

## On Language Acquisition ( I )

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### I. Introduction

With the development of linguistic theories; briefly, traditional grammar, structural linguistics, and transformational generative grammar, how to teach English or how to learn English has been discussed many times. Generally speaking, during the period of structural linguistics, the theory was easy to apply in the educational field; teaching or learning English.

In the practical field of education in Japan, the method based upon the concept of structural linguistics has sometimes been applied even now. However, the theory of linguistics including language acquisition has been showing a remarkable development in these days. Some plausible way of teaching or learning English based upon the recent theory of linguistics has to be discovered.

Indeed, some linguists once pointed out that the notion of transformational generative grammar could not be applied in the educational field. Actually, the transformational generative theory itself has made a rapid development, so the early transformational theory may be called a classical theory. However, the recent theory of transformational generative grammar shown by Chomsky and other linguists<sup>1</sup> can be applied in the educational field; teaching English or learning English.

Recent Chomsky's definition on "language" manifested in *Knowledge of Language*<sup>2</sup> is divided into two different notions; I-language and E-language, I-language means internalized language, and E-language means externalized language. Before setting up the different notions on "language", Chomsky focused the notion of I-language. Therefore, the study of transformational generative grammar seems to have the same meaning of studying internalized language. However, Chomsky admits the existence of externalized language; this side seems to share the same properties of structural

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<sup>1</sup> N. Chomsky. (1986). *Knowledge of Language*. New York: Praeger.

<sup>2</sup> N. Chomsky. (1986). *Knowledge of Language*. pp.24-36.

linguistics in some points. The recent problem suggested by Chomsky and others<sup>3</sup> how language can be acquired can share the same problem how language can be taught or learned.

In Japan, English has been taught in the way as "teaching English as a foreign language". In the United States, lots of universities have various courses of "teaching English as a second language"; namely, TESL. The way of teaching as a foreign language is completely different from that as a second language. The most effective way of teaching English is to teach English as a second language, applying the notion of language faculty suggested by recent Chomsky's notion and others.

In Section II, some hypotheses of the first and second language acquisition will be shown briefly. In Section III, some problems of language acquisition based upon the recent theory of linguistics will be manifested. In Section IV, some experimental data performed by JACET will be shown briefly. In the next paper, some hypotheses based upon the data will be manifested and some plausible ways of second language acquisition will be shown from the listening comprehension side.

## II. First and Second Language Acquisition

Generally speaking, recent transformational generative grammar involves principles and parameters; principles are universal, and parameters are particular. Principles have to be applied beyond the particular properties of languages. Within the framework of recent transformational grammar, GB theory can be applied beyond the language properties. In some way, the language acquisition device involves the universal properties of language and has close relation with I-language suggested by Chomsky.

Before considering the properties of languages, there are lots of words which need to specify the meaning. The distinction between "first" and "second" language has to be explained clearly in addition to the distinction between "second" and "foreign" language, and the distinction between "learning" and "acquisition". Furthermore, the distinction between "guided" and "spontaneous" has to be manifested clearly.

<sup>3</sup> N. Hyams. (1983). "The Acquisition of Parameterized Grammar". Doctoral Dissertation. The City Univ. of New York.

W. Elliott and K. Wexler. (1987). "Principle and Computation in the Acquisition of Grammatical Categories". U.C.-Irvine. manuscript.

In the beginning of transformational generative grammar, the acquisition of languages focused on the first language acquisition. The language acquisition device has nothing to do with other languages except the first language. To consider the distinction and similarity between first and second languages, the properties of the first language have to be shown. However, the transition from the first language to the second has to be also considered. W. Klein explains the difference between the first language acquisition and the second language acquisition as follows:<sup>4</sup>

The distinction is neat if acquisition of the second language begins when acquisition of the first is over, as is typically the case after puberty. But since the acquisition process extends over a long period of time, there are all sorts of intermediate cases.

It may also be that a language acquired once has to be acquired a second time—because it has been forgotten or is inaccessible due to aphasia. Thus, we have three basic kinds of language acquisition (FLA), second language acquisition (SLA), re-acquisition.

The quotation shown above, the sentence “But since the acquisition process extends over a long period of time, there are all sorts of intermediate cases.” seems to suggest that second language acquisition is possible because language acquisition device may be working for a long period of time, probably, which depends upon the situations of learning. Furthermore, three different kinds of language acquisition seem to suggest that the stage of re-acquisition is possible to apply the first and the second language, but that the second language acquisition takes much more time than the first one in the stage of re-acquisition.

Concerning the transition from the first to the second language, W. Klein set up four modes of language acquisition as the following table :<sup>5</sup>

<sup>4</sup> W. Klein. (1986). *Second Language Acquisition*. New York : Cambridge Univ. Pr. p. 3.

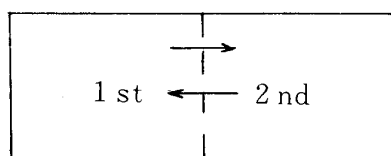
<sup>5</sup> W. Klein. “*Second Language Acquisition*”. p.15.

## (1) Basic modes of language acquisition

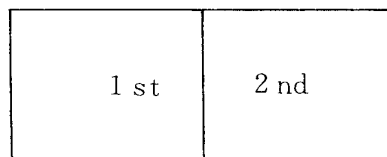
Age	Acquisition of language		Designation
	A	B	
1-3 yrs.	+	-	monolingual FLA
	+	+	bilingual FLA
3-4 yrs. up to puberty	+	+	child SLA
after puberty	-	+	adult SLA

The table shown above involves the clear distinction between the first language acquisition and the second language acquisition. This table seems to suggest that there is a big difference between child SLA and adult SLA, while this table also seems to suggest that adult SLA is possible after puberty. The big difference between child SLA and adult SLA seems to be whether the process of acquisition is working simultaneously or not; namely, the description of language acquisition device seems to be shown as follows:

## (2) the description of LAD: child SLA



## (3) the description of LAD: adult SLA



In child SLA, the LAD of 1st and 2nd language gives lots of influence with each other, while in adult SLA, the LAD of 1st language seems to be closed or excluded from other elements; in addition, the only LAD of 2nd language can be working, and gives no influence to 1st language. Generally, some properties of recent linguistic theory refer to the innate properties of languages; the first language acquisition device.

But the development of innate properties has not been explained clearly. Innate properties of language acquisition device must be universal. What is the universal properties has never been shown clearly on the representational level. Besides, what is the crucial element to decide the development of structure building in the brain has never been manifested clearly. The recent linguistic theory which can be applied to every language must be universal; namely, the peculiarities of the basic linguistic theory. On the second language acquisition, the same problems have to be shown clearly; namely, the universal properties of the second language acquisition have to be manifested on the representational level.

Concerning the second language acquisition, W. Klein explains as follows:<sup>6</sup>

A second language can be acquired in a variety of ways, at any age, for different purposes, and to varying degrees. Accordingly, we may distinguish different types of second language learning. Traditionally, a fundamental distinction has been made between tutored and untutored (spontaneous) language learning. It is not at all certain if this distinction corresponds to different modes of language learning, but, because of its practical significance, we find it useful to distinguish at this stage between spontaneous and guided (usually by a tutor) language acquisition.

These sentences shown above seem to suggest the plausible way to the second language acquisition. In the practical field of learning languages, to have a strong will to master the second language and to have a habit of spontaneous language learning seem to be the plausible way to acquire the second language.

Furthermore, W. Klein defines the term "spontaneous learning" as follows:<sup>7</sup>

The term 'spontaneous learning' is used to denote the acquisition of a second language in everyday communication, in a natural fashion, free from systematic guidance.

As the definition shown above, the LAD of the second language can work naturally all the time, free from structures. Therefore, this definition seems to correspond to the way of education in the Language Laboratory. Building up abstract structures in the brain without any syntactic information by listening to English seems to have closely related with the most suitable environment of the second language acquisition.

<sup>6</sup> W. Klein. (1986). "Second Language Acquisition". p.15.

<sup>7</sup> W. Klein. "Second Language Acquisition". p.15.

Generally, the practical process of learning English can be divided into various ways. However, some tentative divisions will be proved by using the experimental results by Listening Comprehension Test. Briefly speaking, some tentative divisions of learning English will be shown as follows:

- (4) Primitive data will be shown only by the English sound.
- (5) Primitive data will be shown by the English sound with the abstract knowledge of sentence structures.
- (6) Primitive data will be shown by the English sound with the help of memorization, e.g., idiomatic expressions, rewriting rules, and so on.

Concerning the guided second language acquisition, W. Klein mentions as follows:<sup>8</sup>

We have referred above to the relationship between guided second language acquisition and spontaneous learning. The former ought to be seen as a derivative, rather like the domestication of a natural process. It's practical importance cannot, however, be overestimated, although many people would doubt the validity of second language acquisition research except with regard to its significance for the language teaching.

Then, some confusing words as mentioned above have to be shown clearly. Teaching or learning English as "a second language" means that the language can be mastered to be maximally effective. The difference between "first" and "second" cannot be found. On the contrary, "a foreign language" means that the language itself has an exclusive element; namely, the language cannot be learned freely, any time, anywhere. Only the material of the foreign language is helpful, and the routine exercise or routine situations cannot be found anywhere. The distinction between "second" and "foreign" language clearly shows that it is essential to master a foreign language that the routine exercise or routine situations play an important role.

In addition to these differences mentioned above, the difference between "learning" and "acquisition" has to be shown clearly. Concerning the definition on "acquisition" based upon the recent linguistic theory, the deep research on Chomsky's concept is necessary. But now, the clear distinction between "learning" and "acquiring" has to be shown clearly to consider the second language learning. In general, "learning" cannot refer to the degree of the language development, while "acquiring" has the meaning of the language development in the brain. That is, "acquiring" has close relation with the innate character of human language faculty; namely, second language acquisition is

<sup>8</sup> W. Klein. "Second Language Acquisition". p. 19.

appropriate, but foreign language acquisition is not plausible. Concerning these differences, the routine exercise can play a very important role in the development of language acquisition.

### III. Some Problems within the Recent Linguistic Theory

The study to investigate the nature of language acquisition device corresponds to the study of I-language, which is in the brain of human beings, and the innate character of language; namely, the core grammar. How a child can develop the structure of language has to be manifested to clarify the universal properties of language acquisition. What language becomes the first language depends upon the environment in the period of language acquisition.

Chomsky argues<sup>9</sup> that the study of language acquisition is very helpful to clarify the innate peculiarities in the brain; namely, the study of language acquisition device echoes the study of I-language, which is closely related with universal grammar; the theory of the initial state of grammar.

Consider the following sentences:

- (7) I know who John was persuaded to visit.
- (8) \*I know who John was persuaded to visit Mary.
- (9) I know John was persuaded to visit Mary.

The parsing system in the language acquisition device can quickly interpret these three sentences as grammatical or not. Based upon the recent linguistic theory, the grammatical differences among these three sentences above can be shown clearly. Some mechanism in the brain may correspond to the abstract recent linguistic theory involving universal properties of languages. Then, parsing system seems to involve the human knowledge of languages, so that it can explain the grammaticality of these three sentences. Besides, the structural building in the brain seems to echo the process of language acquisition, but little is known about the grammatical process in the brain; namely, the acquisition of grammatical categories.

<sup>9</sup> This concept of Chomsky follows the lecture at MIT in 1987 (spring term) : *Elements of Linguistic Theory (A)*.

Generally speaking, the principle theories of language acquisition are as follows:<sup>10</sup>

(10) Principle of Learnability: Linguistic representations must be learnable from language experience.

(11) Principle of Representation: The properties of linguistic representation are determined by investigation of the adult speaker's linguistic competence.

(12) The Lexical Learning Hypothesis: Language learning is discovering and organizing a dictionary for the language learner's linguistic environment.

In the framework of these principles mentioned above, syntactic development cannot be acquired from the experience, and language acquisition device must compute the properties of syntactic representation.

Concerning the recent transformational generative grammar, GB theory has a powerful theory to clarify the underlying mechanism which determines the competence of adult speakers. As for the linguistic representation, GB theory seems to be the most suitable analysis to manifest the language acquisition device. The recent framework of GB theory focuses on the appropriate representation of the adult speaker's knowledge of language by investigating a theory of grammar, and the representation of a plausible movement. Based upon the general interpretation of these principles mentioned above, they can apply only to the first language acquisition. However, some basic principles may apply to the second language acquisition.

Concerning the categorial acquisition, K. Wexler claims as follows:<sup>11</sup>

We hold that (i) on the most restricted theory of language acquisition, a child learns a language only in the sense that she acquires a lexicon for the language and (ii) that by acquiring a lexicon for her language, she comes to have knowledge of the grammatical categories appropriate to that language. (i) implies that the child must be an avid word-learner while (ii) requires her to sort the lexical items she is learning into categories for which she has little, if any, (initial) evidence for membership. At the beginning of the acquisitional process, the child knows little beyond the fact that some parts of the ambient noise around her count as speech and that speech refers to things in the world.

<sup>10</sup> W. Elloit and K. Wexler. (1987). "Principle and Computation in the Acquisition of Grammatical Categories". p. 3.

<sup>11</sup> W. Elliott and K. Wexler. (1987). "Principle and Computation in the Acquisition of Grammatical Categories". p. 9.



These basic stages may be applied to the second language acquisition; in particular, the child second language acquisition mentioned in Section II may share the same properties of the first language acquisition. Furthermore, K. Wexler mentions as follows:<sup>12</sup>

Given that the child acquires syntactic categories on the basis of such impoverished data, basically sound/meaning association based ostensive definitions, the early acquisition task must be guided by a small selection of substantive universals linking grammar and meaning. Subsequently, the principles of UG are employed in the rapid computation of additional lexical categories and the projection of those categories onto syntactic structure.

How to compute grammatical categories has to be investigated more deeply, but the language faculty to compute grammatical categories seems to echo the properties of UG. How long the properties of UG can work in the brain seems to be a big problem, for the properties of language acquisition device seem to share the same properties of UG. By studying the working period of language acquisition device, the period of second language acquisition can be assumed.

The recent theory of categorial learning involves two different views; the distributional view, and the bootstrapping view. Briefly speaking, the distributional theory is that syntactic categories are defined in terms of their occurrence privileges and fundamental relations in the sentence of a language. The distributional theory is based upon the two phenomena of language acquisition; namely, children learning languages converge on the distributional properties of those languages early on, and children acquire productive distributional properties of the languages they learn for which even though no semantic evidence is available or where semantically based learning would lead to errors not found in their speech. On the other hand, the semantic bootstrapping view is that categorial learning is stressed on the learner's reliance on correlations between conceptual or semantic categories and grammatical categories suggested by S. Pinker and others.<sup>13</sup> His acquisition theory suggests that there is a very strong tie between the language of thought and the developing grammar. His theory is different from others in the point that the child uses formal categories at all stages, and that

<sup>12</sup> W. Elliott and K. Wexler. "Principles and Computation in the Acquisition of Grammatical Categories". p. 9.

<sup>13</sup> S. Pinker. (1984). *Language Learnability and Language Development*. Cambridge: Harvard Univ. Pr.

the distributional evidence always overrides the semantic evidence.

These recent two theories seem to manifest the development of language acquisition, but to apply the notion of computing grammatical categories in the acquisition process seems to be much more plausible to consider the structural development of language acquisition. The lacking point of the distributional acquisition theory is that distributional learning theories do not deal with the categorial acquisition, though they have the intuitive appeal of accounting for the productivity of word-learning process. The weak point of the semantic bootstrapping theory is that no theoretical motivation for the importance of distributional evidence to the language learner is not shown, and that he incorporates in his learner a highly restricted theory of the representation of his learner.

Then, the theory suggested by K. Wexler<sup>14</sup> seems to be the most appropriate theory for the structural categorial acquisition, for the theory of computing structural categories is clearly manifested. Among the views of computing structural categories, the construction of syntactic categories for the lexical entries is well manifested by maximizing the contribution of UG. Therefore, this theory clearly suggests that the theory of language acquisition is based upon the theory of UG expressed in GB theory. The assumption is that there are three types of substantive universal; syntactic features, redundancy rules relating syntactic features, and feature realization principle. For example,  $\bar{X}$ -Theory, Case Theory, Theta Theory, and Empty Category Principle are available to assume the computation of grammatical categories. In GB Theory, there are lots of substantive universals. Computing grammatical categories must be done in the process of structural building based upon the principles in UG. The potential properties of linguistic competence; namely, the internalized competence of language, is available to every language in the initial stage of language acquisition. Before parameter setting, all learners of languages seem to share the same universal properties, among which GB Theory is the typical one based upon the recent theories of substantive universals in UG.

Some questions why such an abstract theory is available or powerful to compute the structural properties in the initial stage of language acquisition may be born. Some tentative explanations have to be shown to prove the assumption mentioned

<sup>14</sup> W. Elliott and K. Wexler. (1987). "Principle and Computation in the Acquisition of Grammatical Categories".

above; namely, GB Theory must be the most appropriate theory to compute the structural categories in the initial stage of language acquisition, for GB Theory deals with the substantive universals in UG.

Then, some confusing problems have to be manifested to consider the acquisition of languages. Indeed, Chomsky sets up lots of theories to clarify the innate properties of knowledge of language; namely, the internalized properties must be considered only to the first language acquisition, excluding the properties of knowledge of other languages. However, some processes in the first language acquisition will be available to the second language acquisition. Among many theories of language acquisition, the theory of computing structural categories will be available in the initial stage of language learning. K. Wexler claims as follows:<sup>15</sup>

Returning to the matter of predicting distributional sensitivity on the part of language neophyte, it is well known that adult word-learning relies heavily on productive morphological paradigms. Generally speaking, it is useful to distinguish lexical items into two classes which we call, following Emonds (1985),<sup>16</sup> lexical and grammatical. The lexical categories, N, V, and A, form the bases on which morphological processes operate. Grammatical categories provide the key to the grammatical rules played by various constituent. For example, an adult encountering a novel English utterance immediately preceded by the indefinite article "a," will, without further experience, be able to use the new word in its pluralized form.

This implies that the adult language learner means the person acquiring the first language; namely, the learner has already developed the computation of structural categories. The learner, even if this implication does not involve the second language acquisition, has acquired some internalized knowledge of language, because the adult means the person after puberty.

Then, some tentative analysis based upon the substantive universals specified in UG has to be shown to prove that the recent linguistic theory involves the universal properties of language acquisition, in particular, the computation of grammatical categories. Lots of explanations are necessary if all parts of GB Theory are applied, but, in this article,  $\bar{X}$ -Theory and ECP are shown.

<sup>15</sup> W. Elliott and K. Wexler. "Principle and Computation in the Acquisition of Grammatical Categories". pp. 27-28.

<sup>16</sup> J. Emonds. (1985). *A Unified Theory of Syntactic Categories*. Dordrecht: Foris Pub.

$\bar{X}$ -Theory, as discussed many times, deals with the cross-categorial generalization on Noun, Verb, Adjective, and Preposition. By applying the view of cross-category, the generalization of computing structural categories can be induced. Generally speaking,  $\bar{X}$ -Theory is defined as follows:

$$(13) X^n \rightarrow X^{n-1}$$

The number of  $n$  is not definite by R. Jackendoff and others.<sup>17</sup> However, recent Chomsky's schematism on  $\bar{X}$ -Theory is as follows:<sup>18</sup>

$$(14) X^j = \dots \dots \dots X^i \dots \dots \dots$$

$$(0 \leq i \leq j \leq 2)$$

In the case  $i = j$ ,  $\bar{X}$  is a recursive element. In terms of Chomsky's schematism, the number of  $n$  can be considered as 2; namely, the maximal projection is  $\bar{\bar{X}}$  cross-categorially. Furthermore, Chomsky shows the examples containing  $\bar{X}$ -Theory as follows:

$$(15) \bar{\bar{X}} = \dots \dots \dots \bar{X} \dots \dots \dots$$

spec                      comp

$$(16) \bar{X} = \dots \dots \dots X^0 \dots \dots \dots$$

spec                      comp

$$(17) \bar{\bar{X}} = \dots \dots \dots X^0 \dots \dots \dots$$

spec                      comp

$X^0$  category is the head of maximal projection;  $X^{\text{MAX}}$ . There are two types of  $X^0$  categories; lexical categories and non-lexical categories. The former refers to the categories [  $\pm N, \pm V$  ]; namely, Noun, Verb, Adjective, and Preposition. The latter refers to the non-lexical categories; namely, I, C, and Det.

The concept of  $\bar{X}$ -Theory is available to find categories; namely, finding a noun, a verb, and so on. Besides  $\bar{X}$ -Theory, in finding a verb, the concept of Case Theory and Theta Theory is also available. In general, how to find a lexical item can be explained by applying the brief schematism of  $\bar{X}$ -Theory as follows:

$$(18) X^n \rightarrow Y^n X^{n-1}$$

By the identification of  $X^{n-1}$ , the daughter of  $X^n$ ; the head of  $X^{\text{max}}$ , can be

<sup>17</sup> R. Jackendoff. (1977).  *$\bar{X}$ -Syntax*. Cambridge: MIT Pr.  
<sup>18</sup> N. Chomsky. Lecture at MIT in 1987.

interpreted as the same category by Feature Percolation. Then, the head  $X^0$  projects higher category  $\bar{X}$  or  $\bar{X}$ ; namely, the categorial identification percolates to the maximal projection. In addition to the identification of  $X^n$ ,  $Y^n$  can be identified by the selectional features of the head, which has sister relations. Some mechanism like  $\bar{X}$ -Theory seems to work while the computation of structural categories is acquiring in the brain. However, the detail process how to determine the category has to be more deeply considered, though Emonds<sup>19</sup> suggests the way assuming the grammatical category on the assumption of  $\bar{X}$ -Theory; namely, if the phrasal argument of  $X$  external to  $\bar{X}$ , it must be NP's.

Besides, the principles of Empty Category Principle (ECP) are available to compute the grammatical categories in the brain. Consider the following sentences which involve two different kinds of PRO.

(19) Mary<sub>i</sub> wants [PRO<sub>i</sub> to go]

(20) Mary<sub>j</sub> persuaded Nancy<sub>i</sub> [PRO<sub>i</sub> to go]

(21) Mary<sub>j</sub> persuaded Bill<sub>i</sub> [PRO<sub>i</sub> to go]

(22) Mary<sub>j</sub> persuaded Bill<sub>i</sub> [PRO<sub>i</sub> to wash himself]

(23)\* Mary<sub>j</sub> persuaded Bill<sub>i</sub> [PRO<sub>i</sub> to wash herself]

Based upon the GB theory, PRO is a pronominal anaphor; namely, PRO has to have two different properties of pronominals and anaphor. Within the framework of Binding conditions, pronominals must be free, while anaphors must be bound. Then, within the conditions of Governing categories, PRO must have no governing category and must be ungoverned. The sentences shown above involve the properties of PRO. Sentence (19), (20), and (21) suggest that the matrix verb; *want*, *persuade* must have a crucial property to define the controller of PRO. The verb *want* can be said as a subject control verb; the controller of PRO is the subject NP *Mary*. On the other hand, the verb *persuade* can be said as a subject control verb; the controller of PRO is the object NP *Nancy*, and *Bill*. Sentence (22), and (23) involve reflexives in the infinitivals. As stated, PRO has to be the subject in the infinitivals, *herself* in Sentence (23) cannot be identical to *Mary*; the subject of the infinitival in Sentence (23) is *Bill*. Therefore, Sentence (22) is grammatical. PRO has to be appeared in the subject position of infinitivals, but PRO is not pronounced. Such a null element as PRO may give some assumptions to compute the grammatical categories in the

<sup>19</sup> J. Emonds. (1985). *A Unified Theory of Syntactic Categories*.

brain.

In various concepts shown above, computing the grammatical categories seems to be greatly based upon the recent linguistic theory. The basic concept how to compute grammatical categories in the brain seems to be applied in the process of language learning as a second language. In the process of language acquisition of the first language, only in the language acquisition device the computation of grammatical categories is performed. However, as a second language, the best way to learn language cannot be determined without applying the recent linguistic theory.

In the next section, the experimental data performed by JACET will be shown based upon the assumption that listening training must be the most appropriate way to develop the language faculties; namely, computing grammatical categories.

#### IV. Experimental Data

These experimental data show the results of Listening Comprehension Test performed by JACET in 1988 and 1989. The testees are the students majoring in English Literature Course in Kagoshima Prefectural Junior College. The four questions, which showed the highest rate of answering and the next highest and the lowest rate of answering and the next lowest, are picked up in the following tables.

(24) Form A Part I (1988, 6)

No.	High		Low	
		14	16	9
Total (62)	88.71%	80.65%	33.87%	38.71%
No.	14	7	20	8, 9, 13
Junior (33)	90.91%	84.85%	33.33%	39.39%
No.	3	14, 16	17	9
Senior (29)	89.66%	86.21%	20.69%	27.59%

(25) Form B Part 1 (1988, 12)

		High		Low	
No.		7	10	12	5
Total	(61)	85.25%	78.69%	29.51%	39.34%
No.		7	8, 10	12	5
Junior	(32)	81.25%	75.00%	25.00%	31.25%
No.		3, 7	18	12	2
Senior	(29)	89.66%	86.21%	34.48%	44.83%

(26) Form A Part 1 (1989, 6)

		High		Low	
No.		14	15	9	20
Total	(64)	81.25%	76.56%	38.10%	42.19%
No.		14	6	9	4, 10, 20
Junior	(31)	80.65%	74.19%	38.71%	41.94%
No.		3, 14, 15	16	9	11
Senior	(33)	81.82%	78.79%	36.36%	39.39%

(27) Form B Part 1 (1989, 12)

		High		Low	
No.		7	10	12	13
Total	(63)	85.71%	80.95%	20.63%	26.98%
No.		7	1, 4	12	13
Junior	(30)	83.33%	73.33%	23.33%	26.67%
No.		7	4	12	13
Senior	(33)	87.88%	84.85%	18.18%	27.27%

(28) Form A Part 2 (1988, 6)

	High		Low	
No.	14	10	8, 18	17, 20
Total (62)	96.77%	87.10%	46.77%	48.39%
No.	14	4	17	3, 8
Junior (33)	100.00%	93.93%	42.42%	48.48%
No.	10	1	3, 18, 20	8
Senior (29)	93.10%	89.65%	37.93%	44.83%

(29) Form B Part 2 (1988, 12)

	High		Low	
No.	15	10	5	20
Total (61)	91.80%	90.16%	39.34%	45.91%
No.	15	10, 13	5	6, 7
Junior (32)	93.75%	84.37%	34.37%	40.63%
No.	10	15	20	5, 14
Senior (29)	96.55%	89.65%	34.48%	44.83%

(30) Form A Part 2 (1989, 6)

	High		Low	
No.	10	4, 5, 14, 16	3	2
Total (64)	92.19%	87.50%	40.63%	42.19%
No.	10	5	3	2, 9
Junior (31)	87.10%	83.87%	38.71%	41.94%
No.	10	4, 14, 16	8	2, 3
Senior (33)	96.96%	93.94%	39.39%	42.42%



(31) Form B Part 2 (1989, 12)

		High		Low	
No.		15	13	20	5
Total	(63)	88.89%	82.54%	26.98%	41.27%
No.		15	13, 17	20	5
Junior	(30)	96.67%	76.67%	26.67%	30.00%
No.		13	9	20	14
Senior	(33)	87.88%	84.85%	27.27%	39.39%

In the next paper, the detailed explanations and analyses will be shown, and some hypotheses will be set up based upon the recent linguistic theory.

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