

## THE ACQUISITION OF BENEFACTIVES AND PASSIVES

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This paper investigates children's acquisition of benefactives and passives in Japanese. It has been pointed out that Japanese complex constructions with *mora-w* (receive) are acquired later than their counterparts with *age-ru* (give) (Uyeno et al. 1978). Also, many researchers report that passives are more difficult for children than active counterparts (Borer and Wexler 1987, Fox and Grodzinsky 1998, among others). In this paper, we first argue that benefactives and passives in Japanese share the similar syntactic properties such as movement and case-marking pattern. In particular, both *mora-w* (receive) benefactives and passives are derived from their *age-ru* (give) and active counterparts by movement which forms A-chain. Moreover, *ni*-phrases (*by*-phrases in English) both benefactives and passives contain can be replaced by *kara*-phrases (*from*-phrases) expressing source theta-role. Based on the observation, we examine the results of experiment we conducted with three native Japanese children. The results lead us to claim that the reason why *mora-w* (receive) benefactives and passives are difficult for children lies in the Agent marking *ni*-phrase (*by*-phrases) rather than in movement, rejecting the previous researches on both benefactives and passives.

### 1. INTRODUCTION

It has been reported that sentences with *mora-w* (receive) are acquired later than their counterparts with *age-ru* (give) in Japanese. However, the reason why children find *mora-w* sentences more difficult than *age-ru* sentences has been controversial. In addition, a number of studies point out that passive constructions are acquired later than their active counterparts, which seem to show the same case-marking pattern as that in the benefactive constructions<sup>1</sup>. Comparing the benefactive constructions with passives, we will examine the source of delay in understanding both *mora-w* benefactive constructions and passives in Japanese by taking a close look at the results of the experimental data. This paper is organized as follows. In the next section, we will overview the characteristics of benefactives and passives in Japanese and point out the properties both constructions seem to share. In

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<sup>1</sup> Following Hoshi (1994) and Sawasaki and Nakayama (2001), we will call complex constructions with giving and receiving verbs in Japanese "benefactive" constructions.

section 3, we will survey the previous experimental studies dealing with children's acquisition of these constructions. Section 4 reports the results of the experiments conducted to clarify the source of delay in understanding these constructions. In section 5, we will discuss the results of experiments.

## 2. CHARACTERISTICS OF JAPANESE BENEFACTIVES AND PASSIVES

Japanese giving and receiving verbs such as *age-ru* (give) and *mora-w* (receive) can appear both in simple sentences and in complex sentences. Examples of simple sentences are shown in (1) and those of complex sentences are shown in (2).

- (1) a. John-ga Mary-ni ringo-o age-ta.  
 -NOM -DAT apple-ACC give-PAST<sup>2</sup>  
 'John gave Mary an apple.'  
 b. Mary-ga John-ni ringo-o morat-ta.  
 -NOM -DAT apple-ACC receive-PAST  
 'Mary received an apple from John.'
- (2) a. John-ga Mary-ni booru-o nage-te-age-ta.  
 -NOM -DAT ball-ACC throw-ageru-PAST  
 'John threw a ball to Mary.'  
 b. Mary-ga John-ni booru-o nage-te-morat-ta.  
 -NOM -DAT ball-ACC throw-moraw-PAST  
 'Mary received the favor of John's throwing a ball to her.'

The verbs *age-ru* and *mora-w* suffix to the *-te* form<sup>3</sup> of another verb as auxiliary verbs and compose the complex construction as in (2a) and (2b). We can find some parallelism between *age-ru* / *mora-w* complex benefactive constructions in (2) and active / passive sentences in terms of their case-marking pattern. Japanese active sentences are shown in (3a) below and their passive counterparts are indicated in (3b).

- (3) a. John-ga Mary-ni booru-o nage-ta.  
 -NOM -DAT ball-ACC throw-PAST  
 'John threw a ball to Mary.'

<sup>2</sup> The abbreviations used in the glosses are: NOM=nominative case marker, DAT=dative case marker, ACC=accusative case marker, PAST=past tense, PASS=passive, CL=classifier.

<sup>3</sup> The *-te* form could be considered to be a linking morpheme that connects a gerund form of a verb with the following verb (i.e. *age-ru* and *mora-w* in this case).

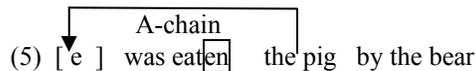
- b. Mary-ga John-ni booru-o nage-rare-ta.  
 -NOM -by ball-ACC throw-PASS-PAST  
 ‘Mary was thrown a ball by John.’

In the case of *age-ru* benefactive constructions exemplified in (2a), matrix subject *John* is case-marked with *-ga* and a recipient (or goal) *Mary* is marked with *-ni*. On the other hand in *mora-w* complex sentence in (2b), *Mary* is marked with nominative case *-ga* and agent is marked with *-ni*. In this case, *John* case-marked with *-ni* is a thrower of a ball (agent of the verb *throw*) and the subject *Mary* receives John’s favor of throwing a ball. We can see the same case-marking pattern in passives indicated in (3) above: a patient (*Mary*) appears in the nominative case and an agent (*John*) with *-ni*. Besides the surface similarity between benefactives and passives, we can find a similar structural property in these two constructions. We first survey structural property of Japanese passives in section 2.1. Secondly, we will see if the same analysis could be valid for Japanese benefactive constructions in section 2.2. In section 2.3, we will observe another property that both passives and benefactives have in common.

### 2.1. Passives in Japanese

It has been assumed that Japanese has two kinds of passives, namely direct and indirect passives (cf. Hoshi 1999 and references therein). Like English passives, Japanese direct passives, but not indirect passives, can be assumed to involve A-chain formation and theta-transmission. First we provide a brief survey of the syntactic analysis of English passives. An example of the English passive is given in (4), and its underlying structure is shown in (5).

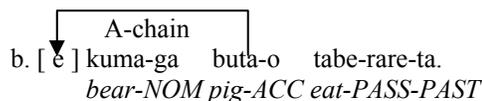
- (4) The pig was eaten by the bear.



According to Jaeggli (1986), the English passive affix *-en* absorbs the external theta-role, and the passivized verb does not assign accusative Case to the underlying object NP. The object NP must move to the subject position where it can be assigned the nominative Case in order to satisfy the Case filter. This movement is said to construct an A-chain.

Let us now turn to the analysis of Japanese passives. An example of Japanese direct passive is shown in (6a) and its underlying structure is indicated in (6b).

- (6) a. Buta-ga kuma-ni tabe-rare-ta.  
*pig-NOM bear -by eat-PASS-PAST*  
 ‘The pig was eaten by the bear.’



In (6), the surface subject NP (*buta-ga*) is derived from the underlying object position of the verb *tabe-ru*, because the passivized verb cannot assign an accusative Case.

It has been claimed that there is syntactic evidence that can justify the existence of the A-chain in Japanese direct passives: quantifier-float test. Miyagawa (1989) proposes the Mutual C-command Requirement: for a predicate to predicate of an NP, the NP or its trace and the predicate or its trace must C-command each other (Miyagawa 1989:30). Let us apply this requirement to Japanese passive.

- (7) Gakusei-ga [<sub>VP</sub> ano sensei-ni **2-ri** okor-are-ta].  
*student-NOM that teacher by 2-CL scold-PASS-PAST*  
 ‘Two students were scolded by that teacher.’

In (7), the quantifier *2-ri* in the VP can modify the passive subject. If we adopt Miyagawa’s (1989) analysis, it can be said that the passive subject (i.e. *gakusei-ga*) is originally in the VP, in which the Mutual C-command Requirement is satisfied between the passive subject and the quantifier. Hence, the existence of an A-chain in Japanese direct passives can be supported.

## 2.2. Benefactives in Japanese

According to Hoshi (1994), Japanese *mora-w* (receive) benefactive constructions can be divided into two types that are structurally different from each other; direct benefactive (8) (=2)) and indirect benefactive (9). In his literature, the former is characterized as one with a gap which is coindexed with the matrix subject, and the latter as one without a gap. The existence of a gap will be justified later in this section. In addition, *mora-w* (receive) direct benefactives have their

*age-ru* (give) counterparts (8a), while indirect ones do not have corresponding *age-ru* (give) constructions (9a).

- (8) a. John-ga Mary-ni booru-o nage-te-age-ta.  
 -NOM -DAT ball-ACC throw-ageru-PAST  
 ‘John threw a ball to Mary.’  
 b. Mary-ga John-ni booru-o nage-te-morat-ta.  
 -NOM -DAT ball-ACC throw-moraw-PAST  
 ‘Mary received the favor of John’s throwing a ball to her.’
- (9) a. \*John-ga Mary-ni ringo-o tabe-te-age-ta.  
 -NOM -DAT apple-ACC eat-ageru-PAST  
 ‘(Literally) John ate an apple in favor of Mary.’  
 b. Mary-ga John-ni ringo-o tabe-te-morat-ta.  
 -NOM -DAT apple-ACC eat-moraw-PAST  
 ‘Mary received the favor of John’s eating an apple.’

As shown in (8) and (9), the acceptability of *mora-w* sentences with *ni*-phrases is not influenced by the types of verbs attached to *mora-w*. In other words, any verb can form *mora-w* benefactives with *ni*-marked NP representing agent role. The verbs which can be used with *age-ru* as shown in (8) are those that require Dative *ni*-phrases on its own, while the verbs that do not select Dative *ni*-marked NP cannot form complex VP with *age-ru*. For example, a sentence with *nage-ru* (throw) can take Goal-marked *ni*-phrase as in (10a) and allows *age-ru* benefactive sentence such as (8a), whereas one with *tabe-ru* (eat) do not select *ni*-marked NP as in (10b) below and the *age-ru* benefactive sentence involving *tabe-ru* turns out to be ungrammatical as indicated in (9a).

- (10) a. John-ga **Mary-ni** booru-o nage-ta.  
 -NOM -DAT ball-ACC throw-PAST  
 ‘John threw a ball to Mary.’  
 b. \*John-ga **Mary-ni** ringo-o tabe-ta.  
 -NOM -DAT apple-ACC eat-PAST  
 ‘John ate an apple for Mary.’

In order to deal with the syntactic characteristics of the *age-ru* / *mora-w* benefactive constructions in parallel with those of active / passive constructions, we will focus only on the direct benefactives in this paper.

Now we turn to verify whether a gap does exist in *mora-w* direct benefactives in the same way as in passive constructions. Recall that

Miyagawa (1989) proposes the Mutual C-command Requirement: the NP or its trace and the predicate or its trace must c-command each other. In other words, a floating quantifier and a predicated NP should c-command each other in the underlying structure. We take an example of a *mora-w* direct benefactive.

- (11) Gakusei-ga [<sub>VP</sub> ano sensei-ni **2-ri** homete-morat-ta]  
*student-NOM that teacher by 2-CL praise-moraw-PAST*  
 ‘Two students received the favor of that teacher’s praising them.’

The subject (i.e. *gakusei-ga*) in (11) and the quantifier (i.e. *2-ri*) do not c-command each other in the surface structure. Nevertheless, the sentence (11) is perfectly accepted. This fact leads us to the claim that the surface subject NP is base-generated in the VP, where the Mutual C-command Requirement is satisfied, and that a certain gap<sup>4</sup> exists in the *mora-w* direct benefactive. Thus, the direct benefactive constructions in Japanese appear to exhibit syntactic property similar to those in active / passive constructions.

### 2.3. Source-theta-marked NP

In this section, another characteristic that *mora-w* direct benefactives shares with direct passives: Source-theta-marked NP with *-kara*. The *mora-w* direct benefactives can take a Source-theta-marked NP with either *-ni* or *-kara* as indicated in (12). On the other hand, *-kara* cannot appear in the *mora-w* indirect benefactives as shown in (13).

- (12) Mary-ga John-ni/-kara booru-o nage-te-morat-ta.  
*-NOM -DAT/-from ball-ACC throw-moraw-PAST*  
 ‘Mary received the favor of John’s throwing a ball to her.’  
 (13) Mary-ga John-ni/\*-kara ringo-o tabe-te-morat-ta.  
*-NOM -DAT/-from apple-ACC eat-moraw-PAST*  
 ‘Mary received the favor of John’s eating an apple.’

Shibatani (1978) observes that *-kara* is not possible when its associating NP (i.e. *John* in (13)) does not have a Source reading, but when it has an Agent/Source reading, both *-ni* and *-kara* are possible in the *mora-w* benefactives as seen in (12). Thus, whether *-kara* can

<sup>4</sup> Although Hoshi (1994) analyzes this empty element as PRO controlled by the matrix subject, we do not go into the discussion as to the status of this empty element in this paper.

appear or not is another difference between *mora-w* direct benefactives and indirect ones.

Let us turn to the observation of passives in terms of the acceptability of *-kara* phrases. We can observe the parallelism between passives and *mora-w* benefactives. Direct passives which are assumed to involve A-chains allow *-kara* phrases in place of *-ni* phrases as in (14), whereas *-kara* cannot appear in indirect passives as indicated in (15), which do not have active counterparts and do not involve A-chains.

- (14) Mary-ga John-ni/-kara booru-o nage-rare-ta.  
 -NOM -by/-from ball-ACC throw-PASS-PAST  
 ‘Mary was thrown a ball by/from John.’
- (15) Mary-ga John-ni/\*kara ringo-o tabe-rare-ta.  
 -NOM -by/-from apple-ACC eat-PASS-PAST  
 ‘Mary was affected by John’s eating an apple.’

Thus, we can also treat passives and *mora-w* benefactives equally in terms of the acceptability of Source-theta-marked NP.

### 3. PREVIOUS STUDIES ON CHILDREN’S ACQUISITION

A number of previous studies have reported that children’s comprehension of a certain construction is somehow different from an adults’ one. In this section, we will overview some experimental studies on the acquisition of benefactive and passive constructions.

#### 3.1. Acquisition of Benefactives

In this section, we will overview the experimental studies reported in Uyeno et al. (1978). Uyeno et al. (1978) predict that the construction of the sentences with *age-ru* in which the noun phrase with the particle *ga* taking the role of Agent/ Source is acquired at an earlier stage than those which the *ga*-NP bears the Recipient/ Goal role. They conducted three experiments in order to study the mechanisms of the comprehension of sentences when giving and receiving verbs in Japanese.

In the first experiment, a sentence- picture- matching test was used for checking the subject’s comprehension of the sentences. The experimenter presented a tape-recorded test sentence showing the set of pictures and had the subject point out the appropriate drawing. The

result of experiment I showed remarkable differences between the sentences containing *age-ru* and the sentences containing *mora-w*. The percentage of correct responses in *age-ru* was much higher than *mora-w*, regardless of if the sentences were simple or complex.

In the second experiment, repetition task was used. The subject was presented a stimulus sentence only once and was required to repeat it immediately. The result showed that the correct responses for the complex sentences were less than the simple sentences.

In the third experiment, an act-out method was used, which the experimenter put two animal toys and an object and presented a tape-recorded stimulus sentence twice to make the subject act-out. The percentage of correct responses to *mora-w* was much lower than those of *age-ru* in both simple and complex sentences.

Given those results from three experiments, Uyeno et al. (1978) concluded that sentences with *age-ru* are acquired earlier than the sentences with *mora-w* (experiments I and II). Also they observed that the correct response percentages for the passive is nearly the same as those of the sentences with *mora-w*, thus it is much lower than that of *age-ru*. With all the experimental data and observation put together they concluded in their literature that the construction in which the *ga*-NP bears the Agent / Source is acquired at an earlier stage than those in which the *ga*-NP bears the Recipient / Goal role.

### 3.2. Acquisition of Passives

Although a number of studies have revealed difference between children's passives and adults' passives, it is not yet decided what makes the comprehension of passives difficult for children. In this section, we briefly overview the previous researches on the development of passives in English: Borer and Wexler's (1987) A-chain Maturation Hypothesis for English, and Okabe and Sano's (2002) proposal for Japanese.

First, Borer and Wexler (1987) claim that a child's ability to form an A-chain undergoes maturation. Before the maturation occurs, the adjectival analysis of passives is all that is available to the child. In the adjectival passives like "The island was uninhabited", no NP-movement is invoked. They propose that the derivation of verbal passives illustrated in section 2.1 become available after A-chain maturation. Hence, their main claim is that the constructions in which

A-chain is involved are acquired later than those that do not invoke NP-movement.

On the contrary, Okabe and Sano (2002) conducted several experiments, results of which suggest that children's difficulty in understanding full passives<sup>5</sup> lies in the process of discharging the external theta-role from passives affixed to the *ni*-phrase. In Okabe and Sano (2002), children's comprehension of both passives and unaccusatives with the same verb stems such as *otos-are-ta* 'was dropped' and *oti-ta* 'dropped' was examined. It has been assumed that the suppressed external argument of the verbs is present in the interpretation even in short passives, unlike in unaccusatives. Thus, the short passive in (16) necessarily implies that some agent was involved, while the unaccusative in (17) does not.

- (16) Buta-ga otos-are-ta.  
*pig-NOM drop-PASS-PAST*  
 'The pig was dropped.'
- (17) Buta-ga oti-ta.  
*-NOM drop-PAST*  
 'The pig fell (dropped).'

Okabe and Sano (2002) reported that Japanese mono-lingual children distinguished passives and unaccusatives quite well in terms of the existence of agent, which shows that the external theta-role is successfully absorbed by the passive affix. Based on the experimental data, Okabe and Sano (2002) reported that the children could understand the constructions that involve A-chain, rejecting Borer and Wexler's (1987) hypothesis, and claimed that difficulty in comprehending full passives lies in the process of external theta-role assignment to *ni*-phrases.

#### 4. EXPERIMENT

In this section, we investigate the average child's understanding of giving and receiving verbs, benefactives and passives based on the analysis in section 2. We also try to clarify what caused the difficulty with understanding these constructions by examining experimental data of Japanese children.

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<sup>5</sup> Passives with *ni*-phrases (*by*-phrases in English) are called full passives and those without *ni*-phrases are called short passives in this paper.

#### 4.1. Method

In this section, we will summarize the method we adopted in our experiment.

##### *Subjects*

Three children<sup>6</sup> participated in our experiment. The information about the subjects is as follows. The subjects are Child J, K and A who are 5;7, 6;1, and 7;5 years old respectively. Child A(7;5) is an elder brother of Child J(5;7) and both were born and grew up in the U.S.A.. Their parents are both first generation Japanese. Japanese is their first language. Thus Japanese is mainly spoken in this family due to the parents leading. However, since Child J(5;7) started attending an American preschool, English has often been spoken between Child J(5;7) and A(7;5). Child K(6;1) was also born and grew up in the States. His parents are also first generation Japanese. Since Child K(6;1) has no siblings, only Japanese is spoken in this family, although he is attending an American preschool.

All three subjects are attending a Japanese school which gives them a great opportunity to hear and speak Japanese. All subjects prefer to watch Japanese TV programs and watch them several days a week.

##### *Materials*

The test sentences we used in our experiment are listed below:

##### *Simple sentences:*

- (18) a. Kuma-ga buta-ni ringo-o age-ta.  
 bear-NOM pig-DAT apple-ACC give-PAST  
 ‘The bear gave the pig an apple.’  
 b. Buta-ga kuma-ni ringo-o morat-ta.  
 pig-NOM bear-DAT apple-ACC receive-PAST  
 ‘The pig received an apple from the bear.’  
 c. Buta-ga kuma-kara ringo-o morat-ta.  
 pig-NOM bear-from apple-ACC receive-PAST  
 ‘The pig received an apple from the bear.’

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<sup>6</sup> The number of the subjects in this experiment is too small for statistical analysis. We think it necessary to continue to carry out the same experiment with a number of children.

*Complex sentences:*

- (19) a. Kuma-ga buta-ni ringo-o nage-te-age-ta.  
*bear-NOM pig-DAT apple-ACC throw-ageru-PAST*  
 ‘The bear threw an apple for the pig.’
- b. Buta-ga kuma-ni ringo-o nage-te-morat-ta.  
*pig-NOM bear-DAT apple-ACC throw-moraw-PAST*  
 ‘The pig received the favor of the bear’s throwing an apple to the pig.’
- c. Buta-ga kuma-kara ringo-o nage-te-morat-ta.  
*pig-NOM bear-from apple-ACC throw-moraw-PAST*  
 ‘The pig received the favor of the bear’s throwing an apple to the pig.’

*Active/passive sentences:*

- (20) a. Kuma-ga buta-ni ringo-o nage-ta.  
*bear-NOM pig-DAT apple-ACC throw-PAST*  
 ‘The bear threw the pig an apple.’
- b. Buta-ga kuma-ni ringo-o nage-rare-ta.  
*pig-NOM bear-by apple-ACC throw-PASS-PAST*  
 ‘The pig was thrown an apple by the bear.’
- c. Buta-ga kuma-kara ringo-o nage-rare-ta.  
*pig-NOM bear-from apple-ACC throw-PASS-PAST*  
 ‘The pig was thrown an apple by the bear.’

For each sentence, we prepared a matching sentence and a mismatching sentence. As for the mismatching sentence, two animals in the sentence are reversed. Hence, the total number of the test sentences is eighteen (6 for each sentence type). We randomly changed the order of these eighteen test sentences.

*Procedure*

The task adopted in this experiment was a modified version of “truth value judgment task”. This task was used for checking the subject’s comprehension of the sentences with giving and receiving verbs. Twenty sentences that contained giving and receiving verbs in both simple and complex sentences and sentences with passive forms were tested.

Each subject was interviewed individually. Before the test, items were given and an experimenter asked the subject to name the stuffed

animals and vegetables to be used in the experimental session in order to confirm that the subject was able to identify the animals and vegetables correctly.

First, experimenter A created a scene that depicted a stimulus sentence using stuffed animals and vegetables. Experimenter B sat down with her back toward experimenter A and the subject. Then experimenter A asked experimenter B to guess and describe the scene that experimenter A created. Experimenter B said a stimulus sentence pretending like he was guessing. Experimenter A had the subject judge if the sentence experimenter B had said was wrong or correct.

#### 4.2. Results

We now report the results of the experiment in this section. Let us first examine the children's comprehension of *age-ru* and *mora-w* in simple sentences. Table 1 shows their responses to *age-ru* simple sentences.

Table 1. *age-ru* in simple sentence

		J(5;7)	K(6;1)	A(7;5)
age-ru (give)	match	√ <sup>7</sup>	√	√
	mismatch	√	√	√

The result shows all of the children gave correct answers in *age-ru* in simple sentences. This is the base-line for the comparison. Their responses to *mora-w* simple sentences with canonical case *ni-* are shown in Table 2 below.

Table 2. *mora-w* in simple sentence

		J(5;7)	K(6;1)	A(7;5)
mora-w (receive) w/-ni	match	√	*	√
	mismatch	*	*	*

In *mora-w* simple sentences, only J(5;7) and A(7;5) could correctly accept the matching sentences. However, all of the children could not reject the mismatching sentences. This result clearly shows that the children have difficulty with *mora-w* even in simple sentences as previous studies predicted.

<sup>7</sup> When a child gave a correct answer (i.e. an adult-like answer), we put a mark √, and when he gave a wrong answer, we put a mark \* on the table.

Table 3. *mora-w* with *kara*-phrase in simple sentence

		J(5;7)	K(6;1)	A(7;5)
mora-w (receive) w/- <i>kara</i>	match	*	√	√
	mismatch	*	√	√

From table 3 we can see that K(6;1) and A(7;5) could correctly answer both matching and mismatching sentences, whereas J(5;7) shows poor performances with both matching and mismatching sentences. This result (Table 3) and the result of *mora-w* sentences with *ni*-phrases (Table 2) show that the shift from *ni*-phrase to *kara*-phrase made it easier for the children to comprehend simple *mora-w* sentences. This finding was not expected by the previous studies.

Now we move on to the results of *age-ru* and *mora-w* in complex sentences. Table 4 below shows the children's responses to *age-ru* complex sentences.

Table 4. *age-ru* in complex sentence

		J(5;7)	K(6;1)	A(7;5)
age-ru (give)	match	√	√	√
	mismatch	√	√	√

As we can clearly see from the table, the children gave correct answers perfectly to *age-ru* complex sentences. They could correctly accept the matching sentences, and they could correctly reject the sentences when an agent and a beneficiary were switched. This is a baseline for comparison. Let us now take a look at the results of *mora-w* with canonical *ni*-case marked phrases in complex sentences, which is shown in Table 5.

Table 5. *mora-w* with *ni*-phrase in complex sentence

		J(5;7)	K(6;1)	A(7;5)
mora-w (receive) w/- <i>ni</i>	match	*	*	*
	mismatch	*	√	*

As expected by the previous studies, we can state that the children's performance with *mora-w* in complex sentences was very poor. This result is compatible with the previous theories.

Let us take a look at the results of passives and their active counterparts. Table 6 shows the children's responses to active sentences.

Table 6: active sentence

		J(5;7)	K(6;1)	A(7;5)
active	match	√	√	√
	mismatch	√	√	√

We can state that all of them gave correct answers to active sentences both in matching and mismatching cases. Table 7 below indicates their responses to passive sentences.

Table 7: passive sentence

		J(5;7)	K(6;1)	A(7;5)
passive w/- <i>ni</i>	match	*	*	*
	mismatch	*	*	*

The result shows that the children demonstrated very poor performance with passives, which has already been reported in a number of previous experimental studies.

Now we move on to the results of *mora-w* and passive sentences with *kara*-phrases instead of *ni*-phrases. First, we will look at the result of *mora-w* sentences with *kara*-phrases, which is shown in Table 8.

Table 8: *mora-w* with *kara*-phrase in complex sentence

		J(5;7)	K(6;1)	A(7;5)
<i>mora-w</i> (receive) w/- <i>kara</i>	match	√	*	*
	mismatch	*	√	√

Although they still had difficulty in comprehending *mora-w* complex sentences, their performance was slightly improved, compared with the result of *mora-w* sentences with *ni*-phrases (cf. Table 5). As for passives with *kara*-phrases, the responses of K(6;1) was remarkably improved as shown in Table 9, which cannot be expected by Uyeno et al. (1978) nor Borer and Wexler (1987).

Table 9: passive with *kara*-phrase

		J(5;7)	K(6;1)	A(7;5)
passive w/- <i>kara</i>	match	*	√	*
	mismatch	*	√	*

However, we can also notice that J(5;7) and A(7;5) still have difficulty with comprehending passives, even if *ni*-phrases were replaced by *kara*-phrases.

## 5. GENERAL DISCUSSION AND FURTHER ISSUES

Let us now turn to the discussion of our results reported in the previous section and of further issues. Based on the experimental results, we can claim that the source of difficulty in comprehending *mora-w* benefactives and passives is attributed to interpretation of *ni*-phrases. Even though children at the age of seven have some difficulty with *mora-w* benefactives and passives with *ni*-phrases, they seemed to be able to understand the sentences with *kara*-phrases in place of *ni*-phrases. This finding seems to run counter to the proposal by Uyeno et al. (1978) and the A-chain maturation hypothesis by Borer and Wexler (1987).

Recall that Uyeno et al. (1978) propose that the construction in which the *ga*-NP bears the Recipient / Goal role is more difficult than that in which the *ga*-NP has the Agent / Source role. According to their proposal, children should find *mora-w* benefactives and passives more difficult than *age-ru* benefactives and active sentences, which is consistent with our results reported in the previous section. However, their proposal does not predict the difference between the result of constructions with *ni*-phrases and those with *kara*-phrases. Since both *mora-w* benefactives with *ni*-phrases and those with *kara*-phrases have *ga*-NP bearing Recipient / Goal theta-role, they should be equal in terms of the difficulty for children, contrary to our results of the experiments. Thus, our finding seems to pose a problem to the proposal by Uyeno et al. (1978).

As for Borer and Wexler's (1987) A-chain maturation hypothesis, our finding is also problematic for their claim that the constructions involving A-chains are difficult for children to understand. In section 2.1 and 2.2, we have confirmed that NP-movement (i.e. A-chain) is invoked in both direct passives and *mora-w* direct benefactives.

According to the claim by Borer and Wexler (1987) and this observation, children should demonstrate poorer performance with both direct passives and *mora-w* benefactives, which is consistent with our results. However, their claim cannot assume that there is the difference between those with *ni*-phrases and those with *kara*-phrases, for these constructions must be the same in terms of the existence of A-chain. Thus, their claim seems to run in clear contradiction to our finding that children performed much better with sentences including *kara*-marked NP than those with *ni*-phrases.

Our finding here seems to take sides with the proposal by Okabe and Sano (2002) that theta-role assignment to *ni*-phrases is difficult to children at their early developmental stages.

Yet, as to the question why *ni*-phrase in certain construction is difficult for children, there is still room for investigation and discussion. One possible reason is that *ni*-marked NP appears to have several conflicting theta-roles such as *Goal* in (21), *Source* in (22), and *Agent* in (23) and (24).

- (21) Kuma-ga buta-**ni** ringo-o nage-te-age-ta  
*bear-NOM pig-DAT apple-ACC throw-ageru-PAST*  
 ‘The bear threw an apple to the pig.’
- (22) Buta-ga kuma-**ni** ringo-o morat-ta  
*pig-NOM bear-DAT apple-ACC receive-PAST*  
 ‘The pig received an apple from the bear.’
- (23) Buta-ga kuma-**ni** ringo-o nage-te-morat-ta  
*pig-NOM bear-DAT apple-ACC throw-moraw-PAST*  
 ‘The pig received the favor of the bear’s throwing an apple.’
- (24) Buta-ga kuma-**ni** ringo-o nage-rare-ta.  
*pig-NOM bear-by apple-ACC throw-PASS-PAST*  
 ‘The pig was thrown an apple by the bear.’

## 6. CONCLUDING REMARKS

To sum up, the results of our experiment first show that *mora-w* sentences are acquired later than *age-ru* ones and that passives are acquired later than active counterparts. The results further suggest that even children who found *mora-w* benefactives and passives more difficult than their counterparts could comprehend these constructions more easily once *ni*-phrases were replaced by *kara*-phrases. Based on these findings, in this paper we propose that the source of delay in

comprehending both *mora-w* benefactives and passives lies in the difficulty in dealing with *ni*-phrases.

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