

# Child Negation in Korean\*

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**Kim, Chonghyuck. (2018). Child negation in Korean.** *The Linguistic Association of Korea Journal*, 26(2), 39-60. Korean children are known to optionally misplace the negative morpheme *an* when they form negative sentences. Instead of placing it immediately before a predicate, they sometimes put it in a position removed from the predicate. Hagstrom (2002) proposes that Korean children's errors are not something new but just language-specific instantiations of the errors commonly made by child speakers of all languages in the Optional Infinitives (OI) stage. Following Wexler (1998), he argues that Korean child negation errors result from the conflict between three constraints—the Unique Checking Constraint, Realize Tense, and Realize Agreement. An important prediction that follows from his theory is that a Korean child has a 33.3 percent chance of making an error whenever (s)he utters a negative sentence. In this article, I aim to test Hagstrom's theory and prediction. To this aim, negative sentences have been elicited from three children and analyzed. The result is that while children make optional errors in certain types of sentences, they make consistent or no errors in other types of sentences. This suggests that Korean child negation errors are controlled by sentence types rather than probability as Hagstrom claims.

**Key Words:** negation, child, errors, OI stage, Korean

## 1. Introduction

An affirmative Korean sentence, as in (1a), can be negated in one of the two ways. In the so-called short-form negation (SFN, hereafter), the negative marker

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*an* follows the object and appears immediately before the verb, as shown in (1b). In the alternative long-form negation (LFN, hereafter), the verb appears with suffix *-ci* and the negative morpheme follows the verb. In LFN, the negative morpheme appears in a slightly longer form *anh*, which is considered to be a contraction of the literary *ani ha* which involves the dummy verb *ha* ‘do’.

- (1) a. Chelswu-ka      pap-ul                      mek-ess-ta.  
       Chelswu-Nom    rice-Acc                      eat-Pst-Dc  
       ‘Chelswu ate the meal.’
- b. Chelswu-ka      pap-ul      **an**      mek-ess-ta.              (SFN)  
       Chelswu-Nom    rice-Acc    Neg    eat-Pst-Dc  
       ‘Chelswu didn’t eat the meal.’
- c. Chelswu-ka      pap-ul      mek-ci    **anh**-ass-ta.              (LFN)  
       Chelswu-Nom    rice-Acc    eat-ci    Neg-Pst-Dc  
       ‘Chelswu didn’t eat the meal.’

Two important mysteries have been reported in the literature with regards to children acquiring Korean negation - (i) late emergence of LFN and (ii) optional misplacement of *an* in SFN. While children begin to utter sentences containing SFN at an early age, around age of 1;7, they do not generally begin to use LFN until almost two years later, around age of 3;5. What’s more, even though children begin to use SFN at an early age, they do not use it correctly all the time. They sometimes place *an* at an early position in a sentence, instead of placing it immediately before the verb. *An* precedes the object of transitive verb *meke* ‘eat’ in (2a), the subject of unaccusative verb *nasse* ‘come.out’ in (2b), and the adverb *cal* ‘well’ in (2c).

- (2) a. [*an* preceding the object of a transitive verb]  
       #na    **an**    pap    mek-e                      (Cho and Hong 1988: 34)  
       I      Neg    rice    eat-Dc  
       ‘I won’t eat (rice).’
- b. [*an* preceding the subject of an unaccusative verb]  
       #**an**    kol                      na-ss-e.                      (Kim 1997: 377)

- Neg Anger        come-out-Pst-Dc  
 'I am not angry.'
- c. [*an* preceding an adverb]  
 #na *an*    cal    ha-y.                    (Cho and Hong 1988: 35)  
 I       Neg   well   do-Dc  
 'I don't do it well.'

Interestingly, while children may misplace the negative marker *an* before an element originating from VP - the object of a transitive verb, the subject of an unaccusative verb, or a VP adverb, as in (2), they never produce a sentence where *an* precedes an element whose base position is outside the domain of VP. For instance, *an* never appears before the subject of a transitive verb or the subject of an unergative verb. This Korean children's behavior with the use of *an* in SFN is captured by Hagstrom's (2002) generalization in (3).

- (3) *Generalization about child errors with SFN in Korean*  
 VP-internal material is privileged in its ability to occur between *an*  
 and the verb in child errors.                    (Hagstrom 2002: 214)

Of the two mysteries related to the child Korean negation, I will be concerned with the second issue, i.e., children's optional misplacement of *an* in SFN, in this paper. There are a few authors in the literature who have been concerned with child negation in Korean (Cho and Hong (1988), Kim (1997)). But, to the best of my knowledge, Hagstrom (2002) is the only one who have proposed a full-fledged theory that explains the optional misplacement of *an* produced by Korean children. His theory is attractive and constructed well enough to make specific falsifiable predictions about the use of *an* in SFN by Korean children. Despite being explanatory, his theory has been neither endorsed nor questioned in the literature. This is mainly due to the fact that there is no data available which can be used for or against the predictions of Hagstrom's theory. My aim in this paper is, thus, to show first that it is feasible to elicit data from children that enable us to deepen our discussion and understanding of Korean child negation and, second, that the elicited data pose a challenge to Hagstrom's theory. Admittedly, the data reported here do not

serve as a convincing piece of evidence to abandon Hagstrom's theory, but at the very least it opens up a venue for a new line of thinking about possible reasons for Korean children's errors. Extensive follow-up research on Korean child negation involving elicitation technique is required to reach a final verdict on Hagstrom's theory, which goes beyond the scope of this paper.

This paper is organized as follows. In section 2, Hagstrom's (2002) theory is introduced. In section 3, I introduce a game that is devised to elicit negative sentences from children, and analyze the data collected from three children. Section 4 concludes this paper.

## 2. Hagstrom (2002)

It is well known that children around age two go through the so-called Optional Infinitives (OI, henceforth) stage, in which they produce a matrix sentence in non-finite form, erroneously, as well as in correct finite form (see, e.g., Pierce (1989), Boser et al. (1992), Wexler (1994), Phillips (1995)). As the English and Dutch examples in (7a) and (7c) from Freudenthal and Pine (2010) show, inflectional items such as tense or agreement are often omitted from their speech.

- (7) a. Mummy go to work.  
 b. Mummy goes to work.  
 c. Ik ijs eten.  
 I ice cream eat-INF  
 d. Ik eet ijs.  
 I eat-FIN ice cream

According to Wexler (1998), all competent speakers are equipped with the two constraints in (8) and thus they are required to utter a matrix clause in finite form.

- (8) a. *Realize Tense*  
 A well-formed sentence has Tense

b. *Realize Agreement*

A well-formed sentence has Agreement

The specific roles of these constraints can be casted as follows using terminology employed in the grammatical framework outlined by Chomsky (1995). Realize Tense and Realize Agreement force a speaker to project the functional phrases - TP and AgrSP, respectively, whose heads, T and AgrS, are loaded with uninterpretable D-features. Since an uninterpretable feature is not legible to the interface components such LF, it needs to be eliminated. Elimination, or checking off, takes place when an element with a matching interpretable feature moves into the specifier position of the relevant functional head with the uninterpretable feature. This means, in our case, that the constraints in (8) force the subject DP, which has an interpretable D-feature, to move twice - first to AgrSP to eliminate the uninterpretable D-feature in AgrS and then to TP to check off the uninterpretable D-feature in T. Agreement and tense markings are surface reflexes that result from the movements of the subject DP.

Children in the OI stage are endowed with the constraints in (8), just like their parents. However, they have an additional constraint their parents do not have, which Wexler (1998) dubs as Unique Checking Constraint (UCC, henceforth) in (9).

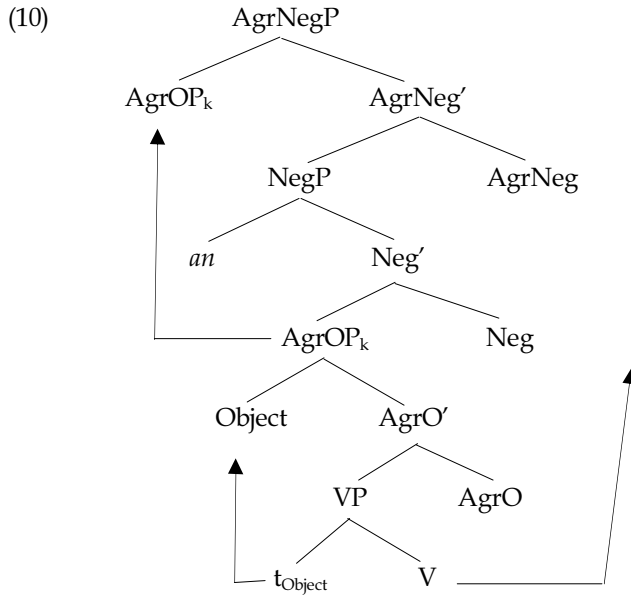
(9) Unique Checking Constraint

The D-feature of DP can only check against one functional category.

Children under the control of UCC are allowed to move a DP only once, and thus they are forced to make a choice when they form a sentence. If they choose to obey UCC, they are forced to disobey one of the two constraints in (8), realizing only one of the two functional projections. If they choose to obey the constraints in (8) allowing the subject DP to move twice, they are bound to violate UCC. This coexistence of the three constraints in (8) and (9) with conflicting requirements is, according to Wexler, what forces children in the OI stage to produce a nonfinite sentence optionally.

Hagstrom (2002) claims that the optional *an* misplacement phenomenon

Korean children display is another case obtained in the context where UCC is in conflict with the requirement to move a phrase twice. He proposes that a Korean sentence with SFN has the structure in (10).



A Korean canonical VP with an internal argument is dominated by AgrOP, which is in turn dominated by two additional layers of projection in SFN - NegP and AgrNegP. The two Agr projections, AgrO and AgrNeg, contain uninterpretable D-features, which need to be eliminated. The uninterpretable D-feature in AgrO is checked off by the movement of the object DP with an interpretable feature into SpecAgrO. The second uninterpretable D-feature in AgrNeg is checked off by the movement of the entire projection AgrOP into SpecAgrNegP. This movement of AgrOP is analyzed as a case of pied-piping triggered by the need for the object DP to eliminate the uninterpretable feature in AgrNeg. The verb in (10) does not move along with AgrOP as it has escaped to merge with *v*, which is presumed to be higher up in the structure. As a result of these movements, a well-formed Korean negative sentence has the sequence in (11).

(11) Object + *an* + V

Korean children in the OI stage know, just like their parents, that the uninterpretable features in AgrNeg and AgrO must be eliminated and thus they may produce the well-formed sequence in (11). In this case, however, they produce a well-formed SFN sentence at the cost of violating UCC. Of course, they do not produce the well-formed sequence all the time, because they have the option to obey UCC and move the object DP only once. If they choose to suppress AgrNegP realizing just AgrOP, they will produce the ill-formed sequence in (12), where *an* precedes the object.

(12) \**an* + Object + V

This explanation of the optional misplacement of *an* by Korean children is attractive in that the errors Korean children make are not an isolated anomalous phenomenon but a universal phenomenon observed across children of the same age speaking different languages. Furthermore, Hagstrom's theory makes a clear prediction as to how often a Korean child would make *an* misplacement errors. Given UCC, AgrO, and AgrNeg, a child is predicted to make an error about 33.3% of the time. If they ignore UCC and project both AgrO and AgrNeg, they produce the well-formed SFN sequence. If they obey UCC and project just AgrO, they produce the ill-formed sequence in (12). Finally, if they obey UCC and project just AgrNeg, they produce the well-formed surface sequence. Although the suppression of AgrO is illegitimate, this does not lead to an observable surface error as the object DP moves over *an* into SpecAgrNegP. These three options are summarized in (13).

## (13) Three options with transitive verbs

- a. Ignore UCC:                   √Object + *an* + Verb  
(e.g., *pap* 'rice' + *an* 'neg' + *mekessta* 'ate')
- b. Ignore AgrNegP:            \**an* + Object + Verb  
(e.g., *an* 'neg' + *pap* 'rice' + *mekessta* 'ate')
- c. Ignore AgrO:                 √Object + *an* + Verb  
(e.g., *pap* 'rice' + *an* 'neg' + *mekessta* 'ate')

In other words, if a child utter a given sentence three times (in different occasions), he is predicted to make an error once. Of course, probabilities do not always hold, because we throw a coin and can get two heads in a row. However, if a child utter a SFN sentence many times in different occasions, (s)he is predicted to show *an* misplacement errors approximately 33.3% of the time. And also if we collect a sizable number of different SFN sentences a child produces, 33.3% of the sentences are predicted to contain *an* misplacement errors.

While Hagstrom's theory is attractive for the reasons just articulated, it has neither been endorsed nor questioned in the literature. This seems mainly due to the fact that there is no child data available which can be used for or against Hagstrom's theory. In the following section, I show that it is feasible to set up an experimental context where we can elicit SFN sentences from children. In addition, I argue that the data collected do not support Hagstrom's prediction but rather suggest that children's behavior with SFN may be governed by the make-up of a predicate phrase they use, instead of being governed by their probabilistic decision making.

### 3. Experiment and Result

#### 3.1. Subjects

Elicitation experiments have been performed by two parents including myself on their children.<sup>1)</sup> The three children who participated in this study are pseudo-named as HJ, CH and YJ and their ages at the time of experiment were 2:10, 4:10, 3:6, respectively. The children's age distribution may not be ideal, given that children, as reported in the literature, make *an* misplacement errors at around age 2 and that our subjects are above the age of 3 except for HJ. Despite this, we decided to go on and perform elicitation tests on our children for several reasons. First, when we performed the elicitation in 1999, we were in the USA and it was extremely difficult to find Korean children whose ages

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1) Thanks are due to Son, Sun-ah, who performed the experiment and shared her data with me.



were appropriate for our experiment. Second, even if two of our children who are older than 3 show no errors, this itself can be construed as a meaningful result as it confirms the casual report on the age of children who make *an* misplacement errors. Third, since our experiment was a pilot study, our goal was to examine whether it is feasible to set up an experiment and elicit a set of data, which has a bearing on what we think we know about Korean child negation. Finally, our study, if successful, will pave the way to a future research project where a systematic elicitation experiment is set up in a carefully controlled context to prove or refute a particular line of hypothesis.

### 3.2. Experimental Design

SFN sentences were elicited through a game we developed and called ‘why-question game’, where an experimenter acts out a play which involves three (or more) characters - Bear, Snoopy, and Duck, and a child’s participation. In the play, Duck gives out a present to characters who perform a certain task, say, singing a song. However, since Duck does not have hands, he asks our subject to help him give out presents to the characters who sang a song. When all presents are given out, Duck describes who has a present and who doesn’t. And, finally, pointing to the character who doesn’t have a present, he wonders to himself why he doesn’t have a present and ask our subject for an answer. Our subject gives Duck an answer, which is our target sentence. An example used in our experiment is illustrated below, which has been inspired by various games Crain and Thornton (1998) introduce in their book.

#### ***Why-Question Game***

(Characters: Bear, Snoopy, and Duck, Reward: A crayon)

Duck: HJ! I want to give this crayon to whoever sings a song for me. But, as you can see, I don’t have hands or fingers. So, could you help me give out the crayon later?

Child: Sure!

Duck: Thanks! Now, let’s see who will sing a song.

*(Bear begins to sing the child’s favorite song in a very funny way, and finishes singing. However, Snoopy is sitting in its own place busy doing something else.)*

Duck: Now, it's time to give crayon to the one who sang a song. Will you do it for me?

*(Child gives the crayon to Bear.)*

Duck: Oh, good! You did a good job! You gave this *(indicating the crayon)* to Bear, right?

Child: Yes.

Duck: Why did you give the crayon to Bear?

Child: (Because) Bear sang a song.

Duck: Oh, I see. You gave this crayon to Bear, because Bear sang a song. (This repetition summary acted significantly with a younger child. It served as a 'reminder.')

Now, let's turn to Snoopy. Does Snoopy have a crayon?

Child: No!

Duck: Oh, so Snoopy does not have a crayon. You did not give him any crayon. Am I correct?

Child: Yes!

Duck: Why didn't you give Snoopy a crayon?

Child: Because Snoopy didn't sing a song. (target sentence)

### 3.3. Results and Discussion

Eighteen sentences were collected from CH and HJ, and every sentence was elicited at least more than three times because their expected probability of making an error is 33.3% of the time. As the experiment had been carried out in a non-systematic and casual manner, we failed to record the exact number of occurrences of each sentence. All I can say for sure is that if a SFN sentence showed an optional error, the sentence was elicited at least three times. If a SFN sentence showed a consistent pattern, occurring either in incorrect form or in correct form, it was elicited more than five times.

The eighteen sentences collected from CH (4:10) are provided in (14). 'No in correct form' (14) means that the relevant sentence has never been produced in correct form. 'No' in incorrect form' indicates that the sentence has never been produced in incorrect form. 'Yes in correct form' means that the sentence has occurred in correct form. Likewise, 'Yes in incorrect form means that the

sentence has occurred in incorrect form.

(14) Target Sentence	Produced sentence forms	
	Correct	Incorrect
1. Pay kophuta '(I'm) hungry.'	<b>No</b>	<b>Yes</b>
2. Pi onta 'It's raining.'	Yes	No
3. Nwun onta 'It's snowing.'	Yes	No
4. Cam onta '(I'm) sleepy.'	<b>Yes</b>	<b>Yes</b>
5. Ocwum malyepta '(I) want to pee.'	Yes	No
6. Ttong malyepta '(I) want to poop.'	Yes	No
7. Mok maluta '(I) am thirsty.'	Yes	No
8. Ttam nata '(I'm) sweating.'	Yes	No
9. Phi nata '(I'm) bleeding.'	Yes	No
10. Pich nata 'It's shining.'	Yes	No
11. Cangnan chita '(I) play a prank.'	Yes	No
12. Chwum chwuta '(I'm) dancing.'	Yes	No
13. Sori ciluta '(I'm) shouting.'	Yes	No
14. Haphum hata '(I'm) yawning.'	Yes	No
15. Nolay hata '(I'm) singing.'	Yes	No
16. Mokyok hata '(I'm) taking a bath.'	Yes	No
17. Swi hata '(I'm) peeing.'	Yes	No
18. Seswu hata '(I'm) washing my face.'	Yes	No

As shown in (14), CH made errors in producing the two sentences in (14-1) and (14-4), whose incorrect forms are realized as in (15).

- (15) a. # An pay-kophu-nikka.  
 Neg stomach-hungry-because  
 'Because (he) is not hungry.'
- b. # An cam-o-nikka,  
 Neg sleep-come-because  
 'Because (he) is not sleepy.'

Except for the two target sentences (14-1) and (14-4), CH produced all the

other sentences in correct form.

It is somewhat unclear how CH's behavior can be explained by Hagstrom. While the fact that CH made few errors is understandable, given his age, it is somewhat surprising that he still made errors and, what's more, his errors are limited to certain sentences. Hagstrom assumes that UCC is a constraint that disappears as a child matures, but he does not commit himself to the question of how it disappears. Does it disappear abruptly, once and for all? Or does it disappear gradually? CH's utterances clearly show that if UCC is indeed what makes children misplace *an*, it cannot disappear abruptly. It must disappear gradually. Otherwise, CH would have made no errors. Even if we assume that UCC disappears gradually, it seems very hard to explain why CH makes consistent errors in *pay kophuta* 'hungry', optional errors in *cam onta* 'sleepy', but no errors in the other sentences. The ideal picture that the theory with UCC predicts is that CH makes the same amount of errors across all the sentences. But, the fact of the matter is that CH's errors are concentrated on specific sentences. What seems to be at stake is that Korean children are sensitive to constructions: they make consistent or optional errors in some constructions but no errors in others.

Now let us turn to HJ's utterances (16) and see if similar patterns obtain.

(16) Target Sentence	Produced sentence forms	
	Correct	Incorrect
1. Pay kophuta '(I'm) hungry.'	<b>No</b>	<b>Yes</b>
2. Pi onta 'It's raining.'	Yes	No
3. Nwun onta 'It's snowing.'	Yes	No
4. Cam onta '(I'm) sleepy.'	<b>Yes</b>	<b>Yes</b>
5. Ocwum malyepta '(I) want to pee.'	Yes	No
6. Ttong malyepta '(I) want to poop.'	Yes	No
7. Mok maluta '(I) am thirsty.'	Yes	No
8. Ttam nata '(I'm) sweating.'	<b>Yes</b>	<b>Yes</b>
9. Phi nata '(I'm) bleeding.'	<b>Yes</b>	<b>Yes</b>
10. Pich nata 'It's shining.'	<b>Yes</b>	<b>Yes</b>
11. Cangnan chita '(He) play a prank.'	Yes	No
12. Chwum chwuta '(I'm) dancing.'	<b>Yes</b>	<b>Yes</b>

13. Sori ciluta '(I'm) shouting.'	<b>Yes</b>	<b>Yes</b>
14. Haphum hata '(I'm) yawning.'	Yes	No
15. Nolay hata '(I'm) singing.'	Yes	No
16. Mokyok hata '(I'm) taking a bath.'	Yes	No
17. Swi hata '(I'm) peeing.'	Yes	No
18. Seswu hata '(I'm) washing my face.'	Yes	No

HJ (2:10) produces much more errors than CH, as she makes errors in seven out of eighteen target sentences. About 39% of the sentences contain errors (though the number of errors reduces if we count the number of occurrences of every sentence.). Her erroneous examples are given in (17).

- (17) a. # An pay-koph-a.  
Neg stomach-hungry-Dc  
'(He's) not hungry.'
- b. # An cam-o-a.  
Neg sleep-come-Dc  
'Because (he) is not sleepy.'
- c. # An ttam-na-ss-e.  
Neg sweat-out-Pst-Dc  
'(He) didn't sweat.'
- d. # an phi-na-ss-e.  
Neg blood-out-Pst-Dc  
'(He) didn't bleed.'
- e. # An pic-na-ss-e.  
Neg light-out-Pst-Dc  
'(It) didn't shine.'
- f. # An chwum chwu-ess-e.  
Neg dance dance-Pst-Dc  
'(He) didn't dance.'
- g. # An sori cil-ess-e.  
Neg sound shout-Pst-Dc  
'(He) didn't shout.'

The absolute number of errors does not appear to be informative about HJ's error patterns. What really matters seems to be that she made exactly the same errors CH made, though she made additional errors. *Pay kophuta* 'hungry' is always produced in incorrect form and *cam onta* 'sleepy' is optionally produced in incorrect form. This shows, once again, that children's misplacement of *an* is not determined by probability, as predicted by Hagstrom, but by some fundamental grammatical factor.

It is difficult, at this stage of investigation, to make a precise statement about the *an* misplacement pattern and pinpoint the exact cause for it. Nonetheless, to maximize the falsifiability of what I have to say here, I will attempt to make a bold statement regarding the *an* misplacement error pattern. The eighteen target sentences can be divided into two groups based on the potential case markings that the arguments in the sentences can have, accusative vs. nominative, as shown in (18), where sentences produced in incorrect form at least once are marked with #.

(18) Sentences with nominative	Sentences with accusative
1. # Pay(-ka)                    kophu-ta. stomach-Nom    hungry-Dc	11. Cangnan(-ul)            chi-ta. prank-Acc                hit-Dc
2. Pi(-ka)    on-ta. rain-Nom    come-Dc	12. # Chwum(-ul)            chwu-ta. dance-Acc                dance-Dc
3. Nwun(-i)   on-ta. snow-Nom    come-Dc	13. # Sori(-lul)             cilu-ta. sound-Acc                shout-Dc
4. # Cam(-i)    on-ta. sleep-Nom    come-Dc	14. Haphwum(-ul)            ha-ta. yawn-Acc                 do-Dc
5. Ocwum(-i)   malyep-ta. pee-Nom    feel.like-Dc	15. Nolay(-lul)             ha-ta. song-Acc                 do-Dc
6. Ttong(-i)    malyep-ta. poop-Nom    feel.like-Dc	16. Mokyok(-ul)             ha-ta. bath-Acc                 do-Dc
7. Mok(-i)     malu-ta. neck-Nom    dry-Dc	17. Swi(-lul)                ha-ta. pee-Acc                  do-Dc
8. # Ttam(-i)        na-ta. sweat-Nom    come.out-Dc	18. Seswu(-lul)             ha-ta. wash.face-Acc            do-Dc
9. # Phi(-ka)        na-ta.	

blood-Nom	come.out-Dc
10. #Pic-(i)	na-ta.
light-Nom	come.out-Dc

One important thing to observe is that the children made no errors in the last five sentences, consistent errors in *pay-kophuta*, and optional errors in between. Based on this observation, I propose that there are two factors that affect *an* misplacement - (i) the case that the argument in a given sentence can have and (ii) the relationship between an argument and the predicate that selects it. My proposal is detailed in (19).

(19) Maturation of Korean Sentence Parsing

- a. The parsing of an accusative-marked argument is easier than the parsing of a nominative-case marked argument within a VP.
- b. If the range of arguments that a predicate can select is broad, the VP is easier for a child to parse than the VP that contains a predicate that selects a narrow range of arguments..

The basic hypothesis underlying the proposal in (19) is that at the initial stage of language learning, a child learns a VP as a single chunk without separating the constituents that make up the VP. Gradually, they begin to separate the argument from the verb in a VP based on two clues, i.e., the case marking the argument can have and the range of arguments that the verb can select. For instance, if a VP contains a verb that can select a wide range of arguments, which I call a productive predicate, and if the predicate assigns accusative case, the VP will be easily parsed by a child. By contrast, if a VP has a predicate that selects none other than a uniquely fixed argument, as in an idiomatic phrase, which I call an unproductive predicate, and if the argument is assigned nominative case, the VP will be very difficult for a child to parse. Finally, if a VP has a predicate with mixed properties, either a productive predicate with no case (productive unaccusative predicate) or an unproductive predicate with accusative case (unproductive transitive predicate), it will be more difficult to parse than a VP containing a productive transitive predicate but easier to parse than a VP containing an unproductive unaccusative

predicate. (20) summarizes the learning order of Korean VP parsing by Korean children.

(20)	Learning Stages	VP types
	1	VP with productive transitive predicate
	2	VP with unproductive transitive predicate
	2	VP with productive unaccusative predicate
	3	VP with unproductive unaccusative predicate

Now given (19), we can account for the same error patterns produced by CH and HJ. The last five of the target sentences are instantiations of the so-called light verb construction, where a verb phrase consists of a nominal plus the light verb *ha* 'do' (See Baek (2011) for a recent discussion on the light verb construction). Light verb *hata* 'do' is a very productive predicate in Korean which can select a vast range of arguments and it assigns accusative case to its object, as illustrated in (21).

(21)	Nolay/kongpu/mokyok(-ul)	ha-ta.
	song/study/bath(-Acc)	do-Dc
	'Sing a song/study/take a bath.'	

Thus, any child who has mastered stage 1 of the development path in (20) would be able to separate the object from a light verb, successfully placing the negative morpheme *an* immediately before the verb. And this is exactly what we observe from CH and HJ. I do not have any specific commitment to the structure of a Korean negative sentence, as Hagtrom's structure or any other structures proposed in the literature are compatible with my proposal. I simply assume that if a verb can be parsed from its internal argument, *an* is correctly placed.

Let us now consider *pay kophuta* 'hungry'. The predicate *kophuta* 'hungry' is in stark contrast with the light verb *hata*. First, it assigns nominative case to its argument. Second, the argument it selects is severely limited. It can only combine with *pay* 'stomach', as shown in (22).



- (22) Pay(-ka)            kophuta      (No NP can appear in place of *pay*.)  
 stomach(-Nom) hungry  
 '(I'm) hungry.'

As an unproductive unaccusative construction, *pay kophuta* would be analyzed as a single unseparated chunk by a child who is still in one of the development stages in (20) and the entire VP would be preceded by *an*. This expectation is met by the behavior displayed by CH and HJ. In short, if we hypothesize that CH and HJ both passed stage 1 but still have not completed the entire stages in (20), it follows why they made no errors in the light verb constructions and consistent errors in *pay kophuta*.

Turning to the in-between cases, I categorize all the unaccusative predicates as productive because they are not required to select the same NP as their arguments and all the transitive predicates as unproductive because *ciluta* 'shout' and *kkuta* 'dream' can only combine with *sori* 'sound' and *kkum* 'dream', respectively. I analyze even *chita* 'hit' in (18-11) as an unproductive transitive predicate. Although it can select its object from a wide range of words when it is used in its literal sense, it is used in a different sense when it combines with *cangnan* 'prank'. In *cangnan chita*, *chita* seems to have lost its original meaning, being used like an idiomatic expression.

Of the twelve in-between cases, we observe that CH made only one error, in *cam onta* 'sleepy'. I take this to mean that CH is on the borderline between stages 2 and 3. He has almost completed stage 2 and has just begun to enter stage 3. Unlike CH, HJ produced a sizable amount of errors in using these predicates. This clearly indicates that she is in stage 2. What is potentially puzzling is that she didn't make errors in three of the in-between predicates, which are reproduced in (23).

- (23) a. Ocwum(-i) malyep-ta.            (Productive unaccusative)  
 pee-Nom feel.like-Dc  
 '(I) want to pee.'
- b. Mok(-i)      malu-ta            (Productive unaccusative)  
 neck-Nom dry-Dc  
 '(I'm) thirsty.'

- c. Cangnan(-ul)      chi-ta      (Unproductive accusative)  
 prank-Acc          hit-Dc  
 '(He) played a prank.'

If HJ is in stage 2, she is expected to make errors even with the predicates in (23). But she didn't produce any errors, contrary to my expectation. This apparent anomaly may be taken to mean that my categorization of the VP types into three in (20) is too broad and needs to be further scrutinized. However, there is also a good chance that the anomaly may only be apparent, being a possible gap that results from the small size of data. If more data were elicited from HJ, we could have found cases where the predicates in (23) occurred with *an* misplacement. At this stage of our investigation, it is too early to draw a conclusion in one way or the other. We need more relevant data. However, a principle along the lines proposed in (19) and (20) seems to be at work, which makes children sensitive to the morpho-syntactic properties of a predicate.

Our last child, YJ (3:6), produced eighteen target sentences, illustrated in (24). Some of the sentences YJ produced are different from those CH and HJ produced. This is because YJ's elicitation was conducted by an independent experimenter in a different context. While I and YJ's parent had a discussion on what sentences to elicit from our children, we both took the liberty of testing our own sentences. Hence, the difference. YJ's sentences, however, follow the patterns we observed with respect to CH and HJ, rather than deviate from them.

(24) Target Sentences	Produced sentence forms	
	Correct	Incorrect
<i>Unproductive unaccusative</i>		
1. Pay(-ka) kophuta. '(He's) hungry.'	<b>No</b>	<b>Yes</b>
<i>Productive unaccusative</i>		
2. Pi(-ka) onta. '(It's) raining.'	Yes	No
3. Nwun(-i) onta. '(It's) snowing.'	Yes	No
4. Mok(-i) maluta. '(He's) thirsty.'	<b>Yes</b>	<b>Yes</b>
5. Ttam(-i) nata. '(He's) sweating.'	Yes	Yes
6. Phi(-ka) nata. '(He's) bleeding.'	<b>Yes</b>	<b>Yes</b>

7.	khi(-ka) khuta. '(He's) tall.'	Yes	Yes
	<i>Unproductive transitive</i>		
8.	Cangnan(-ul) chita. '(He) played a prank.'	<b>No</b>	<b>Yes</b>
9.	Chwum(-ul) chwuta. '(He) danced.'	<b>Yes</b>	<b>Yes</b>
10.	Sori(-lul) ciluta. '(He) shouted.'	<b>Yes</b>	<b>Yes</b>
11.	Kho(-ul) pwulta. '(He) blew his nose.'	Yes	No
12.	Kkwum(-ul) kkuta. '(He) dreamt.'	<b>Yes</b>	<b>Yes</b>
	<i>Productive transitive</i>		
13.	Haphwum(-ul) hata. '(He) yawned.'	Yes	No
14.	Nolay(-lul) hata. '(He) sang a song.'	Yes	No
15.	Mokyok(-ul) hata. '(He) took a bath.'	Yes	No
16.	I(-lul) takkta. '(He) brushed his teeth.'	Yes	No
17.	Taytap(-ul) hata. '(He) answered.'	Yes	No
18.	Cengso(-lul) hata. '(He) cleaned the room.'	Yes	No

The actual utterances containing *an* misplacement produced by YJ are shown in (25), in which the case markers are included in parentheses to indicate the type of the predicates, though they are not actually produced.

- (25) a. # An pay(-ka) kophya-yo.  
 Neg stomach(-Nom) hungry-H(onorific) M(arker)  
 '(He's) not hungry.'
- b. # An mok(-i) malla-yo.  
 Neg neck(-Nom) dry-HM  
 '(He's) not thirsty.'
- c. # An ttam(-i) na-yo.  
 Neg sweat(-Nom) come.out-HM  
 '(He did) not sweat.'
- d. # An phi(-ka) na-yo.  
 Neg blood(-Nom) come.out-HM  
 '(He is) not bleeding.'
- e. # An khi(-ka) khe-yo.  
 Neg hight(-Nom) tall-HM  
 '(He is) not tall.'

- f. # An cangnan(-ul) che-yo.  
 Neg prank(-Acc) hit-HM  
 '(He didn't) play a prank.'
- g. # An chwum(-ul) chwue-yo.  
 Neg dance(-Acc) dance-HM  
 '(He didn't) dance.'
- h. # An sori(-lul) cilless-e.  
 Neg sound(-Acc) shout-Dc  
 '(He didn't) shout.'
- I. # An kkum(-ul) kkwu-e.  
 Neg dream(-Acc) dream-Dc  
 '(He didn't) dream.'

As one can observe, YJ shows exactly the same patterns as HJ and CH. YJ made no errors when producing productive transitive predicates but made errors consistently when he uttered *pay kophuta* 'hungry'. When it comes to the in-between cases, he behaves like HJ, as he made optional errors in most of the cases. One thing to note here is that of the three in-between cases in (23) where HJ made no errors YJ made errors in two, which are *mok maluta* 'thirsty' and *cangnan chita* 'play a prank'. This seems to suggest that the anomaly discussed in (23) may be just an accidental gap, which does not counter the claim substantiated in (19) and (20).

## 4. Conclusion

Since it was first reported by Cho and Hong (1988), Korean children's optional misplacement of the negative morpheme *an* has been left as a mysterious phenomenon in the literature. In 2002, however, Hagstrom proposes that Korean child negation errors are not mysterious at all and that they are just language-specific instantiations of the general phenomena displayed by children going through the OI stage. In this article, I have made an attempt to verify whether Hagstrom's (2002) theory is correct, by devising a game to elicit negative sentences from children and analyzing the collected data.

The result obtained is that while Hagstrom's theory predicts that Korean children in the OI stage have a 33.3 % chance of making an error whenever they utter a negative sentence regardless of the sentence type, they turn out to be sensitive to the type of the sentence they produce. Children made no errors at all in productive transitive constructions, consistent errors in unproductive unaccusative constructions, and optional errors in productive unaccusative and unproductive transitive constructions. Of course, as noted earlier, my experiment has been conducted in a casual fashion and thus the implication of its results is necessarily limited. Nonetheless, the results I have managed to obtain seem to be non-trivial, providing a clear direction towards future research on Korean child negation.

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