What Children See Is Not What They Get

Introduction: This study re-investigates the acquisition of ellipsis in Japanese and pursues the structure question in (1). According to Merchant (2016), there are three types of theoretical questions in the study of ellipsis: the structure question (1), the identity question (2), and the licensing question (3). Pursuing the structure question in acquisition sheds light on whether children’s syntax is strict to the surface or abstract. If the answer to (1) is negative and the non-structural approach is taken (i.e. no deleted parts, no null elements), children’s grammar may represent what we could call WYSIWYG, ‘what you see is what you get’. In contrast, if the answer is positive and children take the structural approach, their grammar must permit unpronounced syntactic structures.

Background: Japanese allows elliptical constructions like (4) and (5). Under the structural approach (i.e. ellipsis of arguments), the missing objects are syntactically active, as in (6a). However, the nonstructural approach does not posit unpronounced elements, as in (6b). Interestingly, both structures are allowed in Japanese in cases like the missing-object constructions. (6a) represents ellipsis (Oku 1998; Otani and Whitman 1991). Under the ellipsis approach, the missing objects are included in the interpretation of the sentences. On the other hand, (6b) corresponds to the structure of intransitive verbs. Japanese transitive verbs can be used as intransitive more widely than English ones. For example, (4) can obtain the intransitive reading with the intransitive use of the verb. Thus, truth-conditionally, it is true as long as Miffy’s stepping-on event happens.

Research Question: This study investigates whether Japanese children can access ellipsis interpretations in order to identify the nature of the ellipsis site in children’s grammar.

Previous studies: Although several studies have already reported that Japanese children can access ellipsis interpretations, we point out an alternative explanation for their data: the parallelism strategy. The target sentences in most of the previous studies contain -mo ‘also’ as in (7b) and (8b). However, -mo principally imposes the maximal parallelism between the sentence with -mo and its preceding sentence (Funakoshi 2014). Crucially, the ellipsis interpretation in (7b)/8b) can be obtained with this property irrespective of ellipsis. Thus, the mo-marked NPs in copula sentences in (9) also induce the same readings as (7b/8b). This suggests that if children know this parallelism property, they can access the ellipsis interpretations in (7b/8b) without using ellipsis. Therefore, children may have responded to (7b) and (8b) by interpreting the parallelism of -mo and ignored the rest of the sentence.

On the other hand, Sugisaki (to appear) tested (4) in his experiment with a truth-value-judgment task (Crain and Thornton 1998). Note that the parallelism strategy does not work in (4) since it does not have a mo-marked subject. He found that children accepted (4) in the situation in (10) and concluded that they have knowledge of ellipsis. However, the children may have accepted (4) with the intransitive reading. Remember that (4) is true as long as Miffy’s stepping-on event happens; she may step on other’s dog or other animals like a cat. Thus, his study does not tell us about whether children’s syntax is abstract or WYSIWYG.

(11) summarizes the possibility of the parallelism strategy and the intransitive reading in the previous studies.

Experiment: In order to avoid the problems above, we tested sentences with a topic-marked subject and quantificational object, like (12). In this experiment, a puppet is asked with the question in (12a) after the situation in (13). The participant’s task is to judge whether the puppet’s answers (12b,c) matches (13) or not. Under the ellipsis readings, (12b) is true and (12c) false, whereas under the intransitive readings, (12b) is false and (12c) true. We tested three items like (12b) and three items like (12c). 13 children (age 5;5-6;4/ Mean 5;9) and 13 adults participated. One child was excluded from the analysis because his/her answers did not change between (12b) and (12c), which suggests that he/she ignores the predicate in (12b) and (12c). If children’s grammar is WYSIWYG (i.e. the nonstructural approach), they should dislike the ellipsis readings and access the intransitive readings in (12b,c). In contrast, if their grammar permits unpronounced syntactic structures, their access to the ellipsis readings is expected. As in (14), in (13), children mostly accepted (12b) and rejected (12c). The acceptance rate of (12b) and rejection rate of (12c) were both 86.1%. The adults completely accepted (12b) and rejected (12c). Remember that the ellipsis readings in this experiment cannot be obtained through the parallelism strategy. The result suggests that Japanese 5-year-olds have knowledge of ellipsis; their grammar is not WYSIWYG.
(1) **Structure Question**: In elliptical constructions, is there unpronounced syntactic structure?
(2) **Identity Question**: What is the relationship between the understood material in ellipsis and its antecedent?
(3) **Licensing Question**: What heads or positions or structures allow for ‘ellipsis,’ and what are the locality conditions on the relation between these structures and ellipsis?

(4) Anpanman-wa zyoozuni zibun-no wantyan-o tobikoeta kedo, Anpanman-top successfully self-GEN puppy.dog-ACC jumped.over but
Miffy-wa ______ hunzuketyatta yo.
Miffy-top stepped.on Prt
Ellipsis reading: ‘Anpanman jumped over his dog, but Miffy stepped on her dog.’
Intransitive reading: ‘…, but Miffy stepped on something.’ (from Sugisaki to appear)

(5) John-wa san-biki-no inu-o moratte-kita kedo, Hanako-wa ______ katta.
John-top three-CL-GEN dog-ACC receive-came but Hanako-top bought
Ellipsis reading: ‘John received three dogs, but Mary bought three dogs.’
Intransitive reading: ‘John received three dogs, but Mary bought something.’

(6) a. Subj Obj V (Oku 1998; Otani and Whitman 1991)
b. Subj V (intransitive use)
(7) a. ‘The panda1 is washing his1 tricycle.’ (English translation of the antecedent sentence)
b. Butasan-mo zibun-no sanrinsya-o aratteru yo.
pig-also self-GEN tricycle-ACC washing Prt
Ellipsis reading: ‘The pig1 is also washing his1 tricycle.’ (from Sugisaki 2007)
(8) a. ‘The bear kicked three balls.’ (English translation of the antecedent sentence)
fox-also 3-CL-GEN ball-ACC kick-PAST Prt
Ellipsis reading: ‘The fox also kicked three balls.’ (from Otaki 2014)
(9) (Sore-wa) buta/kitsune-mo da.
It-top pig/fox-also Cop
be-interpreted-as: ‘The pig1 is also washing his1 tricycle. (after 7a)’
be-interpreted-as: ‘The fox also kicked three balls. (after 8a)’
(10) Situation of (4): Anpanman jumped over his own dog. Miffy also jumped over Anpanman’s dog, but stepped on her own dog.
(11) Summary of the availability of the parallelism strategy and the intransitive reading in the previous studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Children’s age</th>
<th>Possibility of the parallelism strategy</th>
<th>Possibility of the intransitive reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matsuo (2007)</td>
<td>3:7-6;11 / M 5:4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sugisaki (2013)</td>
<td>4:1-6;7 / M 5:10</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Otaki (2014)</td>
<td>4:3-6;2 / M 5:2</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Sugisaki (to appear)</td>
<td>3:10-4;7 / M 4:4</td>
<td>×</td>
<td>✓</td>
</tr>
</tbody>
</table>

(12) a. Usagi-wa mit-tsu-no ringo-o tabeta kana?
rabbit-top 3-CL-GEN apple-ACC ate Q
‘Did the rabbit eat three apples?’

b. Usagi-wa ___________ tabenakatta yo.
rabbit-top did.not.eat Prt
Ellipsis reading: ‘The rabbit did not eat three apples.’ (True in 13)
Intransitive reading: ‘The rabbit did not eat anything.’ (False in 13)

c. Usagi-wa ___________ tabeta yo.
Ellipsis reading: ‘The rabbit ate three apples.’ (False in 13)
Intransitive reading: ‘The rabbit ate something.’ (True in 13)

(13) Story: The monkey eats three apples, while the rabbit eats two.

(14) Result

<table>
<thead>
<tr>
<th></th>
<th>ellipse reading</th>
<th>intransitive reading</th>
<th>Child</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>(12b)</td>
<td>Accept</td>
<td>Reject</td>
<td>31/36 accept (86.1%)</td>
<td>39/39 accept (100%)</td>
</tr>
<tr>
<td>(12c)</td>
<td>Reject</td>
<td>Accept</td>
<td>31/36 reject (86.1%)</td>
<td>39/39 reject (100%)</td>
</tr>
</tbody>
</table>