

# An Analysis of Japanese L2 Learners' Knowledge of “Verb + Noun” Collocations

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## **Abstract**

This study tries to clarify Japanese L2 learners' knowledge of “verb + noun” collocations. Though it has been indicated that the knowledge of collocations is one of the significant issues to be learned by L2 learners in their vocabulary learning, the studies of collocations in relation to the learners' knowledge have been scarcely made. The present study focuses on the Japanese university students' knowledge of “verb + noun” collocations by using translation test and discusses whether they show their L1 influence on their translation of collocations and further discusses that if they do so, on which lexical parts of the collocations the influence is manifest.

## **Introduction**

Over the past two decades, more and more researchers (e.g.: De Cook et al. 1998; Nesselhauf 2003, 2005; Pawley and Syder 1983; Read 2000; Wray 2002) have focused on the importance of L2 vocabulary in second language acquisition and a large amount of empirical research has consequently been carried out with many implications for the classroom teaching of lexis (e.g. Lewis [2000] indicates some tips for teaching collocations for L2 learners).

With regard to collocations in L2 learning, research into the relationships between collocations and the problems of ESL/EFL learners is scarce, and many research results seem to be linked to suggesting teaching applications. Yong (1999), for example, provides activities for developing collocational ability, and divides collocations into three categories: lexical collocation, grammatical collocation and idiomatic expressions. He also describes major types of collocations, typical collocational errors made by ESL students in their learning process, and teaching applications. Kennedy (1990) studies the use of four English prepositions in

collocations in one large corpus of British English to illustrate the potential of this area of study. Brown (1974) and Murphy (1983) provide practical techniques and activities for teaching collocations in the classroom. Analysis of collocations and teaching techniques related to them is thus the main focus of the research which has been done so far. Although these practical techniques and activities are useful, they are insufficient as a basis for designing classroom activities: 1) because they fail to take into account some of the more subtle functions of collocations and concentrate too much on teaching them as wholes; 2) because the way how collocations are recognized by learners has not been studied in detail. In order to investigate the relationships between collocations and the problems of EFL learners, this paper aims to clarify the Japanese university students' knowledge of "verb + noun" collocations in relation to their L1 influence studied in the form of translation test of collocations.

### **The Role of Collocations in Language Use**

According to Sinclair's (1991:109-115) two principles, collocations are explained based on two basic principles: the open-choice principle and the idiom principle. With these two principles, he provides an explanation of how texts are constructed based on extensive research on written texts stored in computerised corpora. The open-choice principle explains that sentences are produced creatively based on an underlying system of rules. The sentences consist of slots filled by a wide range of possible words. However, in practice, there are a number of examples that do not match this principle:

[C]orpus research has revealed that in practice lexical choices are much more limited than you would expect if only the open-choice principle were operating. Words commonly come together in combinations, or collocations, of two, three, four or more that seem to form relatively fixed expressions. (Read 2000:21)

In addition to the open-choice principle, the idiom principle can take account of these commonly occurring word combinations, i.e. collocations. Sinclair (*ibid.*:110) asserts that 'a language user has available to him or her a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analysable into segments'. In constructing and interpreting texts,

Sinclair holds that the idiom principle will help to explain a number of occurrences of limited word combinations, i.e. collocations, in corpora. From this principle based on Sinclair's corpus research, it is patent that collocations are pervasive in texts and a large number of them have a significant role in language use.

### **The Role of Prefabs and its Relevance to Collocations in SLA**

From an SLA perspective, the importance of chunking, including collocations, has been repeatedly demonstrated by researchers over the last thirty years (Bolinger 1975; Kuiper 2004; Nesselhauf 2005; Pawley & Syder 1983; Schmitt & Carter 2004; Skehan 1998; Wray 2002). The underlying idea common to these studies is that language is retrieved from the memory in whole units by the process of chunking, which requires a small amount of processing time and effort. It is not only the rule-based language system but also the memory-based chunking that allows speakers to comprehend and produce language fluently and naturally.

The importance of collocations and other similar units of language was notably pointed out by Pawley and Syder (1983) who claimed that 'by far the largest part of the English speaker's lexicon consists of complex lexical items' (*ibid.*:215). They also mention that the number of memorized complete clauses and sentences known to the mature English speaker is probably many thousands (*ibid.*:25). What they call 'memorized complete clauses and sentences' include collocations of grammatical patterns such as "verb + noun" and thus the role of collocations has to be discussed. They argue that prefabs are so important because of their role in enabling humans to communicate in real time. In this respect, two major functions have been identified for them: a short-cutting device to save processing time and effort, and to promote frequency. As Peters (1983:3) indicates:

It saves processing time and effort, allowing the speaker to focus attention elsewhere, for instance, on the social (as opposed to the linguistic) aspects of an interaction, or, as Pawley and Syder suggest, on the macrostructure of a discourse rather than on the generation of individual sentences.

This view is supported by Nation (2001) who claims that the advantage of 'chunking' is to reduce processing time. The various types of prefabricated patterns – including collocations – constitute a single category amongst the four

different types of ‘chunks’ (N. Ellis: 2001), which can be seen as units with several words stored together in long-term memory. N. Ellis (2001) indicates that chunking occurs at various levels, such as letters, morphemes, words and collocations. He sees the learning of collocation as one level of chunking, which is the long-term storing of associative connections. Since it is not necessary to spend time paying attention to each word but it is enough to process several words at a time as a unit, prefabricated patterns play a role in saving time for the comprehension or production of speech.

### **Previous Research on the Use of Collocations by L2 Learners**

Since the early 1990s, several studies on the use of English collocations by learners have appeared with subjects from a variety of different L1 backgrounds. The data elicitation methods selected in these studies vary from translation tests, to gap-fill tests, multiple choice tests and essays. Translation tests were one of the major methods favoured in the early studies. Biskup (1992) investigated the renderings of English collocations among Polish and German students, focusing only on the lexical collocations as defined by Benson, Benson and Ilson (1987:xxiv). To investigate the main causes of observed collocational errors and determining the role of the L1, Biskup (*op.cit.*) provided two groups of subjects consisting of Polish and German university students of English with a translation task. The task required the students to provide the English equivalents of lexical collocations in Polish and German respectively, and their answers were later assessed by native speakers of English on a 4-point scale from ‘unacceptable’ to ‘full equivalent’. The investigation of this study indicates that there is a correlation between Polish and German learners’ L1s and their results: Polish learners relied more on their L1 than German learners. Whereas the errors Polish learners made were either loan translations or extensions of L2 meaning on the basis of the L1 word, the errors German learners made resulted from assumed formal similarity. If these results resulted from the formal similarity between German and English and the formal difference between Polish and English, it is worth investigating more about this issue by means of another type of task since Biskup (1992) carried out only one type of task, namely a translation task, to bring out these results.

Bahns (1993) and Bahns and Eldaw (1993) carried out the same kind of translation task study. Bahns (1993) conducted a contrastive analysis of [verb + noun] (as in ‘withdraw an offer’) and [noun + verb] (as in ‘blizzards rage’)

collocations which showed that there is direct translational equivalence for a large number for English [verb + noun] collocations as compared with their German [noun + verb] counterparts. Providing the subjects (German English learners) with 30 items in a translation task for German [noun + verb] collocations for which there is direct translational equivalence in English (15 items), he concluded (*ibid.*: 60):

The German learner of English will most probably have no difficulty in producing the English collocations of these 15 items, as he or she simply has to translate both constituents in a rather straightforward way (i.e. they can use the verb equivalents which spring to mind most readily) ....

Apart from such results, in terms of German [noun + verb] collocations for which there is no direct translation equivalence in English (15 items), 'the probability of committing collocational errors rises enormously. Here, a straightforward translation of the verbal element of the German "noun + verb" collocations will result in a collocational error' (*ibid.*: 60). Although he emphasizes, in teaching, the necessity of distinguishing those collocations which the learners already know because of their particular L1 background from those which are language-specific, the scale of the study was too small to draw the conclusion that the learners depend on their L1 for the production of collocations. With respect to the subjects Bahns studied, he focused only on the learners from Indo-European L1 background and argued that the teaching of lexical collocations should concentrate on items for which there is no direct translational equivalence in English and in learners' respective mother tongue. It is worth investigating whether this indication is applicable to the learners from non-Indo-European L1 background, i.e. Japanese learners.

As far as the research on Japanese L2 learners' knowledge and use of collocations is concerned, only a small number of studies have been carried out. Sugiura (2002) investigated the collocational knowledge of Japanese learners using a corpus of his own learners. He collected his learners' written data by using an essay assignment, amounting to 80,000 words in total. Native speakers of English were asked to check and paraphrase the learners' essays when they found expressions which were not correct and which sounded strange. The two corpora, the original learners' essay data and the paraphrased learners' essays, were analyzed for comparison of the quantity and the characteristic differences in the use of fixed

expressions between learners and native speakers. The results showed that learners had less collocational knowledge in written English than native speakers and that learners not only used limited expressions but also overused sentence initial conjunctions, such as *and*, *but* and *so*. Even though this study collected a certain amount of learners' written data to make a corpus, his study does not primarily focus on the collocations as defined in this study but rather on the prefabs or fixed expressions used by learners. Thus, the detailed analysis of the Japanese L2 learners' knowledge and use of collocations is not clearly established. In addition, methodologically, he collected essays written by learners without any of the other kinds of elicitation tasks that this study will use, and therefore, his analysis does not appropriately account for Japanese learners' collocational proficiency.

In terms of L1 influence on the acquisition of collocations, Murao (2004) carried out a study involving fifty [verb + noun] collocations in English sentences. The Japanese learners were required to judge whether each collocation was acceptable or not, in order to compare the results of the acceptability test and learners' level of English proficiency. It was concluded that L1 transfer was found even among advanced learners and that language transfer in the domain of lexical collocation remained constant at any level of proficiency. In a different study, Nakata (2007) compared Japanese learners' different reactions to various task types for acquiring collocations. Both Nakata's and Murao's studies claim some collocations are congruent with the Japanese translation whereas others are non-congruent. However, no study using translation tests has been carried out in order to investigate more subtle tendencies of the Japanese learners.

With respect to the L1 influence, the claims made in previous research on L1 influence on the knowledge of collocations are not consistent. Some studies conclude that L1 influence is very weak. When Biskup (1992) investigated German and Polish L2 learners with her translation test, L1 influence was found in 21% inappropriate collocations with German learners and 48% with Polish learners. Farghal and Obiedat (1995:320) found that about 10% of the non-native-like collocations were produced by advanced learners. Others claim that L1 influence is strong. Bahns (1993) claims that there is strong L1 influence on inappropriate collocations but no quantity is shown explicitly. Nesselhauf (2003) observes L1 influence in about two-thirds of the inappropriate collocations when she studied *make* and *take* in the German learners' corpus. A more detailed study (*ibid.*:2005) claims that L1 influence is found in about half of the non-native collocations and it is found to be particularly

strong with respect to minor lexical and non-lexical elements. Because of the inconsistent results that have so far emerged on the L1 influence in the knowledge of collocations, this study will thus investigate whether there is L1 influence and tendencies in the Japanese learners' knowledge of [verb + noun] collocations.

## **Research Questions**

The following research questions are addressed in the present study:

- (1) Whether and to what degree do the Japanese L2 learners rely on their L1 in their translation of target collocations?
- (2) What are the tendencies that the Japanese L2 learners demonstrate in their translation of collocations?

## **Method**

### *Participants*

The participants of the present study are 45 Japanese university undergraduates. They were third- or fourth-year non-English-major undergraduate students at a private university in Japan. They had studied English for 6 years before entering university since they started learning it at the age of 13. The ages of the learners are between 20-22. The level of Japanese learners is intermediate.

### *Procedures*

The test required the learners to translate 20 Japanese [verb + noun] collocations into English. As Nation (2001:350) suggests, using first language translations for the meanings makes the test much more sensitive to partial knowledge. In order to measure learners' vocabulary in general, the greatest value of translation is, it has been said, that it allows learners to respond to vocabulary items in a way that does not draw on second language knowledge which is not directly relevant to what is being tested (Nation 2001). Translation enables learners to explain the meanings of second language words. The selected collocations chosen in particular from several learners' dictionaries: *The BBI Dictionary of English Word Combinations* (1997), *LTP Dictionary of Selected Collocations* (1999), *Longman Dictionary of Contemporary English* (2003), and *Oxford Collocations Dictionary for Students of English* (2003) – which are generally recognized as the monolingual

English dictionaries most frequently used by learners.

Although this type of task has been adopted by several researchers (Biscup 1992; Bahns 1993; Farghal and Obiedat 1995), no research has been carried out in terms of the L2 learners from non-Indo-European L1 backgrounds. The translation test in the present study aims to investigate the degree of L1 influence of Japanese learners, whose L1 background is non-Indo-European, in terms of the [verb + noun] group of collocations. While the first selection of the collocations that seemed to be familiar and appropriate for intermediate learners was basically an arbitrary, subjective decision, they were then checked in the British National Corpus online, the largest native speaker corpus which consists of a 100-million-word collection of samples of written and spoken language. The purpose at this stage was to ensure that the collocations intuitively selected are actually frequent in the British National Corpus (*ibid.*).

The selected [verb + noun] category of collocations is based on what are called “lexical collocations” in *The BBI Dictionary of English Word Combinations* (1997). Benson *et al.* (1997: ix) make a clear distinction between grammatical and lexical collocations. The former consists of a dominant word, such as noun, adjective /participle, verb, and a preposition or a grammatical construction. Lexical collocations, on the other hand, do not have a dominant word but have structures such as [verb + noun], [adjective + noun], [noun + verb], [noun + noun], [adverb + adjective] and [adverb + verb]. In this present study, I have concentrated on one of these: [verb + noun] since it has been suggested that [verb + noun] combinations “tend to form the communicative core of utterances where the most important information is placed” (Altenberg 1993:227).

### *Analyses*

Since the translation test involves various types of answers produced by Japanese learners who are required to translate from their L1 (Japanese) into L2 (English) collocations, it is not appropriate to make a statistical analysis. Thus, the analysis for the translation tests is carried out by the investigation of the mistakes that the learners made in order to clarify the level of L1 reliance. In the first step of the analysis, the learners’ various answers to the translations are split into three types of categories: acceptable, infelicitous and wrong collocations. The judgements on the acceptability of the collocations produced by the learners were made with the support of two British native speakers. They were asked to judge their collocations

in relation to the target as being either acceptable, infelicitous or wrong collocations according to the following standards of judgement.

- 1) **Target/acceptable collocations:** when the learners' answers are exactly the same as the target collocations, or they differ only slightly from the target collocations, they are assigned to this group. This category of collocations is examined with a view to assessing the learners' knowledge of the collocation and their capacity to reproduce an appropriate L2 equivalent.
- 2) **Infelicitous collocations:** when the collocations produced by the learners are close to the original collocations but infelicitous, those answers are assigned to this group. The infelicitous aspects include syntactic problems such as, a plural noun, an article or determiner where the collocation does not allow them. This would imply that the learners have some knowledge of the collocation or have to try to reconstruct it from its constituents.
- 3) **Wrong collocations:** when the learners' answers are obviously deviant, they are included in this group. These results show that the learners do not know the collocations and translated an L1 equivalent or searched for a circumlocution instead.

Because of the variation in the norms of the native British native speakers who judged the collocations produced by the learners, these results of categorisation should be considered as an approximation rather than as an absolute judgement. The types of mistakes found in the translation tests are then analyzed in detail in order to answer the research questions mentioned above.

## **Results and Discussion**

As shown below, the distribution of the accuracy found in the results of the Japanese learners indicates that the level of acceptable answers is less than 40% among all the collocations produced by the Japanese learners whereas that of the wrong answers is more than 45%.

In the second step of the analysis, the results obtained in the translation test are investigated in relation to the types of errors the Japanese learners presented, in order to clarify the tendencies in their production of collocations. Identification of the tendencies of the Japanese learners necessitates examination of the types of errors

they made in their answers.

The errors in the [verb + noun] category are classified into seven types in order to closely examine the comparative tendencies of the Japanese learners. These seven types of mistakes are all derived from the results of the Japanese learners as follows.

- 1) **Verb:** The verb in a collocation is wrong.  
Example: *cross the border* (\**pass the border*)
- 2) **Noun:** The noun in a collocation is wrong.  
Example: *reach any conclusion* (\**reach the consequence*)
- 3) **Determiners:** The article or pronoun is missing or added.  
Example: *meet the needs* (\**meet needs*)
- 4) **Structure:** Syntactic structure is wrong.  
Example: *ask her a question* (\**question*)
- 5) **Preposition:** Preposition is added through unnecessary or wrong choice.  
Example: *attend the meeting* (\**assist to the meeting*)
- 6) **Different usage:** Translation does not include a collocation and/or consists of a circumlocution.  
Example: *won the match* (\**became a champion*)
- 7) **Number:** Noun is used in singular instead of plural or vice versa.  
Example: *gain experience* (\**have experiences*)

Since the translation results do not necessarily contain one type of error but a few, counting was carried out with regard to all possible types of mistakes in a translated collocation. The occurrences of all type of errors were then counted and presented as percentages as shown in the Table 1 below.

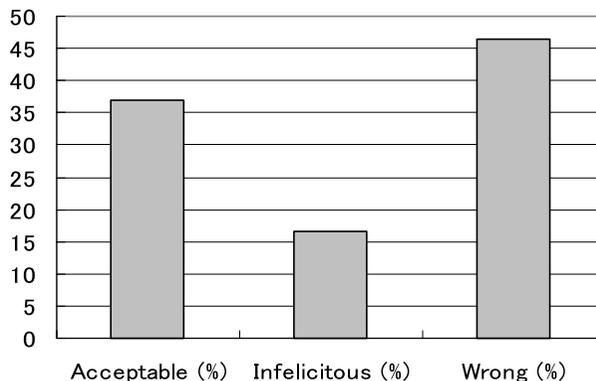


Fig. 1 . Distribution of the accuracy of Japanese learners in the translation test

Table 1. Distribution of the Types of Mistakes made by Japanese Learners

[verb + noun]	Japanese (n = 45)	
	number of W/I collocations	percentages
(1) wrong choice of verb	108	34.6
(2) wrong choice of noun	35	11.2
(3) determiners	74	23.7
(4) structure	17	5.4
(5) different usage	43	13.8
(6) preposition	6	1.9
(7) number	29	9.3
TOTAL	312	100.0

("W/I collocations" refers to wrong or infelicitous collocations.)

Among the previous studies on the L2 learners' knowledge of collocations, it has been indicated that verb errors are more noticeable than other types of mistakes in terms of the [verb + noun] category in relation to considering German learners (Nesselhauf 2003). Similarly, in this study, it is true that the results of Japanese learners demonstrate that the occurrences of incorrect verb choices are considerably higher than those of other types of mistakes (34.6%). In addition to the highest level of errors concerning verbs, it is remarkable that the level of the Japanese learners' errors with missed or added determiners, such as articles or pronouns, was as high as 23.7%. In terms of prepositions, only 1.9% of the Japanese learners made mistakes. As for errors concerning different usage, the mistakes made by the Japanese learners was as high as 13.8% which was about the same level of noun errors (11.2%).

With respect to the L1 influence on the collocations found in the results of the Japanese learners, the following table demonstrates the percentages of L1 likely errors among the wrong or infelicitous occurrences obtained from the results of the Japanese learners. I, as a native speaker of Japanese, judged whether the errors occur because of their L1.

While the overall percentage of the L1 likely errors identified in the wrong and infelicitous occurrences is relatively low (38.1%), particular tendencies can be found in several categories of errors. More than 50% of L1 likely errors were identified in relation to verb errors, which suggests that a great amount of verb errors is related

Table 2. Distribution of L1 likely Errors of the Japanese Learners

[verb + noun]	Japanese (n = 45)		
	Number of W/I occurrences	L1 likely errors	percentages
(1) wrong choice of verb	108	59	54.6
(2) wrong choice of noun	35	15	42.9
(3) determiner	74	15	20.3
(4) structure	17	0	0.0
(5) different usage	21	2	9.5
(6) preposition	6	4	66.7
(7) number	29	0	0.0
TOTAL	312	119	38.1

(“W/I collocations” refers to wrong or infelicitous collocations.)

to the learners’ L1, Japanese. This result coincides with that of the previous studies which investigated the collocational knowledge of the learners from Indo-European L1 backgrounds. Further research into the learners’ acquisition of verbs is necessary in order to clarify the issues dealing with the learners’ recognition of verbs.

With respect to preposition errors, although the number of wrong or infelicitous occurrences was considerably small, it is remarkable that the large percentage of L1 influence was found in the preposition errors. For example, one of the collocations which showed the influence of their L1 in relation to this type of mistake is “\* attend to the meeting” for “attend the meeting.” The Japanese L1 for this collocation includes an objective particle which has a role similar to that of the preposition “to”; this could explain why several Japanese learners added the preposition to the verb. Their L1-influenced mistakes were frequent with respect to determiners including articles and pronouns. Unlike English and many Indo-European languages, the Japanese language does not use determiners, and therefore, Japanese learners tend to make mistakes in the production of determiners. They are likely to miss necessary articles and/or pronouns or add unnecessary ones. This type of mistake would be scarce in the results of the L2 learners from Indo-European L1 backgrounds who have determiners in their L1s. Regarding noun errors, the Japanese learners demonstrate great dependency on their L1. Since there is no formal similarity of nouns between Japanese and English, it is likely that the Japanese tend to make

errors by choosing nouns which should not be combined with verbs. Further research into the Japanese learners' recognition of nouns is necessary.

## Conclusion

The present study investigated the degree of L1 influence and the tendencies identified in the Japanese learners' knowledge of collocations. While it has been indicated that the L1 influence on the Indo-European learners' knowledge of collocations was found, this study demonstrates the L1 influence on the Japanese learners', that is, non-Indo-European learners' knowledge of collocations. The present study also indicates that not only the L1 influence on the verbs was found but also on the nouns and prepositions in their knowledge of collocation. Thus it is suggested that collocations teaching for Japanese learners should be made with more careful emphasis on the usage of, firstly, verbs, and then nouns and prepositions.

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