A Cross-linguistic Approach to the 'Erroneous' Genitive Subjects: Underspecification of Tense in Child Grammar Revisited

Naoko Sawada[1] and Keiko Murasugi[1, 2]
[1]Nanzan University and [2]University of Connecticut

1. Introduction

It is cross-linguistically observed that children at around the age of two erroneously produce genitive subjects in matrix clauses where nominative subjects must be used in adult grammar. Selected examples of child Japanese and child English are shown in (1) and (2), respectively.[1]

(1) a. A-tyan-***no*** tukat-te-ru no (A 2;1)
-Gen use-Prog-Pres Particle
'A-tyan is using (it).'

b. Taisyoo-kun-***no*** tukut-ta (Tai 1;10)
-Gen make-Past
'Mr. Taisyoo made (this).'

(2) a. **My** turn, turn around (Nina 2;11)

b. **Her** sleeping (Nina 2;5)

The subject NPs in (1) must be marked with the nominative Case *-ga*. The subjects must be *I* in (2a) and *she* in (2b). However, the genitive Case is assigned on the subject NP in each case.

Genitive subjects are allowed in prenominal sentential modifiers of relative clauses in Japanese, as given in (3), and in gerundive constructions in English, as given in (4).

(3) [Taroo-**ga**/-**no** (gap_i) yon-da] hon_i
-Nom/-Gen read-Past book
'the book that Taroo read'

(4) I remember [**John's**/**my** eating an apple]

As in (3), the subject NP *Taroo* can be marked with genitive Case as well as nominative Case. Likewise, the genitive subjects, *John's* and *my*, are possible in the English gerundive construction, as shown in (4).

What causes Case errors in child grammar? In this paper, providing new descriptive findings from the CHILDES corpora and the data reported in the previous studies, we argue that the Case errors that young children make are related to the underspecification of the features in Tense. We will show that in

* We would like to take this opportunity to sincerely thank the organizers of GALANA 4 (University of Toronto), Mihaela Pirvulescu, and the anonymous reviewers for their suggestions and support. The authors would also like to express their deep gratitude to Chisato Fuji, Tomomi Nakatani, Keiko Ogawa, Mamoru Saito, Koji Sugisaki, Kensuke Takita, Eriko Watanabe and the members of the Center for Linguistics at Nanzan University for their helpful discussions. The research was supported in part by the Nanzan International Research Project on Comparative Syntax and Language Acquisition (Center for Linguistics, Nanzan University), Pache Research Grant I-A in 2010 and 2011 (Nanzan University) and by the JSPS Grant-in-Aid (#20520397, Principal Investigator: Keiko Murasugi).

[1] The abbreviations used in this paper are as follows: Acc=accusative, Ad=adnominal, Dec=declarative, Dat=dative, Gen=genitive, Nom=nominative, Past=past, Pres=present, Prog=progressive, Top=topic

© 2011 Naoko Sawada and Keiko Murasugi. Selected Proceedings of the 4th Conference on Generative Approaches to Language Acquisition North America (GALANA 2010), ed. Mihaela Pirvulescu et al., 209-226. Somerville, MA: Cascadilla Proceedings Project.

the stages of Very Early Root Infinitive, one-year-old children use non-finite verbs in root contexts (Murasugi & Fuji, 2008, 2009; Nakatani & Murasugi, 2009; among others) and the erroneous non-nominative subjects in Japanese observed after the age of two correspond to the stage of Root Infinitives (RIs) in European languages (Murasugi & Watanabe, 2009; Murasugi, 2008, 2009). We argue that the Japanese- and English-speaking children producing erroneous genitive subjects know the structure of TP headed by T, which checks genitive Case on a subject of prenominal sentential modifiers in Japanese and gerunds in English, but they still have *not* acquired that the T *must be* compatible with D only, and hence, produce genitive subjects in matrix clauses.

We further argue that the concretization of the immature Tense system is also found in the omission of copulative elements. 2-year-old English-speaking children tend to omit finite *be* in sentences of Stage-level predicates (e.g., *I tired/I in the kitchen*) (Becker, 2000, 2001). Presenting our finding that Japanese-speaking children also optionally drop copulas at around the same age as they produce erroneous genitive subjects, we aim to describe the stage where children underspecify features in Tense.

The organization of this paper is as follows. In section 2, we show our descriptive findings of erroneous genitive subjects. In section 3, we overview the previous analyses of children's erroneous genitive subjects and point out that these analyses cannot fully provide explanation for the stage. In section 4, we provide our analysis of erroneous genitive subjects in child Japanese, and in section 5, we argue that the analysis given in section 4 applies to the erroneous genitive subjects in child English, based on our corpus analysis of the CHILDES database. Section 6 further confirms the hypothesis by examining the copula drop phenomena. We go over Becker's (2000, 2001) analysis of copula drops in English, and we argue that the copulative elements are also dropped in child Japanese, thereby supporting our hypothesis that the genitive Case errors are attributed to the underspecification of the features in Tense. Section 7 concludes this paper.

2. 'Erroneous' Genitive Subjects in Child Languages

2.1. The Data of 'Erroneous' Genitive Subjects Found in Child Japanese

We first show the data of erroneous genitive subjects in child Japanese and their properties. We examine Japanese-speaking children's longitudinal databases available on CHILDES (Tai age 1;5-3;1, Miyata, 2004a; Ryo age 1;4-3;0, Miyata, 2004b; Aki age 1;5-3;0, Miyata, 2004c; Jun age 0;6-3;8, Ishii, 2004; and Moko age 1;8-3;2, University of Connecticut and Nanzan University) corpus and Child A's data reported in Suzuki's (2001, 2007) studies. We found 103 erroneous genitive subjects out of 2,246 utterances containing subject NPs marked with nominative, dative or genitive Case. As shown in (5) through (8), these children produce erroneous genitive subjects with various types of predicates.

(5) a. A-tyan-***no*** tukat-te-ru no (A 2;1)
A-tyan-***no** use-Prog-Pres Particle
'A-tyan is using (it).'

b. Taisyoo-kun-***no*** tukut-ta (Tai 1;10)
Taisyoo-kun-***no** make-Past
'Mr. Taisyoo made (this).'

(6) a. Mama-***no*** odot-te yo (A 2;1)
Mama-***no** dance-Request Particle
'Please dance, Mother.'

b. Kore masukuman-***no*** ik-u (Ryo 2;11)
this mask man-***no** go-Pres
'Here, Maskman goes.'

(7) a. Tane-***no*** hait-te-n no (A 2;5)
seed-***no** enter-Prog-Pres Particle
'The seeds are in (a grape).'

b. Ti-***no*** ar-u (Moko 2;0)
(letter of) Ti-***no** exist-Pres
'There is a block (that has the letter of Ti).'

(8) a. Taisyoo-kun-***no*** sugo-i (Tai 1;10)
Taisyoo-kun-***no** great-Pres
'Mr. Taisyoo is great.'

b. Moko-mo se-***no*** ooki-i (Moko 1;11)
Moko-also height-***no** tall-Pres
'Moko is also tall (to catch the cord to turn on the light).'

The subjects of the transitive verbs in (5), the unergative verbs in (6), the unaccusative verbs in (7), and the adjectives in (8), are all erroneously marked with the genitive Case *-no* instead of the nominative Case *-ga*. Table 1 gives the age range for which the children produce the erroneous genitive subjects.

Table 1
The Age Span of Children Producing the 'Erroneous' Genitive Subjects

Child	A	Tai	Ryo	Aki	Jun	Moko
Age Span	2;1-2;8	1;10-3;1	2;9-2;11	2;8	2;2-2;9	1;10-3;1

As Murasugi and Watanabe (2009) point out, Case errors in Japanese are optional, just like Root Infinitives in European languages. Children at around the age of two produce erroneous genitive subjects, but they also produce nominative subjects (just like adults do) as given in (9).

(9) a. Boosi-**ga** ton-da (A 2;1)
hat-Nom fly-Past
'(The) hat flew away.'

b. Mikkii-tyan-**ga** ato huk-u (Tai 1;9)
Mickey-Nom rest wipe-Pres
'Mickey Mouse will wipe the rest.'

c. Jun-**ga** kowasi-ta (Jun 2;3)
-Nom break-Past
'Jun broke (it).'

d. Moko-**ga** sagasi-ta (Moko 1;9)
-Nom search-Past
'Moko searched (for it).'

The subject NPs in (9) are correctly marked with the nominative Case *-ga*. There is an intermediate acquisition stage where subjects are sometimes marked with nominative Case, but sometimes with genitive Case.

2.2. The Data of 'Erroneous' Genitive Subjects in Child English

Case errors are widely observed in child English as well (Rispoli, 1994, 1995; Budwig, 1989; Pensalfini, 1995; Vainikka, 1993/1994; among others). Our examination of the CHILDES database of four English-speaking children, Nina (1;11-2;9), Adam (2;3-3;5), Eve (1;6-2;3) and Sarah (2;3-3;5), found 477 out of 13,562 utterances with erroneous genitive subjects. Selected examples are shown in (10) through (12).

(10) a. **My** turn, turn around (Nina 1;11)
b. **My** see that (Adam 2;3)
c. **Her** make pancakes (Sarah 2;9)
d. **Her** have a hat on (Nina 2;4)
e. **Her** sing it (Adam 2;10)

(11) a. **My** cut it. **My** caught it (Nina 2;1)
b. **My** got that (Nina 2;2)
c. **My** broke it (Sarah 2;6)
d. **Her** said no (Sarah 2;8)
e. **Her** got on, in baby carriage (Adam 3;0)

(12) a. **My** going in (Nina 2;3)
b. What **my** doing? (Sarah 2;10)
c. **My** going? (Eve 1;10)
d. **My** writing I writing (Adam 2;7)
e. **Her** getting mad (Nina 2;4)
f. **Her** sleeping (Nina 2;5)

As in (10), the erroneous genitive subjects mostly occur with non-inflected verbs such as *make*, *have* and *sing*. However, some errors are found with a verb in past tense as in (11), and/or a verb in progressive form as in (12). Table 2 gives the age range of the erroneous genitive subjects.

Table 2
The Age Range of Children Producing the 'Erroneous' Genitive Subjects in English

Child	Nina	Adam	Eve	Sarah
Age Span	1;11-2;5	2;3-3;0	1;10-2;0	2;6-3;0

English-speaking children also produce nominative subjects while they produce genitive subjects as shown in (13).

(13) a. I don't break 'em (Nina 2;1) b. I talk phone (Sarah 2;6)
c. I tie other one (Eve 1;11) d. I change diaper (Adam 2;3)

Thus, cross-linguistic similarities are found in the very young child production. At around age of two, both Japanese- and English-speaking children Case-mark the subject NPs, in a root clause, with optional nominative or genitive.

3. Previous Studies on 'Erroneous' Genitive Subjects

For the children's Case errors, various analyses have been proposed. In what follows, we discuss four previous approaches; Paradigm Building of Pronouns, Functional Analysis, Nominal Analysis, and Clausal Analysis, and we will point out that none of those previous analyses can fully account for the intermediate stage of language acquisition in question. Then, we argue that the insight of AGR/TNS Omission Model (ATOM) originally proposed by Schütze and Wexler (1996), which links the early erroneous subjects to the underspecification of some features in Tense and Agreement, to the Root Infinitive stage, and to the copula omission Root Infinitives in European child languages, would also extend to the analysis of the erroneous subjects in Japanese-speaking children.

Rispoli (1994, 1995) argues that Case errors are due to the lack of lexical knowledge of the paradigm of pronouns in the target languages, and that erroneous non-nominative subjects are produced when children fail to access to the appropriate pronoun form, thereby having problems with the paradigm building of pronouns. However, as in (5) through (8), genitive subjects in Japanese are frequently found with various Referential NPs (e.g., *A-tyan-*no* (A-tyan-Gen) and *Taisyoo-kun-*no* (Taisyoo-kun-Gen)). This suggests that Paradigm Building of Pronouns has nothing to do with Case errors.

Functional Analysis (Budwig, 1989) for child English and Suzuki (2007) for child Japanese states that genitive subjects are erroneously used instead of nominative subjects, when the subjects are agentive and occur with event-denoting predicates. Given the Functional Analysis, it is expected that genitive Case errors tend to occur with transitive or unergative verbs.

Contrary to the expectation, however, erroneous genitive subjects in child Japanese are produced not only with transitive or unergative verbs, but also with stative predicates as given in (14a) and (14b).

(14) a. Ti-***no** ar-u (Moko 2;0) (Adult form: Ti-ga) [Unaccusative verb]
(letter) Ti-Gen exist-Pres
'There is a block (that has the letter *Ti*).'
b. Taisyoo-kun-***no** sugo-i (Tai 1;0) (Adult form: Taisyoo-kun-ga) [Adjective]
-Gen great-Pres
'Mr. Taisyoo is great.'

Nominal Analysis (Pensalfini, 1995) for child English and Suzuki (2001) for child Japanese argues that the structure of clauses containing erroneous genitive subjects is nominal rather than a sentence. It is expected that genitive Case errors are produced only in declarative clauses, but never in clauses containing *wh*-phrases. However, our corpus analysis found a counterexample as shown in (15).

(15) Dotti-***no** ooki-i? (Moko 2;5) (Adult form: Dotti-ga)
which-Gen big-Pres
'Which (number) is bigger?' (Sawada, Murasugi, & Fuji, 2009)

In (15), the *wh*-phrase, *dotti* (which), is marked with the genitive Case *–no*. Thus, Nominal Analysis also fails to account for the erroneous genitive subjects.

Vainikka (1993/1994) proposes Clausal Analysis, following Radford (1998). This analysis argues that the structures of clauses with erroneous genitive subjects are simple VPs headed by a non-finite verb with a subject occupying the Spec of VP. TP or CP is initially not projected. Subject NPs are placed in the Spec VP and get the genitive Case by V by virtue of being in the Spec position. Given Clausal Analysis, it is expected that verbs are always uninflected in a clause with an erroneous genitive subject because of the lack of TP. However, counterexamples to this analysis are found. We observed that all the verbs in (11), repeated in (16), are overtly inflected for past tense.

(16) a. **My** cut it. **My** caught it (Nina 2;1)
b. **My** got that (Nina 2;2)
c. **My** broke it (Sarah 2;6)
d. **Her** said no (Sarah 2;8)
e. **Her** got on, in baby carriage (Adam 3;0)

Thus, children's genitive Case errors are not fully explained by the previous studies shown above. In what follows, we present a hypothesis that child Case errors are due to the underspecification of Tense and show the intermediate stage in the acquisition of the features in Tense.

4. An Analysis of 'Erroneous' Genitive Subjects in Child Japanese

According to ATOM originally proposed by Schütze and Wexler (1996), non-nominative subjects alternate with nominative subjects in English-speaking children during the Root Infinitive stage, but only when the (main) verb is an infinitive. That is, when the verbs show agreement, only nominative subjects occur. In this section, we present the analyses that Case errors in Japanese are due to the underspecification of some features in Tense, and propose that the stage of Case errors corresponds to the stage of RIs in European child languages, where children at around two years of age use non-finite verbs in matrix clauses.[2]

First, we review the Case system in Japanese. Then, we show our descriptive findings with respect to the properties that clauses with erroneous genitive subjects have, and discuss our analysis.

4.1. Japanese Adult Grammar

In adult Japanese, a subject in a matrix clause is typically assigned nominative Case *-ga* as shown in (17).

(17) a. Taroo-**ga** hon-o yon-da
-Nom book-Acc read-Past
'Taroo read a book.'
b. Taroo-**ga** arui-ta
-Nom walk-Past
'Taroo walked.'
c. Booto-**ga** sizun-da
boat-Nom sink-Past
'A boat sank.'
d. Ringo-**ga** aka-i
apple-Nom red-Pres
'The apple is red.'

The subject of a transitive verb *yon-da* (read) in (17a), an unergative verb *arui-ta* (walked) in (17b), an unaccusative verb *sizun-da* (sank) in (17c) and an adjective *aka-i* (red) in (17d) are marked with the nominative Case. As mentioned in the introduction, genitive subjects are not allowed in sentences, but they are possible in noun phrases as shown in (18).

[2] See Murasugi (2008, 2009), Murasugi and Watanabe (2009), Sawada, Murasugi, and Fuji (2009), and Sawada and Murasugi (2010), for the relevant proposals. See also Murasugi, Fuji, and Hashimoto (2007), Murasugi and Fuji (2008, 2009), and Murasugi and Nakatani (2009), among others, for the detailed analyses of Root Infinitive Analogues observed at around the age of one in child Japanese.

(18) a. Sentence: [$_S$ Taroo-**ga**/-***no** hon-o yon-da]
-Nom/-Gen book-Acc read-Past
'Taroo read a book.'
b. NP: [$_{\text{Sentential Modifier}}$ Taroo-**ga**/-**no** (gap_i) yon-da] hon_i
-Nom/-Gen read-Past book
'the book that Taroo read'

The subject *Taroo* in both (18a) and (18b) can be marked with the nominative Case. The Case marker on a subject can be converted to genitive only in prenominal sentential modifiers in relative clauses and complex NPs as in (18b). This is called nominative/genitive (or *Ga/No*) conversion. It must be pointed out that sentences and noun phrases show some parallel properties. The sentence-ending (declarative) form in (18a) and prenominal verb form in (18b) appear in the same form (i.e., *yon-da* "read"). Hence, the prenominal form and sentence-ending form of verbs and adjectives are basically homophonous.

There are other important properties found in nominative/genitive conversion. For example, genitive subjects cannot be present with accusative objects (Harada, 1971) as given in (19).

(19) [Taroo-**ga**/-***no** hon-**o** kat-ta] mise
-Nom/-Gen book-Acc buy-Past shop
'the shop where Taroo bought a book'

The accusative object, *hon-o* (book-Acc) can occur with the nominative subject, whereas it is prohibited when the subject is marked with the genitive Case. This is known as the Transitivity Restriction.

The noun phrases containing nominative and genitive subjects show a difference in interpretation. Miyagawa (2008, 2009) suggests that genitive subject constructions are aspectually limited to stative interpretation and genitive subjects tend to occur with stative predicates such as adjectives and aspectual forms. The examples with aspectual predicates are shown in (20).

(20) a. [simi-**ga** tui-ta syatu]-o kiteiru [eventive reading]
stain-Nom had shirt-Acc is wearing
'He's wearing a shirt that sustained a stain.'
b. [simi-**no** tui-ta syatu]-o kiteiru [result of eventuality reading]
stain-Gen had shirt-Acc is wearing
'He's wearing a shirt that has a stain.' (Miyagawa, 2009)

In (20a), the aspectual morpheme '*(-te) iru*' is attached to the verb *wear*. Following Teramura's (1982) and Abe's (1993) insights that '*verb-ta*' form does not have a full tense interpretation in certain relative clauses, Miyagawa (2009) argues that the clause containing a genitive subject tends to refer to the result of eventuality. The sentence with the nominative subject as in (20a) indicates that there was an event of the shirt getting stained while the most natural interpretation of the genitive subject construction in (20b) is that the shirt being worn has a stain at the time of the utterance. Due to the result of eventuality reading, for instance, the genitive subject is at odds with the adverb that refers to a specific time, such as "*totuzen* (suddenly)" as shown in (21).

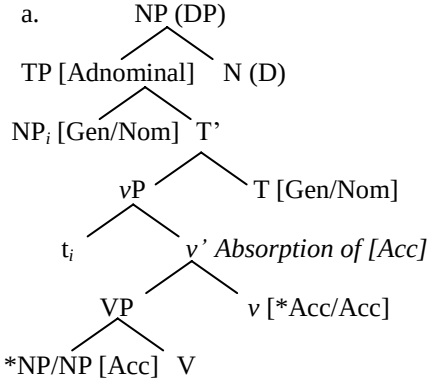
(21) [totuzen simi-**ga**/-***no** tui-ta syatu]
suddenly stain-Nom/-Gen have-Past shirt
'the shirt that was suddenly stained' (Miyagawa, 2009)

The nominative subject, but not the genitive subject, is accepted in (21).

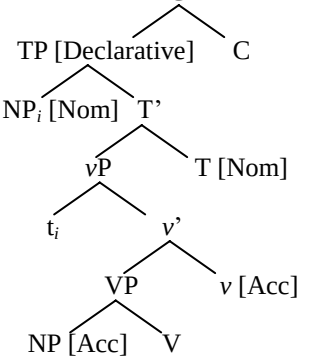
For the structure of the genitive subject construction, Hiraiwa (2001) proposes that the genitive subject is licensed sentence-internally by the adnominal verbal inflection. Saito (2004), adopting Hiraiwa (2001), argues that the verbal inflection lies in T. While as in (22a), an Adnominal T checks either genitive or nominative in prenominal sentential modifiers, as in (22b), a Declarative T checks

nominative in declarative sentences. Moreover, the Adnominal T must be compatible with N (D), but not with C, while the Declarative T must be compatible with C.

(22) a.



b.



(Sawada, Murasugi, & Fuji, 2009)

In both structures in (22a) and (22b), subject NPs are base-generated in the Spec of small *v*P, and move to TP Spec. Assuming that small *v* checks accusative Case, Saito (2004) argues that when an Adnominal T checks genitive, it absorbs the accusative Case feature on small *v*. That is, when the subject is marked with the genitive Case as in (22a), Case checking of the accusative Case is prevented because of the Case feature absorption. Hence, the genitive-accusative pattern, such as (19), is excluded. Discussing Abe's (1992) argument that the external argument is optional in prenominal sentential modifiers, Saito proposes that the Adnominal T can absorb not only *v*'s Case but also its θ-role. In contrast, as in (22b), a subject gets nominative Case by the Declarative T in sentences.

In what follows, we present an analysis of the erroneous genitive subjects in child Japanese based on Hiraiwa's (2001) and Saito's (2004) syntactic analyses of nominative-genitive conversion in Japanese.

4.2. What Children Know/Do Not Know at the Stage of Case 'Errors' in Child Japanese

As shown in the section 2.1., Japanese-speaking children optionally produce correct nominative subjects at the stage where they produce erroneous genitive subjects. Because the Japanese-speaking children (optionally) produce the matrix clause with the nominative subject at the stage in question, we assume that children certainly know the inside of the TP structure.

What children do not know at the stage in question is that genitive subjects are not allowed in non-NP-contexts. We may restate this problem in the framework of Hiraiwa (2001) and Saito (2004): children's genitive Case errors are found at the stage where they have not acquired the relation of Adnominal T and N (D), and they "mis-assume" that Adnominal T can be compatible with C. Children do not know the external relation of T with N (D), and have not acquired the fact that Adnominal T can only be compatible with N or D. Just like Adnominal T in the prenominal sentential modifiers inside NPs (DPs) in adult grammar, Declarative T can also check genitive and nominative Case in root clauses in child grammar.

This hypothesis is supported by the curious facts that children's erroneous genitive subjects have parallel properties with correct genitive subjects in the adult sentential modifiers in relative clauses.

First, the sentences with erroneous genitive subjects obey the Transitivity Restriction. In Sawada, Murasugi, and Fuji (2009) (henceforth S, M&F (2009)), it is reported that 17% of the sentences have overt object NPs. The rest of the utterances do not contain overt object NPs. In case the context requires an object, it appears in the topic or the right-dislocated position, but never in the canonical (base) position, thereby following the Transitivity Restriction as given in (23).

(23) a. Kore, A-tyan-***no*** tukut-ta no (A 2;3) (Adult form: A-tyan-ga)
this -Gen make-Past Particle
'This one, A-tyan made (it).'

b. A-tyan-***no** but-tyat-ta titi (A 2;4) (Adult form: A-tyan-ga)
-Gen hit-Perfect-Past father
'A-tyan hit my father.' (S, M&F, 2009)

In (23a), for example, the accusative object *kore* (this) appears in the topic position. This indicates that child erroneous genitive subjects may not violate the Transitivity Restriction, just like adult genitive subjects in sentential modifiers in NPs.

Second, the child erroneous genitive subjects, in fact, often appear with certain types of predicates. As shown in (5) through (8), they are the unaccusative verbs, adjectives, and aspectual forms (e.g., *tukat-te-ru* (use-Prog-Pres)). Therefore, the predicates with erroneous genitive subjects show parallel properties with adult genitive subjects, as being discussed in Miyagawa (2008, 2009).

Third, 96% of the child matrix clauses with erroneous genitive subjects contain the verbs and adjectives with the prenominal form, which is homophonous with the sentence-ending declarative form. In fact, it is also true for adult grammar. For example, a verb "*tonda* (flew)" in a sentence, "*boosi-ga tonda* (The hat flew away)" and in a sentential modifier "*tonda boosi* (the hat which flew away)" have the homophonous form. Hence, it is natural for the children to regard the prenominal sentential modifiers as the matrix clauses, based on the input available.

The three pieces of evidence shown above indicate that Japanese-speaking children know the internal properties of TP headed by the Adnominal T, and they, unlike adults, treat the clauses containing an erroneous genitive subject as sentences, not as sentential modifiers in NP-contexts.

Then, how do erroneous genitive subjects disappear in child Japanese? In S, M&F (2009), the learnability problem is explained by employing Murasugi's (1991) Relative Clause Parameter.

According to Murasugi (1991), the structure of sentential modifiers is parameterized; either CP or TP (IP) depending on languages. Sentential modifiers in adult Japanese (and Korean) are TPs (IPs) whereas they are CPs in adult English. Some children acquiring Japanese hypothesize the CP relatives at one point of language acquisition.

(24) Nimotu nose-te-n ***no** torakku ya kore (Jun 2;9)
load carry-Prog-Pres Complementizer truck Copula this
'This is the truck that is carrying a load.' (S, M&F, 2009)

In (24), the complementizer *no* is overgenerated between the sentential modifier and the head nominal.

Adopting Hiraiwa (2001), Saito (2004) and the Relative Clause Parameter, the stages of erroneous genitive subjects can be classified into three stages.

Basically, the genitive Case errors occur because Adnominal T is considered to be compatible with C unlike in adult Japanese, since "a default root clause is CP (Rizzi, 1994)." Stage I is the stage where only erroneous genitive subjects are produced which some researchers have observed, and no correct nominative subjects are found. Children then would assume that Adnominal T is compatible with C.

At Stage II, children mark subjects with both nominative and genitive Case. At this stage, Adnominal T and Declarative T are compatible with C. Stage II is subcategorized into two stages with respect to the acquisition of the complex structure of relative clauses. At Stage IIa, relative clauses are not yet produced; at Stage IIb, the embedded sentences are produced. When children start producing relative clauses at Stage IIb, overgeneration of complementizer (*no*) is found in those who set the value of the Relative Clause Parameter as CP, but not TP, as in (24).

Stage III is the stage where children set the value of the Relative Clause Parameter (from CP) to TP, and retreat from the overgeneration of complementizer. The erroneous genitive subjects in sentences disappear, since children find out that relative clauses cannot be CP in adult Japanese and that Adnominal T is compatible only with N (D), but not C, by fully specifying the features in T that determine the external relation of the Adnominal T with N (D).

For this hypothesis, S, M&F (2009) provide the further supportive evidence based on the corpus analysis of Jun. Jun's erroneous genitive subjects are attested from the age of 2;2 to 2;9 and he frequently overgenerates CP relative clauses from 2;8 to 2;10. In contrast, as shown in (25), TP relative clauses start to appear productively at 2;10 when his genitive Case errors completely disappear.

(25) Kore na Jun-ga geemu su-ru toko (Jun 2;10)
this Particle -Nom game do-Pres place
'This is the place where Jun plays the game.' (S, M&F, 2009)

Jun's data shows that he reset the value of the Relative Clause Parameter to TP at around 2;10 and this is consistent with the analysis given above.

To summarize, 2-year-old Japanese-speaking children who optionally produce correct nominative subjects erroneously assign genitive Case *-no* to subject NPs after Root Infinitive Analogues. The properties of child clauses with an erroneous genitive subject are parallel with those with a genitive subject in adult sentential modifiers within complex NPs. What children do not know is the properties of Tense (i.e., the property of [+Adnominal] T being compatible only with D in adult grammar). Since a root clause is CP as discussed by Rizzi (1994), and because of the underspecification of Tense, children mistakenly assume that the Adnominal T can be compatible with C. It is only after children acquire that structure of TP relative clauses in Japanese that they retreat from the genitive Case errors.

5. 'Erroneous' Genitive Subjects in Child English

The analysis given in Section 4 can elegantly explain the erroneous genitive subjects in child English; English-speaking children also go though three stages to attain adult grammar. We will argue that the erroneous genitive subjects, which are found during the Root Infinitive stage (Schütze & Wexler, 1996), are due to the underspecification of the features in Tense and will present the empirical evidence.

5.1. English Adult Grammar

Before we discuss the mechanism of how English-speaking children make genitive Case errors, we briefly explain English adult grammar. The subject NPs are typically Case-marked with the nominative in simple sentences as shown in (26). Genitive subjects, but not nominative subjects, are possible in gerund constructions as shown in (27).

(26) a. **John** eats/**I** eat an apple. b. ***John's** eats/**My** eat an apple.

(27) a. I remember [**John's**/**my** eating an apple] b. *I remember [**he**/**I** eating an apple]

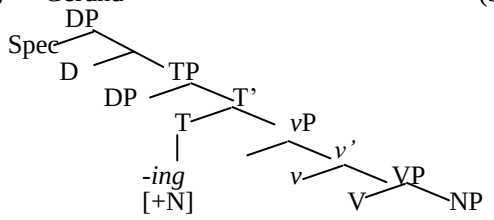
As per the data, genitive subjects are allowed in gerund constructions, but not in matrix clauses. It must be pointed out that there is a parallelism between gerund constructions (DPs) and progressive sentences (CPs) with respect to the verb forms as shown in (28).

(28) a. I remember [John's/my **eating** an apple] [Gerund Construction]
b. John is/I am **eating** an apple [Progressive Sentence]

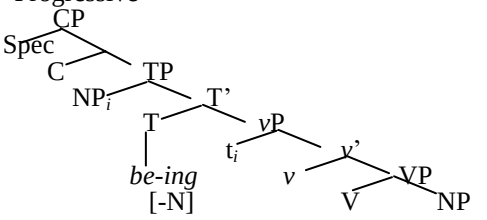
The affix which nominalizes the clauses in (28a) and the affix used in sentences to express progressive aspect in (28b) are the same (V-*ing*).

For the structure of the gerund construction, we adopt Suzuki (1988). According to Suzuki (1988), the suffix *-ing* is inflectional and it can appear on T (I) where only inflectional affixes can occur. The gerundive *-ing*, which originally had [-Infl], had the feature [+N] on T (I), but it later acquired the positive value of [+Infl] from the homophonous participial suffix *-ing*. Hence, the gerundive *-ing* can occur in T (I). On the other hand, subject NPs in progressive sentences cannot get the genitive Case by T. When the value of [±N] is negative, the construction becomes sentential. Given Suzuki's (1988) analysis, the structures of gerund constructions and progressive sentences are as given in (29) and (30), respectively.

(29) Gerund



(30) Progressive



The gerund construction has DP structure as in (29). As shown in (30), T [-N] must be compatible with the C-head, but not with the D-head in progressive sentences.

Employing the structures shown above, we argue that the mechanism by which English-speaking children erroneously produce genitive subjects is the same as child Japanese in the next section.

5.2. Children's Knowledge at the Stage of the 'Erroneous' Genitive Subjects in English

In this subsection, we will show that the erroneous genitive subjects in child English are well explained by adopting the analysis for child Japanese as shown in section 4. We will give the supportive evidence for the hypothesis that 2-year-old English-speaking children know the internal properties of TP headed by Gerundive T, but not the external properties of TP. They mistakenly assume that Gerundive T can be compatible with C.

Unlike Japanese, the structure of relative clauses in English is CP, not TP. Hence, unlike the case of Japanese, to set the value of the Relative Clause Parameter cannot be the trigger to retreat from the genitive Case errors for English-speaking children. What can be the trigger of the retreat in child English? We conjecture that children need to learn the structural difference between gerundive constructions and progressive sentences. When the features in T that determine the external relation of T with D/C are fully specified, children stop producing genitive Case errors. The evidence based on our corpus analysis for our hypothesis is shown as follows.

At Stage I, only erroneous genitive subjects are produced in a matrix sentence. This stage is, in fact, found only from Nina's corpus.[3] Most of the erroneous genitive subjects at Stage I occur with verbs without overt inflections such as "My *turn, turn* around (Nina, 1;11)." Children seldom produce utterances which express progressive events with overt copulas (e.g., *I am singing*). In child grammar, T selects CP structure as a root clause, since "a default root clause is CP (Rizzi, 1994)." Then, T is associated with the feature [+N (Gerundive)] which assigns the genitive Case to a subject NP.

At Stage II, both correct nominative and erroneous genitive subjects are produced in the matrix clauses. The crucial difference found in Stage IIb, but not found in Stage IIa, is the existence of erroneous genitive subjects that co-occur with a verb in progressive form. The erroneous genitive subjects sometimes occur with V-*ing* that has the interpretation of progressive. Some examples are attested from Nina's corpus, such as "(Do you) know what my *making*? (Nina, 2;4)," "Look my *doing*, Mommy (Nina, 2;4)" and "Her *getting* dry (Nina, 2;5)." Interestingly, all erroneous genitive subjects with V-*ing* occur without overt copulative elements. We also need to point out that children at Stage IIa and IIb frequently drop *be* in progressive sentences. Children have not acquired the difference between gerund constructions and progressive sentences.

At Stage III, genitive Case errors disappear. Children start producing the correct nominative subjects when the T-related elements such as copulative elements start to appear in the adult way. Progressive sentences start to be produced with overt finite declarative *be*. Children know that Gerundive T cannot be compatible with C in adult grammar.

The analysis discussed above is consistent with the acquisition of the progressive form of the

[3] Sawada, Murasugi, and Fuji (2009) report that among six children, only one Japanese-speaking child (Child A) exhibits Stage I. Hence, we employ the same classification of the stages to English data.

verbs. As discussed by Becker (2000, 2001), copulative elements are frequently dropped in 2-year-old children's production. In our corpus analysis, the age span of frequent copula omission corresponds to the time of the erroneous genitive subjects at Stage I and II. As in (31), *be* drops in progressive sentences.

(31) a. I painting (Adam, 2;5) b. I popping balloons (Nina, 2;0)
c. I brushing (Eve, 1;9) d. I singing (Sarah, 2;8)

Corpus analysis of Sarah's data is summarized in Figure 1. The correlation of the erroneous genitive subjects, and the progressive sentences with omitted *be* is found as given in Figure 1.

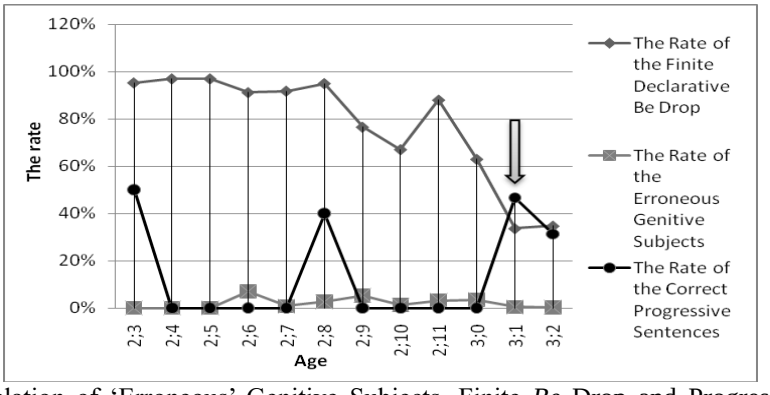


Figure 1. Correlation of 'Erroneous' Genitive Subjects, Finite *Be* Drop and Progressive Sentences (Sarah)

Figure 1 shows that Sarah's erroneous genitive subjects are produced from 2;6 to 3;0. While Sarah is in the stage of genitive Case errors, the rate of progressive sentences with overt *be* is practically zero except the occasional production at 2;3 and 2;8. At the age of 3;1, the erroneous genitive subjects cease and the correct progressive sentences (with overt finite *be*) start to appear productively, though gerund constructions are not found even after 3;0 in Sarah's corpus. The results in Figure 1 show that an English-speaking child learns that T [-N] must be compatible with C. Sarah learns that T with the feature [-N (e.g., Progressive)] does not assign genitive Case to a subject NP in a sentence (CP) and T with the feature [+N (Gerundive)] must be compatible with D (DP).

To summarize, just like Japanese-speaking children, 2-year-old English-speaking children also produce erroneous genitive subjects while correct nominative subjects optionally appear. The age span of Case errors falls on RIs. Child clauses containing erroneous genitive subjects have parallel properties with adult gerunds. As for the learnability issue, we argued that the trigger to retreat from genitive Case errors would be the acquisition of progressive sentences in child English. It is probably when children realize that T [+N (Gerundive)] cannot be compatible with C, but with D, by learning the full Tense system that they retreat from the erroneous genitive Case-marking of the subject NPs.[4]

6. Omission of the Copulative Elements in Child Languages

If we are on the right track, and the Case errors are due to the underspecification of Tense, then it is conjectured that the analysis given in this paper can account for other phenomenon related to T-elements or copula omission. In this section, we will first go over Becker (2000, 2001) which argues for copula omission in child English. Then, we will give the supportive evidence for Becker (2000, 2001), based on the corpus analysis of child Japanese.

[4] The analysis presented here shares in spirit with Hamburger's (1980) insight which analyzes sentences with genitive subjects as precursors of relative clauses, and also with the insight of Schütze and Wexler (1996) which associates genitive subjects in child English to genitive subjects in gerundive constructions (e.g., *his playing football [upset me]*) in adult grammar.

6.1. Becker (2000, 2001)

In adult English grammar, predicative expressions can be classified as Stage-level (=S-l) or Individual-level (=I-l) as exemplified in (32a) and (32b), respectively.

(32) a. Rodney is in the kitchen/tired. [Stage-level]
b. Rodney is a cat/fat. [Individual-level] (Becker, 2001)

S-l predicates (locative expressions *'in the kitchen'* and adjectives *'tired'*) as in (32a) denote a temporary property, while I-l predicates (*'cat'* and *'fat'*) as in (32b) denote a permanent property. One difference between S-l and I-l predicates is that only S-l predicates can be modified by a spatial or temporal modifier (Becker, 2001, p. 27). See (33).

(33) a. Rodney is in the kitchen all the time. b. ??Rodney is a cat all the time. (Becker, 2001)

As in (33), the temporal modifier *all the time* can be compatible with the S-l predicate as in (33a), but it is odd with the I-l predicate as in (33b).

Becker (2000, 2001) finds that 2-year-old children acquiring English tend to omit *be* in S-l predicates as shown in (34), but *be* is rarely omitted in I-l predicates as in (35).

(34) a. I φ in the kitchen (Nina 2;1) b. He φ way up dere (=there) (Adam 3;0)
c. Her φ thirsty (Nina 2;1) (Becker, 2001)

(35) a. He's a dog (Nina 2;0) b. I'm big boy (Adam 2;7)
c. And this is yellow (Naomi 2;5) (Becker, 2001)

Be is omitted in locative predicates in (34a) and (34b), in S-l adjectives in (34c). In contrast, *be* is overt in I-l predicates such as nominals as in (35a) and (35b), and I-l adjectives as in (35c). The average rate of overt *be* is only 20.9% in locative predicates and 72.4% in nominal predicates. A similar contrast is also found between S-l adjectives (46.2%) and I-l adjectives (68.3%).

Becker (2000, 2001) proposes that only S-l predicates contain Aspectual Phrase which provides a temporal anchor for the sentence. Copula *be* drops in S-l predicates because Infl is empty without [-fin] feature. AspP head, but not TP head, is bound by Tense operator.[5]

Given Becker's insight, it is expected that the copula omission is also found in other child languages. The next section deals with the Japanese copulative constructions and argues that underspecified T can be the same mechanism underlying copula omission in child Japanese.

6.2. The Omission/Production of Copulative Elements in Child Japanese

In adult Japanese, the copulas appear as *da* (or *ya* (Kansai dialect)) or *desu*, and they appear only in nominal predicates. In case the copulas *da* (and *ya*) are produced followed by a sentence-ending particle *no*, they have adnominal form *na*. Just like copulative sentences in English, it is impossible for I-l predicates to occur with temporal expressions (such as *kyoo* (today)). See the examples shown in (36).

---

[5] Wexler (2000) argues that the asymmetry in copula omission found by Becker (2000, 2001) can be explained by adopting Agreement and Tense Omission Model (Schütze and Wexler, 1996) and Unique Checking Constraint (UCC) (Wexler, 1998). According to Wexler (1998), UCC allows a D-feature on DP to check against only one functional category in child grammar, thus forcing either AGR or TNS to be omitted. Wexler (2000) employs Diesing's (1992) proposal that the subject NP of I-l predicates is base-generated in TP Spec; while the subject NP of S-l predicates, which is base-generated inside VP, has to move to the TP Spec. TNS or AGRS must be omitted for UCC and consequently finite *be* in S-l predicates is dropped by children. UCC does not apply, when the subject DP is generated in the Spec of TP, and hence, *be* is not omitted. See Wexler (2000) for detailed discussion.

(36) a. Taroo-ga (kyoo) genki **da** (**ya, desu**)/**na**-no [Stage-level]
-Nom today active Dec Copula/Ad Copula-Particle
'Taroo is fine (today).'
b. Kore-ga (*kyoo) hikooki **da** (**ya, desu**)/**na**-no [Individual-level]
this-Nom today airplane Dec Copula/Ad Copula-Particle
'This is an airplane.'

As in (36a), the S-l predicate *genki* (active) can occur with the temporal modifier *kyoo*, while the I-l nominal predicates *hikooki* (airplane) as in (36b) cannot.

Our analysis of copulative elements produced by a Japanese-speaking child, Jun, who is a Kansai-dialect speaker, finds that Jun optionally drops copulas just like English-speaking children. The total number of copula omissions is 32 (18 in S-l predicates, 12 in I-l predicates and 2 in non-classified predicates) out of 1,677 utterances of copulative sentences[6] from the age of 2;0 to 3;1, when erroneous genitive subjects are also produced (from 2;2 to 2;9). The relevant examples are shown as in (37).

(37) a. Iya ***φ** no (Jun 2;2) (Adult form: **na** no)
reluctant Particle
'(I) don't want (to bring the toys).'
b. Kirai ***φ** wa (Jun 2;6) (Adult form: **da** wa)
dislike Particle
'(I) dislike (my daddy, so I will not bring a cup for him.) '
c. Jun-no ***φ** kara ne saattara akan yo (Jun 2;6) (Adult form: **da**-kara)
-Genitive because Particle touch not allowed Particle
'(This) is Jun's, so (you are) not allowed to touch (it).'

Although the subjects are null in (37), the adjectival noun *iya* (reluctant) in (37a) is erroneously followed by the particle *no* without a copula *na* in adnominal form . In (37b), the copula in declarative form *da* should appear following the adjectival noun *kirai* (dislike), but it is omitted. (37a) and (37b) are the copula omissions in S-l predicates. Copula omission in I-l predicates such as (37c) is seldom observed.

As for the production of copulative elements, the overt copulas are mostly found in I-l predicates with null subjects as given in (38). We also find that nominative subjects occur with copulas in declarative form (*da*) as shown in (39) from the age of one.

(38) a. Hikooki **ya** (Jun 1;10)
airplane Dec Copula
'(This) is an airplane.'

b. Gattyaman **da** (Jun 2;5)
Gattyaman Dec Copula
'(This) is Gattyaman (=a TV character).'

(39) Kore **ga** kakkoi buubu **ya** (Jun 2;6)
this-Nom cool car Copula
'This is the cool car.'

In (38a) and (38b), the copulas *da* (and *ya*) are produced followed by the nominal predicates *hikooki* (an airplane) and *Gattyaman*. When subject NP is overtly produced as in (39), the subject *kore* (this) is marked with the nominative Case. Based on the data shown above, a Japanese-speaking child tends to drop copulative elements in S-l predicates. Moreover, copulative elements are produced early, even before the stage of genitive subjects and copula omissions. The total numbers of copula omission and production in Jun's production are summarized in Table 3.

---

[6] The copulative sentences containing *da, ya* and *desu* (copula-Pres) and *datta, yatta* and *deshita* (copula-Past) are counted, while the fixed expressions such as *nan(i)-da* (What is this?), *soo da* (I got it.), *koo-da* (I do in this way.), the imitation production which Jun repeated what his father said, unclear utterances and erroneous usages (e.g., *tabe-ta desu* (eat-Past Copula)) are not.

Table 3
The Number of Copulative Element Omission/Production in Jun's Production (2;0-3;1)

The Type of Predicates	S-l predicates	I-l predicates	Not Classified	Total Number
The Copula Omission (Rates)	18 (5.3%)	12 (1.1%)	2 (0.7%)	32
The Copula Production	318	1,056	271	1,645

Though the copula omission rates are not as high as Becker's (2000, 2001) data, Table 3 shows that Jun tends to drop copulas in S-l predicates. This result complies with our hypothesis.[7]

For this hypothesis, an interesting utterance of copula omission occurring with an erroneous genitive subject is found in Moko's corpus as shown in (40).

(40) Moko-tyan-***no** tensai **φ** (Moko 2;0)
-Gen genius
'Moko-tyan (=I) is genius.'

In (40), the declarative form of copula *da* or *desu* is not overtly produced. Moreover, our corpus analysis finds related Case errors with respect to the form of copulative elements as in (41) and (42).

(41) Kotesatehime-***no** daisuki **φ** (Moko 2;7)
-Gen love
'I love Kotesatehime (=a kind of princess).'

(42) A-tyan-***no** hambaagu suki-**na** no (A 2;3)
-Gen hamburger like-Ad Copula Particle
'A-tyan (=I) likes the hamburger steak.'

In (41), the copula after *daisuki* (love) drops, and the object NP, *Kotesasehime,* is erroneously marked with the genitive Case. In (42), the copula in adnominal form *na* is overtly produced since it is followed by the particle *no*. Thus, copula tends to drop, and when it does not, it appears in adnominal form followed by sentence-ending particle *no*. However, the copulas in declarative form *da* or *ya* are not found with erroneous genitive subjects. These facts suggest that it is the Adnominal T, but not the Declarative T, that checks the genitive subjects. Figure 2 gives the numbers of genitive Case errors, relative clauses (both *CP relatives and TP relatives) and the copula omissions.

[7] As one reviewer pointed out, Jun's copula drop rate is significantly lower than English-speaking children's. In adult Japanese, copulas can drop (e.g., *Kore-ga hikooki* φ 'This is an airplane.'). In our corpus analysis, such utterances are not classified as ungrammatical copula omissions, but the copula omissions such as (37) are counted. This may be the cause of very low rate of copula omissions in child Japanese.

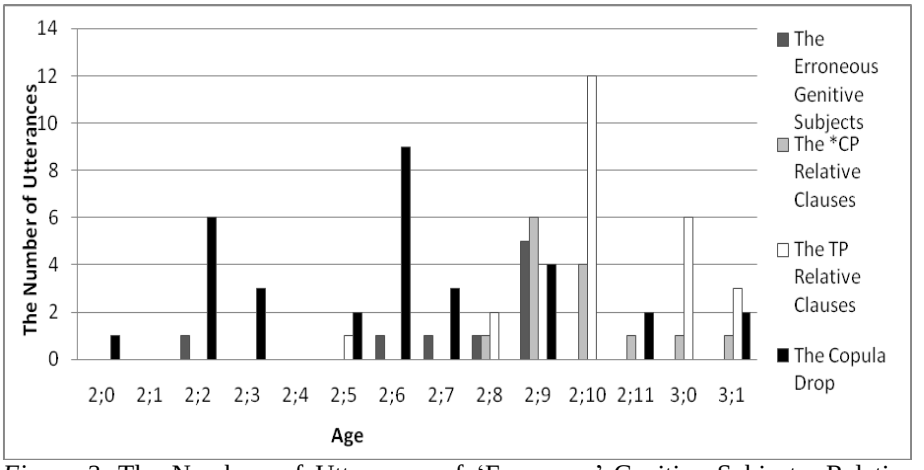


Figure 2. The Numbers of Utterances of 'Erroneous' Genitive Subjects, Relative Clauses and the Omission of Copulas (Jun)

Figure 2 shows that three types of errors are produced during the same age span, and it also shows that it is at around the age of 2;10 that all these errors cease.

Furthermore, we have supportive evidence found in erroneous genitive subjects for our hypothesis. See the English copulative sentences shown in (32), which are repeated in (43). This semantic contrast corresponds to the Japanese existential sentences as in (44).

(43) a. Rodney is in the kitchen. [Stage-level] b. Rodney is a cat/fat. [Individual-level]

(44) a. Hon-ga heya-**ni** **a-ru**
book-Nom room-at exist-Pres
'A book is in the room.'

b. Taroo-wa gakusei **de** **a-ru**
-Top student Copula exist-Pres
'Taroo is a student.'

The S-l predicate (43a) meaning that *Rodney* is located in a place, *kitchen*, corresponds to (44a) the existential sentence containing an existential verb '*(-ni) aru*' in Japanese. The I-l predicate (43b) corresponds to the construction with '*(-de) aru*,' which is the literal expression of *da* in Japanese as shown in (44b).

In Jun's corpus, we found that erroneous genitive subjects occurring with the S-l verb '*(-ni) aru*' as given in (45).

(45) a. Koori-***no** ippai a-ru (Jun 2;8)
ice-Gen a lot exist-Pres
'There are lots of ice.'

b. Karendaa-***no** a-ru (Moko 2;7)
calendar-Gen exist-Pres
'There is a calendar.'

As in (45), the subject NPs marked with the genitive Case are produced with the verb '*(-ni) aru*' as S-l predicates. Crucially, the erroneous genitive subjects co-occurring with I-l predicates '*(-de) aru*,' even with its colloquial expressions *da* or *desu*, are not found at all. Hence, the empirical evidence collected from the Japanese corpus given above is consistent with Becker's finding for child English.

The age span when Jun produces erroneous genitive subjects, TP and CP relative clauses, copulas and existential verb *aru* are summarized in Table 4.

Table 4
Ages that Jun Produced 'Erroneous' Genitive Subjects, Relative Clauses, Copulas and Existential Verbs

Types of Predicates \ Age	2;0 2;1	2;2 2;3 2;4 2;5 2;6 2;7 2;8 2;9	2;10 2;11 3;0 3;1
Erroneous Genitive Subjects		←	
*CP Relative Clauses		←	- - →
TP Relative Clauses		←	→
Omission of Copulas in S-l P	←	←	- - - - - - - - - - - - - - -
Production of Copulas in S-l P		←	→
Existential Verb *aru*	←	←	→

** Dot lines indicate that *CP relative clauses and omission of copulas in S-l predicates are less produced compared to solid lines.

Our descriptive corpus analysis finds that the omission of copulas is observed roughly at around the same stage as erroneous genitive subjects (from 2;2 to 2;9). This result, hence, is consistent with our hypothesis that children's copula omissions and the erroneous genitive Case-marked subjects are due to the underspecification of the features in Tense.

7. Conclusion

In this paper, we showed that young children acquiring Japanese and English produce erroneous genitive subjects and omit copulative elements, based on the descriptive corpus analysis. The erroneous genitive subjects are observed during the Root Infinitive stage. Then, correct nominative subjects and copulative elements (in Stage-level predicates) optionally appear at the stage of Case errors. Genitive subjects cease when the adult-like relative clauses in Japanese and progressive sentences in English appear productively. Furthermore, the properties of sentences with the erroneous genitive subjects are parallel with the genitive subjects in the sentential modifiers in noun phrases in adult Japanese and gerundive constructions in adult English.

We argued that the genitive Case errors are due to the underspecification of Tense. Precisely, 2-year-old children have not specified the external relation of Adnominal or Gerundive T [Genitive] in the adult way, and they initially assume that the Adnominal or Gerundive T can be compatible with C, as they percolate CP as the default root clause (Rizzi, 1994). This happens after the acquisition of (i) the structure of relative clauses by setting the TP value for the parameter of the relative clauses (Murasugi, 1991) in Japanese and (ii) progressive sentences in English by finding the lexical and structural differences between DP gerund constructions and CP progressive sentences. In order to attain adult grammar, children need to learn that Adnominal T is compatible only with N (D), not with C. We have shown that our observation of the optional copula omission found in child Japanese also correlates with the lack of fully specified Tense.

References

Abe, Yasuaki. (1992). Tense, Conditionals and Arbitrary PRO Interpretation in Japanese. *Proceedings of the Sophia Linguistic Society, 6*, 33-58.

Abe, Yasuaki. (1993). Dethematized Subjects and Property Ascription in Japanese. In Chungmin Lee, & Beom-mo Kang (Eds.), *Proceedings of the 1992 Asian Conference on Language, Information and Computation* (pp. 132-144). Thaehaksa, Seoul.

Becker, Misha. (2000). *The Development of the Copula in Child English: The Lightness of Be*. Ph.D. Dissertation, UCLA.

Becker, Misha. (2001). The Syntactic Structure of Predicatives: Clues from the Omission of the Copula in Child English. *ZAS Papers in Linguistics, 22*, 25-42.

Budwig, Nancy. (1989). The Linguistic Marking of Agentivity and Control in Child Language. *Journal of Child Language, 16*, 263-284.

Diesing, Molly. (1992). *Indefinites.* MIT Press, Cambridge, Mass.

Hamburger, Henry. (1980). A Deletion Ahead of Its Time. *Cognition, 8*, 389-416.

Harada, Sin'ichi. (1971). *Ga-No* Conversion and Idiolectal Variations in Japanese. *Gengo Kenkyu, 60*, 25-38.

Hiraiwa, Ken. (2001). On Nominative-Genitive Conversion. In Elena Guerzoni, & Ora Matushansky (Eds.), *MIT Working Papers in Linguistics 39*: *A Few from Building* (E-39, pp. 66-125).

Ishii,Takeo. (2004). *The Jun-Corpus-Longitudinal Speech Data of a Japanese Boy Aged 0;6-3;8.* (CHILDES)

Lillo-Martin, Diane, Snyder, William, & Murasugi, Keiko. *The Database of "Moko."* University of Connecticut and Nanzan University.

Miyagawa, Sigeru. (2008). Structures that License Genitive Subjects in Altaic. Ms., Nagoya University.

Miyagawa, Sigeru. (2009). Genitive Subjects in Altaic and the Specification of Phase. Ms., MIT. Available on-line at: http://web.mit.edu/miyagawa/www/Miyagawa%20Lingua%20ms%20June29-09.pdf

Miyata, Susanne. (2004a). *The Tai-Corpus-Longitudinal Speech Data of a Japanese Boy Aged 1;5-3;1.* (CHILDES)

Miyata, Susanne. (2004b). *The Ryo-Corpus-Longitudinal Speech Data of a Japanese Boy Aged 1;4-3;0.* (CHILDES)

Miyata, Susanne. (2004c). *The Aki-Corpus-Longitudinal Speech Data of a Japanese Boy Aged 1;5-3;0.* (CHILDES)

Murasugi, Keiko. (1991). *Noun Phrases in Japanese and English: A Study in Syntax, Learnability and Acquisition.* Ph.D. Dissertation, University of Connecticut.

Murasugi, Keiko. (2008). Underspecification of Functional Heads in Language Acquisition. Presentation at the 1st Workshop of the Nanzan International Research Project on Comparative Syntax and Language Acquisition, Nanzan University, November 23rd.

Murasugi, Keiko. (2009). What Japanese-Speaking Children's Errors Tell Us about Syntax. Presentation at GLOW in Asia VII, English and Foreign Languages University, Hyderabad, February 28th.

Murasugi, Keiko, & Fugi, Chisato. (2008). Root Infinitives: The Parallel Routes the Japanese- and Korean-Speaking Children Step in. Presentation at Japanese/Korean Linguistic Conference 18, City University of New York, November 13th.

Murasugi, Keiko, & Fugi, Chisato. (2009). Root Infinitives in Japanese and the Late Acquisition of Head-Movement. *BUCLD 33 Supplement*, Cascadilla Press.

Murasugi, Keiko, Fuji, Chisato, & Hashimoto, Tomoko. (2007). What Acquired Later in an Agglutinative Language. Paper presented at Asian GLOW VI, Chinese University of Hong Kong, December 27th.

Murasugi, Keiko, & Watanabe, Eriko. (2009). Case Errors in Child Japanese and the Implication for the Syntactic Theory. In Jean Crawford, Koichi Otaki, & Masahiko Takahashi (Eds.), *Proceedings of the 3rd Conference on Generative Approaches to Language Acquisition North America* (pp. 153-164).

Nakatani, Tomomi, & Murasugi, Keiko. (2009). Gengokakutoku ni okeru Syusetuhuteisigensyoo: Zyuudanteki Kansatuteki Kenkyuu [Root Infinitive Analogues as Non-Finite Surrogate Forms: A Longitudinal Study of a Japanese-Speaking Child]. *Academia, 86*, 59-94. Nanzan University.

Pensalfini, Rob. (1995). Pronoun Case Errors, Both Syntactic and Morphological. In Carson T. Schütze, Jennifer B. Ganger, & Kevin Broihier (Eds.), *MIT Working Papers in Linguistics* (Vol. 26, pp. 305-324).

Radford, Andrew. (1998). Genitive Subjects in Child English. *Lingua, 106*, 113-131.

Rispoli, Matthew. (1994). Pronoun Case Overextensions and Paradigm Building. *Journal of Child Language, 21*, 157-172.

Rispoli, Matthew. (1995). Mechanisms of Pronoun Case Error: Biased Retrieval, Not Syntactic Incompetence. Ms., Northern Arizona University.

Rizzi, Luigi. (1994). Early Null-Subjects and Root Null-Subjects. In Teun Hoekstra, & Bonnie Schwartz (Eds.), *Language Acquisition Studies in Generative Grammar* (pp. 151-176). Amsterdam: John Benjamins.

Saito, Mamoru. (2004). Genitive Subjects in Japanese: Implications for the Theory of Null Objects. In Peri Bhaskararao, & Karumuri V. Subbarao (Eds.), *Non-Nominative Subjects* (Vol. 2, pp. 103-118). Amsterdam: John Benjamins.

Sawada, Naoko, & Murasugi, Keiko. (2010). 'Erroneous' Genitive Subjects in Child Grammar. Presentation at the 7th Workshop of the Nanzan International Research Project on Comparative Syntax and Language Acquisition, Nanzan University, January 31st.

Sawada, Naoko, Murasugi, Keiko, & Fuji, Chisato. (2009). A Theoretical Account for the 'Erroneous' Genitive Subjects in Child Japanese and the Specification of Tense. Presentation at BUCLD 34, Boston University, November 7th.

Schütze, Carson, & Wexler, Kenneth. (1996). Subject Case Licensing and English Root Infinitives. In Andy Stringfellow, Dalia Cahana-Amitay, Elizabeth Hughes, & Andrea Zukowski (Eds.), *BUCLD* 20 (pp. 670-681). Cascadilla Press.

Suzuki, Takeru. (2001). No no Syuutoku ni Kansuru Yobikennkyuu [The Preliminary Study on the Acquisition of Japanese]. *English Studies, 32*, 37-63. Tokyo Gakugei University.

Suzuki, Takeru. (2007). Nihongo no Kakutoku Katei de Arawareru Syugohyoosiki no Bunretu [Subject Split in the Acquisition of Japanese]. *Bulletin of Tokyo Gakugei University. Humanities and Social Sciences*. *I Vol. 58*,

45-69. Tokyo Gakugei University. Available on-line at: http://hdl.handle.net/2309/65548
Suzuki, Tatsuya. (1988). *The Structure of English Gerunds.* Ph.D. Dissertation, University of Washington.
Teramura, Hideo. (1982). *Nihongo no Sintakkusu to Imi 2 [Japanese Syntax and Meanings 2]*. Kuroshio Shuppan, Tokyo.
Vainikka, Anne. (1993/1994). Case in the Development of English Syntax. *Language Acquisition, 3*, 257-325.
Wexler, Ken. (2000). Three Problems in the Theory of the Optional Infinitive Stage: Stage/Individual Predicates, Eventive Verbs and Finite Null-Subjects. *WCCFL 19 Proceedings*, 560-573.

Selected Proceedings of the 4th Conference on Generative Approaches to Language Acquisition North America (GALANA 2010)

edited by Mihaela Pirvulescu,
María Cristina Cuervo, Ana T. Pérez-Leroux,
Jeffrey Steele, and Nelleke Strik

Cascadilla Proceedings Project Somerville, MA 2011

Copyright information

Selected Proceedings of the 4th Conference on Generative Approaches
to Language Acquisition North America (GALANA 2010)
© 2011 Cascadilla Proceedings Project, Somerville, MA. All rights reserved

ISBN 978-1-57473-447-8 library binding

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Proceedings Project.

Ordering information

Orders for the library binding edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Sawada, Naoko and Keiko Murasugi. 2011. A Cross-linguistic Approach to the 'Erroneous' Genitive Subjects: Underspecification of Tense in Child Grammar Revisited. In *Selected Proceedings of the 4th Conference on Generative Approaches to Language Acquisition North America (GALANA 2010)*, ed. Mihaela Pirvulescu et al., 209-226. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #2597.