

A Hard Nut to Crack?

—English passive structures for Japanese and Chinese learners of English

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Abstract

This empirical study on passive structures is done comparatively between Japanese and Chinese learners of English. Though both Japanese and Chinese are said to be topic-prominent, it is still necessary to see whether this typology exerts any different influence on the acquisition of English passive structures by the two different native language speakers. Differences were found in the ergatives among the three languages. English and Chinese differ in that the former has both paired and unpaired ergatives while the latter has only the paired ones. Though Japanese has passive marker such as *rareru* like English, the ergative verbs in English may not have the same counterparts in Japanese. Since there is no overt morphological marking for the ergatives, it should be difficult for the learners of English. A total of 160 senior high school and university students from Hiroshima, Japan and Dalian, China participated in the experiment. Based on an English proficiency test they took, the participants in Hiroshima and in Dalian are divided into 4 level groups respectively. They then took a judgement test on passive structures. Although the ANOVA test shows that there are significant differences of English proficiency among the level groups, the participants were not differ significantly in their judgement about passive structures unless they were in levels that were far apart (such as level 4 vs. level 1). The study also found that both the Japanese and the Chinese participants made fewer correct judgement on ergatives than on other types of passive structures. The result supported the hypothesis that passives with ergatives are more difficult for both the Japanese and the Chinese learners of English.

1 Introduction

In SLA (Second Language Acquisition), findings from typological research regarding topic-prominence have been a major source of insight. A classic formulation of classifying languages into Topic-prominence type and Subject-prominence type is accomplished by Li and Thompson (1976). They differentiate topic and subject with three basic factors: discourse strategy, noun-verb relations, and grammatical processes. The topic but not necessarily the subject is discourse-dependent. As for noun-verb relations and grammatical processes, it is the subject rather than the topic that figures prominently. Thus, a subject is normally determined by a verb, and is selectionally related to the verb and the subject often controls verb agreement. The typological division of TP (topic prominence) and SP (subject prominence) inspired many researchers to wonder if the features found specific in TP languages and SP lan-

guages are transferable. In his study concerning this language typology and its possible language transfer, Rutherford (1983) found evidences of overproduction of topic sentences by TP speakers, especially Chinese speakers whose language has typical TP features.

On the other hand, Fuller and Gundel (1987) claimed that there were no differences in topic prominence in the English interlanguage narratives between the speakers of topic-prominent languages (Chinese, Japanese, and Korean) and less topic-prominent languages (Arabic, Farsi, and Spanish) in their investigation of the role of topic-comment structure in the acquisition of English as a second language by adults.

Jin (1994) conducted an experiment in the opposite direction, that is, not in the direction from TP to SP nor from SP to SP, but in the direction from SP to TP, specifically, from English to Chinese. He found that English speakers learning Chinese relied on their mother tongue for inspiration in producing their Chinese sentences, especially at their early stages. Yuan's research (1995) was also done in the direction of SP to TP and found that English speaking learners had difficulties in acquiring the base-generated topics in Chinese.

Yip (1995) examines some salient aspects of Chinese speakers' English Interlanguage with insights from the Principles and Parameters Theory and research in language typology. She found that there is a general change from the use of topic-prominent to the subject-prominent structures as their proficiency level increases.

Yuan (1997) did another study on the transfer from Chinese to English, focusing on the pro-drop parameter. A pro-drop parameter is a parameter which determines whether the subject in a sentence may be deleted or "dropped". The study found out that Chinese learners are able to reject the incorrect null subject in English, but unable to detect the ungrammaticality of the null objects.

Sasaki (1990) investigated topic-prominence in Japanese EFL students' "automatic" performance and the students' "nonautomatic" knowledge. She found that there is a general change from the use of topic-prominent to subject-prominent structures as their proficiency level increases.

The previous research into the typology of topic-prominence and subject-prominence reviewed above has found out that the role of prior linguistic knowledge and transfer is seen as pervasive in shaping the interlanguage grammar, calling for the application of comparative analysis. However, most studies have been done on the homogenous groups of second language learners and the comparative studies, especially those between the native speakers of the languages that are of the same typology, such as topic-prominence, are rare.

Based on this consideration, this study carried out the investigation on the judgement about passive structures with ergatives by the Chinese and Japanese learners of English. As it has been known that both Japanese and Chinese are topic-prominent (Li & Thompson, 1976), it should be interesting to see whether this typology exerts any different influence on the acquisition of English passive structures by the two different native language speakers. The passive construction has often been put into focus of attention in the investigation of the contrasting properties of TP and SP and their influence on the second language acquisition. According to Li & Thompson (1976), the passive construction is less productive in topic-prominent languages than in the subject-prominent languages. In English, a SP language, passive construction is marked with special morphology such as past participles. But in Chinese, there is no distinct morphological marking for the passive construction. In Japanese, another TP language, the passive very often carries an adversative meaning. This difference between the TP and SP languages may cause difficulties for the second language learners who are the native speakers of the languages.

However, there is no great superficial difference among English, Chinese and Japanese in terms of the passive construction with ergative verbs. Therefore, a question for us is: is the passive construction with ergatives easy for the second language learners to acquire because of this superficial similarities?

Therefore, the purpose of this study is to investigate whether and how the passive construction and the passive construction with ergatives are difficult for the Chinese and Japanese learners of English. The study will also investigate whether there are similarities or differences between the Chinese and Japanese learners of English in making judgement about the passive structures, especially the passive structures with ergatives. In this investigation, ergatives as a special class of verbs are observed as they are used in forming passive structures. Ergative verbs are regarded as those that describe changes of state and process that lack volitional control on the part of the subject.

Keyser & Roeper (1984) distinguished ergative verbs with intransitive verbs as in:

- (1) a. The kids eat dinner early. (transitive)
 b. The kids eat early. (intransitive)
 (2) a. The burglar broke the window. (transitive)
 b. The window broke. (unaccusative/ergative)

In (1), the subject the *kids* is the agent in both the transitive and intransitive structure. In the transitive use of the verb break in (2), the burglar is the agent and the *window* the theme/patient.

2 Ergative construction in English, Japanese and Chinese

There are two kinds of ergatives in English:

A. unpaired ergatives (without a transitive counterpart):

- (3) a. Something happened.
 b. *They happened something.
 (4) a. The volcano erupted again.
 b. * That place erupted the volcano again.

Other verbs that can be classified into unpaired ergatives are: appear, arise, disappear, emerge, erupt, etc.

B. paired ergatives (with a transitive counterpart):

- (5) a. The ice melted.
 b. The sun melted the ice.

Other verbs that can be classified into paired ergatives are: sink, bounce, boil, close, dry, fracture, hang, move, open, toll, etc.

Unlike Chinese which does not have distinctive passive structures, Japanese does have clear syntactical marker *rareru* to form passives. In Japanese, transitive and ergative verbs have different morphological presentations. e. g.

taoreru 倒れる (ergative) 'fall' — lexical alternation
 taosu 倒す (transitive) 'fell' — (i.e. make fall)
 kowareru 壊れる
 kowasu 壊す

It seems that English passives should not pose as big a problem for the Japanese learners as they do

for the Chinese learners.

Li (1990) analyzed Chinese verbs denoting presence, appearance and disappearance as ergatives.

- A. Presence: you 'have', zhan 'stand', zuo 'sit', tang 'lie', gua 'hang', fang 'place', etc.
- B. Appearance: lai 'come', chu 'come out', qi 'emerge', xia 'fall', jin 'enter', dao 'arrive', etc.
- C. Motion: qu 'go', si 'die', pao 'run', tao 'escape', guo 'pass', etc.

However, the big difference between English and Chinese is that in the former, there are unpaired ergatives while in the latter there are not. That is to say, the NP argument of all the Chinese ergatives are allowed to optionally receive either nominative case and accusative case. Let us take the Chinese ergative verb "dao" for an example:

- (6) a. zhongwu dao-le liang liang che.
 noon arrive-Perfective two Classifier car
 At noon two cars arrived.
- b. liang liang che dao-le.
 two Classifier car arrive-Perfective
 Two cars arrived at noon.

In this case, Japanese is more like English as it does not assign an accusative NP argument.

- (7) * hiru-ni kita ni dai no kuruma.
 noon came two Classifier Possessive car

However, with some paired-ergatives, Japanese is different from English. For example, the English verb *cook* could be used both transitively and intransitively, but the Japanese counterpart *ryorisuru* (料理する) is transitive in meaning. Therefore the English sentence *The vegetable cooks fast* might sound unacceptable to the Japanese learners of English.

Yip (1995) found Chinese learners tend to overextend passivization to ergatives as in:

- (8) * I do not think that such abusive action should be happened to a twelve-year old child.
- (9) * For last 15 years computers have drastically affected our life and this will be continued in the future.

Based on the consideration that Japanese and English are more similar in forming passives and disposing ergatives, it seems sensible to predict:

- A. Passive structures are more difficult for Chinese students than for Japanese students.
- B. Passive structures with ergative verbs rather than other types cause more difficulties for both Chinese and Japanese learners of English in acquiring passive structures.

The experiment that was conducted to test those two hypothesis is reported as follows.

3. The method

3.1. participants

This study elicited data from 160 Chinese and Japanese learners of English (80 each). The Chinese participants were from the Affiliated Senior High School to Liaoning Normal University and Liaoning Normal University in Dalian. The Japanese participants were from Hiroshima Jyohokugakuen (広島城北学園) and Hiroshima University. Both Chinese and Japanese students started English learning after they entered the middle school. 20 native speakers of English from Australia, the US, Britain, Canada and New Zealand also participated in the study and formed a control group. Table 1 gives the descrip-

Table 1 The number of participants

	SH 2 yr	SH 3 yr	Uni. 1 yr	Uni. 2 yr	Total
Chinese	20	20	20	20	80
Japanese	20	20	20	20	80
NS					20
Total					180

Note: SH 2yr = second-year students in the senior high school

Uni. 1 yr = first-year students in the university

NS = native speakers of English

3.2 The division of English proficiency levels

An English proficiency test was conducted to divide the Chinese and the Japanese participants into 4 proficiency levels. The number of years studying English was not used as a criterion for determining the participants' proficiency levels. This is because the students' English levels may vary greatly even if they are classmates in the same year. A Comprehensive English Language Test for Learners of English (1986 McGraw Hill, Inc.) or *CELT*¹ for short was used as a standardized English test. The testing time is 120 minutes; *CELT* consists of 3 parts: listening (50 items to be finished within 40 minutes), structure (75 items to be answered in 45 minutes) and vocabulary (75 items to be answered in 35 minutes). Based on the scores that the participants achieved, they were divided into level groups in a way in which each corresponding level group of Japanese and Chinese participants were of about the same English proficiency. (See Table 2).

Table 2 The Results of the CELT (Total score = 200)

Level	Japanese students	Chinese students
1 (N = 20)	Mean: 122.4 SD: 6.32	Mean: 121.7 SD: 5.94
2 (N = 20)	Mean: 104.8 SD: 3.69	Mean: 105.6 SD: 4.89
3 (N = 20)	Mean: 92.7 SD: 4.23	Mean: 92.7 SD: 3.34
4 (N = 20)	Mean: 76.5 SD: 9.19	Mean: 76.6 SD: 9.3

In order to test the differences among the four groups, ANOVA test was used.

The results of the ANOVA Test show that there are significant differences among the four level groups of both Japanese and Chinese participants (See Table 3 and Table 4).

Table 3 ANOVA for Japanese Students

Source of variance	SS	df	MSF
Between Groups	22542	3	7514
Within Groups	2963.20	76	38.99

p < .01

¹ CELT is used for high school, college, and adult learners of ESL/EFL at the intermediate and advanced levels. It is designed to measure English language proficiency of nonnative speakers of English; useful for placement and assessment of progress. It was statistically proved as a reliable and valid test. For more information, see *Reviews of English Language Proficiency Tests* (Edited by J. Charles Alderson, Karl J. Krahnke and Charles W. Stansfield. 1987. Teachers of English to Speakers of Other Languages)

Table 4 ANOVA for Chinese Students

Source of variance	SS	df	MS	F
Between Groups	22004.25	3	7334.75	186.904
Within Groups	2982.50	76	39.24	

$p < .01$

Scheffé post hoc tests were also run to locate the differences among the 4 levels in both Chinese and Japanese groups. The results (see Table 5 and Table 6) indicate that every comparison shows significant difference.

Table 5 Scheffé Test of Differences Across English Proficiency Levels of Chinese participants

Mean	Level	4	3	2	1
76.6	4				
92.7	3	*			
105.6	2	*	*		
121.7	1	*	*	*	

Note: (*) indicates statistically significant differences ($p < .05$)

Table 6 Scheffé Test of Differences Across English Proficiency Levels of Japanese participants

Mean	Level	4	3	2	1
76.5	4				
92.7	3	*			
104.8	2	*	*		
122.4	1	*	*	*	

$p < .05$

3.3 The Judgement test

After the participants took the English proficiency test, they took an judgement test on passive structures, which consisted of 20 items. Each item had an English sentence, either grammatical or ungrammatical, along with 4 responses for the participants to choose from. The 4 responses are “correct”, “probably correct”, “probably incorrect” and “incorrect”. “Correct” and “probably correct” are both considered correct for grammatical sentences (see Appendix). The passive structures investigated in this study are classified into 4 types as follows:

A. Grammatical passives, e.g.

(10) All these books should be returned in two weeks.

B. Grammatical ergatives, e.g.

(11) The mirror shattered during the last earthquake.

C. Ungrammatical passivised ergatives, e. g.

(12) *What was happened there?

D. Ungrammatical pseudo-passives, e. g.

(13) *My courses can classify into two types.

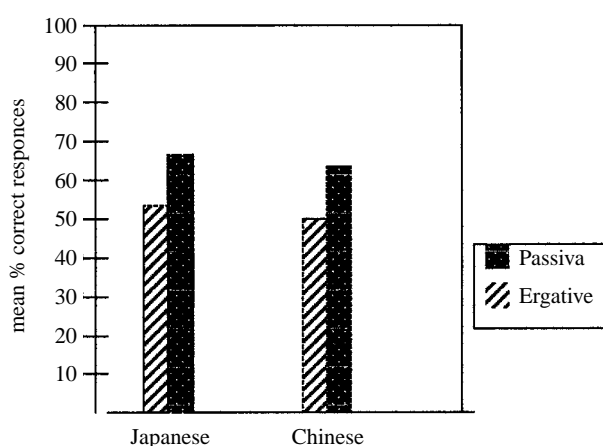
Apart from the 4 variations of the passive structures, grammatical active structures shown by the following example were also used as distractors.

eg. (14) The students have stopped their conversation.

4 Results and discussion

The results of the judgement test are given in Figure 1 and Tables from 7 to 11. The means were calculated by counting the correct responses as to whether the sentences are correct or not.

Figure 1 Judgements for passives and ergatives



Japanese participants: Ergative = 52.27%; Passiva = 66.43%; Total: 57.78%.

Chinese participants: Ergative = 50.11%; Passiva = 63.93%; Total: 55.47%

Tables from 7 to 10 show the results of the judgement test on ergative and other variations of the passive structures. Table 11 gives the result of judgement on the distracter normal actives.

Table 7 Grammatical Ergative (7 items)

Japanese participants (n=80)			Chinese participants (n=80)		
level	Mean	%	level	Mean	%
1 (n=20)	3.65	52.14	1 (n=20)	3.15	45.00
2 (n=20)	4.35	62.14	2 (n=20)	3.25	46.43
3 (n=20)	4.15	59.25	3 (n=20)	2.90	41.43
4 (n=20)	3.75	53.57	4 (n=20)	2.70	38.57
T	3.975	56.79	T	3.00	42.86
NS (n=20)	6.2	88.57			

Table 8 Passivised Ergatives (4 items)

Japanese participants (n=80)			Chinese participants (n=80)		
level	Mean	%	level	Mean	%
1 (n=20)	2.45	61.25	1 (n=20)	2.90	72.50
2 (n=20)	1.70	42.50	2 (n=20)	2.60	65.00
3 (n=20)	1.70	42.50	3 (n=20)	2.50	62.50
4 (n=20)	1.25	31.25	4 (n=20)	2.05	51.25
T	1.78	44.38	T	2.51	62.81
NS (n=20)	3.75	93.75			

Table 9 Pseudo-passives (4 items)

Japanese participants (n=80)			Chinese participants (n=80)		
level	Mean	%	level	Mean	%
1 (n=20)	3.45	86.25	1 (n=20)	2.75	68.75
2 (n=20)	2.60	65.00	2 (n=20)	2.60	65.00
3 (n=20)	2.30	57.50	3 (n=20)	2.50	62.50
4 (n=20)	1.95	48.75	4 (n=20)	2.15	53.75
T	2.58	64.38	T	2.50	62.50
NS (n=20)	3.95	98.75			

Table 10 Normal Passives (3 items)

Japanese participants (n=80)			Chinese participants (n=80)		
level	Mean	%	level	Mean	%
1 (n=20)	2.05	68.33	1 (n=20)	2.15	71.67
2 (n=20)	2.20	73.33	2 (n=20)	1.95	65.00
3 (n=20)	2.10	70.00	3 (n=20)	1.75	58.33
4 (n=20)	1.95	65.00	4 (n=20)	2.05	68.33
T	2.08	69.16	T	1.975	65.83
NS (n=20)	2.95	98.33			

Table 11 Normal Actives (2 items)

Japanese participants (n=80)			Chinese participants (n=80)		
level	Mean	%	level	Mean	%
1 (n=20)	1.55	77.50	1 (n=20)	1.75	87.50
2(n=20)	1.35	67.50	2 (n=20)	1.40	70.00
3 (n=20)	1.75	87.50	3 (n=20)	1.55	77.50
4 (n=20)	1.45	72.50	4 (n=20)	1.20	60.00
T	1.525	76.25	T	1.475	73.75
NS (n=20)	1.9	95.00			

Note: In tables from 10 to 11, NS = native speakers of English

Figure 1 gives the comparison of the correct responses made by the Japanese participants with those made by the Chinese participants. It shows that both the Japanese and Chinese participants scored lower on ergatives (grammatical ergatives and passivised ergatives put together) than the other types of pas-

sive structures. This suggests that passive structures with ergatives pose more problems for the participant than other types of passives. The results also show that the Japanese and Chinese participants respond somewhat differently to the types of passive structures. According to Tables from 7 to 10, for the Japanese participants, passivised ergatives is the most difficult (44.38% correct responses); grammatical ergative is the second (56.79%); and then pseudo-passives (64.38%); normal passives is the least difficult (69.16%). For the Chinese participants, the order of difficulty is: grammatical ergatives (42.86%), pseudo-passives (62.5%), passivised ergatives (62.81%) and normal passives (65.83%).

There are two reasons for the fact that the grammatical ergatives are far more difficult than the other passive structures for the Chinese participants. First, the Chinese participants are not aware that English ergatives are different from the Chinese ergatives in that the former has unpaired ones which do not assign accusative case (see (3) (4) (6) for examples) and regard the unpaired ergatives as transitives which should take objects. Second, the difficulty presented by ergatives may be caused by a cognitive factor: learners intuitively believe that any change of state should have an external causation. Thus, *pork cooks faster than beef* would sound unacceptable because they doubt the spontaneous action. In fact, both the Japanese and the Chinese participants scored very low on this sentence (Japanese: 26%; Chinese participants: 27% in contrast to 95% by the native speakers).

The result also shows that though English proficiency plays an important role in the learners' judgement on passives, its role could be limited. Although The ANOVA test shows that there are significant differences of English proficiency among the level groups, the participants did not differ significantly in their judgement about passive structures unless they are in levels that are far apart (such as level 4 vs. level 1). With grammatical ergatives, the irregularity goes to such an extent that the lower-level learners even scored higher than the higher-level learners. In this aspect, there is no big difference between Japanese and Chinese students. This shows that ergatives are indeed very difficult for the learners of English whose native languages are TP languages to acquire so much so that the process of the acquisition seems to be fossilized or cannot be completed until they reach the very late stage. The difficulty lies in the fact that the learners take the seemingly similarities between the ergatives in TP languages and those in SP languages for granted and fail to discover the subtle differences in usage.

The result does not support the hypothesis that passive structures are more difficult for the Chinese students than for the Japanese students. On the whole, there is no big difference between the Japanese and the Chinese participants in their judgement on the passive structures (including Ergatives): the percentage of the correct response made by the Japanese participants is 57.78% while that made by the Chinese participants is 55.47%. This indicates that the hypothesis that passive structures are more difficult for the Chinese learners of English than for the Japanese are not statistically proved in this study. This is perhaps due to the selection of the types of passives in this study. That is, a considerable number of ergative verbs are used. An observation that we can make is that there is no significant difference between the judgement on the ergatives (consisting of both grammatical ergatives and passivised ergatives) by the Japanese participants and the Chinese participants because the percentage of the correct response made by the Japanese participants on ergatives is 52.27% and that made by the Chinese participants is 50.11%. Therefore, we may conclude that ergative verbs are equally difficult for both Japanese learners and Chinese learners.

Although the Japanese participants made more correct responses than the Chinese participants on the ergatives, they scored lower than the Chinese participants on the passivized ergatives, as seen in Table 7 and 8. It seems that the Japanese learners of English are more likely to overpassivize structures than the

Chinese participants. One cause for this fact might be attributed to the be-type error which is typically found in Japanese English interlanguage (Yamakawa, 1997). Yamakawa pointed out that this type of error is caused by the influence from the Japanese unagibun (うなぎ文) as in “ぼくはうなぎだ”. Another cause is again a cognitive one, that there should be an external cause for the action denoted by the verbs like “die, happen, spend and fall”.

5. Summary

To investigate the acquisition of English passive structures, especially with ergative verbs, this study made a comparative analysis on the ergatives in English, Japanese and Chinese. Differences were found in the ergatives among the three languages. English and Chinese differ in that the former has both paired and unpaired ergatives while the latter has only the paired ones. Though Japanese has passive marker such as *rareru* like English, the ergative verbs in English may not have the same counterparts in Japanese. Since there is no overt morphological marking for the ergatives, it causes difficulty for the learners of English. The experiment that was reported in this study does not prove the hypothesis that passive structures on the whole are more difficult for the Chinese learners of English than for the Japanese learner. But it does prove that ergatives cause more problems for the learners than the other passive structures. In consideration of the fact that ergatives are difficult for the second language learners to acquire, it is advisable for the English instructors to help the students to develop a conscious understanding of the different features of ergatives between their mother tongue and the target language.

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Appendix: 20 Sentences in the Judgement Test of Passive structures

1. Our class can divide into two groups. (GER)
2. Her car broke down only 5 minutes after she started. (GER)
3. Your name must write on the board. (PSPASS)
4. All these books should be returned in two weeks. (NPASS)
5. The most memorable experience of my life was happened 15 years ago. (PASSER)
6. Her mother was died when she was just a baby. (PASSER)
7. The mirror shattered during the last earthquake. (GER)
8. The patients have taken the medicine. (NACT)
9. The window was broken by the kids next door. (NPASS)
10. She must be spent a lot of time in the garden. (PASSER)
11. The books have put on the table, haven't you? (PSPASS)
12. This door closes easily; you just have to press down. (GER)
13. The students have stopped their conversation. (NACT)
14. The leaves were fallen down. (PASSER)
15. The dishes have cleaned after dinner. (PSPASS)
16. Try these oranges. They were grown by my grandmother. (NPASS)
17. Most of my food has eaten already. (PSPASS)
18. When apples are ripe, they fall down everywhere. (GER)
19. Pork cooks faster than beef. (GER)
20. The snow will melt when the sun rises tomorrow. (GER)

Note: GER = Grammatical ergative; PSPASS = Pseudo-passive; NPASS = Normal Passive; PASSER = Passivized ergative; NACT = Normal active