The Extent of EFL Adult Learners Access to UG[1)]

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Kang, AeJin. 2002. The Extent of EFL Adult Learners Access to UG. *Korean Journal of English Language and Linguistics 2-3,* 305-327. This paper is in line with the attempts to examine two assumptions implied about the role of Universal Grammar (UG) in nonnative language acquisition: Are the EFL learners at disadvantage in acquiring UG-driven knowledge? Are there critical period effects in EFL learning? Based on the research with the seven studies of ESL and EFL adult learners performance on the Subjacency violation sentences, the paper investigates the extent to which the EFL adult learners can attain UG-driven knowledge represented by the Subjacency Principle. It also makes comparison of the EFL learners level of access to UG with that of their counterparts, the ESL learners. The research findings suggests that the EFL environment doesn't prevent the learners from acquiring target grammar in UG domain. That is, the current paper strongly suggests that the EFL adult-learners be able to acquire UG-driven knowledge to a considerable extent, at least as high as the ESL adult learners can attain. For the interpretation of the research results of the seven studies, Constructionist Hypothesis (CH) supported by a Minimalist Program (MP) assumption is employed. CH seems more plausible to account not only for incomplete acquisition observed among the beginning and intermediate level learners but also for the native-like competence acquired by advanced level L2 learners.

1. Introduction

This paper is in line with the attempts to examine two assumptions implied in the second language acquisition (SLA) research about the role of UG. As White and Juffs (1998) point

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out, the first is that foreign language learning (involving formal instruction) is insufficient to trigger UG; the second is that there are age limitations on access to UG (112). While there have been anecdotal observations with EFL and even ESL adult learners whose final attainment in English language appears to fall short of that of native speakers, few studies have attempted to explain in a scientific way why EFL adult learners are popularly believed to fail to obtain the mastery of English. In this paper, the EFL and ESL adult learners linguistic behavior was examined when they were to make grammaticality judgment of English sentences to see whether their judgment was similar to that of native speakers. In particular, the purpose of current paper was look into the extent to which adult EFL learners can acquire UG-driven knowledge represented by the Subjacency Principle, and made comparison of the EFL adult learners level of access to UG with that of their counterparts, the ESL adult learners.

Another motivation for the current study came from the fact that the previous studies looking into the learners competence using the Subjacency Principle produced different research findings, and thus supported different hypothesis concerning UG accessibility. Felix and Weigl (1991), with their 77 German high school students, argued that UG had not been activated for the learners whose exposure to a second language (L2) was restricted to formal classroom situation and suggested that these students did not show any evidence of UG-access (162). Schachter (1990)'s experiment with the ESL adult learners whose native languages were Dutch, Chinese, Indonesian and Korean produced the results that the Dutch subjects performed as well as the native controls on the judgment of the Subjacency violation sentences, but the Korean subjects performed just at chance level. Schachter (1990) suggested that the results strongly support the claim that the native language has a significant

effect on knowledge of one principle of UG in post-puberty acquired L2 grammar. It would mean that the learner has only the L2 input and native language knowledge as guides in figuring out the structure of the target language (Schachter 1990:116), which may support her Window-of-Opportunity Hypothesis.

Bley-Vroman et al. (1988) tested Korean adult ESL learners linguistic competence through a grammaticality judgment test (GJT) on English Wh-movement sentences where the relevant constraints are thought to derive from the Subjacency Principle of UG. Bley-Vroman et al (1988) found that the Korean subjects performed significantly better than chance-level, with a mean score of 77.8%. With this result, they admitted that it was extremely difficult to maintain the hypothesis that UG is inaccessible to adult learners the strong form of the Fundamental Difference Hypothesis (FDH). Johnson and Newport (1991) looked at the relationship between the acquisition of the Subjacency Principle and critical period effects, addressing the issues of whether and to what extent critical period effects can also be found for universal properties considered to be innate. The results of Johnson and Newport (1991) showed that there was a fairly continuous decline in the observance of the Subjacency Principle as the age of exposure to English had increased. Compared to their 1989 study's results which were based on the subjects performance on the language-specific rules, the younger learners performance showed that the Subjacency Principle was not privileged with respect to maturation effect at any age of acquisition.

White and Juffs (1998) compared two groups of learners, to see if it is really the case that the learners who have never lived in an L2 country are necessarily at a disadvantage (112). Their research findings suggested two things: (a) adult learners can achieve considerable accuracy in their judgments of sentences

violating constraints of UG, and (b) they achieve this even if their only exposure is in a foreign language environment (118). Perez-Leroux and Li (1999) designed a study to investigate the status of the Complex Noun Phrase (CNP) violations in the interlanguage, and test development in the interlanguage grammar of Wh-movement (159). The study suggested that L2 learners be expected to go through a stage in judgment of a universal principle depending on their proficiency level. Kang (2001) also showed that the EFL learners performance on the Subjacency violation sentences was much better than chance level and not significantly different from that of ESL learners. These different findings and consequently different generalizations produced by the above-mentioned studies concerning L2 learners linguistic competence may require that there be in-depth analysis about the methods and theoretical underpinnings involved in each study. The research findings of the above-mentioned studies are summarized in Table 1.

<Table 1>   Research Results and Other Information of Each Study

	white & Juffs (1998)	Perez-Leroux & Li (1999)	Kang (2001)
EFL	77.08% (Chinese)	73.7-86% (*RC) 57.8-64.4% (*NCC): Chinese	81.45% (Korean)
ESL	69.58% (Chinese)	88-94%(*RC) 81-94%(*NCC): Chinese	81.76% (Korean)
Linguistic Environment	EFL: Immersion after the formal education ESL: A Canada situation	EFL: A university in China ESL: Graduate students and scholars living in the USA	EFL: Graduate schools in Korea ESL: A university setting in the USA
Proficiency Level of the Subjects	No difference between two groups by Michigan test	EFL: Intermediate ESL: Highly advanced	Between intermediate and advanced
Supporting Hypothesis	Full Access to UG/age effects among adult learners	Full Access to UG	CH

	Bley-Vroman et al. (1988)	Schachter (1990)	Felix & Weigl (1991)	Johnson & Newport (1991)
EFL			44.2% (Grade I) 44.7% (Grade 2) 45.0% (Grade III): German	
ESL	75% (Korean)	51.67% (Korean)		61% (Chinese)
Linguistic Environment	A university setting in the USA (mainly graduate students)	A university setting in the USA (mainly undergraduates)	A high school (formal classroom instruction)	A university setting in the USA (graduate students, post-doc, faculty)
Proficiency Level of the Subjects	Advanced	Highly proficient	Beginning (Grade I) Intermediate (Grade II) Advanced (Grade III)	Considered at their ultimate attainment
Supporting Hypothesis	Partial Access to UG	No Access to UG	No Access to UG (EFL environment)	CPH

2. What is Subjacency?

White and Juffs (1998) state that the Subjacency Principle (Chomsky 1977) allows movement out of only one bounding category in a single operation. NP and IP are bounding categories in English. Wh-words move through the Specifier position of the Complementizer Phrase (CP) of each clause (114). White and Juffs (1998) show how the Subjacency Principle works as follows:

(1) a. Who does John believe that Mary likes?
    b. [CP Whoi does [IP John believe [CP ti that [IP Mary likes ti]]]]

(2) a. *Who does John believe the claim that Mary likes?
    b. [CP Whoi does [IP John believe [NP the claim [CP tl

that [IP Mary likes ti]]]]]

In (1), *who* may move through the Specifier of each CP, crossing only one bounding category at a time, thereby obeying Subjacency. The sentences in (2) violates Subjacency because *who* must move across two bounding categories, NP and IP (White and Juffs (1998:113-14).

Since there are some languages such as Chinese, Korean, Japanese in which the Subjacency Principle does not work or is only vacuously applied, if the speakers of these languages acquire this principle when they are learning English, Italian and other Subjacency operating languages, then it can be said that the learners show evidence of obeying constraints that operate only in the L2, or of setting parameters to L2 values, this suggests UG availability, since knowledge of the L2 system could not have come solely from the L1 and, on standard logical problem arguments, could not have come solely from the L2 input (White and Juffs 1998:113).

As Herschensohn (2000) points out, the notion of Subjacency is one that is generally not taught and thus is characteristic of poverty of stimulus (120). In particular, Korean speakers are not supposed to have the knowledge of the Subjacency Principle through their L1, since Korean has neither the Subjacency condition nor other related properties such as Wh-movement or topicalization. Thus, through the Subjacency Principle GJT, it can be hypothesized whether the English grammar of Korean learners is constrained by UG.

Concerning the question of how we can test experimentally whether or not L2 learners have access to UG, Bley-Vroman et al. (1988) suggest that we first make linguistic theory very specific about what type of knowledge must derive from UG or from the learners input data. They assert that any type of linguistic knowledge for which there is no evidence in the input

data must be attributed to UG, while knowledge that relates to a particular property of a given language must be derived from environmental data (4). On that account, the Subjacency Principle, which is not commonly taught in ESL/EFL classes, can be a linguistic property on which to test Korean and Chinese learners for example to see whether UG is responsible for their acquisition since Koreans have no internalized criteria to use in making a decision, and no previous knowledge from the native language to give them a clue (Schachter 1990: 117) with respect to the Subjacency Principle.   Chinese is also such a language which either does not have or restrict syntactic Wh-movement (Huang 1982, recited in White and Juffs 1988:114).

In the case of acquiring, for instance, Wh-movement, the learners are to develop a set of patterns and are able to identify certain sentences with Wh-movement as possible and therefore grammatical sentences.   However, even when   there is no external evidence from the input which would lead the learner to conclude that Subjacency violations are not grammatical (Schachter 1990:116-17), if the Korean/Chinese learner whose native language does not provide any hint about the Subjacency principle is able to develop the competence to correctly reject the Subjacency violation sentences in English,   then it can be considered that the Korean/Chinese learner is guided with the same principle by which the native speaker of English is supposed to acquire the competence to reject the ungrammaticality of English strings involving Subjacency violations. Therefore, testing the Subjacency principle with the EFL adult Korean/ Chinese learners can tell whether and how far the EFL learners can make their L2 grammar native-like.

While there has been a tendency that a neutral and superordinate term like second language acquisition indicates both foreign language learning and second language acquisition, it is usually the case that a distinction is made between foreign

language learning and second language acquisition. In Nunan
(1999)'s definition, EFL stands for the teaching and learning of
English in communities where it is not widely used for
communication, while ESL means that the teaching and learning
of English in communities where it is widely used for
communication by the population at large (306-7), even though
he adds that these days the distinction between ESL and EFL is
widely regarded as an oversimplification (37). Kramsch (2000)
suggests that the term *second language* (L2) is generally used to
characterize language acquired, in natural or instructional
settings, by immigrants or professionals in the country of which
that language is the national language; *foreign languages* (FLs), by
contrast, are traditionally learned in schools that are removed
from any natural context of use (315).

3. Research Questions

SLA research within generative framework has sought an
explanation of how non primary language acquisition differs
from primary language acquisition (Klein and Martohardjono
1999:4). Traditionally, the generative SLA (GSLA) research has
centered on UG accessibility in SLA and proposed three
hypotheses: full-access, partial-access, and no-access. Recently, the
GSLA has observed the research paradigm shift from Principles
and Parameters (PP) approach to the most current version of the
UG theory, Minimalist Program (MP). Within the PP approach,
GSLA focused on whether L2 learners are able to reset
parameters according to the L2 values, and thus implied
instantaneous resetting or failure.

However, MP emphasizes the acquisition of morpholexicon as
the locus of language acquisition, both L1 and L2. MP looks at
syntax as a function of morphological features of lexical items,
and thus it sees the control of an L2 parameter as a direct

function of the mastery of the features of a given functional category (Herschensohn 2000:80). Thus, within the MP notion, certain phenomena observed in adult SLA such as incompleteness and variability can be explained as the aspects found in the course of gradual building of L2 grammar, rather than as the evidence of inaccessibility of UG. While the GSLA research with advanced-level adult learners being its subjects has produced research results and findings which would favor access to UG in SLA, it has been not so clear as to how to interpret incomplete mastery of L2 morpholexicon under the previous PP approach. Thus, the MP approach seems better at accommodating the view that non-primary language acquisition can be similar to that of primary language in terms that UG constrains the grammar of both L1 and L2 as well as encompassing variability in interlanguage grammars.

For the current paper, I did research with the seven studies which employed the UG framework with mainly Subjacency Principle as a research tool to look into the English language learners linguistic competence, and made an analysis of the studies: Who are the subjects? What linguistic environment is each group of subjects in? How does each study deal with proficiency issue? In addition, the following points were examined: The research findings that each study has produced, what hypothesis each study supports, and what implication the studies have suggested for EFL teaching and learning. Table 1 shows each study's research results with the mean percentage of the scores the subjects earned on the Subjacency violation sentences along with the other related information.

Based on the research with the above-mentioned seven studies, this paper aims at answering the following questions: Do the EFL adult learners have access to UG? If they do, how far can they access UG-driven knowledge represented by the Subjacency Principle in particular? Compared with the ESL learners, are the

EFL learners at disadvantage in acquiring UG-driven knowledge? Are there critical period effects in EFL adult learners acquisition of UG-driven knowledge? Since the SLA research has mainly recruited ESL subjects, the EFL learners ultimate level of acquisition is not addressed very well in the SLA literature. Considering there is a significant number of EFL population worldwide, the above mentioned questions should be asked to discuss fundamental aspects of EFL learning: How the EFL learners learn the L2; How far they can go in their journey to be proficient L2 learners.

4. Analysis of the Seven Studies

4.1. What the Seven Studies Have Found

The analysis of the seven studies showed that while the two studies by Schachter (1990), and Felix and Weigl (1991) denied adult learners access to UG either in ESL or in EFL environments, the four studies by Bley-Vroman et al. (1988), White and Juffs (1998), Perez-Leroux and Li (1999) and Kang (2001) suggested English language learners access to UG regardless of whether they are ESL or EFL learners. Meanwhile, Johnshon and Newport (1991) indicated critical period effects in second language learning. In particular, White and Juffs (1998) showed that their China groups accuracy in all cases except *that*-trace violations is not significantly different from that of the native speakers while the Canada group are less accurate presenting that in most cases their mean accuracy is significantly different from that of the control group: mean accuracy scores on ungrammatical sentences excluding *that*-trace for China group is 21/24, Canada group 18.562/24, control group 22.579/24. Including *that*-trace violations, the China group showed higher accuracy rate than that of the Canada group by 23.125 vs.

20.875.

In the case of Kang (2001), 32.2% of the EFL subjects and 33.4% of the ESL subjects rejected the Subjacency violation sentences with 95% of correctness or more than that, while 77.5% of the native-speakers did. The mean score of the native speakers performance on the Subjacency violation sentences was 94.1%. The performance of the three groups was stated in Table 2. The fact that almost one third of the EFL and ESL learners participating in Kang (2001) performed with native-like accuracy on the Subjacency violation sentences seemed consistent with the research findings of White and Genesee (1996). White and Genesee (1996) showed that of all their subjects (n= 28) who started learning the L2 at the age of 7 or below, over 75% achieve near-native performance as assessed by their proficiency measures. In contrast, of all their subjects who started learning English as adults (n= 31), less than one third achieve native-like proficiency ratings (258). The purpose of White and Genesee (1996) was to test the hypothesis of whether there is a critical period for L2 acquisition and the hypothesis of whether there is a maturational decline in access to UG. White & Genesee (1996) concluded that native-like competence in an L2 is achievable, even by older L2 learners (233). On the other hand, the purpose of Kang (2001) was to examine whether EFL adult learners are able to attain native-like competence in the UG domain. With its research findings, Kang (2001) can suggest that considerable percentage (almost one third) of EFL adult learners whose exposure to an L2 is mainly through written input can acquire a subtle feature of target grammar which is considered UG-driven knowledge. With respect to the previous studies using the Subjacency Principle, it appears to support the prediction. That is, depending on the learners proficiency level, it is possible that each hypothesis concerning UG accessibility can be supported or disapproved.

<Table 2>   Each Groups Performance on the Subjacency
Violation Sentences (Kang 2001)

EFL			ESL			Native Speakers		
Score	# of subjects who correctly responded	%	Score	# of subjects who correctly responded	%	Score	# of subjects who correctly responded	%
25.00	1	1.6	25.00	1	2.0			
45.00	1	1.6	40.00	1	2.0	40.00	1	2.0
50.00	2	3.2	45.00	2	3.9			
55.00	2	3.2	50.00	1	2.0	50	1	2.0
60.00	3	4.8	60.00	1	2.0			
65.00	6	9.7	65.00	2	3.9			
70.00	2	3.2	70.00	4	7.8			
75.00	4	6.5	75.00	3	5.9	75.00	1	2.0
80.00	4	6.5	80.00	5	9.8			
85.00	9	14.5	85.00	7	13.7	85.00	5	9.8
90.00	8	12.9	90.00	7	13.7	90.00	4	7.8
95.00	9	14.5	95.00	11	21.6	95.00	10	19.6
100.00	11	17.7	100.00	6	11.8	100.00	29	56.9
Total	62	100.0	Total	51	100.0	Total	51	100.0

In terms of investigating EFL learners access to UG, the
different findings between Felix and Weigl (1991) and those of
White and Juffs (1998) and Kang (2001) may reflect the fact that
the subjects of each study received different types of input and
opportunities to use English in meaningful context: The subjects
of Felix and Weigl (1991) were high-school students whose
exposure to English was mainly classroom formal instruction
while those of the EFL learners of White and Juffs (1998) were

in an immersion situation.   The subjects of Kang (2001) were mainly graduate students who have had to read in English to get real information for their major area of study.

Therefore, the findings of Kang (2001) were rather similar to that of White and Juffs (1998), which tested the assumption that formal language instruction is insufficient to trigger UG. Having used a GJT, White and Juffs (1998) found that the group of learners whose learning had been only in the formal classroom which was followed by a kind of immersion in English in a university setting, still in China performed better than the group of learners who had lived in an English-speaking country for several years. Concerning the research findings of Kang (2001) that there was no significant correlation between the years of staying in the USA and the ESL groups performance . on the Subjacency violation sentences, the linguistic benefits to be gained from an immersion situation in the target-language speaking country should be carefully examined considering other factors such as, for example, the learners previous proficiency level prior to the immersion, and actual time of interaction with native speakers in a meaningful way as White and Juffs (1998) suggested.

4.2. Proficiency Issue

While Schachter (1990) points out that there are a variety of methodological problems, as well as conceptual ones, in Bley-Vroman et al. (1988), and consequently those problems lead to different results from her study, I would like to focus on the subjects proficiency levels between the two studies.   Schachter (1990)'s 20 Korean subjects, along with the 21 Indonesian and 20 Chinese subjects, were either students in sections in an introductory linguistics course at an American university or in freshman English courses required of all US college undergraduates. They were considered highly proficient speakers

of English because they had either taken the university's placement exam and been exempted from any ESL requirement or, in fact, had been required to take an ESL course but had completed all such requirements in the semester before the one in which the Subjacency tests were administered.   For the Korean learners, the average number of years of English study was 6.6 years.   The average number of months of residency in an English-speaking country was 34.2 with the SD of 22.49. With only such data, however, it is not certain whether the Korean subjects can be considered highly proficient learners as Schachter (1990) defined them. Another unusual aspect of their bio-data was the age of first exposure. Schachter (1990)'s Korean subjects were exposed to English for the first time, at an average, of 15.2 years, with the SD 2.42.   In Korea, normally, every student begins his or her English education in the 7th grade, which is usually made up of 11 to 13- year-old.

On the other hand, Bley-Vroman et al. (1988)'s 92 Korean subjects were chosen not only because they had achieved an advanced level of proficiency, but also because they had extensive experience living in an English speaking-environment where they would use English for their normal communicative interactions. Out of 92 subjects, 87 were enrolled in degree programs at a university in the USA: 71at the graduate level and 16 at the undergraduate level.   Of the remaining five, two were housewives and three had full-time jobs.   All five had completed university degrees. On average, the amount of formal study of English was eight years. The Korean subjects had lived in the USA as long as eight years, and over three years on average.   Only three had been in the USA for less than one year (about six months).

The different features of each study's subjects may have contributed to the different research results, even though the other variables were the same. Especially, considering the fact

that Schachter (1990)'s native controls who were undergraduates did much poorer than did their graduate counterparts majoring in linguistics for the pilot study, there may be a greater difference indication in the non-native speakers competence, depending on their proficiency levels. Thus, without having the subjects proficiency level consistent across the studies, it would be hard to compare and contrast the results obtained from each study, even though they employ same methodology and theoretical frames. Therefore, it can be said that the reason why the Korean subjects of Bley-Vroman et al. (1988) performed significantly better than chance-level, while those of Schachter (1990) performed randomly, may be due to the fact that Bley-Vroman et al. (1988)'s Korean subjects English proficiency could be higher enough to perform better than those of Schachter (1990).

The proficiency issue was more clearly addressed in Perez-Leroux and Li (1999). Their study included two groups of learners distinguished by their level of proficiency confirmed with a separate English proficiency test. By showing that the performance of intermediate level of proficiency group was similar to that of Bley-Vromann et al. (1988) and that of the advanced level of proficiency group was more like that of native-speaker controls, Perez-Leroux and Li (1999) suggested that the level of subjects proficiency should be carefully considered since it would affect the research results, and thus lead to a different generalization as to how well adult-learners can acquire UG-driven knowledge when learning an L2. White and Genesee (1996) also pointed out that controlling for native-like proficiency is, as we have argued, crucial for the investigation of issues of ultimate attainment, even when the L1 and L2 work in similar ways (261), again reminding that the importance of learners proficiency level should be considered more critical than L1 effects. It seems clear when we consider

that even the studies using the same subjects defined by their L1 still produced different results.

4.3. Controversies about Critical Period Hypothesis (CPH) in SLA

While Schachter (1990) and Johnson and Newport (1991) showed that their research results support CPH concerning ESL adult-learners, and Felix and Weigle (1991) with EFL learners, Bley-Vroman et al. (1988) and Perez-Leroux and Li (1999) suggested that ESL adult learners be free from maturational effects to some degree or much higher extent so that they can achieve even native-like competence in UG-driven knowledge. Also, White and Juffs (1998) and Kang (2001) strongly suggested that even EFL learners be able to acquire subtle feature of linguistic property in the target language regardless of age limits although White and Juffs (1998) showed age effects among adult learners.

Here, one thing that a reader reviewing SLA studies investigating age effects should be cautious about is that almost every CPH related research showed its results with a mean score of adult learners as a group. That is, presenting such a result doesn't help us understand what is going on with individual adult learners. It would be easy to ignore individual learners acquisition level and treat them as a whole. But adult learners are not a homogeneous group sharing similar learning experience and ability. It should be understood that individual adult learners can be totally different from each other in terms of the degree of motivation, needs, expectation as well as educational and social support among others. Without taking a closer look at the individual learners performance on any single test, it can produce false generalization about the adult learners capacity to acquire a new language.

Of course, there, regarding CPH, are different research findings

even with the adult learners as a group. For instance, with the results of the oral (main study) and written judgment tests (secondary study), Johnson and Newport (1991) argued that there was no evidence that a type of UG driven-knowledge presented by the Subjacency Principle is immune to the maturation effects. The subjects performance on questions with subject-auxiliary inversion violations, a language-specific property, was compared to their performance on questions with Subjacency violations. Rather than performing better on Subjacency than on subject-auxiliary inversion violations, they performed worse. This result was also supported by a more general comparison with the data from their 1989 study based on twelve basic grammatical structures of English grammar.

However, White and Genesee (1996), comparing the performance of three groups (near-native, nonnative speakers and controls) on the two tasks designed to tap aspects of UG, found no significant differences between near-native group and native-speakers on either of the tasks. They concluded that native-like competence in an L2 is achievable, even by older L2 learners (233). White and Genesee (1996)'s findings seems contrasted to those of Johnson and Newport (1991) in that White and Genesee (1996)'s subjects show no evidence of a maturational decline in performance with increasing age of initial acquisition of the L2. Our results thus suggest that native-like attainment is possible regardless of age of initial significant exposure to the L2 (258).

Marinova-Todd et al. (2000) insisted that although older learners are indeed less likely than young children to master an L2, a close examination of studies relating age to language acquisition reveals that age differences reflect differences in the situation of learning rather than in capacity to learn (9). Just with only input factor, child-learners are supposed to receive different input from that of adult learners in terms of quality

and quantity, which can result in the different level of proficiency of both learner groups.

Child-learners are supposed to receive contextualized input dealing with here and now language while adult-learners often face decontextualized language involving dense information. Children tend to spend more time in target culture through school life for example, but adult-learners interaction with native speakers can be limited unless they make extra efforts to increase interaction with native speakers. Burling (1981), among others, noted that children tend to use language more often in reference to ongoing events and objects near at hand than adults, who are more apt to discuss abstract concepts without tangible referents (Flege 1987:167). In addition, social factors conspires to ease the effort for young children by providing a nurturing environment, simplified input, educational opportunities, cooperative peers, and other supporting aspects of a social context that facilitate the acquisition of any language (Bialystok and Hakuta 1999:178).

While a widespread belief in the CPH in L2 learning is supported by the numerous studies and abundant anecdotal observations showing that many adult learners end up with incomplete competence and performance skills, there also exists research providing evidence that adult-learners are successful in their endeavors to acquire a new language. Bongaerts et al (1997), using adult subjects, showed that some learners pronounced better than natives and called for establishing standard accent. Gardner, Trembly, and Masgoret (1997), with their university age-subjects, suggested that L2 achievement correlated most strongly with such factors as anxiety about language learning and self-confidence rather than biological age. Riney and Flege (1998) with their adult-subjects also suggested that L2 exposure affects L2 pronunciation; some adults do as well as natives, highlighting learning environment again.

Therefore, the research focusing only on age and trying to explain the difference of ultimate attainment of L2 proficiency between young learners and adult learners can ignore the other important factors involved in SLA such as input, motivation, and environment.

5. Conclusion/ Discussion

The research results and findings of the seven studies may suggest that it should be perfectly possible for EFL adult learners to acquire UG-driven knowledge. That is, EFL adult learners are not at disadvantage in making their L2 grammar native-like. With respect to the concern of age limitations, it seems that biological age doesn't say much in explaining EFL adult learners acquisition level. In addition, the research results suggest that the debate concerning UG accessibility in adult SLA cannot not be properly addressed within the PP approach. Under the PP approach, it was hard to account for adult L2 learners linguistic behavior which appears far from native-speakers spontaneous use of language with fewer mistakes in the functional categories while it is assumed that interlanguage grammar is UG-constrained. Accordingly, each of the three hypotheses regarding UG accessibility is not free from theoretical flaws and empirical counter evidence. In this vein, a newer version of UG theory, MP can be a more plausible theoretical paradigm which can afford a more comprehensive hypothesis such as constructionist hypothesis (CH) (Herschensohn 2000). CH claims that L2A is accomplished through a coalition of acquisition strategies that includes L1 transfer, UG and cognitive strategies (Herschensohn, 2000:205).

Therefore, CH sounds more plausible for explaining gradual progress of adult L2 learners competence before they reach

native-like competence and even performance skills. That is, CH accommodates the fact that even after the adult learners have constructed the grammar of L2 including the parameter-setting which is not present in their L1, their grammar has to be fleshed out with language-specific lexicon and morphology. In other words, the MP notion and CH seem able to support empirical evidence that shows UG access in adult L2A as well as afford two dimensions of UG: UG as form and UG as strategies.

6. Implications for EFL Teaching and Learning

Since the study suggested that it is a matter of proficiency after all rather than other factors such as whether they are ESL or EFL learners, or which language they speak as L1, a question that the people involved in nonnative language teaching and learning should ask may be how to raise up language learners proficiency to a higher level. Through the analysis about what kind of linguistic environments the advanced level subjects were situated in, I would like to suggest that content-based instruction (CBI), a form of immersion education, should be positively considered and conducted in the EFL learning and teaching practice if any language program seriously means that its priority is to improve the learners proficiency of the language in question to that of (near) native-like competence and performance skills.

CBI is the integration of content learning with language teaching aims. More specifically, it refers to the concurrent study of language and subject matter, with the form and sequence of language presentation dictated by content material (Brinton, Snow, and Wesche 1989: vii, recited by Brown 2001:49). In the CBI context, the instructor and the students are to use the target

language for authentic purposes.   By using the language with real purposes, the students are supposed to equip themselves with not only necessary grammar and vocabulary but also pragmatic expressions required to express their ideas in spoken and written modes in the academic course. That is, without having to think that they are learning L2, they are to pick up the language through the study of content area.

Having considered the contrast between Felix and Weigl (1991), and White and Juffs (1998) and Kang (2001) in terms of the linguistic environments in which their EFL subjects were situated, a reader can even predict that their different environments would lead to different proficiency levels, respectively. The learning experiences of Felix and Weigl (1991)'s subjects were limited to classroom instruction dominated by a fairly traditional variety of the audiolingual method strongly inspired by behavioristic learning theories (166).   The high school students were taught rules of grammar followed by more or less stereotyped sentences and expressions.

On the other hand, White and Juffs (1998)'s Chinese EFL subjects who were mainly English teachers or postgraduate students in English, and medical students were exposed to nonformal L2 input, using English on average ten hours a week. Information supplied by Kang (2001)'s EFL subjects also indicated that 50% of the EFL learners read in English almost every day while 40% of the EFL subjects did read once or twice a week. Their reading was for their major, Political Science. So, even though most of Kang (2001)'s EFL subjects answered that they rarely used English in spoken modes, they were using English for reading which was an essential part of their study at the graduate level.   These two studies suggest that, even the adult learners in EFL environment can acquire subtle feature of linguistic property to a considerably high degree and thus prove their access to UG when the learners are given immersion

situation or opportunities to use English for the authentic purposes.

References

Bialystok, E. and K. Hakuta. 1994. *In other words: The Science and psychology of second langauge acquisition.* New York: Basic Books.

Bialystok, E. and K. Hakuta. 1999. Confounded Age: Linguistic and cognitive factors in age differences for second language acquisition. In D. Birdsong, ed., *Second Language Acquisition and the Critical Period Hypothesis,* 161-181. New Jersey: Lawrence Erlbaum.

Birdsong, D. ed. 1999. *Second language acquisition and the critical period hypothesis.* New Jersey: Lawrence Erlbaum.

Bley-Vroman, R., S. Felix, and G. Ioup. 1988. The accessibility of Universal Grammar in adult language learning. *Second Language Research* 4, 1-32.

Bongaerts, T., C. van Summeren, B. Planken and E. Schils. 1997. Age and ultimate attainment in the pronunciation of a foreign language. *Studies in Second Language Acquisition* 19, 447-65.

Brinton, Donna M., M. A. Snow, and M. B. Wesche. 1989. *Content-based Second Language Instruction.* Rowley, MA: Newbury House.

Brown, H. D. 1994. *Principles of Language Learning and Teaching.* Englewood, NJ: Prentice Hall Regents.

Brown, H. D. 2001. *Teaching by Principles: An Interactive Approach to Language Pedagogy.* Longman.

Felix, S.W. and W. Weigl. 1991. Universal Grammar in the classroom: the effects of formal instruction on second language acquisition. *Second Language Research* 7, 162-81.

Flege, J. E. 1987. A critical period for learning to pronounce foreign languages. *Applied Linguistics* 8, 162-77.

Gardner, R. C., P. F. Tremblay, and A-M. Masgoret. 1997. Towards a full model of second language learning: An empirical investigation. *The Modern Language Journal* 81, 344-62.

Herschensohn, J. 2000. *The Second Time Around Minimalism and L2 Acquisition.* Amsterdam: John Benjamins.

Johnson, J. and E. Newport. 1989. Critical period effects in second language learning: The influence of maturational state on the acquisition of English as second language. *Cognitive Psychology* 21, 60-99.

Johnson, J. and E. Newport. 1991. Critical period effects on universal properties of language: the status of Subjacency in the acquisition of a second language. *Cognition* 39, 215-58.

Kang, AJ. 2001. Different Environment, Different Results? *The Sociolinguistic Journal of Korea* 9, 1-28.

Klein, E. C. and G. Martohardjono. 1999. Investigating Second Language Grammars: Some Conceptual and Methodological Issues in Generative SLA Research. In E. C. Klein and G. Martohardjono, eds., *The Development of Second Language Grammars: A Generative Approach*, 3-36. Amsterdam: John Benjamins.

Kramsch, C. 2000. Second Language Acquisition, Applied Linguistics, and the Teaching of Foreign Languages. *The Modern Language Journal* 84, 311-326.

Marinova-Todd, S. H., D. B. Marshall, and C. E. Snow. 2000. Three Misconceptions About Age and L2 Learning. *TESOL QUARTRY* 34, 9-34.

Nunan, D. 1999. *Second Language Teaching & Learning*. Boston: Heinle & Heinle.

Perez-Leroux, A. T. and X. Li. 1999. Selectivity in the Acquisition of Complex NP Islands. In E. C. Klein and G. Martohardjono, eds., *The Development of Second Language Grammars: A Generative Approach*, 147-168. Amsterdam: John Benjamins.

Riney, T. and J. Flege. 1998. Changes over time in global foreign accent and liquid identifiability and accuracy. *Studies in Second Language Acquisition* 20, 213-243.

Schachter, J. 1990. On the issue of incompleteness in second language acquisition. *Second Language Research* 6, 93-124.

Towell, R. and R. Hawkins. 1994. *Approaches to Second Language Acquisition*. Clevedon, England: Multilingual Matters.

White, L. and F. Genesee. 1996. How native is near-native? The issue of ultimate attainment in adult second language acquisition. *Second Language Research* 12, 223-65.

White, L. and A. Juffs. 1998. UG in two different contexts of non-native acquisition. In S. Flynn, G. Martohardjono, and W. ONeill, eds., *The generative study of second language acquisition*, 111-30. Hillsdale, NJ: Lawrence Erlbaum.

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