The Acquisition of Case and Word Order in Korean: A Note on the Role of Context

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This paper reports on a study of the effects of context on Korean children's comprehension of SOV and sentences. Consistent with the results reported by Otsu (1994) for Japanese, it was found that a simple lead-in sentence improves comprehension scores for OSV patterns. However, there is some indication that this context may actually interfere with the interpretation of SOV structures.

1. Background

It is well known that Korean allows relatively free ordering of its subject and direct object arguments. Thus, either of the following two patterns is acceptable in Korean.

(1) Yeca-ka   namca-lul mil-ess-ta.
    girl-Subj boy -Obj   pushed
    'The girl pushed the boy.'

(2) Namca-lul yeca-ka mil-ess-ta.
    boy -Obj   girl-Subj pushed
    'The girl pushed the boy.'

Under such circumstances, the nominative and accusative case suffixes (*-i/ka* and *- ul/lul*, respectively) play a crucial role in identifying the subject and direct object. An understanding of the function of these elements is

thus essential to the formation and interpretation of Korean sentences.

Previous work on the acquisition of case (e.g. Cho 1981, Chung 1994) suggests that children are unable to use case markers to interpret OSV sentences until after age three and a half. Prior to that time, they interpret the majority of OSV patterns as if they are SOV structures. Thus, the sentence in (2) above tends to be interpreted as if it were (3).

(3) Namca-ka yeca-lul mil-ess-ta.
    boy -Subj girl-Obj pushed
    'The boy pushed the girl.'

In Chung's (1994) study, for example, 24 monolingual Korean children used toys to act out the meaning of various sentence types, including SOV patterns with both case markers present, OSV patterns with both case markers, and OSV patterns with only a nominative case marker.[1] Chung's findings are summarized in table 1.

Table 1. Percentage of Correct Responses in Chung's Comprehension Task

Group	Age	S-Nom O-Ac V	O-Ac S-Nom V	O-ϕ S-Nom V
I (N=6)	2;8-3;0	67%	33%	33%
II (N=6)	3;3-3;5	83	50	28
III (N=6)	3;7-3;10	100	72	33
IV (N=6)	4;1-4;6	100	78	61

The key finding here is that even when both case markers were present, children as old as four interpreted OSV patterns correctly only three-quarters of the time.

An unfortunate feature of previous studies on case and word order is that the test sentences were presented to the children in isolation, even though in actual language use an OSV pattern would normally occur in a context in which there had been some previous mention of the object argument, placing it in focus and thereby justifying its appearance in sentence-initial position. The importance of context to children's interpretation of OSV patterns was first established by Otsu (1994) in his study of this phenomenon in Japanese. Otsu reasoned that children's ability to comprehend

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[1] Chung's study also included a series of NVN patterns that we do not consider here.

OSV patterns such as (4) might be enhanced if the sentence were accompanied by the type of context normally found with the OSV order in natural speech.

(4) Sono ahirusan-o kamesan-ga osimasita.
    the duck -Ac turtle -Nom pushed
    'The turtle pushed the duck.'

He therefore designed an experiment in which such sentences were presented with and without the type of preceding discourse context illustrated in (5).

(5) Kooen-ni ahirusan-ga imasita.
    park -in duck -Nom be
    'There was a duck in the park.'

The subjects in Otsu's experiment (24 monolingual Japanese children aged 3;1 to 4;11) used toys to act out the meaning of OSV sentences presented with and without the type of context exemplified in (5). Table 2 summarizes the results of Otsu's study.

Table 2. Percentage of Correct Responses in Otsu's Comprehension Task

Group	Age	SOV patterns	OSV patterns [4 tokens]
No-context	3;1-3;11(N=6)	N/A	25%
	4;1-4;11(N=6)	N/A	67
With-context	3;1-3;10(N=6)	N/A	83%
	4;0-4;11(N=6)	N/A	96

Otsu's results show poor performance among 3- and 4-year olds (mean scores of 25% and 67%, respectively) when the sentences are presented in isolation. However, scores for both groups are dramatically better (83% and 96%, respectively) when the simple context exemplified in (5) is provided.

These results strongly suggest that children as young as age 3 have an understanding of the role of case markers in Japanese, but that they draw on this knowledge only when the discourse context opens the possibility of word order variation in the test sentences. When there is no such context, the children simply assume that the sentence will be of the neutral SOV

type and apparently do not pay attention to the case markers.

This is an important finding and it seems clear that studies of the role of case in interpreting OSV sentences should include test sentences with an appropriate context. The purpose of our study is to investigate this issue with regard to the acquisition of Korean. In addition, we seek to remedy a potential flaw in Otsu's experimental design, which presented children with OSV sentences with and without contexts, but did not include SOV sentences to serve as a baseline against which to measure the effects of both scrambling and context.

2. Our Study

Subjects : We worked with a group of 68 children (aged 2 to 8), living in Seoul, Korea. In addition, the experiment was administered to four adult native speakers of Korean, who served as a control group.

Materials & Procedure : The experimental procedure for our study involved a picture selection task designed to take advantage of the fact that children have a natural propensity to look at a visual image that is consistent with an auditory stimulus (Hirsh-Pasek & Golinkoff 1991). In comparison to act-out tasks, this procedure requires a minimum of non-linguistic activity (such as picking and manipulating the right toys) and therefore arguably provides a 'purer' test of children's grammatical competence. At the same time, however, the fact that our study was carried out by a different experimenter with a different group of children under different conditions precludes any direct comparison between our scores and those obtained on earlier act-out tasks. The key comparisons will be from *within* our study and will involve children's performance on OSV and SOV sentences with and and without a context.

Each child was tested individually in a quiet place by a native Korean experimenter. As they heard each test sentence, children were shown a pair of pictures (see examples below); they indicated their interpretation of the sentence by pointing to one or the other picture.

We investigated children's comprehension of two sentence types – SOV and OSV, each of which was presented with and without a discourse context comparable to the one used in Otsu's study (described above). Sample sentences and pictures follow.

SOV (no context)

(6) Yeca-ka namca-lul anacwu-e.

    girl-Subj boy-Obj   hug

    'The girl is hugging the boy.'

Fig. 1

OSV (no context)

(7) Koyangi-lul thokki-ka   ssutatum-e.

    cat   -Obj   rabbit-Subj pat

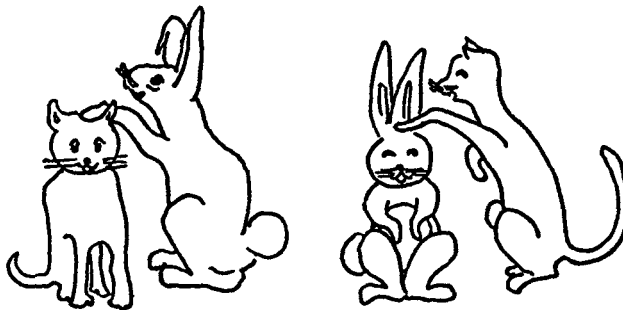   'The rabbit is patting the cat.'

Fig. 2

SOV (with context)

(8) *Context:*

    Yeki twayci iss-e. Ttwungttwungha-ci.

    here pig   exist be fat

    'Here is a pig. He is fat, isn't he?'

Test sentence:

I   twayci-ka holangi-lul mil-e.

this pig-Subj tiger-Obj   push

'This pig is pushing the tiger.'

Fig. 3

OSV (with context)

(9) *Context:*

Yeki namca iss-e. thunthunha-ci.

here boy   exist look strong

'Here is a boy. He looks strong, doesn't he?'

Test sentence

I   namca-lul yeca-ka nemetuly-e.

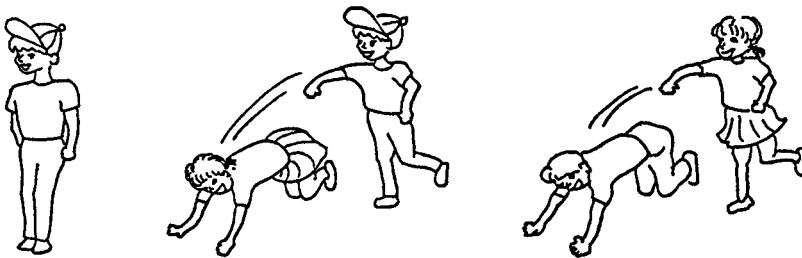this boy -Obj girl-Subj   knock down

'A girl knocks down the boy.'

Fig. 4

There were 4 tokens of each type, so that children heard a total of 16 sentences – 8 SOV patterns and 8 OSV patterns (half with a context and half in isolation). The test sentences were arranged in random order in two blocks. Block 1, consisting of the sentences with no context, was presented

before Block 2, consisting of the sentences with a context. A brief practice session involving intransitive sentences preceded the actual test.

Results : The results for our control group of adults were straightforward, with scores of 100% for all four participants.

Table 3. Scores Obtained by a Control Group of Adult Native Speakers (N=4)

No Context		With Context	
SOV	OSV	SOV	OSV
100%	100%	100%	100%

Table 4 presents the results of the experiment involving the children. (All errors involved reversals: OSV sentences were interpreted as SOV patterns or vice versa.)

Table 4. Mean Scores (out of 4) Obtained by the Children

Subjects		No Context		With Context	
Age	No. of children	SOV	OSV	SOV	OSV
2	9	1.44	1.56	2	2
3	10	1.6	1.9	1.3	1.6
4	9	2	2.2	1.78	2.56
5	10	3.2	2.5	3.4	3.2
6	10	3.1	1.9	3.4	3.6
7	10	3.6	1.6	3.8	3.4
8	10	4	2	3.7	3.6
Overall mean		2.73	1.96	2.80	2.87

Above-chance performance generally did not occur until age 4, but scores above 3 out of 4 were common by age 5. The results by age group are noticeably lower than those obtained by Chung (table 1 above), although they are roughly comparable to those reported by Otsu for Japanese. However, as noted above, direct comparison across experiments is not feasible. Our primary concern is with the effect of context on children's performance within our experiment.

Consistent with Otsu's findings, Korean children generally do better on OSV sentences that are presented with a context: the overall mean score on the OSV patterns without a context was only 1.96 (48.9%), compared to 2.87 (71.7%) with a context. This difference was statistically significant (F (1,67)=56.88, P=.0001). There was no significant difference in the overall mean scores for SOV sentences without and with a context (2.73 and 2.80, respectively)

Interestingly, context had an unexpected effect on the 4-year-olds, who performed significantly better (F(1,8)=5.765, P<.05) on OSV patterns with a context than on the comparable SOV patterns (2.56 vs. 1.78).[2] This suggests that, at least for this group of subjects, the context favored the marked OSV pattern to the point that it became more natural than the SOV pattern, overriding the general preference for the latter order.

Since Otsu's study did not include SOV patterns, there is no way to know whether such an effect was at work among his subjects as well. However, its presence here points to the need for further evaluation of the role of context in interpreting OSV patterns. The purpose of including a context is to make the OSV pattern as natural as the SOV pattern, thereby encouraging children to draw on their knowledge of case markers to determine which structure they have encountered. If, however, the context ends up favoring the OSV pattern, we have simply replaced the bias in favor of SOV patterns by the opposite bias – thereby creating a new problem. This question clearly merits further consideration.

3. Conclusion

In sum, our study provides some support for the view that an appropriate context can facilitate children's use of case to interpret OSV sentences: performance above the level of chance emerges around age 4 for OSV sentences used with an appropriate context compared to age 5 when there is no context. At the same time, however, our results raise the possibility that the type of context used in our study (and in Otsu's) may be overly favorable to the OSV interpretation, at least for children who are just beginning

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[2] A slight preference for OSV patterns can be discerned among 3-year-olds when there is a context and among 2-, 3- and 4-year-olds when there is no context, but these differences were not statistically significant.

to acquire the case contrasts (i.e., the 4-year-olds). Further refinements may be required to create conditions under which word order variation is natural enough to permit a straightforward test of children's knowledge of case.[3]

References

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[3] As noted by an anonymous referee, a more comprehensive study of this issue would also include sequences in which the context-setting item corresponds to the second NP in the test sentence. Thus, in the case of (8) above, there would be a sequence in which the tiger rather than the pig was introduced contextually.