

Korean Children's Acquisition of Relative Clauses

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Various studies have reported that subject relative clauses (*the boy who likes the woman*) are easier to produce and comprehend than object relatives (*the boy that the woman likes*). To expand this discussion, this study investigates young children's production of head-final relative clauses in Korean. In particular, it is examined whether Korean children acquire relativization in the order predicted by Keenan and Comrie's (1977) NPAH hypothesis. Data were collected from 21 monolingual Korean children (mean = 6;8) and 11 adults. An elicited production task was used to assess Korean children's acquisition of RCs. The recorded responses were carefully coded and all data were included in statistical analysis. The results point toward a strong preference for subject relative clauses, which supports Keenan and Comrie's NPAH hypothesis. The patterns of errors that the children made provide strong evidence for a subject-object asymmetry in children's production difficulties with object relative clauses in Korean. Two factors are proposed to account for this asymmetry: an aversion to gaps and a canonical word order preference.

Keywords: relative clauses (RCs), noun phrase accessibility hierarchy (NPAH), L1 acquisition, production task

1. Introduction

This study investigates young children's production of relative clauses (RCs) and deals with the relation between sentence structure and the process of sentence production. RCs have long been of interest to researchers because of their structural complexity – they involve long distance dependencies. Young children are known to have more difficulty comprehending and producing RCs than simple clauses. Asymmetrical patterns of acquisition of object RCs and subject RCs have been observed

among child speakers of a variety of languages in experiments using a variety of comprehension and production measures (S. Cho 1999; Diessel and Tomasello 2000; Hamburger and Crain 1982; Keenan and Comrie 1977; McKee et al. 1998; Zukowski 2001, 2009). In particular, it has been found consistently that in languages with head-initial RCs, such as English, where the head noun precedes the restricting clause, children have more difficulty in comprehending and producing object relatives like (1b) than subject relatives like (1a) (de Villiers et al. 1979; Slobin 1986).

- (1) a. the man [that _ sees the woman]
 b. the man [that the woman sees _]

Keenan and Comrie (1977) proposed a relativization hierarchy, which regards subject relatives as less marked typologically than direct object relatives. The relativization hierarchy (subject > direct object > indirect object > ...) is often called the noun phrase accessibility hierarchy (NPAH). It regulates the relativizability of a noun phrase with respect to the grammatical relations between the head noun and the RC (O'Grady 2003; Ozeki and Shirai 2007). Studies focusing on asymmetrical pattern between subject and object positions as the extraction within the RCs resemble to the Keenan and Comrie's hierarchy (Doughty 1991; Wolfe-Quintero, 1992).

This raises a question as to why the acquisition process should be sensitive to this difference. This article reports the results of an investigation of the acquisition of Korean RCs by native speaker children. Specifically, I re-examine young children's production of pre-nominal RCs in Korean through an experiment that follows a methodology used by S. Cho (1999), which I have modified to address some issues in S. Cho's study. The purpose of this research is to examine whether Korean-speaking children acquire head-external RCs in the order predicted by Keenan and Comrie's hierarchy and its application in first language acquisition. To pursue this primary goal, the study analyzes the responses produced by Korean-speaking children, in comparison to the responses of Korean-speaking adults on the same task.

1.1. Acquisition of Korean RCs

Korean is a head-final language with subject-object-verb (SOV) word order, as shown in (2a). Subject relatives and object relatives are formed as shown in (2b) and (2c), respectively. RCs are pre-nominal in Korean and contain a gap that indicates the grammatical role of the relativized item. In (2b), the subject *namca* (man) is relativized, as shown by the gap in the subject position. In (2c), the object *yeca* (woman) is relativized, as indicated by the gap in the direct object position.

- (2) a. *namca-ka* *yeca-lul* *pon-ta.*
 man-Nom woman-Acc see
 ‘The man sees the woman.’
- b. [*yeca-lul* *po-nun*] *namca*
 woman-Acc see-RC.Prs man
 ‘the man who sees the woman’
- c. [*namca-ka* *po-nun*] *yeca*
 man-Nom see-RC.Prs woman
 ‘The woman who the man sees’
- d. [*namca-ka* *yeca-lul* *po-nun*] *kes*
 man-Nom woman-Acc see-RC.Prs thing
 ‘The woman who the man is seeing’

In particular, as an East Asian language Korean RCs are considered as attributive clauses suggested by Comrie (2007). K. S. Jeon and H.-Y. Kim (2007) and Y.-J. Kim (1987) supported his idea by proposing that Korean has head-external and head-internal RCs. Head-internal RCs have the lexical head within the modifying clause because they have no gaps in the extraction position, as illustrated in (2d).¹⁾ Many acquisition studies on Korean RCs concerned the developmental sequence of RCs types (headless, head-internal, head-external). K.-O. Lee (1991) examined the naturalistic child speech of 36 children from 1;4 to 3;9 years of age. She showed that Korean-speaking children tend to produce headless RC and

1) Some researchers (J. Lee 2006; M.-J. Kim 2009; S. Cho, 2014) investigated the structure of head-internal RCs and their functions from semantic and pragmatic perspectives.

progress to head-internal RCs and finally to head-external RCs.

In previous studies, a preference for subject relatives over direct object relatives in Korean has been observed among various subject groups and with different tasks. Studies using both comprehension and production tasks have established that children perform better on subject relatives than on object relatives (S. Cho 1999; Clancy et al. 1986; Y.-J. Kim 1987; Lee-Ellis 2011; O'Grady et al. 2003). These studies on Korean RCs have provided strong support for the relativization hierarchy's relation to the acquisition of RCs. Clancy et al. (1986) used an act-out comprehension experiment with 30 Korean-speaking children whose ages ranged from 6;3 to 7;3 to study processing strategies in the development of RCs. Results demonstrated that the children comprehended subject RCs better than object RCs. O'Grady et al. (2001, 2003) conducted two related studies. In the earlier study, heritage adult learners completed a comprehension task, and in the later study, adult second language learners completed the same task. The results indicated that both groups comprehended subject RCs more accurately than object RCs. N. Kwon et al. (2006) employed a self-paced reading task to test native-speaker adults' processing of relative clauses. Their study showed faster reading times at the head noun in subject relatives than in direct object relatives. Also, N. Kwon et al. (2008, 2010) have shown a processing advantage for Korean subject RCs as compared with object counter parts with eye-tracking and ERP measurements. Also, a preference for subject RCs over object RCs has been observed in group of learners of Korean in K. S. Jeon & H.-Y. Kim (2007)'s study. As described above, Korean children tend to produce more subject RCs than object RCs in head-external relativization.

S. Cho (1999) used picture selection tasks to test how Korean children of ages 4 to 7 comprehended various types of RCs. His findings in this comprehension task showed an overwhelming preference for subject relatives. To my knowledge, S. Cho's (1999) research is the first empirical study on first language acquisition that tests the difficulty of Korean RCs by using a production task.²⁾ Elicited production tasks typically place

2) Lee-Ellis (2011) also conducted a study with elicited production of Korean RCs by heritage speakers. Her study is not included in this discussion because the focus of the current study is acquisition by monolingual Korean children.

more demands on participants than do comprehension tasks, and the resulting errors can provide valuable information on what makes RCs difficult for children. He concluded that children produced subject RCs better than object RCs.

As a follow-up study of S. Cho (1999)'s work, a few methodological issues of his study will be concerned. First, the materials may have been a bit difficult for the children. Despite the subject RC preference, target responses in both subject and object relative conditions were quite low overall (21% vs. 17% of responses). I calculated the results anew because S. Cho merged head-external RCs with head-internal RCs and considered them all as correct responses. The figures given here are only for one group (6-year-olds) and only for responses that included head-external RCs. The fact that the children heard two verbs in the lead-in description and also saw two different actions in the pictures may have had an effect on their production. Second, the error patterns were not categorized in adequate detail. S. Cho categorized the children's grammatical responses into three types, as shown in table 1.

Table 1. Categorization of Error Patterns in S. Cho (1999)

Head-external RCs	Target response
Head-internal RCs (headed by <i>kes</i> with no gap)	
Headed by <i>kes</i> with a gap	
Other responses	Non-target response
Inappropriate responses	

Table 2. Categorization of Error Patterns in the Present Study

Head-external RCs	Target response
Head-internal RCs (headed by <i>kes</i> with no gap)	Grammatical but non-target response
Doubly headed RCs	Ungrammatical response
Reversal error, Head error, Head + reversal error	RC type errors

However, it is necessary to consider the details of children's production data in order to see why children avoid some types of RCs but produce other, alternative clauses. The current study's more specific analysis of non-target responses, ungrammatical responses, and RC type errors should provide a better understanding of children's difficulties in producing RCs as shown in table 2. Third, the study presented no data from adults as a control group. In the present study, I partially replicate and extend S. Cho's study, modifying it to address these three issues.

1.2. Two factors

Different hypotheses (Structural Distance Effect: O'Grady 1997; Linear Distance Effect: Gibson 2000³); Prominence Effect: O'Grady 2011) have been proposed in order to account for the subject-object asymmetry. This study will take into account two major factors: aversion to gap and canonical word preference.

1.2.1. Aversion to gaps

When the children produced object RCs, they had a tendency to avoid gaps by either employing a head-internal RC such as (2d). Also, they sometimes avoided gaps by inserting a full resumptive NP in the extraction site, creating the doubly headed RC exemplified in (3).

(3) Resumptive NP: the boy that the dog bites *the boy

Resumptive NPs are copies of the head noun that occur inside the RC instead of a gap. In contrast, they rarely use resumptive NPs in the subject

3) Gibson (2000)'s dependency locality theory suggests that the distance between the filler and gap can cause the processing difficulty of RCs. According to Gibson, the distance between the filler and the gap is measured in terms of the number of the referential expressions intervening between them. Thus, the filler-gap distance predicts that subject RCs are acquired before their direct object counterparts, as in below examples.

Subject RC: the girl [that _ likes the boy]
0

Direct object RC:
the girl [that the boy likes_]
1 2

RCs. Similarly, Hsu et al. (2009) reported a comparable result for children acquiring Mandarin, noting that resumptive NPs are ungrammatical in Chinese and used more frequently in the production of direct object RCs, such as (4), than in subject RCs.

- (4) xiao-nuhai zai kan **dianshi** (de na-ge dianshi)
 little-girl DUR watch TV DE that-CL TV
 'the TV which the little girl is watching (the TV)'

In example (4), *dianshi* 'TV' occurs in the head position (after the RC) as well as inside the RC, for which Hsu et al. offer the following explanation. In order for the production system to build the RC, they propose, the head noun must be planned ahead and then held in memory, even though its referent is activated at the gap position in the relative clause. The urge to overtly express the head noun increases as production of the sentence progresses (O'Grady 2011): it is felt less strongly at the subject gap, which comes early in the RC ([_ OV] N) and more strongly at the object gap, which comes later ([S _V] N). There is thus a greater possibility that the head noun will be uttered in the object gap position, resulting in either a resumptive NP or a head-internal RC.

1.2.2. Canonical word order preference

Children may prefer subject RCs because they follow the canonical OV word order—OV patterns with a subject gap are more common in simple Korean sentences than are SV patterns with a direct object gap (Y.-J. Kim 1987). Children's use of full resumptive NPs in the extraction site in direct object RCs, as well as their tendency to convert direct object RCs into subject RC, may reflect a propensity to preserve the canonical OV pattern (Diessel and Tomassello 2000, 2005; Slobin and Bever 1982).

1.3. Research Question

This study aims to address the following research questions:

1. Do Korean-speaking adults and children show any preference between subject RCs and object RCs as predicted by Keenan and Comrie's NPAH when processing difficulties caused by two lexical verbs minimize?
2. What kinds of errors do Korean children make when they are forced to produce direct object RCs?

2. The Experiment

In this section, I describe an experimental study that I carried out in an attempt to ascertain whether children exhibit a preference for either type of RC. This study was designed to address the issues in S. Cho's study in order to investigate what patterns of production preference are indeed found in head final RC languages with more suitable elicited production. In addition, I carry out more detailed analysis of the error types in order to comprehend the connection between sentential complexity and difficulty of production.

2.1. Method: Elicited Production Task

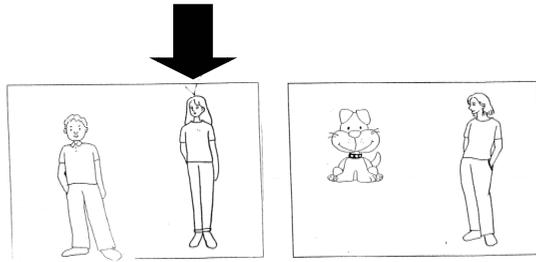
The experiment study made use of an elicited production task (S. Cho 1999; Goodluck and Stojanovic 1996; Hsu et al. 2009) to assess Korean children's acquisition of RCs. An example is shown in figure 1. A complete list of test items can be found in the Appendix A. The 10 target sentences included five sentences with subject relatives and five with direct object relatives.

2.1.1. Participants

Twenty-one monolingual children, with a mean age of 6;8 (5;1-6;10) participated in this study. Eleven adult native speakers of Korean also participated. The adults were all more than 20 years old and were students from various universities in Seoul, Korea.

2.1.2. Materials

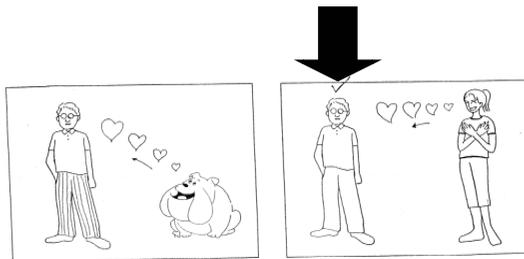
The experiment manipulated one factor: gap position (subject gap vs. object gap). The questions were designed to elicit two types of RCs, as exemplified in figures 1 and 2.



One woman sees a man and the other woman sees a dog. Which woman has an arrowmark?

[_namca-lul po-nun] yeca
 man-Acc see-RC.Prs woman
 'The woman who sees the man'

Figure 1. A sample set of subject relatives (translated from Korean).



The dog likes one man. The woman likes the other man. Which man has an arrowmark?

[Yeca-ka _ coahaha-nun] namca
 woman-Nom like-RC.Prs man
 'The man who the woman likes'

Figure 2. A sample set of object relatives (translated from Korean).

2.1.3. Procedure

The test items included five subject RCs and five direct object RCs, arranged in random order. All test items were semantically reversible, with animate subjects and animate direct objects, to ensure that the partic-

ipants could not interpret them without using grammatical knowledge (O'Grady 2003). In the experiment, each child and the experimenter sat at a table looking at a computer screen. Each trial contained two picture presentations. A brief practice session helped participants understand what was expected of them. The child was first presented with two pictures that contained characters who were similar but had one difference (e.g., one picture showed a woman with long hair and the other showed a woman with short hair), and the experimenter gave the child a lead-in description of events or actions involving the characters in the picture. Crucially, unlike in S. Cho's study, this description introduced just one verb (e.g., 'like' in figure 2). The child was then asked to describe the person in the picture that had an arrow mark over it. The question always asked about the intended head of the target RC. After the child answered, the experimenter pushed the space bar to show the next item. The experiment started with a practice session to help the participants adjust to the experiment. The experimental session lasted about 10 minutes, including the practice session.⁴⁾ The whole experiment, including the experimenter's questions and the child's responses, was recorded with a Macintosh computer using the program Audacity. The procedure for the adult group was identical to the procedure with the children.

2.1.4. Responses and data coding

To ensure reliability in transcription, the recorded data were carefully transcribed by two native speakers and were entered into an Excel sheet for coding and analysis. Only the first response is reported in the results below. Second responses were removed because it was presumed that they might be influenced by the first answer due to priming (see Hsu et al. 2009). The 21 child participants produced a total of 210 (10×21) responses, including 105 (5×21) responses for the subject-gap condition and 105 (5×21) responses for the object-gap condition. All 210 responses were included in the statistical analysis. The eleven adult participants produced a total of 110 (11×10) responses: 55 responses for the

4) In this study, no filler items were provided during the experiment. There is a possibility that children lose their focus on the task due to many test items including fillers.

subject-gap condition and 55 responses for the object-gap condition.

All responses were classified into four categories: grammatical target responses, grammatical but non-target responses, ungrammatical doubly headed RCs, and modifications to RCs involving head errors and reversal errors, as illustrated in table 2 (see section 3.2). Target responses included the production of RCs with a gap in the expected position and appropriate case marking, as exemplified in figure 1 and figure 2. S. Cho considered head-external relatives, head-internal relatives, and RCs headed by *kes* with a gap to be target responses. However, in order to understand why children avoid or have difficulty producing certain types of RCs, a more detailed taxonomy of non-target responses is called for. Head-internal RCs are not considered as target forms because the focus of the present study is acquisition of external RCs.

For this reason, I placed head-internal RCs in a separate category of grammatical but non-target responses.

3. Results

3.1. Accuracy

The Korean adults exhibited no systematic difficulty with the test items, achieving 100 percent accuracy for subject relatives and 98 percent accuracy for object relatives. The Korean children performed far better on subject RCs than on direct object RCs, with 82 percent accuracy for the subject relatives and only 49 percent accuracy for the object relatives, as shown in table 3. To examine the effects of gap position, a *t*-test was conducted on the scores of the elicited production tasks, with the gap position as a variable. The results of the elicited production task demonstrated significant effect of gap position. This difference is statistically significant: $F(1, 20) = 16.94, p < .001$. The results of both groups demonstrated a significant main effect for the gap position.

Table 3. Means and Standard Deviations for the Elicited Production Task
(a) Adults

	Item Number	Mean	Standard Deviation	Standard error of the means
Subject RCs	55	1.00	.000	.000
Object RCs	55	.98	.135	.018

(b) Children

	Item Number	Mean	Standard Deviation	Standard error of the means
Subject RCs	105	.82	.387	.035
Object RCs	105	.49	.502	.049

3.2. Analysis of error responses

Table 2 presents the detailed response patterns of the children's group. Although the task successfully elicited RCs most of the time, it also elicited reversal errors, as shown in (6), head errors, as shown in (7), and head + reversal errors, which I call RC-type errors, as shown in (8). These errors were observed in the children's data but rarely in the adults' data.

In the reversal error pattern, a subject RC is used where a direct object RC is called for, or vice versa. Thus, instead of the called-for direct object RC in (5), a subject RC such as (6) is produced.

(5) Target object RC:

[namca-ka _	po-nun]	yeca
man-Nom	see-RC.Prs	woman
'the woman who the man sees'		

(6) Reversal Error:

[_ namca-lul	po-nun]	yeca
man-Acc	see-RC.Prs	woman
'the woman who sees the man'		

The head error occurs when the wrong noun is used as a head. As shown in (5), *yeca* is the head noun in the target RC; however, in the head error shown in (7), *yeca* shows up inside the RC and the noun *namca* 'man' functions as head.

(7) Head Error:

[yeca -ka _	po-nun]	namca
woman-Nom	see-RC.Prs	man
'the man who the woman sees'		

(8) Head + Reversal Error:

[_ yeca -lul	po-nun]	namca
woman-Acc	see-RC.Prs	man
'the man who sees the woman'		

Occasionally, head errors were found in combination with reversal errors, as in (8). Given the intended meaning, the head noun should be *yeca* 'woman', which in turn should correspond to the direct object of *po-nun* 'see'. Instead, *namca* 'man' shows up in the head position, and the corresponding gap is in the subject position—a double error.

Sometimes the children produced the head-internal RC pattern exemplified in (9).

(9) Head-internal RCs

[namca-ka	yeca -lul	po-nun]	kes
man-Nom	woman-Acc	see-RC.Prs	thing
'the woman who the man is seeing'			

In contrast to head-external RCs, which contain an internal gap corresponding to the head, head-internal RCs contain no gap. Rather, the head noun is found inside the RC and *kes* 'thing' occurs in the external head position. Head-internal RCs are grammatical in Korean, but are rarely used. Their use by children is somewhat surprising and appears to reflect an attempt to avoid head-external object RCs. This issue will be discussed more thoroughly in the next section.

Finally, the children also produced ungrammatical sentences, which were not observed in the adults' data. This category is called doubly headed RCs.

(10) Doubly headed RC

[namca-ka **yeca**-lul po-nun] **yeca**-ey-yo
 man-Nom woman-Acc see-RC.Prs woman-Dat-Decl
 'the man sees the woman'

In this pattern, the head occurs twice: once inside the RC and once outside the RC. In Example (10), *yeca* needs to be relativized; but just as in a head-internal RC, there is no gap and the head is inside the RC. In addition, the head noun is used again outside the RC.

Table 4 shows the percentages of non-target responses, ungrammatical responses, and RC type errors from the children's group. An overall subject-object asymmetry was detected. As shown in the reversal error, children were more likely to produce a subject RC in place of an object relative than vice versa (8.5% vs. 3.8% of responses, respectively). Also, children produced head-internal RCs and doubly headed RCs more often in the object RC condition than in the subject RC condition.

Table 4. Percentage of Non-target Responses of Korean Children

	RC type errors			Grammatical but non-target response	Ungrammatical response	Others ⁵⁾
	Reversal error	Head error	Head + reversal error	Head-internal RC	Doubly headed RC	
Subject RC	3.8%	0%	0%	2%	1%	10%
Object RC	8.5%	0.9%	2.8%	14.2%	10%	12%

Of all the non-target responses, the most common type was the head-internal RC. Children produced more head-internal RCs for object RCs

5) "Other" includes mainly no response and "I don't know" responses.

than for subject RCs (14.2% vs. 2%). Also, they were more likely to produce doubly headed RCs for object RCs than for subject RCs (10% vs. 1%). Based on these findings, I conclude that Korean subject RCs are easier than object RCs for children to produce.

4. Discussion

This study makes four points. First, errors were made almost exclusively by child participants. Second, errors made by children were more common in the object RC condition than in the subject RC condition, and this was true for every error pattern. Children used more subject than object RCs, and children were less accurate in the production of object RCs than subject RCs. The children also produced more reversal errors and ungrammatical strategies in object than subject RCs. These results are in line with the results of S. Cho's (1999) study on children's acquisition of subject and object RCs, which showed that Korean children are more likely to produce subject than object RCs and are less accurate in the production of object than subject RCs. The adults in the present study did not make ungrammatical responses. Third, among the types of errors observed, head-internal and doubly headed responses outnumbered any other type of error. The children used these avoidance strategies (i.e., head-internal RCs and doubly headed RCs) more in the object RC condition than the subject RC condition. The adults did not show avoidance strategies for either subject or object RCs. This suggests that children prefer structurally less complex constructions to object RCs. Finally, while the findings in the current study are consistent with what S. Cho reported, my study provides two additional crucial refinements. First, a stronger subject advantage was observed because test items included only one verb in the lead-in description. The fact that the children had a smaller memory load (i.e., fewer lexical items) allowed them to produce the RCs with higher accuracy. Second, as for head-internal responses, the discrepancy of target responses between the two types of RC is relatively large in my study. In S. Cho's (1999) study, the age 6 group's target responses

of head-internal RCs for subject and object RCs were 14 percent and 20 percent, respectively. Consequently, my study more strongly confirms the subject-object asymmetry.

5. Conclusions

This study is designed to examine the developmental sequence that Korean children show for subject and direct object RCs. The study also investigated whether Korean children acquire head-external relativization in the order predicted by Keenan and Comrie's hierarchy. Korean children produced subject RCs more accurately than object RCs in head-external structure but not in head-internal structure. The results of the present study confirm the difficulty of direct objective relatives compared to subject relatives in Korean, which strongly support Keenan and Comrie's hierarchy and its application in language acquisition (Comrie 2007). This finding is consistent with the previous literatures on asymmetry in subject-direct RCs. To conclude, the data from this study show that the children, at ages of about 5 to 7 years, had acquired the structural means to produce RCs. Children's higher rate of non-target responses, ungrammatical responses, and RC type errors on object RCs suggests that they may not yet have fully internalized the structural means of relativizing objects.

Turning now to the question of *why* there should be a subject-object asymmetry in the acquisition of Korean RCs in the first place, I propose that two separate factors may be involved: (1) an aversion to gaps, and (2) a canonical word order preference.

First, the 'aversion to gap' states that the urge to express the head in RCs makes children have difficulty in producing direct object RCs. Specifically, the hypothesis can predict that resumptive nouns errors happen less in subject RCs due to the closer distance between the head noun and the gap created at the site of extraction. Second, the 'canonical word order preference' predicts the fact that a subject RC preference.

In spite of clear results, this study may have some limits which lead to suggestions for potential research. First, hearing the question that aims

to prompt a subject RC (i.e., “Which woman has the arrow mark?”), the participants direct their attention to the woman that has the arrow mark – who also functions as subject of the target relative clause (“the woman that is seeing the man”). In the case of an object RC, in contrast, there is a complex perspective, as the child’s attention is on the referent for “which” (i.e., “Which man has the arrow mark?”) the child’s attention corresponds to the direct object in the targeted RC (“the man that the woman sees”). The resulting perspective shift (MacWhinney 1997) may also contribute to the asymmetry between subject and object RCs, because the task demands perspective shift in object RCs but not in subject RCs. A future study should be designed to minimize this issue – for instance, with a task without *wh*-subject questions – to allow the focus to be on the difference between the two types of RCs in children’s production. Second, some literatures (Diessel 2007; Hawkins 2007; Kidd et al. 2007) raised the possibility that direct object RCs in actual speech have an inanimate head noun as in (11).

- (11) Direct object RC with an inanimate head noun
the apple that the boy ate

Furthermore, Kidd et al. (2007) showed that direct object RCs with animate heads are more difficult to process. This can tell us about subject advantages from an animacy effect, where the head noun is animate and therefore children greatly expect a subject RC. Hence, there is a need for future research to detangle an animacy factor from disadvantage of direct object RCs.

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Appendix

A. Test Items

SRC	ORC
namca-lul po-nun yeca 'the woman who sees the man'	namca-ka silheha-nun yeca 'the woman who the man dislikes'
yeca-lul cohaha-nun namca 'the man who likes the woman'	kay-ka cohaha-nun twayci 'the pig who the dog likes'
namca-lul silheha-nun yeca 'the woman who dislikes the man'	namca-ka po-nun yeca 'the woman who the man sees'
twayci-lul po-nun kay 'the dog who sees the pig'	yeca-ka cohaha-nun namca 'the man who the woman likes'
kay-lul cohaha-nun twayci 'the pig who likes the dog'	twayci-ka po-nun kay 'the dog who the pig sees'

