Acquisition of Perspective and Empathy Verbs in Japanese

Akari Ohba and Kamil Ud Deen

1. Introduction

In children’s acquisition of Japanese, it has been reported that children have difficulty with benefactive constructions, which involve the main (event) verb, along with a verb of giving/receiving: either of two give verbs (i.e. ageru and kureru) or a receive verb (i.e. morau). Children have been reported to struggle with these give/receive verbs to different degrees: experimental studies (Uyeno et al., 1978; Okabe, 2005, 2011) report that morau ‘receive’ is the most difficult, whereas a spontaneous speech data by Horiguchi (1979) suggest that kureru ‘give’ is the most difficult.

These three verbs are distinguished in terms of which argument’s perspective the speaker takes when they describe an event – the focus of the current paper. The speaker describes the event from the perspective of a giver-subject with ageru ‘give,’ from the perspective of a recipient indirect object with kureru ‘give,’ and from the perspective of a recipient-subject with morau ‘receive’ (Kuno, 1987; Kuno & Kaburaki, 1977; a.o.). Although the acquisition of these verbs in Japanese has been examined for many years, the question of whether Japanese children have knowledge of the perspective-sensitive properties of these verbs has never, to our knowledge, been experimentally investigated. Our two experiments provide the first attempt of its kind providing the following two findings. First, children make errors with kureru, and not ageru or morau, suggesting that children initially tend to interpret the sentence as assigning speaker perspective to the subject argument. Second, children who can switch perspective flexibly can comprehend both ageru and kureru well, while children who cannot switch perspective struggle with kureru. We argue that children’s difficulty with kureru does not come from the lack of knowledge of its perspective encoding properties, but from their maturing cognitive ability to switch perspectives.

* Akari Ohba, University of Hawai‘i at Mānoa, akario@hawaii.edu, and Kamil Ud Deen, University of Hawai‘i at Mānoa, kamil@hawaii.edu. We would like to sincerely thank the audience at BUCLD 44, Boston University’s Paula Menyuk Travel Award, the Linguistics Research Award of the Department of Linguistics at UHM, the Language Acquisition Reading Group at UHM, William O’Grady, Shin Fukuda, Bonnie D. Schwartz, Haerim Hwang, Jeffrey Lidz, Ivano Caponigro, Kristen Syrett, Tetsuya Sano, Takuya Goro, Kyoko Yamakoshi, Hiroyuki Shimada, Yoshiki Fujiwara, TPL in Japan, Hagioka kindergarten, Shoei kindergarten, and Yachiyo nursery school in Japan.

2. Empathy verbs in Japanese

Japanese has two giving verbs, *ageru* and *kureru*, and a receiving verb, *morau*, and this makes it possible to describe a single event in three different ways (or more accurately, from three different perspectives) by using the three different verbs. For example, suppose a scenario involving John and Mary, and John gave a present to Mary. We can describe this event in three ways as illustrated below.

(1) John-ga Mary-ni present-o AGE-ta.
   John-Nom Mary-Dat present-Acc give-Past
   ‘John gave a present to Mary.’

(2) John-ga Mary-ni present-o KURE-ta.
   John-Nom Mary-Dat present-Acc give-Past
   ‘John gave a present to Mary.’

(3) Mary-ga John-ni present-o MORAT-ta.
   Mary-Nom John-Dat present-Acc receive-Past
   ‘Mary received a present from John.’

These three sentences describe the same event, but describe it from three different perspectives. (1) and (2) in particular describe the event from the subject’s perspective (*ageru*) or the indirect object’s perspective (*kureru*). These verbs can convey benefactive meanings by attaching to another verb as shown in (4) to (6).

   John-Nom Mary-Dat present-Acc buy-give-Past
   ‘John bought a present for Mary.’

   John-Nom Mary-Dat present-Acc buy-give-Past
   ‘John bought a present for Mary.’

   Mary-Nom John-Dat present-Acc buy-receive-Past
   ‘Mary received benefit from John’s buying a present.’

Note that while (1)/(2) and (4)/(5) look identical, they actually are not. *Ageru ‘give,’ kureru ‘give,’ and morau ‘receive’ are different in terms of who the speaker empathizes with, or whose perspective (i.e. also referred to as point-of-view or viewpoint) the speaker takes when describing the event (Kuno, 1987; Kuno & Kaburaki, 1977; a.o.). Japanese speakers cannot describe the giving or the benefactive event from a neutral and objective perspective (Kuno & Kaburaki, 1997; 630), and must use these distinct verbs depending on whose perspective the speaker takes. With *ageru*, the speaker describes the event from John’s perspective rather than Mary’s; with *kureru*, the event is described from Mary’s perspective rather than John’s; and with *morau*, the event is described...
from Mary’s perspective again, but in this case (unlike with kureru), Mary is the subject but not the indirect object.

We can detect this perspective-sensitive property by using a first-person pronoun, watasi ‘I’: because watasi refers to the speaker, the speaker cannot take the perspective of anybody other than themselves, if they appear in the sentence (cf. Kuno, 1987, who claims the speaker cannot empathize with anybody more than the speaker themselves). Therefore, watasi only appears as the giver subject with ageru, it only appears as the recipient indirect object with kureru, and it is more natural to use watasi as the recipient subject with morau.

In this paper, we call this observation the First-Person Constraint (FPC). Table 1 summarizes the distinction among the verbs.

   I-Nom Mary-Dat present-Acc buy-give-Past
   ‘I bought a present for Mary.’

   Mary-Nom I-Dat present-Acc buy-give-Past
   ‘Mary bought a present for me.’

   I-Nom Mary-Dat present-Acc buy-give-Past
   ‘I bought a present for Mary.’

   John-Nom I-Dat present-Acc buy-give-Past
   ‘John bought a present for me.’

   I-Nom John-Dat present-Acc buy-receive-Past
   ‘I received a benefit from John’s buying a present.’

b. ??John-ga watasi-ni present-o katte-MORAT-ta.
   John-Nom I-Dat present-Acc buy-receive-Past
   ‘John received a benefit from my buying a present.’

| Table 1: Argument structures of each verb and restrictions on first person pronouns |
|---------------------------------|---------|----------|---------|---------|---------|---------|
|                                 | ageru ‘give’ | kureru ‘give’ | morau ‘receive’ |
| Grammatical role                | subject   | indirect object | subject   | indirect object | subject   | indirect object |
| Theta-role                      | giver     | recipient      | giver     | recipient      | recipient | giver      |
| First-person pronoun            | ✓         | *              | *         | ✓           | ✓           | ??         |

1. These judgments are based on Kuno (1987).
In this study, we examine whether Japanese children know the perspective-sensitive properties of these verbs by using the FPC as a diagnostic.

3. Previous acquisition studies

There have been several acquisition studies on *ageru*, *kureru*, and *morau* in Japanese, and they showed mixed findings. In spontaneous speech data, it has been reported that *ageru* emerges first, and the order of *kureru* or *morau* is different among children (Okubo, 1967; Fujiwara, 1977; Horiguchi, 1979; Clancy, 1985). Importantly, Horiguchi (1979) observed that a child (2;0-3;1) often incorrectly produced *kureru* with a first-person subject (42.6% out of the all utterances of *kureru*), but he seldom incorrectly produced *ageru* and *morau* with a first-person indirect object (6.3% for *ageru*, and 9.3% for *morau*). This suggests that children struggle with the indirect-object perspective.

However, previous experimental studies differed. Uyeno, Harada, Hayashibe, and Yamada (1978) tested 4- to 6-year-olds with *ageru*, *kureru*, and *morau* sentences containing a 3rd-person subject and a 3rd-person indirect object by using three tasks: a sentence-picture matching task, a sentence-repetition task, and an act-out task. In the first and the third tasks, children were better with *ageru* and *kureru* than *morau* in all age groups. Even 6-year-olds answered *morau* sentences correctly only around 60% of the time. In the second task, there was no clear difference among three verbs. Moreover, Okabe (2005, 2011) compared 4- to 6-year-olds’ comprehension of *ageru* and *morau* sentences (but not *kureru*) containing a 3rd-person subject and a 3rd-person indirect object with a Truth Value Judgment task (Crain & Thornton, 1998), and reported that children have difficulty in comprehending *morau* more than *ageru*. Thus, unlike the spontaneous speech data, experimental studies indicate that *morau* is more difficult than *ageru* and *kureru*.

Although the speaker’s perspective associated with these verbs is a crucial property that children need to acquire, it has not been experimentally investigated whether Japanese children have the knowledge of this, as far as we know.

4. Experiment 1

The aim of Experiment 1 is to investigate whether Japanese children know the perspectival difference between *ageru*, *kureru*, and *morau*, by using the FPC as a diagnostic.

---

2. Okabe (2005) showed that 4- to 6-year-olds’ performance on *morau* ‘receive’ improved when a source argument (i.e. a giver argument in (9)) was *kara* ‘from’-marked, but not *ni* ‘Dat’-marked. Furthermore, Okabe (2011) showed that 4- to 6-year-olds performed well on *morau* even with *ni*-marked source argument when it is an indirect benefactive sentence (i.e. the subject argument of *morau* is not an actual recipient of the accusative object), but not a direct benefactive sentence. See Okabe (2005, 2011) for more detailed discussions.
4.1. Participants

Table 2 shows basic information about the participants.

<table>
<thead>
<tr>
<th>Table 2: Participants of Experiment 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children</strong></td>
</tr>
<tr>
<td>Age range</td>
</tr>
<tr>
<td>Number of participants</td>
</tr>
</tbody>
</table>

4.2. Materials and Procedure

We used the Truth Value Judgment Task (TVJT; Crain and Thornton, 1998). The TVJT stories were shown to a child on a laptop computer. There were 6 training items and 12 test items, consisting of 4 items each for *ageru, kureru*, and *morau*. In every test item, the main verb was *kau* ‘buy’. We had two lists, one list presented the test items in the order of *ageru, kureru*, and *morau*, while the other list presented in the order of *morau, kureru*, and *ageru*.

In this experiment, the narrator of the story is a participant of an event described in the story as shown in Figure 1. After the story was narrated, the speaking character (the panda in figure 2) was switched to the other animal (the mouse in Figure 2). The purpose of this switch was to make the discourse saliency of each animal be equal and to bring attention to who the speaker is. (10) shows a sample story followed by the clarification questions about the story. We excluded children who couldn’t answer these clarification questions correctly. The children’s task was to judge whether the speaker of the test sentence is telling the truth or a lie to a dinosaur, who pops up after the story.

(10) a. **The panda**: Yesterday was my (the panda’s) and the mouse’s birthday, so we decided to do a present exchange. I was about to buy an orange, but because the mouse didn’t like oranges, I bought an apple for the mouse. The mouse was about to buy an apple for me as well, but the apples were expensive, thus the mouse bought an orange for me.

![Figure 1: the first scene of the story](image1)

![Figure 2: the last scene of the story](image2)
b. Clarification questions (asked to the child by the experimenter):
  i. What did the mouse buy? (answer: the orange)
  ii. What did the panda buy? (answer: the apple)

c. Lead-in (uttered by the experimenter toward the child):
The mouse is going to tell the dinosaur about the story, but the mouse sometimes kindly tells a truth but sometimes tells a lie to the dinosaur. Can you tell the dinosaur whether the mouse tells a truth or a lie?

(11a) to (13a) show the test sentences of *ageru*, *kureru*, and *morau*\(^3\). Most crucially, both the subject and the indirect object were elided in every test sentence. This manipulation allows us to investigate which argument, the subject or the indirect object, children assign first-person reference (i.e. the speaker of the test sentence). (11a) to (13a) show the actual test sentences with the elided giver and recipient (the parenthesized arguments are null), whereas (11b) to (13b) show the target interpretations, that is, interpretations after the first-person referent is assigned to the correct argument position based on the verb. The last scene of the story was visible while participants heard the test sentence to prevent complications with remembering the story.

(11) *Ageru* ‘give’
   a. Test sentence provided by the mouse
      Kinou (giver) (recipient) orange-o katte-AGE-ta yo.
      Yesterday orange-Acc buy-give-Past SFP

   b. Correct interpretation: TRUE
      Kinou watasi-ga (panda-ni) orange-o katte-AGE-ta yo.
      Yesterday I-Nom panda-Dat orange-Acc buy-give-Past SFP
      ‘Yesterday, I bought an orange for the panda.’

(12) *Kureru* ‘give’
   a. Test sentence provided by the mouse
      Kinou (giver) (recipient) orange-o katte-KURE-ta yo.
      Yesterday orange-Acc buy-give-Past SFP

   b. Correct interpretation: FALSE
      Kinou (panda-ga) watasi-ni orange-o katte-KURE-ta yo.
      Yesterday panda-Nom I-Dat orange-Acc buy-give-Past SFP
      ‘Yesterday, the panda bought an orange for me.’

---
3. We used different stories for each test sentence in the actual experiment.
Recall that the first-person referent should be a giver subject with *ageru*, it should be a recipient indirect object with *kureru*, and it should be a recipient subject with *morau*. Therefore, in (11), the first-person referent, the mouse, should be the giver of the orange, yielding a true answer. While in (12) and (13), the mouse should be the recipient, yielding an expected false answer in this scenario.

### 4.3. Results and Discussion of Experiment 1

Table 3 shows the percentages of correct assignments of first-person referents in each verb. Although we used two lists, we didn’t find a difference between them, and thus we show the aggregated results.

<table>
<thead>
<tr>
<th></th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-year-olds (n=5)</td>
<td>5-year-olds (n=6)</td>
</tr>
<tr>
<td><em>ageru</em> ‘give’</td>
<td>95% (19/20)</td>
<td>100% (24/24)</td>
</tr>
<tr>
<td><em>kureru</em> ‘give’</td>
<td>35% (7/20)</td>
<td>79.2% (19/24)</td>
</tr>
<tr>
<td><em>morau</em> ‘receive’</td>
<td>90% (18/20)</td>
<td>95.8% (23/24)</td>
</tr>
</tbody>
</table>

The 6-year-olds responded in a target-like way, showing that they have adult-like knowledge of the perspective-sensitive properties of these verbs. The 5-year-olds showed adult-like accuracy with *ageru* and *morau*, but their accuracy was degraded with *kureru*. Finally, the 4-year-olds also showed adult-like accuracy with *ageru* and *morau*, which indicates that the 4-year-olds have already acquired the perspectival distinction between *ageru* and *morau*. However, their accuracy was poor on *kureru*, answering correctly only 35% of the time. This is consistent with the spontaneous speech data (Horiguchi, 1979), but inconsistent with the previous experimental studies (Uyeno et al., 1978; Okabe, 2005, 2011).
In sum, the 6- and most of the 5-year-olds correctly assigned first-person reference to the giver subject with *ageru*, the recipient indirect object with *kureru*, and the recipient subject with *morau*. While the 4- and some 5-year-olds correctly assigned first-person reference to the giver subject with *ageru* and the recipient subject with *morau*, they incorrectly assigned first-person reference to the giver subject and not the recipient indirect object with *kureru*.

We suggest that there are at least two possible interpretations of our results. First, it is possible that 4-year-olds do not know the perspective-sensitive property of *kureru* yet, and they comprehend *kureru* sentences as *ageru* sentences. Second, it is also possible that 4-year-olds know the perspective-sensitive property of *kureru*, but some aspect of their maturing cognitive ability interferes with comprehension. That is, children initially tend to interpret the speaker as describing the event from the perspective of the subject argument. *Ageru* and *morau* pose no challenge because both verbs require subject perspective. However, with *kureru*, because it requires the speaker to take the indirect-object perspective, when children hear *kureru* at the end of the sentence, they need to switch the speaker’s perspective from the subject (their initial assumption) to the indirect object. This may cause difficulty for children who cannot switch perspective flexibly. (14) schematizes this hypothesis. Parenthesized arguments are null as in the test sentences. (15) summarizes our hypothesis.

\[ \text{↓ children's initial perspective assignment} \]

(14) a. (I-Nom) (Recipient-Dat) orange-Acc buy-AGE-Past 
   b. (*I-Nom) (Recipient-Dat) orange-Acc buy-KURE-Past 
   c. (I-Nom) (Giver-Dat) orange-Acc buy-MORA-Past

(15) Our hypothesis
a. Young children know the perspective-sensitive properties of benefactive verbs.
b. Their initial tendency is to interpret the speaker as describing the event from the perspective of the subject argument.
c. When they encounter *kureru*, they are unable to switch perspectives on the fly, resulting in them behaving in a non-adult-like manner.

We investigate this hypothesis in Experiment 2, by adopting a test measuring children’s ability to switch perspectives: the Dimensional Change Card Sorting (DCCS) task.

5. Experiment 2

Our research questions of Experiment 2 were as follows: do children who can switch perspective perform well with both *ageru* and *kureru*? Do children who cannot switch perspective perform well with *ageru* but poorly on *kureru*?
5.1. Participants

We tested 25 children and 4 adults in total (Table 4). They are different participants from Experiment 1. Because 6-year-olds were at ceiling in Experiment 1, we only tested 4- and 5-year-olds in Experiment 2.

Table 4: Participants of Experiment 2

<table>
<thead>
<tr>
<th></th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-year-olds</td>
<td>5-year-olds</td>
</tr>
<tr>
<td>Age range</td>
<td>4;1-4;11</td>
<td>5;0-5;11</td>
</tr>
<tr>
<td></td>
<td>(Mean: 4;7)</td>
<td>(Mean: 5;4)</td>
</tr>
<tr>
<td>Number of participants</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

5.2. Materials

In Experiment 2, we tested the participants with two separate tasks: 1) TVJT (identical to Experiment 1, except we didn’t test morau), and 2) Dimensional Change Card Sorting (DCCS) task (Frye, Zelazo & Palfai, 1995; Zelazo, 2006; Kloo et al., 2010; Minai et al. 2012; Doebel & Zelazo 2015; a.o.). The DCCS has been widely adopted to measure preschoolers’ development of executive functions, such as inhibition of a salient stimulus and an ability to switch perspectives.

In the DCCS, children are shown two cards depicting two different objects with two different colors (e.g. a blue rabbit and a red ship) as illustrated in Figure 3 (Zelazo, 2006). The child must sort the cards either by color or by shape. After sorting 6 cards with the same rule (Zelazo, 2006; a.o.), the rule is switched to the other dimension, Figure 4. At this point, the child needs to switch his/her perspective from one dimension to the other dimension. We measure how many cards the child correctly sorted in the post-switch phase, that is, after the perspective switch occurred.

![Figure 3: Pre-switch phase: sort cards by the color](image)

blue rabbit  
red ship  
blue ship
Based on Experiment 1, we hypothesized that children’s initial assumption is that the speaker describes the event from the perspective of the subject argument. Therefore, when children hear *kureru*, they have to inhibit this tendency (i.e., assigning the speaker’s perspective to the subject), and switch perspective to the indirect object. Hence, our expectations are as follows:

(16) a. Children who perform well with the DCCS also do well with both *ageru* and *kureru*.

b. Children who poorly perform with the DCCS do well with *ageru* but poorly with *kureru*.

We acknowledge that the DCCS is not testing the same type of perspective switch as that involved in *ageru* and *kureru*, but our aim was to measure any correlation that might exist between cognitive flexibility of any kind (as measured by the DCCS) and our previous results on perspective. Our hypothesis assumes that the subject perspective is the unmarked option, making the switch from subject perspective to non-subject perspective more challenging than from non-subject to subject perspective. To make the DCCS fit this mold, we designed our DCCS in the following manner. We had two dimensions that differed in terms of how familiar they are. So in this version of the DCCS, children started with an unmarked dimension (familiar colors) and then switched to a marked dimension (unfamiliar shapes), to mimic the switch from subject to non-subject perspective (Figure 5&6, see Yerys & Munakata, 2006, for the DCCS task using novel shapes).
In Experiment 2, the order of test sentences was always *ageru* first, and *kureru* second. This corresponds to the current DCCS task, in which the first rule is sorting cards based on the familiar color and the second rule is sorting cards based on the novel shapes. So in both the TVJT and DCCS, children were exposed to the unmarked variant first (i.e. *ageru* in the TVJT, familiar colors in the DCCS) and then the marked one later (i.e. *kureru* in the TVJT, novel shapes in the DCCS).

5.3. Results and Discussion of Experiment 2

Let us look at the results of the TVJT first. Table 5 shows the percentages of correct assignments of first-person referents with each verb.

<table>
<thead>
<tr>
<th></th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-year-olds (n=13)</td>
<td>5-year-olds (n=12)</td>
</tr>
<tr>
<td><em>ageru</em> ‘give’</td>
<td>92.3% (48/52)</td>
<td>97.9% (47/48)</td>
</tr>
<tr>
<td><em>kureru</em> ‘give’</td>
<td>50% (26/52)</td>
<td>77.1% (37/48)</td>
</tr>
</tbody>
</table>
This replicates the results of Experiment 1, showing that both 4- and 5-year-olds were target-like with *ageru*, 5-year-olds’ accuracy with *kureru* was slightly degraded, and 4-year-olds’s accuracy with *kureru* was largely degraded.

Table 6 illustrates: those who passed the DCCS and those who failed it. Following previous studies using the DCCS (e.g. Zelazo, 2006; a.o.), children who sorted more than 5 out of 6 cards passed the DCCS, whereas children who sorted less than 5 out of 6 cards failed the DCCS.

Table 6: The number and the age range of the children who passed or failed the DCCS

<table>
<thead>
<tr>
<th></th>
<th>4-year-olds</th>
<th>5-year-olds</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCS Pass</td>
<td>6 (4;3-4;11)</td>
<td>9 (5;0-5;11)</td>
<td>15 (4;3-5;11)</td>
</tr>
<tr>
<td>DCCS Fail</td>
<td>7 (4;1-4;11)</td>
<td>3 (5;1-5;3)</td>
<td>10 (4;1-5;3)</td>
</tr>
</tbody>
</table>

Finally, Table 7 provides the relation between the children’s performance with the DCCS and their accuracy with *ageru* and *kureru*.

Table 7: Percentages of accurate responses of *ageru* and *kureru* based on the results of DCCS

<table>
<thead>
<tr>
<th></th>
<th><em>ageru</em> ‘give’</th>
<th><em>kureru</em> ‘give’</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCS pass (n=15)</td>
<td>100% (60/60)</td>
<td>91.7% (55/60)</td>
</tr>
<tr>
<td>DCCS fail (n=10)</td>
<td>87.5% (35/40)</td>
<td>20.0% (8/40)</td>
</tr>
</tbody>
</table>

It is clear that children who passed the DCCS comprehended *ageru* and *kureru* very well, while children who failed the DCCS comprehended *ageru* well but *kureru* poorly. This tendency is consistently observed in the individual results as shown in Table 8 (DCCS pass) and Table 9 (DCCS fail).

Table 8: Individual accuracy of *ageru* and *kureru* who passed the DCCS

<table>
<thead>
<tr>
<th></th>
<th>Number of correct card sorting in the post-switch phase</th>
<th><em>ageru</em> ‘give’</th>
<th><em>kureru</em> ‘give’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A (4;3)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child B (4;4)</td>
<td>5/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child C (4;10)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child D (4;10)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child E (4;11)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child F (4;11)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>50% (2/4)</td>
</tr>
<tr>
<td>Child G (5;0)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child H (5;1)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child I (5;1)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child J (5;4)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child K (5;6)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child L (5;6)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child M (5;8)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child N (5;11)</td>
<td>6/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child O (5;11)</td>
<td>5/6</td>
<td>100% (4/4)</td>
<td>100% (4/4)</td>
</tr>
</tbody>
</table>

Table 9: Individual accuracy of *ageru* and *kureru* who failed the DCCS

<table>
<thead>
<tr>
<th>Number of correct card sorting in the post-switch phase</th>
<th><em>ageru</em> ‘give’</th>
<th><em>kureru</em> ‘give’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child P (4;1)</td>
<td>0/6</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child Q (4;7)</td>
<td>2/6</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child R (4;7)</td>
<td>0/6</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child S (4;8)</td>
<td>1/6</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child T (4;10)</td>
<td>2/6</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child U (4;11)</td>
<td>0/6</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child V (4;11)</td>
<td>4/6</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child W (5;1)</td>
<td>0/6</td>
<td>100% (4/4)</td>
</tr>
<tr>
<td>Child X (5;1)</td>
<td>4/6</td>
<td>75% (3/4)</td>
</tr>
<tr>
<td>Child Y (5;3)</td>
<td>2/6</td>
<td>100% (4/4)</td>
</tr>
</tbody>
</table>

The individual results also indicate that children who could switch perspective flexibly in the DCCS did well with both *ageru* and *kureru*, whereas children who could not switch perspective in the DCCS did well with *ageru* but not with *kureru*.

These results support our hypothesis: children’s difficulty with *kureru* is not due to an absence of grammatical knowledge, but because their cognitive ability to switch perspectives is still developing.

6. Conclusion

In this study, we investigated whether Japanese children know the perspectival distinctions among three benefactive verbs, *ageru*, *kureru*, and *morau*, by adopting the first-person constraint as a diagnostic. Our experiments provided two findings. First, Japanese children have difficulty with *kureru*, incorrectly assigning the first-person referent to the giver subject. We argued that there are two possible explanations for this difficulty with *kureru*: 1) a lack of knowledge of the perspective-assigning properties of *kureru*, or 2) perseveration: children initially adopt the hypothesis that the speaker describes the event from the perspective of the subject argument, and during the course of the test sentence, they are unable to retreat from this incorrect hypothesis. Our second experiment indicated that children who can switch perspectives on the DCCS perform in the target-like way with both *ageru* and *kureru*, while children who cannot switch perspectives on the DCCS show low accuracy with *kureru*. Hence, we conclude that the more likely source for the apparent degraded performance on *kureru* is not a lack of knowledge of the properties of the verb, but a result of children’s developing abilities in other domains of cognition.
References


Proceedings of the 44th annual Boston University Conference on Language Development

edited by Megan M. Brown and Alexandra Kohut

Cascadilla Press Somerville, MA 2020

Copyright information

Proceedings of the 44th annual Boston University Conference on Language Development © 2020 Cascadilla Press. All rights reserved

Copyright notices are located at the bottom of the first page of each paper. Reprints for course packs can be authorized by Cascadilla Press.

ISSN 1080-692X

Ordering information

To order a copy of the proceedings or to place a standing order, contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA phone: 1-617-776-2370, sales@cascadilla.com, www.cascadilla.com