

# The Role of Age in L2 Acquisition

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## Notice

This paper is based on the results of a survey included in Inaba(2016). Kento Inaba is my seminar student who has been working under my supervision for the past two years to complete his BA thesis. In that sense, he should be my coauthor here and I still believe he deserves it. But unfortunately, it is the university policy not to include any students in its working papers. I would here like to thank him for his great efforts and hope for his success in the future. Thank you and best wishes to you, Kento.

## Abstract

The aim of this article is to conduct another experiment to see whether the critical period hypothesis is on the right track, using negative questions in English and Japanese. As has often been pointed out, the way we answer these questions differs between English and Japanese, so we believe they serve as appropriate items to be tested. We will conclude here that adult language learners cannot learn novel items in their new language so easily, thus supporting the hypothesis.

## 1. Introduction

It has often been argued in the literature that Universal Grammar (UG) is available only during a limited period of time in one's childhood and that it no longer works in the second language acquisition of adults. However, this assumption has been challenged by many researchers who believe that Universal Grammar is actively involved in second language acquisition of adult learners.

In this short essay, we will conduct an experiment to see which of these two assumptions is closer to the truth. The subjects are native speakers of Japanese who are learning English as a second language. The items to be tested are negative questions in English and Japanese, and we will see if their language acquisition is UG-based or simply influenced by their mother tongue. We will conclude that most subjects were simply transferring their knowledge of their mother language into the new language, suggesting that UG is no longer actively

involved in adult language learning.

This paper is organized as follows. In Section 2, we will see what negative questions are and how they are answered in Japanese and English. We will find out that there is a major difference in how these questions are answered in the two languages. In Section 3, we will briefly discuss the methods to be used in our experiment. The results will be shown in Section 4.

## 2. Negative Questions in Japanese and English

In order to see what negative questions are, consider first the following examples from English.

- (1) Did he borrow some money from her?
- (2) Didn't he borrow some money from her?

(1) is an example of a simple Yes/No question, and

(2) is a negative version of (1). In English, the presence or absence of *not* does not have any major effect on how these two types of questions are to be answered. In other words, if answered *yes*, it means that *he* borrowed money from *her*, and if the reply is *no*, he didn't borrow money from *her* regardless of whether *not* is present or not.

In Japanese, the situation is completely different.

(3) Kare-ha kanojyo-kara okane-wo karitano?

he her from money borrow

'Did he borrow some money from her?'

(4) Kare-ha kanojyo-kara okane-wo kari

he her from money borrow

nakkataka?

not

'Didn't he borrow some money from her?'

Answering *hai* or yes to the simple Yes/No question in (3) means that *kare*(he) did borrow money from *kanojyo*(*her*) and *iie*(*no*) means that he did not borrow money from *her*. In the case of the negative question in (4), saying *hai* means that *he* did not borrow money and *iie* means *he* did borrow money from *her*. In other words, unlike the cases in English, the presence of a negative marker does have an effect on the way the question is answered.

What makes the situation even more complicated in Japanese is that there are some speakers who respond to negative questions like (4) differently: i.e., *hai* in case *he* borrowed money from *her* and *iie* to refer to the fact that *he* didn't, just like in the case of English negative questions.

In summary, although there seems to be no difference in the way simple Yes/No questions are answered in Japanese and English, speakers of these two languages differ in the way they respond to negative questions. What makes the situation even more complicated is that there are some speakers of Japanese who behave like English speakers when

answering negative questions in their own language.

### 3. Methods of Our Experiment

In order to conduct an experiment to see whether UG or alike is still active in second language acquisition of adult learners, we first need to find some principles of UG or alike that are not activated in one's first language but is in full use in the target language, thus excluding the possibility that the learners simply transfer their knowledge in their first language to the new language. The difference between Japanese and English in the way negative questions are answered does seem to serve this objective.

Our subjects are forty-seven native speakers of Japanese who have been studying English for at least six years in Japan and four native speakers of English serving as controls. We will see whether their native language has any effect on their performance in the target language.

All our subjects were given the test in Appendix 1. As this experiment is to know whether UG is accessible to adult language learners and not to child learners, we asked each subject to accurately indicate at what age he or she had started studying the second language. It has often been suggested that UG is available in second language learning of young children but not in that of adults, so including the data from those who had started their second language learning at an earlier stage might undermine the validity of the results. We also excluded those who had learned generative grammar, as their knowledge in syntax might have influence their responses.

As discussed in the previous section, Japanese speakers are divided over how they respond to negative questions in Japanese. There are many speakers who answer them just like their English counterparts do in English. We excluded these speakers from the test, as they might simply have been transferring their knowledge in Japanese into

English as they had learned to speak it.

Simple Yes/No questions were included in the test to ensure that each subject had reached a level at which negative questions should have emerged in their second language. These constitute the Syntax Test in the sense of Otsu and Naoi(1986), Naoi(1989) and Schachter(1990). Tag questions were used simply as distracters.

#### 4. The Results

Out of the forty-seven students who volunteered in this survey, nine fell in the Syntax Test. We used all the simple Yes/No questions in the English test as the Syntax Test. We then went on to see whether the thirty-eight subjects who passed the preliminary Syntax Test had answered Japanese negative questions differently from English questions, using Questions 1, 3, 5, 8, 9, 11, 13, 15, 17 and 19 in the Japanese test. Those who had chosen (a) as the answers to more than twenty percent of these questions were also excluded. We were left with thirty-two subjects, who were analyzed for negative questions in English; i.e., Questions 2, 4, 5, 6, 8 and 10 in the English test. The results are shown in Table 1 below.

Table 1 Accuracy Rate for the Negative Questions in the English Test

Question 2	31.3%
Question 4	43.8%
Question 6	40.6%
Question 8	34.4%
Question 10	31.3%

Out of the thirty-two students, only eight, or twenty-five percent, had more than eighty-percent accuracy.

Based on these results we here admit that adult language learners cannot learn novel items in their new language so easily, thus supporting the critical period hypothesis.

#### 5. Concluding Remarks

In this short essay on second language acquisition of adults, we conducted another experiment to see whether principles of UG or alike that are not used in one's first language but present in the target language could still be available in L2 learning. The items that were tested this time were negative questions. English and Japanese differ in how these questions are answered, so they could be suitable items to be tested to know the role of UG in L2 learning. The results show that UG is no longer available to adults, supporting the critical period hypothesis.

#### Acknowledgement

We would like to thank Prof. Tamaki Morita of Yamanashi Prefectural University for helping us analyze the data. Special thanks also go to Peter Mountford and Jill Strothman who served as controls. Needless to say, I am to blame for all the remaining errors.

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**問題 A** 次の各質問文に Yes で答えるとします。その場合、答えの意味内容が a. と b. のどちらになるか答えてください。どちらかひとつの記号に○をしてください。

例：Do you have a cellphone?

- (a) 持っています。                      b. 持っていません。

1. Did you see the doctor yesterday?

- a. 行きました。                      b. 行ってないです。

2. Can't you swim?

- a. 泳げます。                      b. 泳げません。

3. You have finished doing your homework, haven't you?

- a. 終わりました。                      b. 終わっていません。

4. Aren't you hungry now?

- a. 空腹です。                      b. 空腹ではないです。

5. You aren't a student, are you?

- a. 学生です。                      b. 学生ではないです。

6. Don't you have enough money?

- a. 持ってます。                      b. 持ってません。

7. Can you play the piano?

- a. 弾けます。                      b. 弾けません。

8. Didn't you finish reading the book?

- a. 終わりました。                      b. 終わってないです。

9. You met him yesterday, didn't you?

- a. 会いました。                      b. 会っていません。

10. Haven't you ever been to the United States?

- a. 行ったことがあります。                      b. 行ったことないです

では、問題 B に進んでください。

**問題 B** 次の各質問文に「はい、」または「うん、」で答えるとします。その場合、答えの意味内容が a. と b. のどちらになるか答えてください。どちらかひとつの記号に○をしてください。

1. あの先生の講義受けていないの？  
a. 受けている。                      b. 受けてない。
2. 昨日病院で診察受けた？  
a. 受けました。                      b. 受けなかった。
3. 今日、朝ごはん食べていないの？  
a. 食べました。                      b. 食べてない。
4. かなづちですか？(かなづち=まったく泳げない人のこと。A person who cannot swim is called Kanazuchi in Japanese.)  
a. かなづちです。                      b. かなづちじゃないです。
5. チョコレートは好きじゃないの？  
a. 好きです。                          b. 好きじゃないです。
6. 昨日、お昼ごはん食べた？  
a. 食べました。                      b. 食べていません。
7. 彼は高校生じゃないよね？  
a. 高校生です。                      b. 高校生じゃないです。
8. 昨夜、ジムに行っていないですか？  
a. 行きました。                      b. 行っていません。
9. 青色のボールペン持っていないですか？  
a. 持っています。                      b. 持っていません。
10. 今日はタオル持ってきた？  
a. 持ってきました。                      b. 持ってきていません。
11. レジ袋は必要ないですか？  
a. 必要です。                          b. 必要ないです。
12. 先週、カラオケに行きました？  
a. 行きました。                      b. 行っていません。

13. ヴァイオリンのレッスンを受けたことがない ですか？  
a. あります。 b. ありません。
14. 明日、彼はパーティーに来ますか？  
a. 来ます。 b. 来ません。
15. 今日は寒くない？  
a. 寒いです。 b. 寒くないです。
16. 昨日、英語を勉強しましたか？  
a. しました。 b. しませんでした。
17. スマートフォンを使ったことない？  
a. あります。 b. ないです。
18. 今日学校の図書館には行きましたか？  
a. 行きました。 b. 行きません。
19. 彼女はタイピング得意ではないの？  
a. 得意です。 b. 得意じゃないです。
20. 車の免許持ってないですよ？  
a. 持っています。 b. 持ってない。

Inaba (2016)

## Appendix 2: The Results of all forty-seven people who volunteered

ID	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	JQ1	JQ2	JQ3	JQ4	JQ5	JQ6	JQ7	JQ8	JQ9	JQ10	JQ11	JQ12	JQ13	JQ14	JQ15	JQ16	JQ17	JQ18	JQ19	JQ20	
1	a	b	b	b	b	b	a	b	b	b	b	a	b	a	b	a	b	a	a	a	b	a	b	a	a	a	b	a	b	b	
2	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	a	b	a	b	a	a	a	a	a	a	b	a	b	b
3	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	b	a	b	b	
4	a	b	b	a	b	b	a	b	a	b	b	a	b	a	b	a	b	b	a	a	b	a	b	a	a	a	a	a	a	b	b
5	a	b	a	a	a	a	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	a	b	a	b	b
6	a	b	a	a	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	a	b
7	a	b	a	a	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	a	b
8	a	a	a	a	a	a	a	a	a	a	b	a	b	a	b	a	b	a	a	a	b	a	b	a	a	a	a	a	a	b	b
9	b	a	b	a	a	b	a	b	b	b	a	b	b	b	a	a	b	a	b	b	b	b	b	b	a	b	a	a	b	a	
10	a	a	a	a	a	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
11	a	b	b	b	b	b	a	b	b	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
12	a	a	a	a	b	a	a	a	a	a	b	a	b	a	b	a	b	b	a	a	b	a	b	a	a	a	b	a	b	b	
13	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
14	a	a	a	a	a	a	a	a	a	a	b	a	b	a	b	a	b	a	a	a	b	a	b	a	a	a	b	a	b	b	
15	a	b	b	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
16	a	b	b	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
17	a	b	b	b	b	b	a	b	b	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
18	a	b	a	b	b	b	a	b	a	b	a	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
19	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	b	
20	b	a	a	a	a	b	b	b	a	b	a	b	b	b	a	a	b	b	a	b	b	b	b	b	b	b	a	a	b	a	
21	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	b	a	b	b	
22	a	b	a	a	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
23	a	a	a	a	b	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
24	a	a	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
25	b	a	a	b	b	a	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
26	a	b	a	a	b	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
27	a	a	a	a	b	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
28	a	a	a	a	a	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	a	a	a	a	a	b	a	b	
29	a	b	b	b	a	b	a	b	b	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	b	a	b	b	
30	a	b	a	b	a	b	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
31	a	a	a	b	b	a	a	a	a	b	a	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
32	a	a	b	b	b	b	a	a	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
33	a	b	b	b	b	b	a	b	b	b	b	a	b	a	b	a	b	a	b	a	a	a	a	a	a	a	a	a	a	b	
34	b	b	a	b	a	b	b	b	b	b	b	b	a	a	a	a	b	b	a	b	b	b	b	b	b	b	b	a	b	b	
35	b	a	b	a	b	b	a	b	b	b	b	a	b	a	b	a	b	a	a	a	a	a	a	a	a	a	a	a	a	b	
36	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	b	a	b	b	
37	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	a	a	b	a	b	a	a	a	a	b	a	b	
38	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
39	b	a	a	a	a	b	b	b	a	b	a	a	a	b	a	a	a	b	a	a	b	a	b	a	a	a	a	a	a	b	
40	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	b	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
41	b	b	b	b	a	b	b	b	b	b	b	b	b	a	a	a	b	b	a	b	b	b	b	b	b	a	b	a	b	a	
42	a	b	a	b	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	a	a	b	a	b	a	b	b	
43	a	b	a	a	b	b	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
44	a	b	a	a	b	a	a	b	a	b	b	a	b	a	b	a	b	b	b	a	a	a	b	a	b	a	b	a	b	b	
45	a	b	a	b	b	a	a	b	a	b	b	a	b	a	b	a	b	b	b	a	b	a	b	a	b	a	b	a	b	b	
46	a	a	a	a	a	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	b	a	b	b	
47	a	a	a	a	a	a	a	a	a	a	b	a	b	a	b	a	b	b	b	a	b	a	b	a	a	a	b	a	b	b	

Inaba (2016)