

Cultural and Cognitive Structures of Human Languages

Children's Understanding of Reciprocal Anaphors: Experimental Evidence

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Abstract

In this paper I investigate whether Korean-speaking children know the basic meaning of reciprocal anaphors like *each other*. I further examine whether they have knowledge of subtle differences in the interpretations of such anaphors depending on the two types of verbs. Fiengo and Lasnik (1973) pointed out a contrast between reciprocal sentences with active verbs and stative verbs. For example, a sentence with an active verb like *The men in the room are hitting each other*, has both a strong reciprocal reading (i.e., every one of them in the room is hitting every other one) and a weak reciprocal reading (i.e., certain pairs of men are not engaged in the action of hitting each other). In contrast, a sentence with a stative verb like *The men in the room know each other* allows only a strong reciprocal reading (i.e., every one of them know every other one). 16 Korean children and 15 Korean adults were tested using the Truth Value Judgment Task methodology. The results of the present study show that like English children, Korean children know the meaning of reciprocal anaphor, and that they also know the semantic difference of reciprocal sentences with active and stative verbs. Therefore, the present study strongly supports the claim that the semantic distinction of reciprocal sentences with active and stative verbs may be universal, and that children's ability of this semantic distinction might be innately given.

Keywords: reciprocal anaphor, active verb, stative verb, strong/weak interpretations, UG

I. Introduction

Considerable research on language acquisition has been conducted to examine whether children have certain linguistic knowledge and whether that knowledge is part of innate universal grammar. In this paper, I primarily focus on the interpretation of reciprocal anaphor *each other* with active and stative verbs. More specifically, I investigate whether the subtle differences in semantic interpretations of reciprocal sentences with active and stative verbs is found cross-linguistically, and whether knowledge of the different interpretations in reciprocal sentences caused by different types of verbs is present in young children's grammar.

Fiengo and Lasnik (1973) first observed the subtle differences in semantic interpretations of reciprocal sentences with active and stative verbs, as illustrated in (1) and (2).

- (1) The men in the room are hitting each other.
- (2) The men in the room know each other.

Example (1) with an active verb allows both weak and strong interpretations for reciprocity. That is, (1) is interpreted

as meaning that every one of them in the room is hitting every other one (strong interpretation). In addition, one more interpretation of example (1) with an active verb is that when four people (A, B, C, and D) are engaged in the action, it does not require every member to hit each other member (weak interpretation). In contrast, example (2) with a stative verb allows only a weak interpretation for reciprocity. For example, (2) is only interpreted as meaning that every one of them in the room know every other one. That is, example (2) with a stative verb does not allow an interpretation of "A knows B, B knows A, C knows D, and D knows C".

Matsuo (2000) investigated whether English-speaking children aged 3 to 5 could distinguish two different types of verbs in the semantic interpretation of reciprocal sentences illustrated in (1) and (2). She found that young English children know the different interpretations in reciprocal sentences caused by different types of verbs at an early age. In addition, she claimed that this contrast in interpretations of reciprocal sentences with stative and active verbs is found across languages. Therefore, she suggests that children's ability of understanding this semantic distinction must be innate.

Given that fact, it would be interesting to investigate whether Korean like other languages will show the subtle semantic differences of reciprocal sentences caused by two types of verbs. In addition, it would be interesting to see whether Korean-speaking children have the linguistic ability of the semantic distinction. Therefore, by testing Korean speakers of children aged 4-5 and adults, I investigate whether the contrast in interpretations of reciprocal sentences with stative and active verbs is universally found cross-linguistically, and whether this linguistic knowledge is innately given to children.

II. Experiments

In this section, I discuss two sets of experiments to investigate what kind of semantic knowledge children have in understanding reciprocal sentences with active and stative verbs. Experiment 1 is conducted as a pretest for Experiment 2, and it examines whether children know the basic meaning of *each other*. Experiment 2 examines whether both children and adults speakers of Korean make the semantic distinctions.

2.1. Experiment 1

Experiment 1 is conducted as a pretest for Experiment 2, and it examines whether children know the basic meaning of *each other*.

1) Participants

Sixteen children (nine girls and seven boys) from a kindergarten in Korea were participated in this experiment. They ranged in age from 3;8 to 5;10 with a mean age of 4;5. Fifteen adults were tested as well. They were all undergraduate students of Sangji University.

2) Procedure

As in the experiment for English-speaking children by Matsuo (2000), Korean participants were tested using the Truth Value Judgment Task (TVJT) methodology (Crain & McKee, 1985; Crain & Thornton, 1998; Crain & Wexler, 1999), which has been mainly used in the experimental study of L1 acquisition. This task usually involved two experimenters and toys. For example, when Matsuo (2000) tested the children using the TVJT, one experimenter told stories with toys and the other experimenter played the role of a puppet who said things about the stories. On the other hand, she tested the adult controls using a written questionnaire. In contrast, this experiment used four pictures for each story and was also administrated on a portable computer. Accordingly, both the children and adults were shown an array of four pictures for each story. The first experimenter explained four pictures for each story and the second experimenter mentioned the target sentence containing reciprocal anaphor with active and stative verbs. At the end of the story, the participants had to determine whether the second experimenter's statement was correct or not. Each participant was tested individually. Notice that Korean participants were tested through similar materials as the ones used by Matsuo (2000).

3) Materials

The target sentences of Experiment 1 are given in (3) to (7):

- (3) The frogs washed each other.
- (4) The mother and the dog dressed each other.
- (5) The horse and the cow scratched each other.
- (6) The boy and the girl kicked a ball to each other.
- (7) The cow and the horse gave a present to each other.

4) Results

Table 1: Percentage of Correct Response of Basic Meaning of Each Other

	RC	Non-RC	Total
Children	93.8% (30/32)	87.5% (42/48)	90% (72/80)
Adults	100% (30/30)	100% (45/45)	100% (75/75)

2.2. Experiment 2

The goal of experiment 2 is to test whether children know the different interpretations in reciprocal sentences with active and stative verbs.

1) Participants and Procedure

The children who passed pretest participated in this experiment. That is, when children did not give correct answers for all of the target sentences in the first experiment, they were excluded in the second experiment. Therefore, twelve of the sixteen children who passed the first experiment (pretest) participated in this experiment. The same fifteen adults as in Experiment 1 were tested in this experiment. In addition, the same Truth-Value Judgment Task was used for both children and adults.

2) Materials

The target sentences of Experiment 2 are given in (8) to (11).

- (8) These friends could hear each other. (stative)
- (9) They know each other. (stative)
- (10) They combed each other. (active)
- (11) These horses fed each other. (active)

3) Results

Table 2: Percentage of Correct Responses of Reciprocals with Active and Stative Verbs

	Active Verbs	Stative Verbs	Total
Children	100% (24/24)	75% (18/24)	88% (42/48)
Adults	100% (30/30)	80% (24/30)	90% (54/60)

III. Conclusion

Based on Experiments 1 and 2, I found that like other languages, Korean demonstrates the subtle semantic difference in reciprocal sentences caused by two different types of verbs, and that Korean-speaking children at an early age know the basic meaning of *each other*, and the distinction between two types of verbs. In addition, they succeeded in distinguishing the different interpretations in reciprocal sentences caused by different types of verbs, applying two basic forms of knowledge as adults do.

Therefore, the contrast in interpretations of reciprocal sentences with active and stative verbs found cross-linguistically provides evidence that this contrast may be universal. In addition, the fact that Korean-speaking children know from an early age the basic meaning of *each other*, and that they can differentiate interpretations of reciprocal sentences with active or stative verbs, strongly supports the previous study by Matsuo (2000) that children's ability of this semantic distinction might be innately given.

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Comprehension of Korean Comprehension of Korean and English Relative Clauses

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Abstract

This paper aims to evaluate the previous hypotheses about subject/object asymmetry in the acquisition of relative clauses (e.g., Keenan & Comrie 1977, O'Grady et al. 2003, Hsiao & Gibson 2003) by comparing English-Korean bilingual children's comprehension of relative clauses in English and in Korean. The experimental results of a picture description task show that the bilingual children comprehended subject relative clauses (SRC) better than object relative clauses (ORC) in the two languages, which conforms to one of the robust findings in L1 and L2 studies (O'Grady et al. 2003). However, the difference between SRC and ORC was found bigger in English than in Korean, even though the bilingual children were more proficient in English than in Korean. The reason for this is ascribed to language-particular factors in Korean such as the case marker, subject-drop, case-marker-drop and light-verb constructions. It further suggests a structural frequency effect as an alternative account for the children's better understanding of

subject relative clauses than object relative clauses especially in Korean.

Introduction

Three major approaches to the acquisition of relative clauses (RCs) are the typological hypothesis (Gass 1979, 1980, 1982), the structural distance hypothesis (O'Grady 1999, O'Grady et al. 2003, Wolfe-Quintero, 1992), and the linear distance hypothesis (Tarollo & Myhill 1983, Hawkins 1989, Hsiao & Gibson 2003). The typological approach is based on Keenan and Comrie's (1977) Accessibility Hierarchy of Relativization (i.e., Subject > Direct Object > Indirect Object > Object of Preposition ...), which proposes that relativization of the lower-level element in the hierarchy (e.g., object) is possible in a certain language imply that of the higher-level element in the hierarchy (e.g., subject) is also possible, but not vice versa. The structural distance hypothesis ascribes the difference of the relativization of the various grammatical positions to the structural depth of embeddedness, trying to account for the typological approach. On the other hand, the linear distance hypothesis explains the same phenomena depending on resources in the working memory, which can be counted by the number of words between the head noun of the RCs and its corresponding gap. Based on these hypotheses, the acquisition of RCs was studied thoroughly in the fields of second language acquisition as well as first language acquisition.

However, there are few studies which investigate bilingual children's acquisition of RCs in the two languages at the same time. The study of bilingual children's linguistic behavior gives us a chance to find various aspects of language acquisition from a broader perspective. Especially, as Korean-English bilingual children are learning two syntactically quite different languages, our observation of these children's acquisition of RCs will enable us to see their strategy to understand such complex sentences both in Korean and in English.

The paper will focus on the subject and object asymmetry in acquisition of RCs in English and in Korean by Korean-English bilingual children. Given our results of a picture-aided comprehension task that the asymmetry between the two is bigger in Korean than it is in English, we suggest that Korean-specific factors related to frequency of SRC-type structures play an important role. This suggests that a frequency hypothesis be taken into consideration as an alternative hypothesis to explain the subject/object asymmetry in the acquisition of RCs in Korean.

The major difference between Korean and English is that Korean is an SOV head-final language whereas English is an SVO head-initial language. The head of a phrase comes at the end of the phrase in Korean unlike in English. Consider the following examples:

- (1) Basic structure of the relative clause
 - a. Korean subject relative clause

[___ Mary-lul po-nun] John
 Mary-ACC see-ADN John
 S O V Head Noun

The Study

b. English subject relative clause
 John that [___ sees Mary]
 Head Noun S V O

The case marker is a crucial factor that differentiates the SRC from ORC in Korean (i.e., [___ Mary-lul po-nun] in SRC vs. [Mary-ka ___ po-nun], in ORC). On the other hand, in English, it is the word order that differentiates the two types of RCs (i.e., [___ sees Mary] in SRC vs. [Mary sees ___] in ORC).

Structural Distance vs. Linear Distance

The major three hypotheses make the same prediction for the acquisition of RCs in English, that is, SRC is easier to understand or produce than ORC. Subject is in the higher position in the Keenan and Comrie's (1977) relativization hierarchy. Subject position is structurally closer to the head noun than object position because the former is inside of IP (one node) whereas object is inside of IP and VP (two nodes). In other words, object is more deeply embedded than subject. Subject is also linearly close to the head noun than object in English. For example, there is only one word, *that* between *John* and the gap in SRC whereas three in the ORC in the following example:

(2) Distance between head noun and the gaps in English
S.D. L.D.
 a. John that [IP ___ see Mary] (SRC) 1 1
 b. John that [IP Mary [VP sees ___]] (ORC) 2 3
 (S.D.: Structural distance, L.D.: Linear distance)

However, the two hypotheses make an opposite predictions in Korean as noticed by O'Grady et al. (2003). Consider the following examples:

(3) Distance between head noun and the gaps in Korean
S.D. L.D.
 a. [IP ___ [VPMary-lul po-nun]] John (SRC) 1 2
 b. [IPMary-ka [VP ___ po-nun]] John (ORC) 2 1

Structurally, the object gap is more deeply embedded than the subject gap, which predicts the ORC is more difficult than SRC. However, linearly, the object gap is closer to the head noun than the subject gap, which predicts that ORC is easier than SRC. O'Grady et al. (2003) investigated acquisition of Korean RCs as a second language by the English speaking learners, and found the SRC was easier to comprehend than the ORC.

Using the same material that was used in O'Grady et al. (2003), this paper examines this phenomena in bilingual children and attempts to discuss the differences between Korean and English focusing Korean particular factors, which is lacking in O'Grady et al.'s study.

Subject and materials

Nine Korean-English bilingual children participated in this research (Age 4 –7, two boys and seven girls). All of them were attending a Korean community school where they learn Korean. The children's parents are Korean, so all of them were exposed mainly to Korean at home before they started preschool or kindergarten. However, their dominant language became English rather than Korean after they started schooling. All of them spoke English more fluently than Korean when this experiment was conducted.

A picture selection task was conducted to test children's comprehension of RCs. The same set of pictures that O'Grady et. al. (2003) created for their study was used for direct comparison with their results. Children were asked to circle the right object (or person) that matches with the description of the prompt from the tape recorder. Only [head noun + relative clause] structure was used without embedding the RCs in a matrix clause to eliminate the influence or difficulty of the relative clause caused by embedding. There were 5 tokens for each type (i.e. SRC and ORC) and four distracters and two warm-up items with corresponding pictures. First, Korean RCs were tested before English RCs with the same group of subjects. There was a one-week interval between the two tests.

Results and Discussion

Korean vs English The bilingual children comprehended English RCs much better than Korean RCs (i.e., 49% vs. 21% correct), which can be predictable from their overall proficiency of Korean and English. They are English dominant bilingual children.

Subject/object asymmetry Children's comprehension was better at SRC than at ORC in Korean (79% vs. 21%) as well as in English (91% vs. 9%), which conforms to the prediction of structural distance hypothesis and typological hypothesis, but not to that of linear distance hypothesis. However, the difference between SRC and ORC is much bigger in English (91:9) than in Korean (79:21). Since the subjects are more fluent in English than in Korean, we expect that English object RC should be also easier than Korean RC. However, Korean ORC seems to be easier than English ORC, which will be explained in the next section.

Error analysis Different error types were found in the children's response as shown in Table 1.

Table 1 Errors in comprehension of relative clauses

%	Simple Sentence	Head-only-Right	Others	Total
Korean	86	11	3	100
English	46	41	13	100

First, children seem to interpret the target relative clauses sentences as a simple sentence and circle the first noun (i.e.,

agent) (i.e., simple sentence errors). Consider the examples in Korean in (4) and in English (5):

(4) Korean

[____ namca-lul po-nun] yeca (SRC)

[namca-ka ____ po-nun] yeca (ORC)

→ Children interpret this structure as [namca-ka po-nta yeca], and circle the man (*namca*) that sees the woman.

(5) English

The woman that [____ see the man] (SRC)

The woman that [the man sees ____] (ORC)

→ Children interpret the SRC as ‘the woman sees the man’ and circle the woman (agent), but ORC as ‘the man sees __’, which makes sense to them, and circle the man (agent).

Second, the children sometimes get only the head right regardless of the meaning of the relative clause (Head-only-Right error). For example, the Korean RCs in (4) are interpreted as ‘something’ about *yeca* (woman), a head noun, and circle *yeca* whether the *yeca* is the one that sees the man or the one that the man sees. At this stage, they seem to recognize the word order of the relative clause, which is different from that of a simple sentence. They might not pay attention to the case marker because of the burden of processing the different word order of the RCs. The same type of error is also found in English.

The children made much more simple sentence errors than Head-Only-Right errors in Korean (see Table 2) compared to English. Considering their different proficiency in the two languages, it seems that the first error type in the development of RCs is a simple sentence error followed by the Head-only-Right error.

However, it is intriguing that the difference between SRC and ORC is bigger in English than in Korean. There are several factors to consider regarding the differences. Consider the children’s strategy which can be inferred from our simple sentence errors. First, the simple sentence strategy results in apparently right interpretation in the case of SRC in English. Second, the head-only-right error also leads the subject to choose the first noun that is the head. The fact that the head is the first element in the target sentence (usually an agent) in English causes apparently correct responses to SRC. In contrast, in Korean, the position of the head is different from the agent in the canonical sentence, which may cause more errors in SRC because the first noun will not be the head noun in SRC. In addition, children are likely to make simple sentence errors more often in Korean ORC because they match the canonical sentence (due to the case marker *-ka*). This seems also to relate to the children’s acquisition of case markers because *-ka* accelerates the canonical sentence strategy, still causing misinterpretation of the ORCs, whereas *-lul* can reduce the canonical sentence interpretation.

Frequency as a factor If our interpretation of the children’s error types is right, it seems that Korean-specific factors play an important role in the acquisition of RCs in Korean. Even though our data conform to the previous hypotheses such as

structural distance hypothesis and typological hypothesis, we still need to consider those factors. First, Korean is one of the subject-drop languages. For example, Oh (1999) found that the subject of the transitive verb is likely to be dropped more often than the object in adults’ speech, which means that children are exposed to a frequent structure, [Obj + transitive verb], which is similar to SRC.

In addition, when the children noticed the head position, the RCs are likely to be interpreted as an SRC because of frequent deletion of *-lul* (consider also light verb constructions such as *N-hata*, ‘Obj-*do*’ where N can be interpreted as an object without a case marker attached). For example, without a case marker, [*namca ponun*] *yeca* is likely to be interpreted as [*namca-lul ponun*] *yeca* (SRC) rather than as [*namca-ka ponun*] *yeca* (ORC) (see Lee & Lee 2006).

Conclusion

We often test a hypothesis with different types of languages to find out its cross-linguistic validity. However, sometimes in this process we are likely to overlook the linguistic properties of the particular languages we are testing the hypothesis with. This paper considered Korean-specific properties such as subject-drop and case markers as possible influential factors compared to English based on the difference between SRC and ORC in the two languages. Accordingly, a structural frequency was suggested as an alternative explanation for the subject/object asymmetry in Korean to the structural distance hypothesis, calling for more studies in this direction.

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Diagrammatic Iconicity and Information Organization in Korean and English

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Abstract

From a comparative cognitive linguistic perspective, this paper aims to investigate some aspects of diagrammatic iconicity reflected in word order, spatial and temporal sequence, relative adjacency of adjectives, information organization of a resume and a topic sentence in Korean and English. It claims that diagrammatic iconicity is pervasively present at many linguistic levels. Both Korean and English tend to apply the principles of iconicity to organizing various kinds of information. In both languages most relevant immediate information to the speaker is organized close to the head. Korean, a SOV head-final language, tends to place most important information rightward in the end, whereas English, a SVO head-initial language, leftward in the beginning. Assuming that the different ways of cognitive processing are closely related to conceptual organization, which is definitely reflected in the linguistic structures of the two languages, this study aims to provide further insights into the study of cognitive principles that govern human conceptual organization of information.

Keywords: cognitive perspective; iconicity; diagrammatic; word order, information organization; cognitive processing

Introduction

Significant linguistic research in the twentieth century has shown that iconicity is present at every level of language. Contrary to the Saussurean notion of arbitrariness, iconicity refers to a perceived resemblance between the form of a sign (the signifier) and its object or concept (the signified) in

Peircean terms (Peirce 1960, Saussure 1964). In regard to an iconic nature, iconicity is classified into two types, imagic iconicity and diagrammatic iconicity. Imagic iconicity designates any direct resemblance between a form and its nonlinguistic referent (e.g., onomatopoeia). Diagrammatic iconicity is a kind of structural resemblance, concerning a more abstract mediated relational correspondence between the linguistic form and its content (Haiman 1985, Ungerer & Schmid 1996). That is, the linguistic relations between the forms used suggest similar relations between the concepts they refer to. We can see a clear instance of diagrammatic iconicity in Caesar's dictum, *veni, vidi, vici*; the temporal sequence of the three events is reflected in the sequence of the three verbs (Greenberg 1995). This paper particularly focuses on some issues of diagrammatic iconicity, since it is of great relevance to the relationship between language structure and conceptual structure.

From a comparative cognitive linguistic perspective, this paper aims to investigate some aspects of diagrammatic iconicity reflected in word order, spatial and temporal sequence, relative adjacency of adjectives, information organization of a resume and a topic sentence in Korean and English. It claims that Korean and English tend to apply the principle of iconicity to organizing various kinds of information. In both languages most relevant immediate information to the speaker is organized close to the head. Korean, a SOV head-final language, tends to place most important information rightward in the end of an information chunk, whereas English, a SVO head-initial language, leftward. Furthermore, the findings from this research suggest that Korean and English structures and organization of information reflect the different world views of Korean and English speakers who live in two different cultures. Assuming that the different ways of cognitive processing are closely related to conceptual organization, which is definitely reflected in the linguistic structures of the two languages, this study aims to provide further insights into the study of cognitive principles that govern human conceptual organization of information.

Word Order

In order to examine the effects of Korean and English word order in perceiving an event, a psychological experiment was conducted (Oh, unpublished manuscript). The study consisted of two ordered pictures; in the first picture there is an apple falling from a tree and in the second a girl is eating the apple. 5 native speakers of each language participated in this study. They were asked to say the first three words in order without considering linguistic categories that instantly occurred in their minds as soon as they saw each picture. Importantly, they were instructed not to make a sentence. Five Korean speakers answered 'apple, tree, fall' or 'tree, apple, fall' for Picture 1 while all the English speakers said 'apple, fall, tree' or 'apple, drop, tree'. Likewise, the Korean speakers listed 'girl, apple, eat' for Picture 2 while the English speakers did 'girl, eat apple', or 'she, have, fruit'.

The result reveals that the linear order of words mentioned informs us about the order of speakers' conceptualization, for the order of words mirrors the order of the speakers' perceiving the event elements. The speakers seem to apply cognitive processing strategies in accordance with conventional word order in recognizing an event. The free word order of Korean is reflected in the lists of words in that the first noun can exchange its position with the second one. The verb appeared finally in Korean and medially in English. Additionally, the placement of agent before patient mimics the nature of energy transfer associated with a physical action. Therefore, I argue that word order functions to motivate the iconic parallelism between the speakers' conceptualizing the reality and expressing the language.

Spatial and Temporal Sequence

We often encounter more than one spatial or temporal adverbial in a sentence. Korean and English speakers organize a series of the locative information in different order. The crucial organizing factor is size. In Korean, the expression referring to a largest place or a time period comes first and then one referring to a second largest is placed next to the largest. One referring to a smallest is the last to come. By contrast, English spatial and temporal adverbials are organized in reverse order. Likewise, in mentioning address, affiliation and social status, Korean speakers put the largest in the first slot and then the second largest. English is the very opposite.

Despite the ordering difference, both Korean and English apply the principle of iconic proximity to organizing spatial and temporal information in that most proximate immediate information tends to be placed closest to the verb or the person referred to. The smallest adverbial among several spatial or temporal ones is most familiar and proximate to the speaker because it is a most specific space where the speaker is directly located. Again, the speakers of the two languages organize address information, centering round the person/ name referred to from a most conceptually inherent and closest one to the person to a secondary one to distant one.

Relative Adjacency of Adjectives

It has been shown that in arranging multiple adjectives with a head noun, both Korean and English speakers apply Haiman's (1983) Distance Principle that the linguistic distance between expressions corresponds to the conceptual distance between them.

- (1) a. *somunnako masissnun Wulugdo hopak yek* (Lim 1997)
 'the famous delicious Wulungdo pumpkin taffy'
 b. *the famous delicious Italian pepperoni pizza*
 (Ungerer & Schmid 1996)

Both examples show a relative adjacency of adjectives, depending on a different degree of semantic relatedness to the noun. The more closely the adjectives are conceptually related to the noun, the closer slot they occupy in relation to the noun. Bybee (1985) also suggests the conceptual

closeness reflected in the closeness between verb stem and inflection.

But when it comes to more than one adjective of a similar category, Korean begins with an adjective denoting an overall size and then turns to another describing a smaller scope. By contrast, the opposite ordering applies in English.

- (2) a. *cakko miseyhan cakwuk*
 little tiny mark 'a little tiny mark'
 b. *ce cakko kwuyyewun sonyen*
 that little cute boy 'that cute little boy'
 (3) a. *a tiny little mark*
 b. *that cute little mark*

As in (2), the ordering of Korean modifiers is made from a large scope to a small one. By contrast, English in (3) has the reverse ordering. The different ordering of cognitive processing pertains to the priority determined by the speakers. Thus, Korean speakers tend to perceptually access an object from its whole scope to its local one, whereas English speakers start to view the same object from a small scope and extend their vision to a bigger one. The contrastive cognitive tendencies in the two languages reflect the ways in which the speakers conceptualize the real world. This distinct characteristic extends to other types of discourse.

Information Organization of a Resume

The information of a Korean resume is chronologically organized from an applicant's past information to his present information. His academic background precedes his work experience. By contrast, an English resume starts with an applicant's most recent career experience and reaches back to his past experiences. And his career experience is expected to precede his academic experience.

Organization of Topic Sentences

In an academic English text like a thesis, a topic sentence is usually given in the beginning of a paragraph. By contrast a topic sentence in a Korean thesis is frequently placed at the end of a paragraph. This assumed tendency needs to be attested with a text analysis in the future.

Conclusion

With regard to information organization, Korean, as a head-final language, seems to put what is most relevant immediate information (to the speaker) in the end while English, as a head-initial language, is likely to put it in the beginning. Thus, it is argued that most immediately relevant information has its position close to the head. The difference between a head-final language and a head-initial one is said to contribute to and govern the overall patterns of information organization in Korean and English.

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