | 38.0 | Adv/AdvInf |
| Il souvent choisir bien, ce n'est pas facile      | 8.0  | 92.0 | AdvAdvInf  |
| Il souvent arriver en retard? Quelle grossièreté! | 15   | 85   | AdvInf     |
| Il tu es parti toujours.                          | 5.0  | 95.0 | AdvFin     |
| Ma sœur lentement nage.                           | 18.0 | 82.0 | AdvFin     |
| Des enfants regardent la télé trop.               | 6.0  | 94.0 | AdvFin     |
| Les cousins aiment tous le ski.                   | 97.0 | 3.0  | FQ         |
| Les amies toutes habitent New York                | 3.6  | 96.4 | FQ         |
| Mes copains tous adorent la techno.               | 0    | 100  | FQ         |
| La soirée a été toute intéressante.               | 3.0  | 97.0 | FQ         |
| Les enfants voulaient tous lire.                  | 90.0 | 10.0 | FQ         |
| Tout le gâteau est au chocolat.                   | 80.0 | 20.0 | FQ         |

Appendix C: Production task result (second study)

| Stimuli   | Results                           | FNSs | Property |
|---|-----------------------------------|------|----------|
| Il ne pas avoir faim, quelle horreur!                 | Il ne pas avoir faim...           | 90%  | NegInf   |
| Il ne pas être malade, quelle poisse!                 | Il ne pas être...                 | 94%  | NegInf   |
| Il ne pas avoir réussi, c'est bien.                   | Il ne pas avoir réussi...         | 95%  | NegInf   |
| Il ne pas dormir à la plage, quel plaisir!            | Il ne pas dormir...               | 99%  | NegInf   |
| Il ne pas être en vacances, quel bonheur!             | Il ne pas être souvent...         | 99%  | AdvInf   |
| Il ne pas se reposer, quelle chance!                  | Il ne pas se reposer longtemps... | 95%  | AdvInf   |
| Il ne pas manger des pâtisseries, quelle gourmandise! | Il ne pas manger souvent...       | 92%  | AdvInf   |
| Il ne pas chercher-tu au club?                        | Il ne pas chercher-tu personne..  | 100% | NegFin   |
| Il ne pas s'est-elle choisi à la boutique?            | Il ne pas s'est-elle rien...      | 100% | NegFin   |
| Il ne pas veut-elle acheter tout de suite?            | Il ne pas veut-elle rien...       | 100% | NegFin   |
| Il ne pas regardez-vous la télé ce soir?              | Il ne pas regardez-vous pas..     | 100% | NegFin   |
| Il ne pas veut choisir tout le temps.                 | Il ne pas veut rien...            | 98%  | NegFin   |
| Il ne pas a lu le livre de Mitterand                  | Il ne pas a vite lu...            | 98%  | AdvFin   |
| Il ne pas le travaille à la librairie.                | Il ne pas le travaille rarement.. | 97%  | AdvFin   |
| Il ne pas connaît Rome et Florence.                   | Il ne pas connaît bien...         | 100% | AdvFin   |
| Il ne pas a pas de la chance au jeu.                  | Il ne pas a pas vraiment...       | 100% | AdvFin   |
| Il ne pas s'ont mangé le gâteau à la crème.           | Il ne pas s'ont mangé tout le g.  | 99%  | FQ       |

|  |                          |      |    |
|--|--------------------------|------|----|
| ai acheté les journaux étrangers.      | ai acheté tous les ...   | 100% | FQ |
| es enfants préfèrent les marionnettes. | ous les enfants...       | 89%  | FQ |
| a soirée de Cathy a été sympa.         | oute la soirée...        | 94%  | FQ |
| a famille est partie en voyage.        | oute ma famille..        | 99%  | FQ |
| n a répondu aux questions du prof.     | à toutes les questions.. | 99%  | FQ |
| faut réserver les billets d'avion.     | tous les billets...      | 100% | FQ |
| es tables du jardin sont libres.       | outes les tables...      | 85%  | FQ |
| le a fait de bonnes tartes.            | le a fait beaucoup de..  | 99%  | QD |