

On College English Teaching in China from the Perspective of MP in Generative Grammar Theory

Haojie Li

School of Foreign Languages, Southwest University of Political Science and Law, Chongqing, China

Abstract—This paper discusses how the theory of MP in generative grammar can be used in College English teaching in China. The author holds that a brand-new teaching paradigm- autonomous English learning-will be built if certain theories and principles of Minimalist Program (MP) are used in China's college classroom teaching. College teachers of English apply theories of lexicon, derivation by phase under the framework of MP in generative grammar and organization strategies into their English teaching and learning appropriately and college students will renew their English learning ideas, their learning interest will be stimulated and their enthusiasm and initiative in active English learning will be enhanced.

Index Terms—generative grammar, minimalist program, college English teaching, organization strategies, lexicon theory, derivation by phase

I. INTRODUCTION

The changes and springing up of language theories will result in impacts on the concepts and methods of language teaching (Richards, 2001). Generative grammar theory, which has experienced more than half a century's development and become the most influential theory in linguistics, will influence the concepts and methods of China's college English teaching inevitably. Many teachers of college English in China are still skeptical of the possibilities of applications of generative grammar theory into college English teaching practices for the time being. Chomsky (1971) also expressed his doubt about correlation of language theories and language teaching: "Frankly speaking, I am very suspicious of the understanding and ideas in linguistics and psychology have any significance in the field of language teaching." People interpret it out of context if people criticize that Chomsky denied or put no emphasis on the value and practical use of generative grammar. As a result, few studies have been carried out regarding foreign language teaching from the perspective of generative grammar. However Chomsky (1971) then added: "Language teachers can get great benefits if they know the developments and discussions in those two fields. It will be of great value when linguists and psychologists make efforts to study issues of language teaching from the aspect of principles no matter what angle they take, either from the perspective of society or from the perspective of academics." Chomsky's words foreshadow that the theory of generative grammar can also be applied to the practical everyday college English teaching in order to answer students' questions, enhance students' interests of learning college English and cultivate students' enthusiasm and initiative of English self-learning. This paper is going to clear up misunderstandings of inapplicability of generative grammar in practical college English teaching and learning, and then illustrate that certain MP principles can provide a brand-new perspective for college English teaching and learning and a new college English teaching and learning paradigm will be built.

II. LITERATURE REVIEW

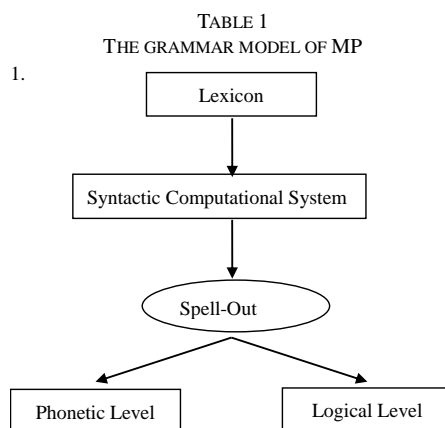
A. A Brief Introduction to Stages and Object of the Study of Generative Grammar

Generative grammar is established by Chomsky in 1957 (Chomsky 1957) and has become the most influential theory in the field of linguistics after the development of more than half a century. The development of generative grammar can be divided into five stages (Li 2011): (1) stage of Classical Theory (1957-1965); (2) stage of Standard Theory (1965-1970); (3) stage of Extended Standard Theory (1970-1979); (4) stage of Government and Binding (GB) Theory (1979-1992); (5) stage of Minimalist Program (MP) (1992 to now). Generative grammar itself is about the theory of language acquisition, its aim is to build the theory of children's mother tongue. The study of Generative grammar distinguishes two different "languages" (Wen, 2002): one is the discourse that people use (either listening or speaking) in certain circumstances, the other is the system of language knowledge in the brain. Chomsky calls the former Externalized language, E-language for short, the latter Internalized language, I-language for short. E-language is like everyday "language" people speak, while I-language is called "grammar", which is the target of the study of generative grammar. "Grammar" is the knowledge of language in the brain, and "language" is the outward manifestation of language knowledge. The differentiation between I-language and E-language corresponds to "competence" and "performance", which are put forward by Chomsky (1964) in the early development of generative grammar.

Competence refers to the knowledge of language, which is owned by ideal language users, while performance means the practical use of language knowledge. The object of the study of generative grammar is the knowledge of language (I-language, competence or grammar), hence Chomsky (1986, 1995) comes up with innateness hypothesis: language is the product of human brain and human brain is born with a language faculty, which is determined by inheritance. In terms of innateness hypothesis, language knowledge of human beings is composed of two parts: one is inherent, the other is acquired postnatally. The inherent knowledge of language in human's brain is called Universal Grammar, UG for short (Radford 2004, 2009).

B. The Motivation of Generative Grammar and the Model of MP

The goal of the study of generative grammar is to solve the tension between descriptive adequacy and explanatory adequacy. The easing the tension between descriptive adequacy and explanatory adequacy is the theoretical drive for the development of generative grammar (Li, 2015). The goal of descriptive adequacy is to describe certain rule systems of specific language exhaustively in order to record specific language knowledge of speakers in specific language. The objective of explanatory adequacy is to explore common universal principles and features of human beings' languages, and then try to explain the acquisition issues of the knowledge of human language. It requires rather strong generalization of linguistic theory and some more generalized and abstract grammar theory will take shape. Then there is one tension between the two goals of theory and the efforts to ease the tension between them propel the development of generative grammar all the time (Wu, 2006). The establishment of Principles and Parameters Approach (PPA) well eases the tension between descriptive adequacy and explanatory adequacy. MP is the further development of PPA and its study objective is to simplify linguistic theories in order to reflect the simple operation mode among human language systems. MP sets out from economy principle and requires syntactic derivation to reduce unnecessary representational levels and derivational procedures. Table 1 illustrates the Model of MP (Xu, 2009).



In the light of the requirement of MP, lexicon and syntactic computational system are two components of language faculty. Lexicon provides raw materials for syntactic operations and merge is the operation of syntactic operation system. Merge generates derivations to logical level and phonetic level through phase derivation. Logical level is the interface between syntax and semantics and phonetic level is the interface between syntax and phonetics. Logical level relates to conceptual-intentional system and phonetic level has something to do with sensory-motor system, they provide semantic and phonetic explanation for the syntactic derivations and guarantee the derivation success of the whole sentence.

C. He's (2004) Study on the Application of GB Theory in English Teaching and Learning

He's (2004) study on the application of GB theory in English teaching and learning is the most comprehensive in China. He holds that although generative grammar does not set language teaching as its goal of inquiry, certain theories and principles could be used in classroom teaching. Grammatical mistakes frequently made by learners of English could be analyzed from a new perspective. The theories concerned in He's (2004) paper are Binding Theory, Case Theory, D-Structure and S-Structure. The enlightenment of latest development of generative grammar in nominal phrases and double object construction for foreign language teaching is also discussed in his paper.

(1) Binding Theory

- Principle A: an anaphor must be bound in its governing category.
- Principle B: a pronoun must be free in its governing category.
- Principle C: an R-expression must be free everywhere.

He (2004) argues that the application of Binding Theory can make clear the uses of reflective, reciprocal pronoun, personal pronoun and proper noun for students and help students correct wrong understandings and uses of those words. For example:

- (2) *Mary_i thinks [that John has criticized herself_i].
 (3) *John believes [that Tom_i hurt him_i].
 (4) *He_i said [that John_i is leaving].

Those three sentences violate the three principles of Binding Theory respectively. Example (2) violates Principle A, which stipulates anaphor “herself” should be bound in its governing domain. Here the governing domain refers to the object clause in square brackets. The subject “John” in object clause is not co-indexed with reflective “herself”, as a result, “herself” cannot be bound in its governing domain. The subject “Mary” in the main clause is located outside of the governing domain, it cannot bind “herself”. Hence the whole sentence is ungrammatical. If we change “herself” into “himself”, then the sentence will be grammatical because “himself” can be bound in its governing category by “John”. Example (3) violates Principle B, which specifies pronoun “him” must be free in its governing category. In this case, “him” cannot share co-indexation with “Tom”. If they are co-indexed, then “him” is not free because it is bound in its governing domain. Here “him” can refer to anyone (including the subject “John” in the main clause) except the subject “Tom” in the object clause. In example (4), “John” and “He” are co-indexation, which violates principle C- an R-expression must be free everywhere.

Then He (2004) discusses Case Theory. The core of Case Theory is Case Filter, which stipulates every overt NP must be assigned abstract Case. For example:

- (5) We/*Us/*Our love *they/them/*their.

In example (5), the subject should be assigned nominative case “We” and the object should be assigned accusative case “them”, other manifestations are ungrammatical.

The example of D-structure and S-structure is shown in (6).

- (6) a. Mary is loved.
 b. [_{IP} e Infl [_{VP} is loved Mary]]. (D-structure)
 c. [_{IP} Mary Infl [_{VP} is loved *t*]]. (S-structure)

(6b) is D-structure, the place of subject is empty (represented by *e*), “Mary” cannot get any case because the past participle “loved” has no ability to assign case. If “Mary” has no case, and it cannot meet the need of Case Filter, the whole sentence will be ungrammatical. Hence “Mary” moves from the object place to the subject place in order to get case. “Infl” can assign nominative case to the subject, and finally “Mary” gets nominative case and the whole sentence is grammatical.

III. ANALYSIS AND DISCUSSIONS

He’s (200s) study on the application of GB theory in English teaching and learning is the most comprehensive in China. However, some theories and principles in GB, such as D-structure and S-structure, government and the like, are sublated with the development of generative grammar. Generative grammar has entered into the stage of MP and English teaching and learning could be explored from a new perspective. Up to now, there is no one in China who tries to study college English teaching and learning from the perspective of MP. We try to do a tentative work to explore the combination of organization strategies and application of MP theory in English teaching and learning and hope to build a new teaching paradigm for college English teaching and learning.

A. An Introduction to Organization Strategies

Organization strategies are one of the components of foreign language learning strategies. It is crucial to cultivate the ability of autonomous English learning for college students only if they have a good command of organization strategies and skillfully use it. O’Malley & Chamot (1985) divide foreign language learning strategies into three major categories: metacognitive strategies, cognitive strategies and social/affective strategies. Among them, cognitive strategies are more directly related to individual learning tasks and entail direct manipulation or transformation of the learning materials. Organization strategies are the important parts of cognitive strategies. They refer to the integration of the internal relations among new knowledge, old and new knowledge in order to form new structures of knowledge. Organization is the important means to learn and remember new information and the common ways of realizing it are to divide learning materials into some small units. And then putting those small units into some proper categories in order to make each information connect other information (Ni, 2008). Organization strategies together with theories of lexicon, derivation by phase under the framework of MP in generative grammar apply to college English teaching and learning, the abilities of autonomous English learning of college students will be cultivated, the efficiency of college English learning will be enhanced.

B. Application of Lexicon Theory and Organization Strategies in College English Teaching and Learning

English words are basic materials to make up English sentences and mastering a certain number of vocabularies is the first step to learn English well. In the stage of MP, lexicon has become one of the formal syntactic stages (Shi, 2002). The lexicon in MP refer to the knowledge about words and its basic unit is lexical items. Lexical items are those words that experience morphological changes, such as shake, shakes, shook, shaken and shaking, all those words are regarded as different words listed in lexicon. Each word is the sum of various features, including phonetic features, semantic features, grammatical features and the like. “Shake” and “shakes” have different personal features, “shake” and “shook”

share different tense features.

In terms of lexicon theory and organization strategies, college teachers of English in their college English teaching and learning practice should emphasize that college students could divide words into a number of units according to their features to facilitate the memorization. In this way, students are easy to use those small units to form grammatical sentences. Take the word study of “shake” for example, teachers explain that “shake” possesses the following personal features: first person singular and plural, second person singular and plural, third person singular and plural when it is used in simple present tense sentence. “shakes” has the personal feature of third person singular when it is used in simple present tense sentence. When students realize those features, they will not make mistakes in (7).

* (7) The whole house shake when a train goes past.

In (7), the whole sentence is a simple present tense sentence and the subject “The whole house” is singular, so “shakes” is the right choice.

The word “shook” has the tense feature of using in simple past present tense sentence. Past participle “shaken” owns the tense feature of using in present perfect tense, past perfect tense and passive voice sentence. Present participle “shaking” is used in continuous tense sentence. Then students could find mistakes in the following examples.

* (8) They shake hands in a friendly fashion yesterday.

* (9) I was shook like a leaf.

* (10) We were badly shake by the news.

In (8), in the light of the word “yesterday”, the whole sentence could be judged as simple past present tense, and the correct verb form taken from lexicon should be “shook”. (9) is a past continuous tense sentence, “shaking” is the right choice. In regard to (10), it is a sentence of passive voice and “shaken” should be used here.

From mentioned above, we could find that college English teaching and learning based on MP and organization strategies provide college students with a new way of learning English, which makes students understand how and why. It is better than the traditional English teaching and learning, which simply uses conventional rules to make students learn English. Students do not know the reason of their mistakes and they only learn by rote. In the new teaching and learning paradigm, students could find mistakes in making sentences and know the reason which give rise to those mistakes. And then, students’ interests in learning English will be simulated and cultivated.

Chomsky (2005) mentions that there are three factors in language design: genetic endowment, experience and principles that are language- or even organism-independent. Experience plays a very important role in college English vocabulary study. College English teachers should make clear the side effects of learning by rote in traditional vocabulary learning and guide students to use the new way of learning to set learning tasks. Teachers could use all kinds of audio-visual teaching means, such as ppt, recordings, films, online database and the like, reading classic English works, reading English newspapers, to create English situations and atmospheres, expanding students’ verbal communicative competence, promoting students’ vocabularies in order to build their own “lexicon”. In this way, student’ will lay a solid foundation for their autonomous English learning.

C. Application of Derivation by Phase and Organization Strategies in College English Teaching and Learning

In recent MP framework, Chomsky (2001, 2007, 2008) put forth the derivation of syntactic structures is conducted on the basis of the unit of phase because faculty of language, which is the biological object, must abide by organism operation law. The memories of human beings are limited and could not load too many syntactic structures at a time. The goal of derivation by phase is to reduce computational burdens and enhance computational efficiency. In recent MP framework, the basic sentence structure is [CP > TP > v*P > VP] and CP and v*P are phases, which are complete propositional structures. v*P possesses complete argument structure and CP includes tense, event structure and force. Force is the element to represent sentence types. All syntactic operations are determined by the heads of phase CP and v*P and conduct derivations through phase units. In the light of principles of derivation by phase, the formation of sentences is through the combination of two syntactic elements, the order is from below to above, from right to left in linear structures. The concrete derivation process is illustrated in (11).

(11) Will they move the office to the third floor?

In terms of the principle of from below to above, relevant lexical items should be selected from lexicon and form VP through merging, as shown in (12).

(12) [_{VP} the office [_V move [_{PP} to the third floor]]]

And then VP merges with “they”, the verb “move” moves to the place of light verb v*P, “move” in the original position is erased and get (13).

(13) [_{v*P} they [_{v*} move [_{VP} the office [_V ~~move~~ [_{PP} to the third floor]]]]]

The derivation of the phase v*P is completed and the complement of phase head “the office to the third floor” is transferred to phonetic level to spell out. Then “will” merges with v*P are selected from lexicon to form TP. The modal verb “will” has the unvalued agreement Φ feature (person, gender and number) and then it possesses the function of the probe. The probe searches the target, which is the element that has agreement Φ feature in its commanding domain. “The office” and “the third floor” are transferred to spell out and they do not participate in the derivation any longer. Hence only “they” can be used as the target. “They” moves to specifier of TP and matches the unvalued agreement Φ feature of “will” and then the unvalued agreement Φ feature of “will” is erased. The uninterpretable structure feature of “they” is also eliminated incidentally and “they” is erased at the same time, as illustrated in (14).

(14) [_{TP} they [_T will [_{v*P} they [_{v*} move [_{VP} the office [_v move [_{PP} to the third floor]]]]]]]]

Then “will” raises to the position of C, which is the head of CP to form interrogative sentence, as shown in (15).

(15) [_{CP} [_C will [_{TP} they [_T will [_{v*P} they [_{v*} move [_{VP} the office [_v move [_{PP} to the third floor]]]]]]]]]]

So far, the derivation of the second phase CP is completed and “they move the office to the third floor” is transferred to the phonetic level to spell out. “Will” is finally transfer to phonetic level to spell out because the derivation of the whole sentence is finished, (11) is formed in the end.

The traditional memorization way for college students to learn (11) is to learn (11) by heart in terms of the order of left to right. MP’s right to left merging order could solve the problem of remembering the whole sentence at one time efficiently. The theory of derivation by phase coincides with the idea of organization strategies in that their core is to segment the larger units materials into several small units to facilitate analysis and memorization. In the process of guiding students to remember English sentences, college English teachers could guide students to divide sentences into a number of sections in accordance with the principle of easy to pronounce and memorize. It will have a better memorization effect if students remember sentences section by section following the order of right to left. Take (11) for example. The basic structure of (11) is [CP > TP > v*P > VP], students can remember VP: “move the office to the third floor” in the first place. And then remember TP “they will move the office to the third floor”, finally remember CP “will they move the office to the third floor”. The merit of remembering sentences section by section is to make college students have a better idea of the derivation of the whole sentence. In this way, students’ memory burden is reduced and their memory efficiency is enhanced, students will avoid the dilemma of spending a lot of time on learning by rote and still do not have the ideal memory effects. Remembering section by section has a remarkable effect in memorizing longer sentences, as illustrated in (16).

(16) [_{TP} He wasn’t sure [_{CP} which picture of himself that [_{TP} Mary like best]]]]

(16) is a long sentence which contains a clause and it is very difficult to remember it directly in the traditional way. Then students could take the method of remembering it section by section. Firstly remembering “Mary like best” and then remember “which picture of himself that Mary like best”, finally remembering the whole sentence. The combination of derivation by phase and organization strategies can renew ideas of college English learning for college students, promote the overall increase of memory efficiency and strengthen the confidence of autonomous English learning for college students.

IV. CONCLUSION

The lexicon and derivation by phase of MP together with organization strategies could apply to college English teaching and learning and a new teaching and learning paradigm will be built. College teachers of English apply theories of lexicon, derivation by phase under the framework of MP in generative grammar and organization strategies into their English teaching and learning appropriately and college students will renew their English learning ideas, their learning interest will be stimulated and their enthusiasm and initiative in active English learning will be enhanced. Autonomous English learning for college students will finally be established.

REFERENCES

- [1] Chomsky, N. (1957). *Syntactic Structures*. The Hague: Mouton.
- [2] Chomsky, N. (1964). *The Logic Basis of Linguistic Theory*. In *Proceedings of the Ninth International Congress of Linguistics*. The Hague: Mouton.
- [3] Chomsky N. (1971). *Chomsky: Selected Readings*. Edited by J. P. B. Allen and Paul Van Buren, London: Oxford University Press.
- [4] Chomsky, N. (1986). *Knowledge of Language: Its Nature, Origins and Use*. New York: Praeger.
- [5] Chomsky, N. (1995). *The Minimalist Program*. Cambridge, Mass.: MIT Press.
- [6] Chomsky, N. (2001). *Derivation by phase*. In M. Kenstowicz (eds.). *Ken Hale: A Life in Language*. Cambridge, Mass.: MIT Press, 1-52.
- [7] Chomsky, N. (2005). *Three factors in language design*. *Linguistic Inquiry*, 36, 1-22.
- [8] Chomsky, N. (2007). *Approaching UG from below*. In U. Sauerland (ed.). *Interfaces+Recursion=Language?* Berlin: Mouton de Gruyter, 1-29.
- [9] Chomsky, N. (2008). *On phases*. In R. Freidin., C. Otero.& M. L. Zubi-zarreta. (eds.) *Fouudarioual issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*. Cambridge, Mass.: MIT Press, 133-166.
- [10] He, X. W. (2004). *The Study of Theoretical Linguistics and Foreign Language Teaching-The Exploration of Application of Generative Grammar in English Teaching and Learning*. *Foreign Language Literature*, 3, 26-32.
- [11] Li, H. J. & Li, C. L. (2011). *A Study of GB Theory in Generative Grammar*. *Journal of Hubei University of Education*, 7, 36-37.
- [12] Li, H. J. (2015). *The Evolution of Perspectives in the Study of Universal Grammar*. *Journal of Language and Literature Studies*, 8, 1-2.
- [13] Ni, Q.Q. (2008). *An Overview of Forty Years' Research of Foreign Language Learning Strategies*. *Journal of Sichuan International studies University*, 6, 134-138.
- [14] O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Kuper, L.&Russo, R. (1985). *Learning Strategies Used by Beginning and Intermediate EFL Students*. *Language Learning*, 35, 21-46.
- [15] Radford, A. (2004). *Minimalist syntax: exploring the structure of English*. Cambridge: Cambridge University Press.

- [16] Radford, A. (2009). *Analyzing English sentences: A minimalist approach*. Cambridge: Cambridge University Press.
- [17] Richards, J., T. Rogers. (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.
- [18] Shi, D. X. (2002). *Chomsky's Theory of Syntax-Its Evolution and Latest Development*. Beijing: Beijing Language and Culture University Press.
- [19] Wen, B. L. (2002). *An introduction to syntax*. Beijing: Foreign Language Teaching and Research Press.
- [20] Wu, G. (2006). *A Study on Generative Grammar*. Shanghai: Shanghai Foreign Language Education Press.
- [21] Xu, L. J. (2009). *Theories of Generative Grammar: from Standard Theory to Minimalism*. Shanghai: Shanghai Education Press.

Haojie Li was born in Laizhou, Shandong, China in 1974. He received his M.A. degree in Sichuan International Studies University, China in 2005.

He is currently a lecturer in the School of Foreign Languages, Southwest University of Political Science and Law, Chongqing, China. His research interests include syntax and theoretical linguistics. He has published a number of studies in his areas of expertise, which have appeared in scholarly publications in China and Europe.