

**Linguistic theory and second language acquisition:
How not to lose sight of the wood for the trees**

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1. Introduction

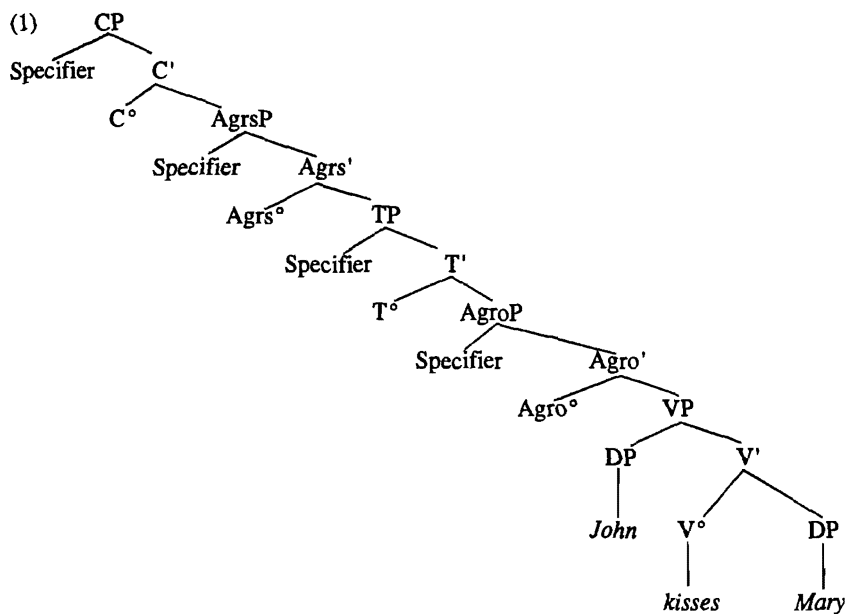
This paper explores connections between developments in generative linguistic theory and research on second language (L2) acquisition. Its aim is to counter the claim that generative linguistic theory is irrelevant to the study of L2 acquisition.

The version of generative linguistic theory with which this paper is concerned is the Chomskyan version. The term "theory of Universal Grammar", or "UG theory" for short, will be used to refer to this theory. The term "UG theory of L2 acquisition" will be used to refer collectively to theories which adopt UG theory as a framework for the study of L2 acquisition. It should always be borne in mind that the Chomskyan version of UG theory is first and foremost a theory of native speaker (L1) knowledge. Chomsky himself never intended the theory to be used for describing L2 knowledge or for explaining its acquisition.

Some generative linguists have argued that UG theory can also provide insight into aspects of L2 acquisition. The argument runs as follows:

- i. The aim of L2 acquisition research is to understand how non-mother tongues are acquired. An important part of acquiring a language is acquiring its grammar.
- ii. It is impossible to understand how the grammar of a language is acquired without understanding what knowledge of grammar is and how this knowledge is represented in the mind.
- iii. UG theory
 - * provides us with a hypothesis about what knowledge of grammar is and how it is mentally represented, and
 - * is the most well-developed theory of language currently available.
- iv. Using UG theory as a framework for the study of L2 acquisition, therefore, will provide insight into L2 acquisition.¹

Compelling as this argument may seem, the abstractness, complexity and frequent revision of specific proposals about syntactic structure made within the framework of UG theory have provoked many L2 researchers to reject the theory out of hand as irrelevant to their concerns. It is not difficult to see why, considering that in current versions of generative syntax the simple sentence *John kisses Mary* is assumed to have the following structure:²



It does not seem unreasonable to conclude that a theory requiring this amount of descriptive apparatus to represent the structure of a simple sentence can have very little to say about L2 acquisition. Such a rejection of UG theory as irrelevant to L2 acquisition can be argued to be premature, however.

There are two sides to the argument. In the first place, it can be argued that the rejection of UG theory for the reason outlined above reflects a failure to make an important distinction. The distinction in question is that between the basic tenets of UG theory on the one hand, and specific proposals about the content and organisation of grammatical knowledge, i.e. the descriptive apparatus of the theory, on the other hand.

In section 2 it will be shown that a convincing case can be made for taking the **basic tenets** of UG theory as a point of departure for L2 acquisition research. It will be argued in section 3 that, by using the **descriptive apparatus** of current versions of UG theory, L2 researchers have been able to provide (i) much more precise descriptions of the problems facing L2 learners, as well as (ii) principled explanations of problematic L2 phenomena. Also, as will be shown in section 4, recent insights into the way in which the sentences of human languages are structured have cast new light on some of the most persistent problems of L2 acquisition research, making it possible for researchers to suggest interesting answers to old questions.

2. Basic tenets of UG theory

It was noted above that the rejection of UG theory as irrelevant to L2 acquisition research often reflects a failure to distinguish between the basic tenets of the theory on the one hand, and its descriptive apparatus on the other hand. The aim of this section is to consider two reasons why the basic tenets of UG theory should not be rejected out of hand as a framework for L2 acquisition research. These reasons are that

- i. unlike the descriptive apparatus of the theory, the basic tenets of UG theory are extremely simple and have not changed since they were first articulated by Chomsky in the late 1950s, and
- ii. assuming these basic tenets as a point of departure for L2 research is a highly valued option in terms of considerations of conceptual coherence and theoretical simplicity.

The basic tenets of UG theory may be summarized as follows:

- i. Humans have a special-purpose, species-specific genetic endowment for language, a Universal Grammar.
- ii. Universal Grammar consists in unconscious linguistic knowledge which allows human children to discover the grammar of any language to which they are exposed.
- iii. A native speaker's attained knowledge of the grammar of his or her language is a mental construct, i.e. it is represented in the speaker's mind.
- iv. Knowledge of grammar is fundamentally different from any other kind of knowledge, but interacts with other kinds of linguistic and nonlinguistic

knowledge and capacities in actual language use, i.e. in the production, interpretation and judgment of utterances.

- v. The acquisitional mechanism(s) responsible for converting linguistic input into knowledge of grammar are specific to language as well, i.e. they are not used in the acquisition of any other kind of knowledge.³

These basic tenets of UG theory have not changed over the years. They have not been affected by the many changes in the theoretical apparatus in terms of which generative linguists have described knowledge of grammar.⁴

It is one thing, however, to observe that the basic tenets of UG theory have not changed over the years. It is another matter to use this observation as a basis for claiming that UG theory provides a suitable framework for the study of L2 acquisition. To illustrate how an argument for the latter claim can be made, let us consider the arguments presented in (Schwartz 1994).

Schwartz (1994) argues for adopting the hypothesis in (2) as the null hypothesis for L2 acquisition research.

- (2) (a) L1 and L2 knowledge are fundamentally of the same type, and
 (b) the mechanisms by which L1 and L2 knowledge are acquired are in large part the same.⁵

Given that Schwartz (146-147) assumes that L1 knowledge and its acquisition are constrained by UG, her arguments for adopting the hypothesis (2) are by implication arguments for accepting UG theory as a framework for the study of L2 acquisition.

The first step in her argumentation for (2) is to defuse the counterhypothesis that L1 and L2 knowledge are of fundamentally different types and must therefore be acquired in fundamentally different ways. The counterhypothesis, according to Schwartz (1994:148-149), is typically based on the characteristic difference in outcome between L1 and L2 acquisition: native language learners are completely successful. By contrast, it is rare for L2 learners to attain native levels of proficiency. This difference in outcome is taken to indicate that L1 and L2 knowledge are epistemologically nonequivalent.

However, this conclusion is false, according to Schwartz (1994:149-150). According to her, there is as yet no supporting argument for the claim that L1 knowledge is nonequivalent to L2 knowledge. Moreover, if the conclusion were correct, one would be forced to conclude that the grammars of, say, Old, Middle and Modern English, merely by virtue of being different, represent different epistemological types - a patently absurd conclusion.

The latter conclusion is more than "patently absurd". It is in fact conceptually incoherent. By implication, the claim that L1 and L2 knowledge belong to fundamentally different types, likewise, is conceptually incoherent and cannot serve as a basis for rejecting UG theory as a framework for the study of L2 acquisition.

The second step in Schwartz's argumentation for adopting (2) as the null hypothesis for L2 acquisition research is to argue that adopting a specific instance of (2), namely (3) below, is highly valued in terms of considerations of theoretical simplicity.

- (3) (a) L1 and L2 knowledge are both UG-based, and
 (b) the acquisition of both L1 and L2 knowledge is mediated by UG.

Schwartz's (1994: 150-151) argument is outlined in (4).

- (4) i. UG theory is the only theory that offers the beginnings of an explanation of the knowledge that underlies one type of linguistic behaviour, namely L1 behaviour.
 ii. L2 behaviour, too, is a type of linguistic behaviour.
 iii. Given i. and ii., the assumption that UG theory can (partly) explain the knowledge underlying L2 behaviour is the more highly valued assumption in terms of considerations of theoretical simplicity.

If the knowledge underlying L2 behaviour is assumed to be UG-based, it follows that the acquisition of this knowledge, too, must be UG-based. Schwartz's argument, as outlined in (4), is therefore an explicit argument for adopting UG theory as a framework for the study of L2 acquisition.

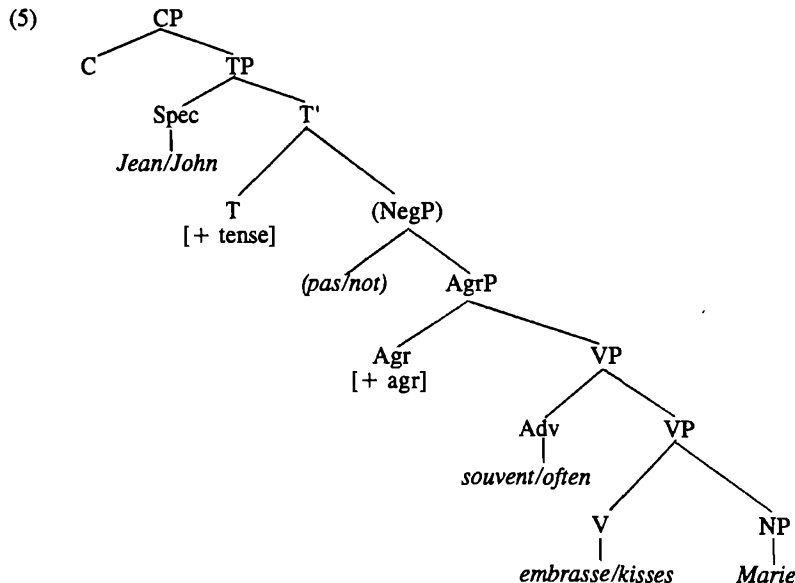
To summarize: It has been shown in this section that a blanket rejection of the basic tenets of UG theory as a framework for the study of L2 acquisition is unwarranted. The basic tenets of UG were claimed to be quite simple and to have remained

essentially unchanged since they were first proposed. Moreover, the assumption that the basic tenets of UG hold for L2 acquisition was shown to be highly valued in terms of considerations of theoretical simplicity, whereas the alternative assumption was shown to be based on a conceptually incoherent claim.⁶

3. The descriptive apparatus of UG theory

Having considered the case for adopting the basic tenets of UG theory as a framework for the study of L2 acquisition, let us turn now to the descriptive apparatus of the theory. Is anything to be gained from using the complex descriptive apparatus of UG theory in the study of L2 knowledge and its acquisition? The aim of this section is to show, on the basis of a case study from the L2 literature, that the descriptive apparatus of UG theory makes it possible (i) to give much more precise descriptions of the problems facing L2 learners and (ii) to give principled explanations of problematic L2 phenomena.

Let us first consider, briefly, why a simple sentence such as *John kisses Marie* is assigned a complex structure such as the one shown in (1) above on current versions of UG theory. For purposes of the discussion, the somewhat simplified version of (1) given in (5) will suffice.⁷



Structures such as (5) were proposed in a seminal article by Pollock (1989) to account for a number of word order differences between French and English. These differences are illustrated by the sentences in (6)-(15) below.⁸

ENGLISH

FRENCH

MAIN VERBS

Finite

- | | | |
|-----|--|---|
| (6) | (a) * <i>John <u>loves</u> not Mary</i> | (b) <i>Jean n'<u>aime</u> pas Marie</i> |
| | (c) <i>John does not <u>love</u> Mary</i> | (d) * <i>Jean ne pas <u>aime</u> Marie</i> |
| (7) | (a) * <i><u>Likes</u> he Mary?</i> | (b) <i><u>Aime</u>-t-il Marie?</i> |
| (8) | (a) * <i>John <u>kisses</u> often Mary</i> | (b) <i>Jean <u>embrasse</u> souvent Marie</i> |
| | (c) <i>John often <u>kisses</u> Mary</i> | (d) * <i>Jean souvent <u>embrasse</u> Marie</i> |

Nonfinite

- | | | |
|------|--|---|
| (9) | (a) <i>To not <u>own</u> a car...</i> | (b) <i>Ne pas <u>posséder</u> de voiture...</i> |
| | (c) * <i>To <u>own</u> not a car...</i> | (d) * <i>Ne <u>posséder</u> pas de voiture...</i> |
| (10) | (a) <i>To hardly <u>understand</u> French...</i> | (b) <i>A peine <u>comprendre</u> le français...</i> |
| | (c) * <i>To <u>understand</u> hardly French...</i> | (d) <i><u>Comprendre</u> à peine le français...</i> |

AUXILIARY VERBS

Finite

- | | | |
|------|--|---|
| (11) | (a) <i>John <u>has</u> not kissed Mary</i> | (b) <i>Jean n'<u>a</u> pas embrassé Marie</i> |
| (12) | (a) <i><u>Has</u> he kissed Mary?</i> | (b) <i><u>A</u>-t-il embrassé Marie?</i> |
| (13) | (a) <i>John <u>has</u> often kissed Mary</i> | (b) <i>Jean <u>a</u> souvent embrassé Marie</i> |

Nonfinite

- | | | |
|------|--|--|
| (14) | (a) <i>To not <u>be</u> returning early...</i> | (b) <i>Ne pas <u>être</u> retourné tôt...</i> |
| | (c) <i>To <u>be</u> not returning early...</i> | (d) <i>N'<u>être</u> pas retourné tôt...</i> |
| | (e) <i>To not <u>have</u> had a childhood...</i> | (f) <i>Ne pas <u>avoir</u> eu d'enfance...</i> |
| | (g) <i>To <u>have</u> not had a childhood...</i> | (h) <i>N'<u>avoir</u> pas eu d'enfance...</i> |

- (15) (a) *To often be returning early...* (b) *...de souvent être retourné tôt*
 (c) *To be often returning early...* (d) *...d'être souvent retourné tôt*
 (e) *To often have kissed Y...* (f) *...de souvent avoir embrassé Y*
 (g) *To have often kissed Y...* (h) *...d'avoir souvent embrassé Y*

Looking first at the sentences in (6)-(8), the following generalisations can be made:

- (16) i. In English, finite main verbs **cannot** appear to the left of the negative, whereas in French they **must** appear to the left of the negative. (See (6))
 ii. In English, finite main verbs **cannot** appear sentence-initially, whereas in French they **can**. (See (7))
 iii. In English, finite main verbs **cannot** appear to the left of a time adverb, whereas in French they **must** appear to the left of the adverb. (See (8))

What about nonfinite main verbs? Here the following generalisations can be made:

- (17) i. In both English and French, nonfinite main verbs can appear **only** to the right of the negative. (See (9))
 ii. In English, nonfinite main verbs can appear **only** to the right of an adverb, whereas in French they can appear **either** to the right or to the left of an adverb. (See (10))

And, finally, the behaviour of main verbs has to be compared with that of auxiliaries. Here English seems to pattern like French, as a quick scrutiny of the sentences in (11)-(15) will show, i.e.

- (18) i. In both English and French, finite auxiliaries can appear sentence-initially, and to the left of the negative and of adverbs. (See (11)-(13))
 ii. In both English and French, nonfinite auxiliaries can appear to either the left or the right of the negative and of adverbs. (See (14) and (15))

We seem, then, to have the following situation:

- (19) i. Auxiliaries (both finite and nonfinite) have the same distribution in English and in French.
- ii. As far as main verbs are concerned, there is a difference:

* In **finite** clauses, French requires main verbs to appear to the left of the negative and adverbs, and optionally allows them to appear sentence-initially. Finite verbs in English, by contrast, cannot appear to the left of the negative or an adverb, or sentence-initially.

* In **nonfinite** clauses, both French and English disallow verbs from appearing to the left of the negative. French verbs can optionally appear to the left of adverbs, however, while English verbs cannot.

The crucial distinctions responsible for the word order differences between French and English on the one hand, and between different classes of verbs on the other hand, are the distinctions **finite vs nonfinite** and **main verb vs auxiliary verb**. The distinction between finiteness and nonfiniteness, whenever it is overtly expressed in a language, is typically expressed by inflectional morphemes, i.e. by functional elements (as opposed to lexical elements)⁹. Likewise, the crucial difference between auxiliaries and main verbs is that auxiliaries are functional elements, while main verbs are lexical elements.

It is a characteristic of lexical verbs that they enter into role relationships with the noun phrases in a sentence. For example, in the sentence *John kisses Mary* the lexical verb *kiss* describes an event with two participants, John (the "kisser") and Mary (the "kissed"). It is assumed that lexical verbs originate in the VP along with the NPs with which they enter into role relationships.¹⁰ The VP therefore contains the elements necessary for establishing the conceptual meaning of the sentence.

Functional elements (such as tense and agreement morphemes) do not contribute to the meaning of the sentence; that is, they do not affect the role relationships in the sentence. Moreover, they need not be affixed to the lexical verb, as sentences (6c) and (11)-(13) above clearly show. It is therefore assumed that functional properties of a sentence, such as tense and agreement, are associated with functional categories, represented in sentence structures such as (5) by a separate set of nodes which occur outside the VP.

However, the tense and agreement features of a sentence must ultimately be spelled out on a verb, be it a main verb or an auxiliary. The simplest case, for various theoretical reasons which do not concern us here, is for the verb to move out of the VP and into the relevant functional node where it picks up the features associated with that node. This is what happens in French. The finite verb raises to TP (via AGRP about which more will be said soon) to receive tense and agreement features. This explains the French facts in (6)-(8) and (11)-(13).

This explanation does not hold for English, however. In English, main verbs remain in the VP and only auxiliaries can raise to TP, as is clear from a comparison of the English sentences in (6)-(8) with those in (11)-(13).

Pollock (1989: par.4) relates this difference to another difference between French and English: French has a much richer inflectional system than English. This, according to Pollock, means that English and French have different values for a parameter which, for ease of reference, we shall call the "Agreement (AGR) parameter": French has strong AGR and English has weak AGR. Crucially, having strong AGR means that the verb need not be in the VP with its complement in order to mark that complement as bearing a certain thematic relation to it (e.g. the relation "the one being kissed" in the sentence *John kisses Mary*). That is, languages with strong AGR, are rich enough morphologically to permit transmission of the thematic roles of a verb that has moved out of the VP, so that these roles can be assigned to the relevant NPs in the VP.

In a language with weak AGR, the verb cannot transmit its theta roles from outside the VP. In English, therefore, a lexical verb cannot raise out of VP to receive tense and agreement features. Auxiliaries, by virtue of not entering into thematic role relationships with any other constituents in a sentence, are free to occur outside the VP, which explains the freedom of distribution displayed by the English auxiliary verbs in (11)-(15).

Having considered a possible explanation for the presence of at least one functional node, TP, in the structure (5), we still need an answer to the question why the structure needs to have so many additional functional nodes. There is a simple empirical reason for this. The functional nodes, apart from carrying features such as tense and agreement, which determine the functional properties of sentences, are required as landing sites for verbs which are moved out of VP. It is left to the reader to check that every one of the functional nodes in the structure (5) is required

as a landing site if all the possible word orders in the sentences (6)-(15) are to be derived.

Let us now turn to some L2 data. French speakers learning English as an L2 have considerable difficulty with adverb placement in English, producing sentences such as (20a) instead of the correct (20b).¹¹

- (20) (a) **Marie takes always the métro*
 (b) *Marie always takes the métro*

According to a study conducted by White (1992:285), the learners producing sentences such as (20a) do so in spite of the fact that they appear to have reset the AGR parameter to its English value (i.e. from strong to weak), as evidenced by the fact that they do not produce sentences such as those in (21), in which a finite lexical verb has been moved out of the VP.

- (21) (a) **Likes Jean the girls?*
 (b) **Jean likes not the girls*

According to White (1992: 285), facts such as those in (20) suggest that French-speaking learners of English treat finite verbs in English like nonfinite verbs in French in sentences such as (20a). Nonfinite verbs in French can occur to either the left or the right of an adverb, as is clear from a comparison of (10b) and (10d) above. In terms of Pollock's analysis, nonfinite verbs should not be able to occur to the left of adverbs. In order to occur to the left of an adverb, a verb would have to move out of the VP. This should not be possible in the case of nonfinite lexical verbs, as their lack of tense and agreement would not permit them to transmit their theta roles.

Our concern is not so much with the question of why French has the exceptional property referred to above. Rather, our concern is with White's explanation of the L2 data and what it tells us about the advantages or disadvantages of using the descriptive apparatus of UG theory in the study of L2 acquisition.

Three outcomes of White's analysis of the L2 English data are relevant to our discussion. The first outcome is that White's analysis links a problematic property of French-speaking learners' English to an exceptional property of their L1 grammar. That is, her analysis has made it possible to give a much more precise

description of a problematic aspect of these learners' English and to pinpoint exactly what it is that needs to be explained.

The second outcome of White's analysis is that a principled answer can now be given to the question why French-speaking learners of English, despite allowing finite lexical verbs to raise past adverbs in English, do not allow raising past the negative and even on to the sentence-initial position. This seemingly inexplicable phenomenon is in fact predicted by White's analysis, given that it links the movement possibilities of finite verbs in English to those of nonfinite verbs in French. As nonfinite verbs in French are not allowed to move beyond the position immediately to the left of the adverb, it is predicted that the movement of finite verbs in L2 English will be similarly restricted.

The third outcome of White's analysis is that, on this analysis, L2 learners' problems with word order are related in an insightful way to a superficially unrelated difference between the L1 and the L2, namely a difference in the extent to which tense and agreement features are morphologically expressed in the two languages. That is, her analysis provides "deep" insight into the problems facing the L2 learners concerned by showing that superficially unrelated properties of their L2 are related at an abstract level. We shall elaborate on this relationship in section 4 below.

These outcomes can all be attributed to a particular assumption underlying White's analysis of the relevant L2 data, namely the assumption that sentences have functionally "rich" structures such as (5). In addition to structures such as (5), her analysis also assumes Pollock's AGR parameter which, in turn, presupposes such functionally rich sentence structure.

So, the answer to the question posed at the beginning of this section must be that there is indeed much to be gained from using the descriptive apparatus of UG theory in the analysis of L2 phenomena.

4. New insight into old problems

Sections 2 and 3 were mainly concerned with countering the claim that UG theory is irrelevant to the study of L2 acquisition. The thrust of the argument has been to show that L2 acquisition research can indeed benefit from adopting both the basic tenets and the descriptive apparatus of UG theory. In this section, I present further

evidence of the benefits to be gained from adopting specific UG-based proposals about the content and organisation of grammatical knowledge as a point of departure for L2 acquisition research. The discussion will focus on two remarkable spin-offs which application of Pollock's insights into the role of functional categories in sentence structure has had for the study of L2 acquisition.

The first spin-off is a renewed interest in the results of the famous morpheme order studies conducted in the 1970s. These studies purported to show that functional morphemes are acquired in a predictable order by L2 learners of English, regardless of whether the L2 is acquired naturally or in a formal learning environment.¹² Moreover, the findings of these studies were claimed to be remarkably similar to those of L1 studies conducted earlier, as is clear from the table provided in (22). (The table, which is from (Zobl 1995: 41), is based on findings reported by Brown for L1 acquisition in 1973 and by Krashen for L2 acquisition in 1977.)

(22)

Morpheme orders	
L1	L2
V- <i>ing</i>	V- <i>ing</i> , plural - <i>s</i> , copula <i>be</i>
Plural - <i>s</i>	
Irregular past	Auxiliary <i>be</i> , article
Possessive - <i>s</i>	
Uncontracted copula <i>be</i>	Irregular past
Article	
Regular past - <i>ed</i>	Regular past - <i>ed</i> , 3rd person - <i>s</i>
3rd person - <i>s</i>	
Uncontracted auxiliary <i>be</i>	Possessive - <i>s</i>

For close on 15 years now, the findings of the morpheme order studies have been largely discounted as a result of objections to, firstly, their methodology and, secondly, their failure to provide a theoretical explanation of their findings. As the morphemes that were studied included both bound and free, and both nominal and verbal morphemes, the studies were claimed to have yielded no insight whatsoever into the reasons for the observed L2 acquisition orders, nor for the differences between the L1 and L2 orders.

Recent theoretical developments relating to the distinction between lexical and functional categories outlined in section 3 above, have prompted L2 researchers Helmut Zobl and Juana Licerias to reanalyze the findings of the morpheme order studies.¹³ In a nutshell, they take the particular clustering of morphemes at the top, middle and bottom of the hierarchy in the L2 data to indicate that L2 acquisition is driven by the distinction between bound and free morphemes, rather than by the functional-lexical distinction. According to Zobl (1995:41-42) this is evidenced by the fact that

- i. **in L2 acquisition**, free morphemes are acquired early and in cross-categorical fashion (i.e. regardless of whether they are nominal or verbal), as indicated by the clustering of copula *be* and auxiliary *be* (which are verbal) and articles (which are nominal) at the top of the hierarchy, whereas
- ii. the acquisition of bound morphemes is delayed, but also occurs cross-categorially, as indicated by the clustering of past tense morphemes (verbal) along with 3rd person singular *-s* and possessive *-s* (both nominal) at the middle and bottom of the hierarchy.

The L1 data, by contrast, indicate that category type, rather than the distinction between bound and free morphemes, drives L1 acquisition, witness the fact that

- i. **in L1 acquisition**, the nominal morphemes (possessive *-s* and articles) cluster together towards the middle of the hierarchy, whereas the majority of verbal morphemes (past tense *-ed*, 3rd person singular *-s* and auxiliary *be*) occur at the bottom of the hierarchy; whereas
- ii. there appears to be no clear separation in acquisition order between bound and free morphemes in the L1 data.¹⁴

On the basis of their reanalysis, Zobl and Licerias (1994:162-163) conclude that **in L1 acquisition**, functional categories are acquired gradually according to a maturational schedule, with the emergence of a particular functional category allowing the learner to be sensitive to both its free and its bound exponents. **In L2 acquisition**, by contrast, functional categories are already available (as a result of the fact that the learner already possesses an L1 grammar) and learners need only acquire the language-specific exponents of these categories.¹⁵

Briefly then, what Zobl and Licerias's (1994) reanalysis of the findings of the morpheme order studies illustrates, is how interesting L2 data which have been

flying around largely unused for close on two decades, have acquired a new significance thanks to developments in the UG theory of grammar.

A second spin-off that recent developments in grammatical theory have had for the study of L2 acquisition is a renewed interest in an aspect of L2 acquisition which seems to be problematic for L2 learners universally, namely the acquisition of tense and agreement properties and their overt expression in the L2. Following Pollock's proposal to separate the functional and lexical properties of sentences in structures as in (5), various hypotheses have been advanced to explain L2 learners' characteristic problems with word order and concord.

A first hypothesis, advanced by Vainikka and Young-Scholten (1994, 1996), is that beginning L2 learners (like beginning L1 learners according to one school of thought¹⁶) initially assign a very basic lexical structure containing only noun phrases and verb phrases to sentences in the L2. This basic lexical structure is constructed on the basis of the semantic properties of the lexical items (particularly of the verb) in the sentence and it includes no functional nodes. Such basic structures allow beginning L2 learners to express meaning, i.e. to say who does what to whom. Such rudimentary structure does not allow the expression of tense and agreement, however. Functional nodes are gradually added, as evidence for them is picked up in the input the learner receives. Similarly, the value of a parameter such as the AGR parameter is only set for the L2 once the necessary functional structure is in place.

An alternative hypothesis, advanced by Schwartz and Sprouse (1994, 1996), is that L2 learners adopt the entire L1 grammar as an initial hypothesis about the L2. That is, they are assumed to transfer complete structures, including lexical and functional nodes and values for parameters such as the AGR parameter, from their L1 into the initial grammar of the L2.¹⁷ The task facing L2 learners in this case is to pick up indications of differences between the L1 and the L2 from the input and to adjust their initial hypothesis about the L2 grammar accordingly.¹⁸

The two hypotheses make different predictions about the kind of evidence about the target language which L2 learners will need. If the learner indeed starts from scratch, as claimed on the first hypothesis, then the kind of evidence needed is the same as that needed by L1 learners, namely positive evidence, or evidence about what is possible in the L2. Positive evidence is gleaned from naturally occurring utterances in the language being acquired. If learners start out by adopting the L1

grammar as an interim L2 grammar, positive evidence may not be sufficient to show up all the differences between their interim L2 grammar and the target grammar. In this case learners may require negative evidence, or evidence about what is not possible in the L2. Such evidence, typically, is not available in naturally occurring utterances and has to be specially provided, for example by the teacher.¹⁹

In either case the question arises as to what exactly is required to trigger the necessary changes in the learner's interim L2 grammar: does evidence about word order trigger knowledge of the tense and agreement properties of the L2, or does evidence about the tense and agreement properties of the L2 trigger knowledge of word order in the L2? The importance of the answers to these questions for those whose task it is to facilitate the acquisition of a second language in classroom conditions hardly needs to be mentioned.

Questions such as these are currently the focus of a spate of studies on the acquisition of German word order by native speakers of such diverse languages as Turkish, Spanish and Korean (cf., e.g., Vainikka and Young-Scholten 1994, 1996; Eubank 1994; Schwartz and Sprouse 1994, 1996), the acquisition of English by native speakers of French and/or German (cf., e.g., Schwartz 1993; White 1992; Eubank 1994a; Eubank 1996) and the acquisition of Bantu languages (with their rich system of noun-class prefixes and agreement markers) both by native speakers of other Bantu languages and by native speakers of languages without a noun-class prefix system (see discussion in Lardi re 1995: 553-554).

Developments in L2 research such as those discussed in this section have the potential to make a considerable contribution to our understanding of L2 acquisition. As such, they are clear evidence of the fruitfulness of UG theory as a framework for the study of L2 acquisition.

5. Conclusion

This paper has argued that a blanket rejection of UG theory as irrelevant to the study of L2 acquisition would be premature. First, it was shown, on grounds of conceptual coherence and theoretical simplicity, that a case can be made for adopting the basic tenets of UG theory as the null hypothesis for L2 acquisition research. Next, it was argued that by using the complex descriptive apparatus of UG theory, L2 researchers have been able to give more precise descriptions and more principled explanations of L2 phenomena, and to achieve greater depth of insight

into the problems facing L2 learners. Finally, a brief review of recent L2 research illustrated a particular advantage of keeping abreast of developments in UG theory: it allows L2 researchers to take a fresh look at old problems and to come up with interesting answers to questions that have plagued the field for years. L2 researchers, therefore, should not allow their view of this thriving field of L2 research to be obscured by trees such as (1).

NOTES

- 1 Cf., e.g., (White 1989: ch. 2), (Cook and Newson 1996: 2-3) and (Schwartz 1994) for more or less explicit versions of this argument. The argument by Schwartz (1994) is discussed in section 2 below.
- 2 The structure is from (Platzack 1994: 61).
- 3 The limited scope of this paper does not allow for an elaboration of the arguments for these tenets. Some highly accessible recent discussions of the basic tenets of UG, and the arguments for them, include (Jackendoff 1994: ch. 1-3), (Pinker 1995: ch. 1-3 and 13) and (Botha 1995: ch.4).
- 4 For insightful accounts of the history of (Chomsky's version of) UG theory, cf., e.g., (Botha 1989: ch.2) and (Botha 1992: ch.3).
- 5 Note that Schwartz is arguing only for accepting this position as a *point of departure* for L2 acquisition research. The correctness of the hypothesis is not assumed, but is taken to be "what empirical work should be directed to bear upon", according to Schwartz (1994: 145).
- 6 According to Schwartz (1994: 151-152), assuming that the basic tenets of UG theory can be applied to the study of L2 knowledge and acquisition, in addition to being a theoretically highly valued option, has the following advantages:
- * The assumption has empirical consequences. As a result, it is quite clear how to go about refuting the assumption empirically. The alternative assumption by contrast, being based on the hypothesis that L1 and L2 knowledge are nonequivalent, is an assumption about what L2 knowledge is **not**. As such it adds very little to our understanding of L2 knowledge and its acquisition.
 - * The assumption has stimulated research into possible reasons for the differences between L1 and L2 knowledge and acquisition. This has led to in-depth studies of the ways in which L2 acquisition is influenced by factors such as
 - the amount and nature of learners' exposure to the L2,
 - L2 learners' knowledge of their L1,
 - L2 learners' greater cognitive maturity and metalinguistic awareness, and
 - L2 learners' limited lexical knowledge.
- 7 The structure in (5) is adapted from (White 1992: 275).
- 8 All sentences are taken or adapted from (Pollock 1989) and (White 1992).
- 9 Cf., e.g., (Cook and Newson 1996: 187) for a summary of the differences between functional and lexical elements. The crucial difference between them is that lexical categories have "an actual 'descriptive content'", whereas "functional categories mark grammatical meaning, if they have a meaning at all, rather than [refer to - Cl_ER] a 'class of objects'", according to Cook and Newson (1996: 186).
- 10 It is assumed here that the subject NP originates in the specifier position of VP rather than in the specifier of IP. The VP-internal subject hypothesis is commonly ascribed to, amongst others, Sportiche (1988). Cf., e.g., (Cook and Newson 1996: 146) for some discussion.
- 11 Cf. e.g. (White 1992) and (Schwartz 1993)

12 Cf., e.g., (McLaughlin 1987:30-34) for some discussion.

13 Cf. (Zobl and Liceras 1994) and (Zobl 1995) for detailed discussion.

14 Note that this account appears not to explain the presence right at the top of the hierarchy (for both L1 and L2 acquisition) of progressive *-ing* and plural *-s*. These two morphemes are claimed to be lexical rather than functional on the grounds that they differ from morphemes such as the tense, agreement and possessive morphemes in not being related to case-marking, for example. Cf. (Zobl 1995: 51-52 n. 7).

The development of the free exponents of functional categories before their inflectional exponents is explained either by their greater perceptual salience or by the different ways in which free morphemes and bound morphemes move. Cf. (Zobl and Liceras 1994: 173) for discussion.

This is the position adopted by Radford (1990) amongst others.

Note the convergence between Schwartz and Sprouse's hypothesis and Zobl and Liceras's finding that functional categories are available to L2 learners right from the outset. See discussion above.

But see (Eubank 1994), (Eubank 1994a) and (Eubank 1996) for the slightly weaker claim that both lexical and functional projections transfer, but that parametric values of morphology-driven features, such as the strength of agreement, do not.

Cf., e.g., (White 1987: 100-107) for a discussion of the circumstances in which L2 learners need negative evidence.

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