

Resumptive Pronouns in Children's Grammar

Bosook Kang

(Sookmyung Women's University)

Kang, Bosook. 2006. Resumptive pronouns in children's grammar. *The Linguistic Association of Korea Journal*, 14(2), 197-216. This study investigates English learning children's resumptive errors in relative clauses. The purpose of the study is to determine whether their resumptives exhibit the properties of true- resumptives possible in other adult grammars such as Hebrew. The experimental results reveal that some children allow resumptives in extractable contexts and also accept them with bound variable readings, indicating that their resumptives have the same syntactic distribution and semantic interpretation as those of true resumptives. Based on these data, I argue that some English learning children initially hypothesize the true-resumptive grammar and speculate along the line of Rizzi (2005) that the missetting of the resumptive parameter may be due to a processing overload.

Key Words: resumptive pronouns, acquisition of relative clauses, true-resumptives, intrusive resumptives

1. Introduction

The resumptive error in children's relative clauses was first noted by Labelle (1990). She found that some French learning children of the age 3 to 6 produced resumptive pronouns in relative clauses. Since Labelle's finding, the same error has been attested in several other languages (Perez-Leroux 1995 for English and Spanish, Bar Shalom 2002 for Russian), as shown in (1).

- (1) a. The one that he lifted it
b. sur la balle qu'il l'attrape

FRENCH

- over the ball that he it catches
- c. vote etot kotoryj kniga upala nanjeio RUSSIAN
 the one which book fell on him

Perez-Leroux (1995) brought Sells' (1984) cross-linguistic typology of resumptives into the study of children's resumptives. Drawing on Sells' distinction between true-resumptives and intrusive resumptives, Perez-Leroux attempted to determine the type of children's resumptives. She argued that children's resumptives are the instantiation of true-resumptives possible in other adult grammars such as Hebrew. A counter-argument is proposed by Bernstein, McDaniel, and McKee (1998), who observed in their experiment that English learning children rarely produced resumptive pronouns. I put the two studies under scrutiny and show that they have some methodological and theoretical problems. A new experiment is carried out to determine whether children's resumptives exhibit the properties of true resumptives.

The organization of the paper is as follows. Section 2 introduces Sells' resumptive typology as a theoretical basis of the study. Section 3 reviews Perez-Leroux (1995) and Bernstein et al. (1998) and discusses problems of the studies. Section 4 deals with an additional property of true-resumptives and the relevant cross-linguistic and acquisition data. Section 5 presents a new experiment and reports the findings. Section 6 provides the discussion and conclusion of the study.

2. Sells' (1984) resumptive typology

Sells (1984) suggests that natural languages make use of two types of resumptives: intrusive resumptives and true-resumptives. He distinguishes the two types with their syntactic distribution and semantic interpretation. Syntactically, intrusive resumptives are only allowed in non-extractable contexts. The contrast between (2a) and (2b) illustrates the point.

- (2) a. I'd like to meet the linguist that Mary couldn't remember whether she had seen *(him) before
 b. The dress that I bought (*it) was expensive.

(2a) involves a relativization out of a *wh*-island. Hence, the resumptive pronoun is allowed as some sort of a device for saving the structure from violating an island condition. However, in (2b), where the relativization site is not in a syntactic island, the resumptive pronoun is banned. True-resumptives have a different distribution. They can occur in extractable contexts alternating with gaps, as shown in (3).

- (3) ha-simla Se kaniti (ota) yayta yekara HEBREW
 the dress Op I-bought it was expensive

(3a) involves non-island configuration, and still the resumptive pronoun is possible. Intrusive resumptives are exhibited in languages such as English, while true-resumptives are found in languages such as Hebrew.

Sells suggests that the two resumptives also differ in their semantic interpretations. Intrusive resumptives are interpreted only referentially, and true-resumptives can have bound variable reading. (4) minimally differs from (2a), in that the head noun is a quantified NP 'every linguist', instead of 'the linguist'. However, unlike (2a), the resumptive pronoun 'him' in (4) is disallowed.

- (4) *I'd like to meet every linguist that Mary couldn't remember whether she had seen him before.

Sells accounts for the contrast in the following way. The resumptive pronoun 'him' in (2a) happens to pick out some individual, and 'the linguist' also happens to pick out the same individual. In other words, there is no actual binding here, but rather the interpretation arises by some kind of accidental coreference. The same mechanism, however, is not available for the resumptive pronoun in (4) because 'every linguist', being a quantified expression, can only participate in bound variable

reading. This indicates that intrusive resumptives do not allow bound variable reading. In contrast to this, the following data show that true resumptives can be interpreted as bound variables.

- (5) kol gever se dina xosevet se hu oheve et rina.. HEBREW
 every man that Dina thinks that he loves Rina
 'Every man that Dina thinks likes Rina...'

The resumptive pronoun 'hu' is allowed even when the relative head is a quantified expression 'every man'. In the following section I discuss two previous studies of resumptive errors in child language, which adopted Sells' characterization of two types of resumptives.

3. The previous studies

3.1. Perez-Leroux (1995)

Perez studied children's relative clauses in English and Spanish. She elicited relative clauses to determine whether children produce resumptives as in French and found that children indeed produced relative clauses with resumptive pronouns both in English and Spanish. Adopting Sells' typology, Perez further investigated whether children accept resumptives with bound variable reading. She takes Sells' argument that true resumptives are bound variable to mean that resumptives can replace gaps in *wh*-questions as well as in relative clauses. With this assumption she tested using a comprehension task whether children allow resumptives in *wh*-questions and in relative clauses. She constructed *wh*-questions and relative clauses with a pronoun inside and made the sentences ambiguous depending on how to treat the pronoun. She had the following reasoning. If the child has true-resumptive grammar, she will consider the sentence ambiguous between two readings; one reading in which the pronoun is interpreted as a referring expression, and the other reading in which the pronoun is interpreted as a resumptive pronoun, that is, a variable bound by

wh-operator. However, if the child does not have true-resumptive grammar, she will interpret the sentence with only one reading, in which the pronoun is interpreted as a referring expression. In this way, the child was invited to provide different answers depending on how she interprets the pronoun inside the relevant constructions. A sample item for a *wh*-question with a pronoun inside is shown below.

(6) A sample from Perez-Leroux (1995)

Story: Mary's baby brother was very fussy. He had cried all day, and now he was hungry. Mary set the table and then helped the mother feed the baby.

Question: Who did Mary help to feed him?

- Answer:* a. Mother (Who_i did Mary help [t_i; [PRO to feed him]])
 b. Brother (Who_i did Mary help [PRO to feed him_i])

For English speaking adults, the question in (6) is not ambiguous. English adult grammar allows only one reading, in which the pronoun 'him' is interpreted referentially. It will pick out the most salient male under the context of the story. It can only refer to Mary's baby brother since he is the only salient male in the context. Accordingly, the *wh*-phrase 'who' is associated with the object of the matrix verb 'help', as represented in (6a). Under this reading, the appropriate answer is only Mary's mother. However, on Perez-Leroux's assumption that a resumptive pronoun can behave as a bound variable for a *wh*-phrase, the question allows one more reading in which the pronoun 'him' is interpreted as a variable bound by the *wh*-phrase, as represented in (6b). In that case the question amounts to saying 'who is the person *x*?'. Under this reading, the appropriate answer is Mary's baby brother. Perez-Leroux presented children of age 3 to 6 with this type of example, varying the domain of the extraction site. She claimed that the same idea is applied to test for relative clauses with a pronoun inside. However, the sentences she used

in the task turned out to be not relative clauses, but embedded *wh*-questions or at most free relative clauses.¹⁾ The results showed that children gave resumptive responses of 32% to 40% in *wh*-questions and of a bit higher percentage in so-called relative clauses. Perez-Leroux identifies this response pattern as indicating true-resumptive grammar.

I already mentioned above that Perez-Leroux made a methodological mistake of misrepresenting embedded *wh*-questions/free relative clauses as normal relative clauses. I point out a further problem of her study. Perez-Leroux assumed that true-resumptives alternate with gaps in *wh*-questions as well as in relatives, based on the following data from Palauan (Georgopoulos 1991).

- (7) **ng**-ngera el rum [a llngetmocl er ngii a Willy] PALAUAN
 CL-what L room 3-clean P it Willy
 'What room did Willy clean up?' ²⁾

Georgopoulos (1991) shows that (7) is an instance of a clefted question, not a normal *wh*-question, providing the following explanation. The prefix to the *wh*-word, 'ng-' (third person singular agreement) indicates the cleft position. The cleft phrase is marked by the NP specifier **a**, which indicates that the phrase is a nominal clause structure. The clause where the resumptive appears actually takes the form of relative

1) The following is the sentences she claims to be cases of relatives. The list is not exhaustive, but all of them have the structure 'Show me who ... him', except one item, which has 'what' instead of 'who'.

(i) Show me who Mary helped to feed him.

(ii) Show me who the girl would like to hug him.

(iii) Show me who Mary wanted that she would push him

I was informed that (iii) is not a grammatical sentence even without the pronoun.

2) Given that (7) is a clefted question, it is closer to the meaning of 'what room is it that Willy cleaned up?' than the translation provided above. However, throughout the paper, Georgopoulos did not distinguish direct *wh*-question from clefted *wh*-question in providing English counterparts.

clause, not a *wh*-question. This suggests that children's resumptive response in bare *wh*-questions in Perez-Leroux' study cannot be considered as an indication of true-resumptive grammar.

3.2. Bernstein, McDaniel, and McKee (1998)

Bernstein et al (1998) explored the resumptive phenomenon with 82 English speaking children from 3;5 to 8;11, along with 34 adults. They used elicited production task (Hamburger and Crain 1982) to determine whether children distinguish between extractable contexts and non-extractable contexts in producing resumptives. They reported that children of all age ranges rarely produced resumptives in extractable contexts, but produced them in a high percent of non-extractable contexts. The following table shows the percentage of resumptive instances for children with the age range between 3;5 and 5;11 and for adults.

(9) Table 2. Yes response to relative clauses with resumptives

	Sub	Obj	Prep	Island
child	47%	70%	68%	80%
adult	2%	2%	2%	80%

While children accepted resumptives as high as 70% of the times,³⁾ adults rejected resumptives in all three extractable sites close to 100% of the times. In spite of this contrast between children and adults' responses in extractable contexts, Bernstein et al. (1998) argued that children have the grammar of intrusive resumptives, as do adults, emphasizing the two facts in the elicited production task: i) children did

3) Children learning true-resumptive languages show high rates of resumptives. For instance, Hebrew learning children produced resumptives 95% (Varlokosta & Armon-Lotem 1998) and Brazilian Portuguese learning children accepted resumptives 72% from the direct object position (Grolla 2002)

not produce resumptives in extractable contexts in the elicited production task, as adults, and ii) children produced a high rate of resumptives in non-extractable contexts and a low rate of resumptives in extractable contexts, as similar to adults.

Bernstein et al. did not provide any account for children's high acceptance of resumptives in the Grammaticality Judgment task. They assumed that the production task reflects children's competence more accurately than the Grammaticality Judgment task. What they failed to recognize is that if both resumptives and gaps are available options to children, it is not necessary for them to produce resumptives. In other words, children may have true-resumptive grammar, but simply did not produce them, preferring gap options. The high acceptance of resumptives in the Grammaticality Judgment task is compatible with the possibility.⁴⁾ This means that Bernstein et al.'s argument that children's resumptives are intrusive resumptives may not be conclusive.

So far I have reviewed two previous studies and discussed some problems. Perez-Leroux' (1995) study is based on the incorrect assumption that resumptives are allowed both in bare *wh*-questions and in relative clauses. On the other hand, Bernstein et al. (1998) failed to consider the possibility that children may have chosen gap options simply for preference, while still allowing resumptive options. In the next section, I present an additional property of true-resumptives alluded in the discussion of Perez-Leroux' study: namely that true-resumptives appear in relatives, but not in *wh*-questions.

4. True-resumptives are possible in *which*-questions /cleft questions, but not in *wh*-questions

Demirdache (1991), drawing on Standard Arabic data, claims that two types of interrogatives that allow resumptive pronouns are clefted

4) I thank Diane Lillo-Martin for this point.

questions and *which*-questions, as shown in (10a) and (10b), respectively.

- (10) a. man llaii ?aqnata-hu bi-haaaa? STANDARD ARABIC
 who that convince-you-him with-this
 'Who did you convince with this?'
 b. ?ayy-u rajulin ra?ayta-hu?
 which-Nom man-GEN saw-you-him
 'Which man did you see?'
 (11) *man ra?ayy-ta-hu⁵⁾
 who saw-you-him
 'who did you see?'

Demirdache points out that the complementizer in the clefted question (10a) is obligatory, and this indicates that the question internally contains a relative clause. In contrast to clefted questions and *which*-questions, bare *wh*-questions do not allow resumptives, as shown in (11). This is true of other true-resumptive languages. The following data from Hebrew and Brazilian Portuguese confirm the point.

- (12) a. eyze student nifgaSta it HEBREW
 which student you-met with-him
 'Which student did you meet?'
 b. *mi nifgaSta ito
 who you-met with-him
 'Who did you meet with?'
 (13) a. Que homem voce aceitou ele? BRAZILIAN PORTUGUESE
 which man you accept
 'Which man did you accept?'
 b. *Quem voce aceitou ele?
 who you accept him

5) I thank Abderrahim El Younoussi for Standard Arabic data.

Only *which*-questions allow resumptive pronouns, as shown in (12a) and (13a).⁶ Interestingly, this cross-linguistic generalization converges on child language data reported by Thornton (1995). Thornton compared children's productions of long-distance questions with *which*-N phrases and long-distance questions with bare *wh*-phrases. She observed some interesting patterns of non-adult structures between bare *wh*-questions and *which*-questions. Long-distance questions with bare *wh*-phrases exhibited *medial wh*-phrases,⁷

For the resumptive pattern in *which*-questions, Thornton does not mention the parallelism with the cross-linguistic fact since her main concern is not resumptives. as in (14), while long-distance questions with *which*-N phrases contain resumptive pronouns, as in (15).

- (14) a. Who do you think who's under there?
 b. What do you think what Cookie Monster eat?
 c. How do you think how Superman fixed car?
- (15) a. Which bug do you think it jumped onto Superman's hand?
 b. Which boy do you think it fell down?
 c. Which bear do you think it ate a piece of the chocolate?
 d. Which bear do you think it ate a little bite of chocolate?

Importantly, there were no resumptives in any long-distance questions with bare *wh*-phrases, pointing to the same restriction of true resumptives found in adult grammars.

In the following section I propose a new experiment, incorporating

6) I thank Ana Claudia Bastos for Brazilian Portuguese data and Yael Sharvit for Hebrew data.

7) Thornton points out that the 'extra' *wh*-phrases in bare *wh*-questions are found in long distance questions in other languages such as some dialects of German, as shown below.

(i) Was glaubst du was Hans gekauft hat
 what believe you what John bought has
 'What do you think that John bought?'

the properties of resumptives discussed so far to investigate the nature of children's resumptives.

5. Experiment

5.1. Research Question I

Elicited production from Thornton (1995) have shown us that children's resumptives appear in relative clauses and *which*-questions, which interestingly coincides with the distribution of resumptives in true-resumptive languages. However, recall that Perez-Leroux' result from the comprehension study of resumptives in bare *wh*-questions is contradictory with Thornton's data. Perez-Leroux's comprehension study reports that children interpret the pronoun inside bare *wh*-questions as resumptive pronouns bound by *wh*-operator sometimes. Our first research question concerns this very issue, as formulated in (16). The hypotheses to be tested are given in (17).

(16) *Research question I*: Do children make a distinction between *which*-questions and bare *wh*-questions by allowing resumptives only in *which*-questions?

(17) *Hypotheses*

- a. If children have true-resumptive grammar, they will accept resumptives only in *which*-questions.
- b. If children have intrusive resumptive grammar, they should accept resumptives regardless of the question type.

The study aims to determine whether the child distinguishes bare *wh*-questions and *which*-questions in allowing resumptives. If the child has true-resumptive grammar, she is expected to allow resumptives only in *which*-questions. But, if not, she is expected to reject resumptives in both question types. In order to test these hypotheses, we modify the method used in Perez-Leroux's study. Since our research concern is to

see whether children's resumptives distinguish *which*-questions from bare *wh*-questions, we made an equal number of *which*- questions and bare *wh*-questions that have essentially the same structure.

The experiment has the form of the Truth Value Judgement Task (Crain and McKee 1985). Two experimenters are involved in the task. One experimenter tells a story to each child using toys. After the story, the experimenter asks questions about the story to a puppet controlled by the second experimenter. The child's job is to judge the puppet's response by giving him Peach or Donut. When the puppet gets it right, the child is told to reward the puppet by giving him Donut, and when the puppet gets it wrong, the child is told to correct the puppet by giving him Peach. Samples of a bare *wh*-question and a *which*-question are given below.

(18) Sample of bare *wh*-question

Story: Mary's brother was very fussy. He had cried all day, and now he is hungry. Mary sets the table and then helps the mother feed the baby brother.

Prompt: Who did Mary help to feed him?

Puppet: The baby brother!

Child: No, you are wrong! (The child punishes Puppet by feeding him Peach.)

(19) Sample for *which*-question

Story: Bert, Ernie and Grover are playing hide and seek. Bert and Ernie close their eyes and Grover gets to hide behind the house. Bert and Ernie go around here and there. [where is he?], [where is he?] But they can't find him. Bert's friend Spot knows where Grover is hiding. So Spot comes to Bert and helps to find Grover.

Prompt: Which boy did Spot help to find him?

Puppet: Grover!

Child: Yes, you are right! (The child rewards Puppet by feeding him Donut.)

If the child has true-resumptive grammar, she should reject resumptive responses of the puppet in bare *wh*-questions, as given in (18), but allow it in *which*-questions, as given in (19). If the child does not have true-resumptive grammar, she should reject resumptive responses of the puppet, regardless of the question type. Besides the target sentences given above, we also added gap response for puppet's answers.

There were 12 stories. Each story is accompanied by one stimuli question and one filler question. 6 stories are followed by bare *wh*-questions and the other 6 stories by *which*-questions. With respect to the puppet's response, the 6 stories are divided into 2 gap responses and 4 resumptive responses. In total, each child had 4 chances to accept or reject resumptives in *which*-questions and 4 chances to accept or reject resumptives in bare *wh*-questions.

5.2. Research Question II

Research question I concerns the distribution of true-resumptive pronouns, focusing on in what constructions they are allowed to occur. Research question II explores the syntactic distribution and the semantic interpretation, using Sells' resumptive typology. It consists of two parts, as formulated in (20). The hypotheses to be tested are given in (21).

(20) *Research Question II:*

- a. Are children's resumptives allowed in extractable configuration?
- b. Are children's resumptives allowed as bound variables?

(21) *Hypotheses*

- a. If children entertain true-resumptive grammar, they will allow resumptives in extractable contexts and also with bound-variable reading.
- b. If they do not entertain true-resumptive grammar, they will reject resumptives in extractable contexts and also with bound variable reading.

The study tests whether the child allows resumptives in extractable

contexts and also with bound variable reading. If the child has true-resumptive grammar, she should accept resumptives in extractable contexts, and also with bound variable reading. Each property is tested in the following formats.

- (22) a. Test A: Are resumptives allowed in extractable contexts?
-> the X that ...gap/pronoun
b. Test B: Are resumptives allowed as bound variables?
-> every X that ... gap/pronoun

Stimuli sentences for Test A and Test B have the same syntactic configuration with respect to extractability. The variable between Test A and Test B is that while Test A uses relative clauses headed by a non-quantified definite NP, Test B contains a quantified expression for the relative head. If the child has true-resumptive grammar, she will allow relative clauses with resumptives in extractable sites in Test A, and also resumptives as bound variables in Test B. If the child does not have true-resumptive grammar she will reject resumptives in both tests.

The experimental method to use is the Grammaticality Judgment Task (Hiramatsu & Lillo-Martin 2001).⁸⁾ The task involves two experimenters. One experimenter tells stories using toys. The other experimenter plays the role of a puppet called Bongo. Bongo is from Loopy land and he is learning English. After each story, the child is asked to help Bongo learn English by giving him Donut, when he speaks good English, and Peach when he does not speak good English. The following is the sample stories for Tests A and B, respectively.

(23) Sample for Test A

Story: In this story, there are two baby tigers and a little girl. She likes this tiger because he is very gentle. So she hugs him. He is happy. But the girl doesn't like the other tiger because he tries to bite her. So she pushes him away. [Go away!]

8) See also McDaniel, Cairns and Hsu 1990.

Puppet: The tiger that she hugged him was happy.

Child: Yes, it was good English. (The child feeds him Donut)

(24) Sample for Test B

Story: In this story there are four horses and a horse rider. She tickles the first horse, and he runs away. She tickles the second horse and he runs away, too. She tickles the third horse, and he runs away again. Finally, she decides not to tickle the last horse because the other horses ran away. So she softly pats him.

Puppet: Every horse hat she tickled him ran away.

Child: Yes, it was good English. (The child feeds him Donut.)

In Test A, if the child allows resumptives in extractable contexts, she would judge puppet's relative clauses in (23) to be grammatical. In Test B, if the child allows resumptives as bound variables, she would judge the puppet's relative clauses in (24) to be also grammatical.

The whole task contains 10 stories: 6 stories for Test A and 4 stories for Test B. Each story is followed by two kinds of question: one stimulus question and one filler question. With respect to the puppet's response, the 6 stories for test A were divided into 3 resumptive responses and 3 gap responses. The 4 stories for test B were divided into 2 resumptive responses and 2 gap responses. In total, each child had 5 chances to accept or reject resumptives.

5.3. Methods

Two tasks were carried out in a different time period about 6 months apart. The set of subjects for the first task was different from the set of subjects for the second task. 20 children at the University of Connecticut Child Development Laboratories participated: 10 children for each task. The age range of the children was from 3;7 to 4;9 for the Truth Value Judgment task and from 4;7 to 6;0 for the Grammaticality Judgment task. A training session for each task was given before the actual experiments to help familiarize children with the method. Two

experimenters including myself visited the Lab to spend some time with the children for about two weeks before starting each experiment.

5.4. Results

The Truth Value Judgment task designed to test resumptive responses using the construction variables, *which*-questions vs bare *wh*-questions, showed that all children accepted gap responses of the puppet in both question types, but almost all children did not accept resumptive responses in any of the question types. Table 3 provides the number of acceptance for resumptive responses and the number of acceptances for gap responses in both question types. One child shows the response pattern as predicted by the hypothesis. Unfortunately, however, she was the only child who showed this pattern. Since only one child accepted resumptives, no statistics are run.

6. Discussion and Conclusion

The purpose of the study was to investigate the nature of children's resumptives. The study focused on two characteristics of true-resumptives: i) true-resumptives do not appear in bare *wh*-questions, but do in *which*-questions, and ii) true-resumptives appear in extractable sites and are possible as bound variables.

As for the first characteristics of true-resumptives, it was hypothesized that if the child has true-resumptives, she will allow resumptives only in *which*-questions, not in bare *wh*-questions. The results showed that children do not accept resumptives either in *which*-questions or in bare *wh*-questions, except for one child who showed the complete pattern as true-resumptives. This fact seems inconsistent with the result of Perez-Leroux (1995) in that my experiment and her experiment both used the comprehension task, yet yielded different results. With respect to Thornton's result, there is a possibility that production task might be different from comprehension

task somehow. One thing worth noting is that the observed difference in response pattern between *which*-questions and bare *wh*-questions in Thornton's study was from two children out of 21 subjects. It certainly was not a predominant pattern found among many children. Given this, it may not be too surprising that only one out of 10 children accepted resumptives in *which*-questions in my study. This seems to be related to the fact that even within true-resumptive languages, resumptives in *which*-questions are less common than in relative clauses.⁹⁾ This fact seems to be true in other languages. Ana Bastos (p.c.) informed me that the same point hold for Brazilian Portuguese.

Regarding the second characteristics of true-resumptives, it was hypothesized that if the child has true-resumptive grammar, she will allow resumptives in extractable contexts and also as bound variables. The results showed that children who accepted resumptives in extractable contexts also accepted resumptives with bound variable reading. This suggests that children's resumptives are true-resumptives, arguing against Bernstein et al.'s (1998) proposal. It seems that at least some English learning children entertain true-resumptive grammar and have to switch to intrusive resumptive grammar at some point later. This leaves us with at least two important questions. First, what is causing the incorrect setting of the parameter? Secondly, how does the parameter resetting take place, given the general assumption of the absence of negative evidence?

Recently, Rizzi (2005) has made an interesting proposal concerning some cases of children's errors that are normally found in later stage of grammar development such as lack of auxiliary inversion in *why* questions (Thornton 1995, 2004).¹⁰⁾ Thornton (2004) observes that some child systematically produces uninverted *why* questions till around the age of 5, well after acquiring obligatory inversion with other *wh*-elements. Pointing out that the context in which the child often

9) I thank Yael Sharvit for Hebrew data.

10) Some of the examples are shown below.

- (i) a. Why that boy is looking at us? (A.L. 2;4)
- b. Why Sophie has a magic bed? (A.L.4;5)

produces *why* questions without inversion is negative questions, Rizzi suggests that an accumulation of interpretable features on the same head, each licensed in a different position of the tree, may cause computational overload. In case of *why* questions, the child has to deal with three different interpretable features: neg, Q, and Tense. Rizzi reasons that when the child experiences computational overload, they temporarily adopt anti-subset options in UG, if the options facilitate the task of the computation. He assumes that the option that the child chooses in such case falls within UG boundary. He convincingly shows that there are some languages which do not have inversion in *why* questions. Along this line of reasoning, he characterizes the error as a case of 'grammatically-based and performance driven non-target discontinuity'. Resetting of the parameter to the correct value becomes available with the growth of the performance system (e.g. working memory, fine-tuning of interface systems, etc). The assumption that particularly interpretable features are easily susceptible to the computational overload seems fairly convincing given that they need to be kept for further computation in the interface, unlike uninterpretable features which are removed after checking. This account attempts to spell-out with theoretical terms how limitation in the performance system may induce grammatical error.

It seems plausible to me that resumptive error may be the similar kind of error that Rizzi characterizes at least for two reasons. First, resumptive error is found in later stage of development. Secondly, relative clauses involve two interpretable features: predication and Q-operator. The child may experience some processing overload and somehow chooses resumptive options to save computational resources. If this is the case, along the same line of reasoning, the child would recover from the missetting when the performance system grows. However, the details for how the particular option of parametric value facilitates the computation remain to be worked out in a further research.

References

- Bar-Shalom, E. (2002). Acquisition of relative clauses in Russian. Presented at UConn and UMass workshop.
- Bernstein, J., McDaniel, D., and McKee, C. (1998). Resumptive pronoun strategies in English-speaking children. *Proceedings of BUCLD 22*, 58-68.
- Crain, S. & McKee, C. (1985). The acquisition of structural restrictions on anaphora, *Proceedings of NELS 16. GLSA*, University of Massachusetts, Amherst.
- Demirdache, H. (1991). *Resumptive chains in restrictive relatives, appositives and dislocation structure*. PhD. Diss. MIT.
- Georgopoulos, C. (1991). *Resumptive pronouns and A-bar Binding in Palauan*, Kluwer, Dordrecht.
- Grolla, Elaine. (2002). *The distribution of resumptive pronouns and its implications for language acquisition*. General Examination Paper, University of Connecticut.
- Hamburger, H. and Crain, S. (1982). Relative acquisition. In S. A. Kuczaj (Ed.), *Language Development, 1: Syntax and Semantics*, Lawrence Erlbaum Associates, Hillsdale, NJ.
- Hiramatsu, K. & Lillo-Martin, D. (2001). Children who judge what they produce ungrammatical. *Proceedings of BUCLD 22*, 337-347.
- Labelle, Marie. (1990). Predication, Wh-movement, and the development of relative clauses. *Language Acquisition 1*, 95-119.
- McDaniel, D., H. S. Cairns, and J. R. Hsu. (1990). Control principles in the grammars of young children. *Language Acquisition 1*, 121-138.
- McDaniel, D. and Maxfield, T. L. (1992). Principle B and Contrastive Stress. *Language Acquisition 2*, 337-358.
- McKee, C. & McDaniel, D. (2001). Resumptive Pronouns in English Relative Clauses. *Language Acquisition, 9(2)*, 113-156.
- Perex-Leroux, A. -T. (1995). Resumptives in the acquisition of relative clauses. *Language Acquisition 4*, 105-138.
- Rizzi, L. (2005). On the nature of some grammatically-based target

- inconsistencies in child language. Presented at GALANA, University of Hawaii.
- Sells, P. (1984). *The syntax and semantics of resumptive pronoun*. PhD. Diss. UMass.
- Sharvit, Y. (1999). Resumptive pronoun in relative clause. *Natural Language Linguistic Theory* 17, 587-612.
- Thornton, R. (1990). *Adventures in Long-Distance Moving; The acquisition of complex Wh-movement*, Doctoral Diss., University of Connecticut, Storrs.
- Thornton, R. (1995). Referentiality and Wh-movement in child English: Juvenile D-linquency. *Language Acquisition* 4, (12).
- Thornton, R. (2004). Why continuity, *Proceedings of BUCLD*.
- Varlokosta, S. & Armon-Lotem, S. (1998). Resumptives and Wh-movement in the acquisition of relative clauses in Modern Greek and Hebrew. *Proceedings of BUCLD* 22, 737-746.

Bosook Kang

Department of English Language & Literature

Sookmyung Women's University

53-12 Chungpa-Dong 2-ka, Youngsan-Ku

Seoul 140-742, Korea

Phone: 82-02-710-9321

Email: vineyard05@naver.com

Received: 30 May, 2006

Revised: 12 Jun, 2006

Accepted: 20 Jun, 2006