
Paradigmatic vs. Syntagmatic Language Learning: an Experiment with English Irregular Verbs

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Abstract

Linguists have traditionally classified grammatical patterns into two types: paradigmatic and syntagmatic. The former are sets of morphological changes that are relatively easy to memorize (e.g. SING, SANG, SUNG); the latter are syntactic relationships that are determined by the entire context of the words within the sentence (e.g. I HAVE *SUNG* THAT SONG SINCE I WAS A CHILD.). In an experiment with Thai and native-speaking students of English, it was demonstrated that Thai EFL students are even better at remembering English paradigmatic patterns than native speakers; however, native speakers were far better in choosing correct syntagmatic patterns. It was concluded that teaching and learning paradigmatic patterns in English is not an appropriate way for Thai EFL students to acquire communicative ability in English.

In analyzing language structures, linguists have long found it useful to distinguish between two types of language patterns--paradigmatic and syntagmatic. The distinction, with slightly different terminology, is first attributed to Saussure, but has been subsequently expanded and used by such linguists as Hjelmslev, Bloomfield, and Pike (Robins, 1967). In his introduction to linguistics, Bolinger defines these terms and cites several examples.

Here enters a fundamental distinction in linguistics, between certain phenomena known as "syntagmatic" and others known as "paradigmatic." In the sentence BOYS EAT DOUGH-NUTS there is a relationship between

BOYS and EAT--both occur in this sentence, and BOYS is a subject noun taking EAT as its verb. This is a syntagmatic relationship, one that rests on the connections within this particular sentence, a matter of syntax. But there is also a relationship between EAT and EATS. EATS is not part of the sentence, but is part of the paradigm of the verb TO EAT. (Bolinger, 1968:101)

This dichotomy has found its way into language classrooms, not only as a formal distinction from the field of linguistics, but also as a terminological peg on which to hang a distinction which language teachers have referred to for centuries--the teaching of grammatical paradigms such as

verb inflections vs. the teaching of syntax, the composition of sentences which uses different parts of the grammatical paradigms. In more recent years, especially after the advent of non-classical approaches to the teaching of grammar, many language teachers have questioned the value of paradigmatic learning, and the current sentiment is that the classical emphasis on the learning of paradigms is not as fruitful as an emphasis on contextualized, syntagmatic structures. In brief, it is important to encourage syntagmatic learning rather than paradigmatic learning. Many years ago, when I was teaching at Chiangmai University, I conducted an experiment to validate the value of syntagmatic learning. Because I never published the results of that experiment, and because I believe that change of emphasis described above is still important to underscore, I would like to take this opportunity to describe the experiment I conducted.

The experiment consisted of two timed tests, both given to two different groups of university students: non-native English speakers (Thai) studying at Chiangmai University, and native speakers of English (American) who were studying in Chiangmai on a special academic program. The first test consisted of a list of fifty irregular English verbs cited in their present participle form, each verb followed by two blanks representing the past and past participle forms. After a short trial practice during which both groups of students were given examples of three irregular verb paradigms to complete (these examples were not duplicated in the test), they were asked to fill in the blanks as quickly as possible with the appropriate forms (e.g. *BE-WAS, BEEN; BEGIN-BEGAN, BEGUN; BITE-BIT, BITTEN*).

The students were instructed to work as quickly and as accurately as possible and told to stop at the completion of three and a half minutes. This was the minimal amount of time it took me, a well-educated native speaker, to complete the task. This first test was given separately to fifteen native speakers and fifteen non-native speakers under similar conditions.

The second test consisted of a list of fifty sentences, each sentence containing a blank for the verb (usually the main verb) and preceded by the present participle form of the verb to be inserted, enclosed in parentheses. For example, *THE MOVIE HAS ALREADY (BEGIN) BEGUN; HE HAD BEEN (BITE) BITTEN IN THE HAND*. These verbs were identical to the fifty verbs introduced in the first test, and the sentences were constructed in such a way that the only appropriate verb forms would be either the past tense or the past participle form. As an added precaution, however, the students were carefully instructed to insert only the past tense or the past participle forms and, like the previous test, were given three practice examples to work on before the actual test. The time limit for the second test was reduced to two minutes and fifteen seconds, the minimum amount of time it took me to complete. The second test was administered to both groups the day after the first test.

It is clear that the first test was designed to measure the ability to use irregular verbs in paradigmatic patterns, whereas the second test was developed to measure syntagmatic ability. Both tests had time limitations which were introduced to force the native and non-native subjects to work spontaneously and automatically. Obviously, if

both groups had been given adequate time, all the students could have completed both tests with virtually no mistakes. The time limit helped to reveal the “automatic” processing ability of the subjects. Given more time, the subjects could have resorted to “controlled” processing (McLaughlin, 1987).

The two groups of students were matched as closely as possible by sex (Females=11; Males=4 in both groups), age (native speakers had a mean age of 19.6 years; the non-native speakers were slightly older with a mean of 22.2 years), and educational background (both groups represented university level students, the majority majoring in some discipline in the humanities). The non-native speakers were all Thai and were all English majors. They had studied English as a foreign language for at least

one class hour per day for twelve academic years. The native speakers were all American and came from a much wider range of academic disciplines. This diversity might account for their greater range in scores compared to the Thai, non-native group in the first test. Language majors among the native speakers would probably have a greater familiarity with verb paradigms than non-language majors and consequently, would score higher on the first test which measured this paradigmatic ability.

The results of the two tests confirmed my expectation, based on my EFL teaching experience in Thailand, that non-native speakers would outscore native speakers on the paradigmatic task, but would subsequently be outscored by the native speakers on the syntagmatic test (see Table 1).

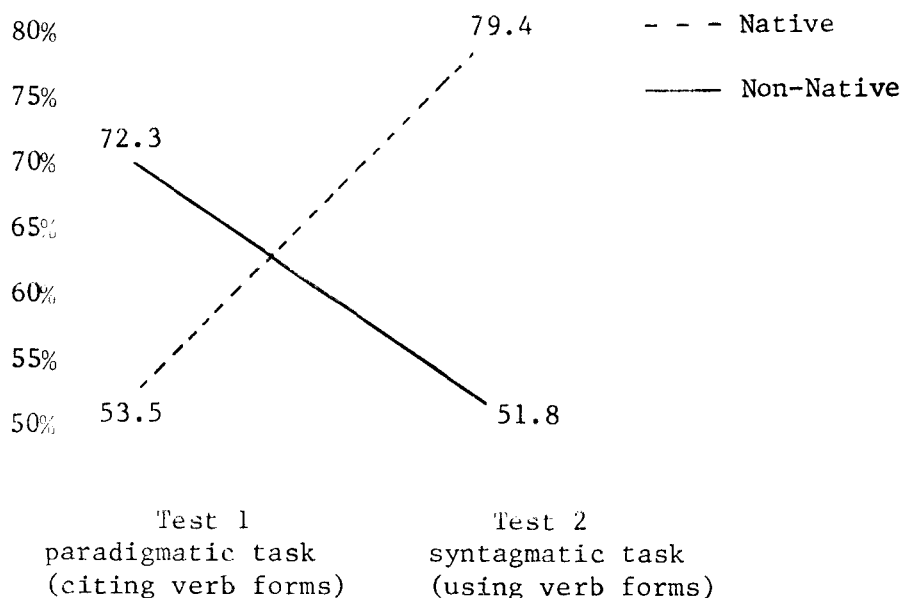
Table 1
Results of the paradigmatic & syntagmatic tests
for native and non-native speakers of English

	Test 1 paradigmatic task (citing verb forms)	Test 2 syntagmatic task (using verb forms)
Native Speakers (N=15)	53.5% range 22%-95% Std. Dev. 19.9	79.4% range 54%-100% Std. Dev. 2.0
Non-native Speakers (N=15)	72.3% range 50%-91% Std. Dev. 12.6	51.8% range 30%-74% Std. Dev. 2.3

The fifteen native speakers scored 53.5% on the first test and 79.4% on the second, while the fifteen non-native speakers displayed the opposite trend; they scored 72.3% on the first task but only 51.8% on the second. This crossover effect is more

dramatically depicted when displayed as a graph--the ordinate marking the percentage of accuracy and the abscissa marking the two tests, with the native and non-native groups represented by a dotted and undotted line respectively (Figure 1).

Figure 1
Results of the paradigmatic & syntagmatic tests
for native and non-native speakers of English



There was no measurable difference in scores when broken down by age, but there was a noticeable difference in scores when broken down by sex (see Table 2).

Table 2
Distribution of scores from both groups on both tests by sex

	Test 1		Test 2	
	Female (N=11)	Male (N=4)	Female (N=11)	Male (N=4)
Native Speakers	56.6 %	42.3 %	82.6 %	71.0 %
Non-Native Speakers	72.4 %	72.3 %	54.4 %	45.0 %

Except for the result of Test 1 for non-native speakers, there is a consistent tendency for female students to score higher than male students. Aven (1972), among others, has published results of a study involving university-age native speakers of English which indicated a significant difference in favor of female students on a standardized English language examination. Although there were too few subjects in this experiment and the distribution of sexes

was not balanced, it is interesting to see that the overall results are in the same direction as Aven and others have found.

Returning to the main focus of this study, the types of errors both groups made are revealing. In Test 1, all non-native speakers supplied the correct paradigmatic forms for BE without an error. Despite the fact that BE is the most commonly used verb in English, four out of the fifteen native speakers did not supply any forms

for the BE paradigm. In Test 2, eight out of the fifteen non-native speakers failed to supply the past participle form for EAT and six out of the fifteen failed to supply the past participle of GIVE. No native speakers made a mistake with either of these two items. In contrast to the native speakers, the non-native speakers were able to fill in the comparatively difficult paradigmatic sets such as BE; conversely, the native speakers were by far more successful in filling in the relatively complex syntagmatic sets using participial modifiers without error; however, these same items proved taxing for the non-native speakers.

This experiment tends to support the notion that Thai EFL students are better at paradigmatic tasks in English than even native speakers, but if native speaker com-

petence and performance is indicative, these same students lack the necessary syntagmatic skills that are so important in terms of communicative competence. It is worthwhile for Thai EFL teachers and programs to de-emphasize the learning of paradigmatic sets in EFL classes and to re-emphasize the use of English in syntagmatic patterns. The results of this study suggest that native speakers of English are not very good at recalling individual paradigmatic patterns, but they are exceedingly quick and competent in producing syntagmatic patterns that are part of semantic or communicative contexts. This same ability is probably found in successful non-native learners of English, and so it is useful for Thai EFL students and teachers to learn and teach English in syntagmatic contexts.

The Author

Thomas Scovel, Professor of English at San Francisco State University, has taught EFL and applied linguistics in Thailand for seven years: first at Bangkok Christian College and later at Chiangmai University. He received his Ph.D. from the University of Michigan in 1970 and wrote his doctoral dissertation on Thai syntax. Professor Scovel has been active in TESOL, the American Association of Applied Linguists, and several other associations and has spoken at more than one hundred conferences in the United States, Europe, and Asia. His chief professional interest is in adult second language acquisition as reflected in his most recent publication, *A Time to Speak* (Newbury House/Harper & Row, 1988), an inquiry into the critical period for language acquisition.

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