

# To What Extent is the Innate Linguistic Knowledge Involved in Second Language learning?

Azhar A. Alkazwini

The Public Authority of Applied Education (PAAET), Kuwait

Tel: 965-9933-5574 E-mail: aasalkb@hotmail.com

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## Abstract

A number of theoretical possibilities regarding UG and L2 learning have emerged in recent years. Some theories lend support to the fact that UG plays a role in L2 acquisition, where as other hypothesis claims that L2 learners have no access to UG. In this paper, a detailed explanation of these hypothesis in the light of different studies shall be presented, and the claim that L2 learners have no access to UG is falsified by studies that prove the opposite.

**Keywords:** Universal grammar, Second language acquisition, UG, Language acquisition, Second language learning, Language learning

## 1. Introduction

In the first part of this paper, the different theoretical possibilities regarding UG and L2 learning shall be present, then, the different arguments which appear to lend support to the fact that UG plays a role in L2 acquisition will be given; later, I shall present a detailed explanation of these hypothesis in the light of different studies, concluding that some theories may not be as convincing as they were once thought to be. The claims that L2 learners have no access to UG is falsified by studies that prove the opposite, and which are discussed later in this paper.

According to White (1989:48), Universal Grammar (UG) is “a body of domain-specific cognitive principles or mechanisms constraining the acquisition of language.” Studies have been carried out for many years, to ascertain whether these same principles which guide and constrain L1 (native language), apply also to L2 learners. Since the 1980s, according to White (2003:15), evidence of whether, and to what extent UG mediates L2 acquisition has been researched, ascertaining whether L2 learners have the ability to apply the principles of UG, set or reset parameters, and the influence of L1 in the interlanguage grammar process. The question is whether L2 learners have no access to UG, have direct access, or have indirect access.

## 2. The role of UG

According to White (1989:48), the role of UG in L2 acquisition can be divided into five categories, yet the two main ones are:

- a) UG plays a role in L2 acquisition (UG hypothesis).
- b) UG is totally unavailable in L2 acquisition (UG-is-dead hypothesis).

## 3. The Various ‘Access Hypotheses’

### 3.1 The ‘Fundamental Difference’ Hypothesis

According to Gass (2013:164). The ‘Fundamental Difference Hypothesis’ (Bley-Vroman 1989) represents the ‘no access position’. This hypothesis states that child L1 and adult L2 acquisition differ considerably, claiming that the latter is not constrained by UG, only that the universal properties can be accessed via L1 grammar. It is argued that the L2 learner does not have access to those linguistic mechanisms of the L1 acquirer. Advocates of this hypothesis claim that learners are limited by their L1 parameters settings, or that their grammars show no evidence for UG constrains (Schachter, 1989).

### 3.2 Access to UG Hypothesis

The other argument is that L2 learners do have access to UG, according to Gass (2013:165), and that language grammars learned later are shown to have parameter settings totally unrelated to L1. This is referred to as ‘direct access’ (Flynn, 1987).

Another possibility is that both L1 and UG play a role in L2 learning and the principles and parameters of UG are accessible by the learners. Access would initially be through L1

grammar, but would inevitably become more restricted as a result of increasing L2 input (White, 1989).

### L1 as the base

#### 3.2.1 Full Access to UG Hypothesis:

According to Gass (2013:168), L1 grammar is the main source with regard to this position, but full access to UG during L2 acquisition is also available (Schwartz and Sprouse, 1994). In this way, L1 grammar serves as the foundation, but when it fails to meet the requirements for the completion of a specific learning task, UG will be drawn upon. There are major differences between L1 and L2, and learners may never gain full knowledge of L2.

How L2 learners deal with the 'syntax problems' in the early stages of L2 language acquisition is addressed by two well-known hypotheses. The first states that in addition to syntactic categories, binary merger and headedness, UG also specifies a full phrase structure for clauses up to the Clause Phrase (CP). All that is required of the L2 learner is to identify the morphemes of L2 that belong to syntactic categories. They are able to build clauses due to their innate knowledge.

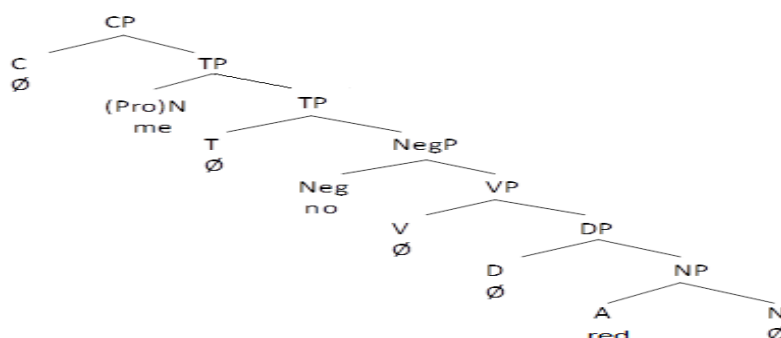
#### 3.2.2 Minimal Trees Hypothesis

According to Gass (2013:166), L1 and UG are both available to the learner (Vainikka and Young-Scholten 1994), but functional categories are not available in the L1 grammar in this position, nor are they available from any other source. L2 is the stimulus for functional categories. Learners from different languages develop functional categories in grammar, depending on their L1 and UG input.

According to Lezing (2013:126), 'only syntactic categories for which the learner has overt evidence from the target language are merged in phrase structure.' L2 learners are able to identify lexical morphemes before functional morphemes, therefore initially the L2 phrase structure will consist of lexical categories like N, A, V. Mergers with categories T (Tense) and C (Clause) take place later, with the ability to identify morphemes belonging to these categories.

According to White (2003), learners have innate knowledge about syntactic categories, binary merger and headedness which they easily bring to the learning task. It does not state that UG specifies the phrase structure of clauses before learning starts. Only those syntactic phrases which the learner has encountered in L2 are present in early phrase structure.

The following is a tree diagram I created representing an early utterance produced by an L2 learner 'Me no red':



**An advantage of the Minimal Trees hypothesis is that** it does not demand the complete phrase structure of the L2 learner to be present, but the ‘non-linguistic’ context must be present in order to understand the early utterances of the L2 speaker.

#### 4. The different Studies and Findings

##### 4.1 Linguistic Principles That Cannot Be Derived From Non-Linguistic Sources

A number of studies in recent years have emerged to investigate the ‘UG-specific’ constraints on the L2s’ knowledge of grammars that are not derivable from the input of the L2, neither from the L1, nor from any learning practices.

##### 4.1.1 The Overt Pronoun Constraint (OPC)

According to White (2003:04), languages differ according to whether the subject pronouns must be phonetically realized or not. Some languages, English for example, is a [–null subject] language, therefore, pronouns must be expressed overtly. There are other Languages are [+null subject], where pronouns are null. (Chomsky 1981a; Jaeggli 1982; Rizzi 1982).

##### 4.1.1.1 Leroux Study (1999)

Perez-Leroux and Glass (1999) carried out a study on three groups of English speakers who are at different proficiency levels of Spanish and 20 NS of Spanish. They were given a set of sentences that were in English followed by sentences that they were asked to translate into Spanish but they were already given the first words of the sentences. What is interesting is to see how the pronoun of the embedded clause is translated, as whether the speakers would use the overt or null form. The results showed that both groups (L2 speakers and native speakers) responded similarly. The L2 Spanish speakers did not have much evidence for the overt pronoun, as Spanish is a [+null subject] language. This is evidence that L2 grammar is constrained by the UG and that the OPC constrains their grammar.

##### 4.2 L2 Grammars can be Different from the Target L2 and from the L1, but are not Infinitely Variable

According to Hawkins (2008:470), although input from L2 may cause the learners to establish grammars that are different from their original L1, still, their grammars will not be the same as a native speaker’s grammar. This might not be permanent as with experience and exposure, the L2 learner will improve. This is because the linguistic properties of the

language are not random, yet they are a result of UG properties.

#### 4.2.1 Ionin et al. ‘Definiteness’ and ‘specificity’ (2004)

A study was carried out by Ionin (2004) on a group of L1 speakers of languages that lack articles (Russian and Korean). According to Ionin (2007:556), the study was to observe their use of English articles. It is supposed that if an L2 learner is acquiring a language as a complete beginner and tries to learn the meaning of the articles ‘a, the and Ø (no article)’ without having any former linguistic knowledge, they could use many properties that could be relevant. ‘Definiteness’ and ‘specificity’ are the two properties that L2 learners identify when choosing articles in languages that do contain articles. Although the articles in the English Language show definiteness, they lack specificity. An explanation is that in English, the definite article cannot be used to relate to an indefinite meaning, and an indefinite article cannot be used to relate to a definite meaning. For example, ‘She ate *the* ice-cream’ can never mean ‘She ate *an* ice-cream’ and vice versa.

Table (1).

	<b>[+definite]: target <i>the</i></b>	<b>[-definite]: target <i>a</i></b>
<b>[+specific]</b>	Correct use of <i>the</i>	Overuse of <i>the</i>
<b>[-specific]</b>	Overuse of <i>a</i>	Correct use of <i>a</i>

Ionin (2007:559)

According to Ionin (2007:559), the learners made errors when using English articles and their errors had a pattern. They produced two kinds of errors; the over use of the article ‘a’ in context of [-specific] [+definite] and the over use of the article ‘the’ in [+specific] [-definite] context. Their use of articles in [+specific] [+definite] and [-specific] [-definite] was correct.

Ionin (2004) argues that ‘definiteness’ and ‘specificity’ are both ‘innately-specified options’ that are available in the learners’ UG and it allows them to use the articles, and that some languages employ either one. Ionin believes that when L2 learners acquire a language that contains articles, they are led by UG.

## 5. The Phrase Structure of Learners’ Early Productions

### 5.1 Ellis Study (1988)

According to Ellis (1988), syntactic rules must be acquired by L2 learners in order to determine whether or not a sentence is grammatical. They must also acquire the syntactic rules for sentence negation.

According to Ellis (1988:25), L2 learners would start by producing ungrammatical expressions such as ‘I a red book no have’ as they have not acquired at this stage the syntactic rules of English. Ellis believes that L2 learners follow a certain procedure when constructing

sentences.

Morphemes are the smallest syntactic units. Learners construct sentences by ‘merging’ units, and forming phrases. The phrases consist of two constituents, the main constituent being the ‘head’ of the clause. The phrases ‘merge’ with other categories and larger phrases are formed.

Although the knowledge of the syntactic categories and phrase structure is part of the innate knowledge, L2 learners must acquire the linear order, as it is not given by UG.

## 6. Conclusion

The different hypotheses present different arguments regarding the role of UG in L2 acquisition. The claim by the ‘Fundamental Difference Hypothesis’ which states that UG has no role in L2 learning is falsified by the ‘Access Hypothesis’, and the studies carried out by Leroux (1999) and Ionin (2004). Although studies to some degree differed to the extent UG influenced the L2 acquisition, they all prove that UG is present and plays a major role.

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