On the Functional Module Inaccessibility View [1]

(機能モジュール利用不可仮説の考察)

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Abstract

Within the generative framework, UG (Universal Grammar) is a system of principles and parameters, and the acquisition of syntax (grammar) is the process of parameter-setting. A number of studies in the second language (L2) research literature have proposed various hypotheses about the role of L1 and un/availability of UG parameters in L2 acquisition. The question of to what extent UG is un/available in L2 acquisition is addressed in this paper, examining representative L2 studies that propose an explicit hypothesis about the nature of UG parameters and the role of L1 in L2 acquisition: namely the Functional Module Inaccessibility Hypothesis. Examining the theoretical underpinnings of the hypothesis, the subsequent claims of the L1 manipulation and the unavailable parameters (i.e. functional module inaccessibility) in L2 acquisition, and the data used to support the hypothesis, I elucidate where and how this hypothesis fails and succeeds in account of interlanguage systems at developmental stages of L2 acquisition. While investigating the problems related to their accounts of interlanguage systems, I argue that neither the L1 manipulation account nor the unavailable UG parameters account of the hypothesis is sufficient or necessary to account for observed L2 acquisition phenomena. Instead, it will be suggested that the hypothesis-testing model, namely 'the Economical Parameter Setting Model, proposed in Bong (2005) can accommodate the L2 acquisition data that cannot be captured by the Functional Module Inaccessibility hypothesis.

1. Introduction

Children in the process of first language (L1) acquisition start out with UG (Universal Grammar), go through stages of non-adult-like grammars within the hypothetical space delimited by UG, and achieve competence in a particular grammar. Then, if UG is a

genetically determined innate language faculty that is sufficient to account for how language acquisition is possible, UG should also underlie postchildhood second language (L2) acquisition in some ways. For example, the fact that the poverty of stimulus problem has been observed in L1 and L2 acquisition as well as essential commonalities in patterns of development in L1 and L2 acquisition suggest that the two language acquisition processes share certain critical components.[2] This then suggests that the UG restriction argued to characterize L1 acquisition might also hold in adult L2 acquisition. However, adult L2 acquisition appears to be somewhat different from child L1 acquisition, since adult L2 learners have prior linguistic knowledge (L1) and overall mature cognition (post critical period, after puberty), they often apparently fail to demonstrate native-like grammatical competence and so on. The question of to what extent UG is un/available in L2 acquisition is addressed in this paper.

A number of studies in the second language (L2) research literature have proposed various hypotheses about the role of L1 and un/availability of UG parameters in L2 acquisition. This paper examines representative L2 acquisition studies that propose an explicit hypothesis about the nature of UG parameters and the role of L1 in L2 acquisition: namely the Functional Module Inaccessibility Hypothesis, originally proposed in Tsimpli and Smith (1991), and developed in Tsimpli and Roussou (1991). Examining the theoretical underpinnings of the hypothesis in their study, the subsequent claims of the L1 manipulation and the unavailable parameters (i.e. functional module inaccessibility) in L2 acquisition, and the data used to support the hypothesis, I elucidate where and how this hypothesis fails and succeeds in account of interlanguage systems beyond the initial stage, namely at the development stages. For example, arguing that their account of divergence from the parameter-setting manifested in L2 input or represented in L2 native speakers is not sufficient, I instead suggest that divergence is systematic in the sense that it is a complex function of causal factors: the internal causes are the non-specified initial state and the built-in preference, the internal/external cause is the existing L1 lexicon, and the external causes are the variability of the L2 input with respect to ambiguity and obscurity. The purpose of this examination is to argue that UG principles and parameters are fully available in L2 acquisition, but that any divergence of parameter-setting from the input setting or the native speaker's setting is caused not by the unabailability of UG, but by other factors. At the same time, this examination pursues the suggestion that the Economical Parameter-Setting model proposed in Bong (2005) can be successfully applied to L2 acquisition by investigating whether the previous accounts of 'divergence' in L2 acquisition are sufficient or not.

This paper begins with a brief description of how UG principles and parameters have been discussed in the L2 literature, focusing on where the Functional Module Inaccessibility view can be classified, and what the main claims of the view are. In what follows, the representative study, Tsimpli and Roussou (1991), in which the Functional Module inaccessibility hypothesis is originally proposed, will be examined with its main claims, and the data used for support the claims. Lastly, re-examining the data, I discuss the Functional Module Inaccessibility hypothesis is not sufficient to accommodate important aspects of L2 acquisition.

2. Background: the Functional Module Inaccessibility View

Within the generative framework, to address similarities and differences between L1 acquisition (L1A) and L2 acquisition (L2A), various hypotheses about the initial state (the point from which learners start to build grammar) or about UG availability have been put forward. With respect to various degrees of UG availability two hypotheses have been put forwarded: either full or partial UG availability. Note that 'No UG availability' in L2 acquisition has been logically ruled out by very extensive L2 studies on full or partial UG availability in L2 acquisition (See Bong 2005 for the detailed classification)

The Full UG availability view states that in both L1 and L2 acquisition UG is fully available whereas the initial state of L2 may be different from that of L1 acquisition to the extent that various parts of a real, contingent grammar (i.e. the L1 grammar) have been temporarily (initially) transferred to interlanguage systems of early stages of L2 acquisition. The term 'initial transfer' implies that the initial state of L2 grammar includes various parts of L1 grammar: no/partial/full transfer (see Bong 2005, 2006, 2007, 2008a, 2008b, 2009 for discussion on various degrees of L1 transfer)

On the other hand, the UG Partial availability states that L1 and L2 acquisition differ in that UG is available only in attenuated forms in L2 acquisition and the L2 initial state is constituted by L1 grammar.[3] The term 'Partial UG availability' implies that some part of the UG inventory is available while the other part is unavailable for L2 learners. In other words, *the available inventory of UG* that L2 learners can make use of includes some/all parts of the L1 grammar throughout the period of L2 acquisition, in addition to those parts of the UG inventory that are common to all languages such as UG principles. On the other hand, *the unavailable inventory of UG* includes those parts non-instantiated in the L1 grammar or those parameters and their values that differentiate languages from one another and thus it has been hypothesised in the L2

literature that those parts are degenerated or impaired after a critical period.[4] There are three representative hypotheses proposed in the L2 literature: namely (i) the Functional Module Inaccessibility Hypothesis, stating that non-instantiated UG parameters and their values in the L1 degenerate so that only L1 grammar and UG principles are manipulated to accommodate the surface difference between L1 and L2; (ii) the Weak UG view, stating that all UG parameters are impaired after L1 acquisition so that general cognitive learning mechanisms are utilized to accommodate the surface difference between L1 and L2 (cf. Bong 2005, 2009); (iii) the Local Impairment Hypothesis, stating that UG parameterised feature strength is impaired so that general cognitive learning mechanisms are utilized (cf. Bong 2005, 2009).

The Functional Module Inaccessibility view was first proposed by Tsimpli & Smith (1991), developed in Tsimpli and Roussou (1991) and further developed in Smith and Tsimpli (1995). This hypothesis states that the functional module is inaccessible after the end of the critical period.[5] The functional module is a sub-module of UG and is constituted by the set of functional categories. Each functional category is associated with an entry specified for relevant functional features (parametric values). Parameters are associated with functional categories and are subject to maturation. In other words, not only parameters that are not instantiated in L1, but also parameter values that differ from L1 are inaccessible for adult L2 learners after the critical period. UG principles on the other hand are operative in any language acquisition and are not subject to maturation.

According to this view, there will be neither subsequent parameter-resetting nor new parameter-setting in response to L2 input, but there will be a manipulated L1 parameter-setting with recourse to the available inventory of UG in order to accommodate parametric differences surfaced in L2 input. L1 parameter-setting will initially furnish early-state interlanguage systems and will be subsequently manipulated by making use of the available inventory of UG, while triggers of parameter-setting in the L2 input will be ignored (no longer work as triggers). Consequently, interlanguage systems will be systematic and UG-constrained, but differ from L2 native speakers' grammar. Let us now examine the L2 studies that advocate the Functional Module Inaccessibility view.

3. Tsimpli and Roussou 's (1991) Study: Claims and Data Analysis

Tsimpli and Roussou (1991) present the data obtained from 13 Greek-speaking learners of English as a second language: six with intermediate and seven with post-intermediate

English proficiency. Greek is a pro-drop (null subject) language whereas English is not. The theoretical assumption is that the presence or absence of null subjects in a given language is attributed to the so-called pro-drop parameter. This parameter consists of three properties associated with the two values (positive and negative) as illustrated below: [6]

(1) The Pro-Drop Parameter	Greek	English
a. Apparent violation of *that*-trace effects	-	+
b. Null subjects	+	-
c. Postverbal subjects	+	-

With respect to the *that*-trace effects property, 95% of the Greek-speaking learners incorrectly considered English sentences involving a trace after the overt C *that*, like (2), 'grammatical'. This result indicates that the English property of apparent violation of *that*-trace effects, as in (2), had not been acquired yet by the Greek-speaking learners.

(2) *Who$_i$ do you think that t_i left?

Tsimpli and Roussou (1991) analyse the interlanguage system developed by the Greek-speaking learners of English as showing that they continue to use their negative L1 parameter value for the property of apparent violation of *that*-trace effects. This analysis leads the authors to interpret the result as supporting their claims that 'no parameter-resetting' but 'manipulation of L1 parametric values' is carried out in L2 acquisition

With respect to the null subjects property, the Greek-speaking learners find null subject sentences 'ungrammatical' in English: null subject sentences involving a referential subject like (3) or weather-verbs like (4), or involving a non-referential (expletive) subject like (5) are corrected, although the correction rates for these three kinds of null subjects vary. With respect to postverbal subjects, English sentences involving postverbal subjects were always corrected by preposing the subject to sentence-initial position as shown in (6).

(3) *Lives with his mother.→ He lives with his mother.
(4) *Is raining in London. → It is raining in London.
(5) *Seems that Mary is happy.→ It seems that Mary is happy.
(6) *Is going to the cinema John.→John is going to the cinema.

Tsimpli and Roussou (1991) analyse the way the two properties are represented in the interlanguage system as follows. The Greek learners reanalysed (actually the term 'misanalysed' would be more adequate) English pronominal subjects like *he* or *we* as agreement elements (e.g. clitics), belonging to Agr (head of Agreement Phrase, AgrP), and they did so as a result of transfer of the Greek values of the null subjects, as illustrated in (7).[7] English referential subjects like *John* are reanalysed as topic elements (Topic Phrase, TopP) of Greek as illustrated in (8). They argue that this analysis can account for the result that the L2 learners corrected sentences by inserting non-null subjects or by preposing the postverbal subjects to a sentence-initial position as seen above.

(7) $[_{TP}$ $[_{APRP}$ pro$_i$ $[_{AGR}$ he$_i$ $[_{VP}$ $[_{V}$ lives $[_{PP}$ with his mother]]]]]]
(8) $[_{TopP}$ John$_i$ $[_{TP}$ $[_{AGRP}$ pro$_i$ $[_{AGR}$ $[_{VP}$ is going to the cinema]]]]]

Although the results apparently suggest that the Greek learners have acquired the English properties of disallowance of null subjects and of postverbal subjects, Tsimpli and Roussou (1991) interpret the results as indicating that the Greek learners have not acquired the English properties, but have approximated to the surface property of L2 input by imposing L1 parametric values (i.e. manipulation of L1 parametric values) and at the same time making use of options allowed directly from UG. As a result, the underlying syntactic representation in the interlanguage system developed by the L2 learners is not the same as that of L2 native speakers.

In sum, Tsimpli and Roussou (1991) demonstrate that the null subject property of the L1 Greek parametric value is imposed on the L2 input, thus leading to a reanalysis of pronominal subjects as agreement elements and of referential subjects as topic elements and that the *that*-trace property of the L1 Greek parametric value (negative) is also incorporated into the Greek-English interlanguage system, transferring the abstract property associated with C. This analysis leads them to conclude that L2 learners make use of L1 parametric values and that therefore the interlanguage system is constructed by the manipulation of L1 parameter-setting, not by parameter-resetting/setting.

4. Reexamination of Tsimpli and Roussou's (1991) Study

Tsimpli and Roussou (1991) claim that L2 learners make use of their L1 parametric values to accommodate any differences surfaced in L2 input: namely, the claim of

no-parameter-resetting, but manipulation of L1 grammar, ignoring the triggers from the L2 input. However, the L1 manipulation account of divergence of the interlanguage system from the parameter-setting manifested in the L2 input does not seem to be compelling, and the authors' analysis of the way the null subject parameter is represented in the interlanguage system seems to be problematic.

With respect to the L1 manipulation account, consider the property of apparent violation of *that*-trace effects. In Tsimpli and Roussou (1991), the abstract properties associated with the Greek complementizer [$_C$ *oti* 'that'] as opposed to the English one [$_C$ *that*] were referred to the Proper Government Parameter, which involves whether C is a proper governor or not in a language.[8] Note however that the property of apparent violation of *that*-trace effects implies that sentences become ungrammatical due to presence of empty categories (i.e. traces) that are not properly head-governed. In other words, 'traces must be properly head-governed'. Interestingly, English has two exponents for the C head under consideration. One is an overt [$_C$ *that*], which does not turn the C into a proper governor, giving rise to a violation of *that*-trace effects, as in (9). The other is a covert (phonologically null) [$_C$ *Ø*], which turns the C head into a proper governor, so that there is no violation of *that*-trace effects, as in (10). That is to say, English has both values of the property of apparent violation of *that*-trace effects: namely, positive value by[$_C$ *that*] and negative value by [$_C$ *Ø*].

(9) *Who$_i$ do you think [$_{CP}$ t'$_i$ $_C$ that [$_{IP}$ t$_i$ left]]?
(10) Who$_i$ do you think [$_{CP}$ t'$_i$ $_C$ Ø [$_{IP}$ t$_i$ left]]?

According to Tsimpli and Roussou (1991), over 95% of the Greek-speaking learners considered English sentences like both (17) and (18) as 'grammatical'. This result can be interpreted in two ways. One is that the L2 learners make use of the positive value of English [$_C$ *Ø*] for English [$_C$ *that*], owing to the L2 input positive evidence, and that the development of the ability to distinguish the two occurs at later stages such as those more 'advanced' than the post intermediate proficiency. It is however also possible that the L2 learners make use of the positive value of Greek [$_C$ *oti* 'that'], for both English [$_C$ *Ø*] and [$_C$ *that*] blindly, as the authors' suggest. The former seems to be more plausible than the latter, since Greek does not allow a null [$_C$ *Ø*] in the context, according to Tsimpli and Roussou (1991). If Greek has a null [$_C$ *Ø*] in other contexts, we can then say that the Greek [$_C$ *Ø*] does not have the abstract agreement feature, which turns the C head into a licensing head, like English overt [$_C$ *that*]. This way of reasoning in fact undermines the interpretation that the Greek-speaking learners make use of only Greek

parametric values.

In sum, this result concerning the *that*-trace effects does not provide convincing evidence for manipulation of L1 parametric values and for ignoring the triggers from the L2 input. It merely suggests that L2 learners have a tendency to take two exponents belonging to the same category as having the same abstract properties at these developmental stages (intermediate, and post intermediate proficiency in Tsimpli and Roussou 1991), and that they are sensitive to positive evidence like (10) from the L2 input. This tendency can be viewed as either effects of misleading cues from the Greek lexicon or an initial effect of the 'simplicity' and 'regularity' required by economy considerations at developmental stages in which L2 learners still make and test hypotheses about L2 grammar. Unless there is enough positive evidence, the learners' hypothesis of the same value for the two exponents may not be altered, leading to a misdevelopment (see Bong 2008a).

5. Discussion and Conclusion

Let us first consider the authors' analysis of the way the null subject parameter is represented in the interlanguage system. Recall the result that the Greek-speaking learners regarded null subjects and post-verbal subjects as 'ungrammatical', and corrected them by either inserting pronominal subjects or preposing post-verbal subjects to a sentence initial position. This result indicates that the L2 learners have acquired the two properties, or at least suggests that the L2 learners have approximated to the surface properties of the L2 input. Nevertheless, Tsimpli and Roussou (1991) conjecture somewhat different syntactic representation for the Greek-speaking learners, as seen in (7) and (8), from that for English native speakers. Consider sentences involving dislocated subjects, and a conjectured underlying structure for the interlanguage system as in (11). Note that such dislocation, as in sentences like (11) in both the Greek and English languages, is a grammatical option.[9]

(11) John, he broke the plates.

$[_{TOPP}$ John$_i$ $[_{TP}$ $[_{AGRP}$ *pro*$_i$ $[_{AGR}$ *he* $[_{VP}$ broke the plates]]]]]

According to Tsimpli and Roussou (1991), sentences like (11) were accepted as grammatical by the intermediate level subjects in 90% of cases, whereas the same sentences were *always* considered *ungrammatical* by the more advanced subjects. Crucially, their own result casts doubt on the authors' analysis of the interlanguage

system. First of all, the result that the more advanced subjects considered sentences like (11) 'ungrammatical' is not expected from Tsimpli and Roussou's (1991) account. If the L2 learners had reanalysed the referential subject *John* as a Topic element, and the pronominal subject *he* as an agreement element (i.e. as a clitic) as the authors postulate, sentences like (19) would have always been regarded as 'grammatical' by the same learners, contrary to the fact. Consequently, the question what brings about this change from 'grammatical' to 'ungrammatical' as L2 acquisition advances remains unexplained under Tsimpli and Roussou's (1991) account. In short, the postulated underlying structures cannot capture such unexpected results as that L2 learners display neither L2 native-like nor L1-like parameter-setting in the course of L2 acquisition.

Recall again the postulated underlying structure given in (7), which accounts for sentential initial subjects in the interlanguage system, illustrated anew in (12). Now consider them in the light of the result presented in Tsimpli and Roussou (1991) that the Greek-speaking learners produced English sentences without overt subjects as in (13).

(12) Lives with his mother→ corrected into→ He lives with his mother.
$[_{TP}$ $[_{APRP}$ pro_i $[_{AGR}$ he_i $[_{VP}$ $[_V$ lives $[_{PP}$ with his mother]]]]]]
(13) Is dancing. (intending 'He is dancing')
$[_{TP}$ PRO $[_T$ $[_{VP}$]]]

To solve the immediate problem about the status of the null subject as in (13), Tsimpli and Roussou (1991) argue that in the absence of pronominal subjects, the null subject in consideration is a big *PRO*, which lacks a governing category and can refer to an antecedent in the (discourse) context (i.e. identification of *PRO*), owing to options allowed directly by UG. However, under this analysis, it remains unexplained why L2 learners have the two underlying structures: one fully-fledged and the other truncated (without AgrP). The question is when L2 learners make use of which structure. For example, in the authors' account, when L2 learners are correcting sentences without overt subjects, they make use of the AgrP system for a pronominal subject in [Head AgrP], and for a null subject *pro* in [Spec AgrP]. When they are producing sentences without overt subjects, they ignore the AgrP system, but make use of a truncated structure without AgrP, namely TP for *PRO*. It is difficult to regard this analysis of the two structures as a systematic account of the interlanguage system.

Furthermore, it is unclear to what extent UG options are directly available for L2 learners according to the authors' definition. Tsimpli and Roussou (1991) indicate themselves that there are two options for the L2 learners to choose from: namely, the L1

option and the UG option.

> "There are two options in the construction of an L2 grammar: the first one involves transferring the L1 parametric values to the L2 data, giving rise to transfer errors. The second option is to exploit a possibility available directly by UG, which, however, does not give rise to the actual grammatical option that the target grammar adopts."
> (Tsimpli and Roussou 1991: 159)

If L2 learners make use, for a subject, of either *PRO*, whose reference is identified by contexts, or *pro* by agreement (Agr) optionally, it is puzzling why they do not make use of L2 options: such as English *pro*-drop in the registers as found in diary texts or informal letters or informal colloquial texts, in which *pro* is identified via contexts (mainly the speaker and listener). In addition, it remains mysterious whether the Japanese/Korean (L3) type of null subjects is a directly available UG option or not, and it is unclear how such an L3 type can be distinguished from the L1 Greek type of null subjects by means of parametric values.[10] In Tsimpli and Roussou's (1991) account of 'directly available UG options', it is unclear whether variation in the identification property, which distinguishes Japanese/Korean (L3) type from the Greek type null subjects, is related to the *pro*-drop parameter or belongs to directly available UG options for L2 learners such as using *PRO* as a subject. That is to say, a clear demarcation between unavailable L2 parametric values and available UG options has not been established and there is no explanation of how the choice between UG options and L1 options is made by L2 learners.

To summarise the discussion, Tsimpli and Roussou's (1991) analysis of interlanguage systems cannot capture some of their own data and thus the claim that L2 learners have the underlying syntactic systems derived only from the manipulation of L1 grammar the authors present is not well supported. Moreover, unless the clear demarcation between unavailable and available UG options is given, it is difficult to justify whether the claim of 'functional module inaccessibility' is supported by any L2 acquisition data showing 'divergence' from the L2 grammar. Nonetheless, we can conclude that the L1 manipulation ignoring the triggers from L2 input (no parameter-resetting) does not adequately account for the divergence of interlanguage systems from the L2 grammar and that Tsimpli and Roussou's (1991) study does not provide convincing evidence for the absence of some functional elements (i.e. non-instantiated in the L1) in L2 learners. In short, the unavailable parts of the UG inventory hypothesised by the 'Functional Module Inaccessibility' view is not

supported.

So far we have examined the representative L2 study (Tsimplie and Roussou 1991) that advocates the Functional Module Inaccessibility view. I have pointed out that evidence adduced for the hypothesis by Tsimpli and Roussou's (1991) study is sufficient neither to claim that L2 learners are inaccessible to those functional features/module that are not instantiated in the L1 ('no parameter-resetting') nor to account for divergence of interlanguage systems from the parameter-setting embodied in the L2 input or represented in the L2 native speakers.

Contrary to the unavailable UG inventory claim, there are many other L2 studies suggesting that L2 learners make use of so-called inaccessible functional features not instantiated in L1: i.e. L2 learners establish interlanguage systems based not only on L1 functional features, but also on inaccessible functional features. Such L2 studies suggest that the UG inventory is fully accessible by L2 learners. Contrary to the L1 manipulation claim, we have seen that L2 learners are not confined to the L1 parametric values, but explore UG options to accommodate the L2 input.

Although the study has shed some light on divergence in L2 acquisition within UG constraints, the analysis of the way interlanguage systems are represented is limited to the extent that the L1 parameter-setting can be manipulated. In fact, this limited view on the interlanguage systems encounters some problems in capturing 'various divergences' from the L2 parameter-setting in L2 acquisition, and provides a very limited explanation of L2 acquisition. Importantly, various divergences observable in L2 acquisition seems to require further investigation.

In conclusion, the claims of the Functional Module Inaccessibility view have been shown to be too strong to accommodate important aspects of L2 acquisition: such as the divergence with a characteristic misdevelopment and the learnability of functional features non-instantiated in L1.

Notes

[1] I would like to thank Dr Teresa Parodi in University of Cambridge, and Nick Green for helpful comments and advice. No blame for deficiencies accrues to anyone but the author.

[2] A great number of L2 acquisition studies have reported that the nature of L2 knowledge is grammatical (UG-constrained) and that characteristics of L2 acquisition match characteristics of L1 acquisition in many ways. For the systematicity of developments, see Dulay and Burt (1973, 1974) and Brown (1973); Larsen-Freeman and Long (1991); Ellis (1994); among others; for poverty of stimulus see Kanno (1996, 1997); Dekydtspotter, Sprouse and Anderson (1997) among others; for applicability of Fodorian criteria for modularity see Herschensohn (2000); see Kim, Relkin, Lee, and Hirsch (1997) for domain specificity for fixed neural architecture for language processing by showing the same localization of L2 and L1 grammatical knowledge in the specialized language

areas of the brain; and see Weber-Fox and Neville (1999) for a bilingual process both L1 and L2 with similar neural responses.

[3] The Partial UG availability view has appeared in various guises in a number of studies: see Coppieters (1987); Bley-Vroman et al (1988), Johnson and Newport (1991), Tsimpli and Roussou (1991), Sorace (1993), Hawkins and Chan (1997) among others.

[4] See Krashen (1985), or Birdsong (1999) for discussions about the relationship between L2 acquisition and the critical period hypothesis; and see Lenneberg (1967), Hoffman (1996) for discussions of a critical period of L1 acquisition.

[5] See Tsimpli and Ouhalla (1990) for the idea of modularity of functional categories in the UG lexicon, and see Tsimpli and Roussou (1991) for further discussion of the Critical Period in language acquisition, and of the Functional Module; the former is associated with the maturational process affecting 'the Functional Module'. For the Critical Period hypothesis, see Lenneberg (1967); for Critical Period for L1 acquisition, see Long (1990) and Grimshaw et al. (1998); and for Critical Period for L2 acquisition, see Oyama (1976), Patkowski (1980), Thompson (1991), among others and compare them with Bialystock (1997), Birdsong (1992), and White and Genesee (1996).

[6] See Chao (1981), which argues that Brazilian Portuguese does not show the correlation of the three properties with a single parameter, which is thus not cross-linguistically universal. See Rizzi (1982) for arguments that these three properties are involved with/clustered as a single parameter.

[7] See Rizzi (1986a,b), Guerssel (1988), and Ouhalla (1991) for the theoretical discussion of licensing.

[8] Tsimpli and Roussou (1991), referring to Du Plessis et al. (1987), state as follows: "whether Comp is a proper governor or not in a language involves a parameter which is referred to as the Proper Government Parameter". Later, the authors refer this parameter to the abstract properties associated with C. This is very different from what has been suggested for language variation in Rizzi (1986, 1990). According to Rizzi (1990), the C category in normal case is not a licensing head, but UG allows some variation: i.e. particular languages may allow *specific morphemes*, belonging to the category C, to have features which turn them into licensing heads.

[9] Interestingly, a dislocation as in (11) is, in languages like Japanese or Korean, ungrammatical. The difference between languages like Greek or English and languages like Korean or Japanese can be attributed to a difference in abstract properties of subject pronominals: e.g. binding properties. It is possible that the Greek-speaking learners have acquired L3 properties of pronominal subjects: that is, the properties of, for instance, Japanese or Korean pronominal subjects if UG options are fully available. I shall not discuss this any further.

[10] Note that the Japanese or Korean type of null subjects differs from the Greek type of null subjects with respect to its identification property: namely the Japanese or Korean type of null subjects is identified via topic (discourse context) owing to absence of agreement while the Greek type via agreement (a licensing head). In sum, there are three kinds of pro with respect to its identification: English type, Greek type, and Japanese type.

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