

A Contrastive Analysis between English and Korean Comparative Constructions*

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Comparative constructions display the most intriguing properties in natural languages, in that they interact with a variety of syntactic, semantic, and pragmatic phenomena. In this paper, we look into the comparative constructions of two typologically different languages, Korean and English. The two languages are similar in that each employs its own morphological and syntactic ways of expressing gradable concepts and making comparison between various properties of two objects. However, the two languages are also different in many respects: the paper describes unlike English, Korean clausal comparatives are relative clauses headed by the formal noun *kes*. In addition, the paper shows that unlike the compositional nature of English comparatives, the interpretation of Korean comparatives is highly context-dependent.

Key words: comparative constructions, Korean comparatives, English comparatives, compositional, context-dependent

1. Introduction

Every language has a mode of establishing orderings among objects but has its own way of expressing comparison between two objects or events on

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a single scale. The following is a prototypical English comparative construction:

(1) Main parameters in comparative construction:

This book	is more	interesting	than	that one
TARGET OF	COMPARATIVE	GRADABLE	STANDARD	STANDARD OF
COMPARISON	MORPHEME	PREDICATE	MARKER	COMPARISON

As shown here, there are five parameters in the construction (cf. Kennedy 2007). The main elements in the comparative construction are the two participants being compared and the property in terms of which they are compared. The two participants are the target of comparison, *this book*, which is being compared and the 'standard of comparison', *that one*, which the target is being compared against. The property is the parameter of comparison represented as a gradable predicate like *interesting* here. The canonical comparative also includes the index of comparison which is expressed by the comparative morpheme *-er* or word *more* and the marker for the standard of comparison for which English employs *than*.

Even though the structure of comparative constructions seems to be simple as illustrated in (1), its complexity is well-known, as reflected by Hoeksema's (1983) remarks:

"If the realm of language is seen as a cosmos, vast, largely, unexplored and sometimes bewildering, then the comparative construction must be a microcosm, reflecting all the complexity of the whole."

Many attempts have been made to entangle the system of comparative constructions in each language and to understand its intricate interaction with a variety of syntactic and semantic phenomena. In this paper, we try to review some of the basic grammatical facts we find in Korean comparatives. For a

better understanding of the complex system in the language, we will also do a contrastive study between English and Korean comparative constructions, while referring to Japanese when necessary.

2. English Comparatives: A Brief Review

English comparatives can be descriptively classified into clausal and phrasal types (Bresnan 1973, Huddleston and Pullum 2002):

- (2) a. John met more students than Mary met ____.
b. John met more students than Mary.

Clausal comparatives in (2a) are comparatives in which the standard of comparison, functioning as the complement of the standard marker *than*, shows clausal syntax. The standard clause here all consists of the usual elements found in a clause. Phrasal comparatives as in (2b), on the other hand, contain only a single NP phrase 'Mary'.

One observation made for clausal comparatives like (2a) is that there exists a missing element in the standard expression, as evidenced from the following contrast (Corver 2005).

- (3) a. *John believed that I met.
b. John believed that I met Mary.
c. *John met more students than Mary met them.

As seen from the contrast between (3a) and (3b), in a regular declarative clause, the verb *met* lexically requires an object. However, such a subcategorization requirement does not exist in the comparative construction as

in (3c).

Observing that the missing element in the standard clause is obligatory, Bresnan (1973) and subsequent works have assumed clausal comparatives like (2a) are derived from structures like (4) in which the compared expression is interpreted as a quantified NP with the degree element:

- (4) John met $[[d\text{-many}] \text{ students}]$ than Mary met ~~$[[d\text{-many}] \text{ students}]$~~
 ($d = \text{degree}$)

The transformational rule CD (Comparative Deletion, marked with double strikeout lines here) deletes the lexical material in the comparative clause under identity with material in the compared constituent (cf. Hazout 2005, Lechner 2001, Bhatt and Takahashi 2007, among others). In addition to this kind of CD rule, the grammar needs to posit an ellipsis rule to generate examples like (5a) from (5b):

- (5) a. John will meet more students than Mary will.
 b. John will meet $[[d\text{-many}] \text{ students}]$ than Mary will ~~meet $[[d\text{-many}] \text{ students}]$~~

While the CD deletes what is compared, the CE (Comparative Ellipsis) elides the remaining constituents in the comparison under identity.

In addition, observing the truth conditional identity between phrasal and clausal comparatives as seen in (2), traditional movement analyses have also derived phrasal comparatives from clausal sources with the application of the CD and CE rule:

- (6) John met $[[d\text{-many}] \text{ students}]$ than Mary ~~met $[[d\text{-many}] \text{ students}]$~~
 ($d = \text{degree}$)

Together with these two kinds of rules, we can observe that various syntactic elements can undergo CD and CE. Some of the main types classified in terms of meaning can be observed in the following:

- (7) a. Adjectival comparison (CD)
 John is taller than Mary is ~~{t=tall}~~.
- b. Adverbial comparison (CD)
 Few people ran faster than Mary ran ~~{d=fast}~~.
- c. Comparison on PP (CD and CE)
 John bought more books than Mary was ~~{d=happy}~~ in London.
- d. Determiner comparison (CD and CE)
 John bought more books than Mary has ~~{d=many}~~ newspapers.
- e. S-operator comparison (CD and CE)
 Mary had more friends than John thought ~~Mary had {x=many}~~ friends.

As observed here, the CD and CE can be applied to a variety of syntactic category, enabling us to compare most of the syntactic categories. The further flexibility of applying the CD and CE to a syntactic constituent can be observed from the following:

- (8) a. John sent more X-mas cards to students than Mary sent ~~{x=many}~~ greeting cards to teachers. [only measure phrase]
- b. John sent more X-mas cards to students than Mary sent ~~{x=many}~~ greeting cards to teachers. [major constituent containing the compared]
- c. John sent more X-mas cards to students than Mary did send ~~{x=many}~~ greeting cards to teachers. [VP containing the compared]
- d. John sent more X-mas cards to students than Mary did send

- ~~{x=many} greeting cards to teachers.~~ [Missing an entire VP]
 e. John sent more X-mas cards to students than Mary sent ~~{x=many}~~
~~greeting cards to teachers.~~ [= phrasal comparatives]

As we have seen most of the comparatives can be linked to clausal sources. Even phrasal comparatives like (8e) are assumed to be derived from a full clause.

Quite convincing though this reduction analysis seems to be, there are many examples where we cannot link all phrasal comparatives to clausal sources (Kennedy 1997, Napoli 1983). Consider the following contrast.

- (9) a. Mary ran faster than the world record.
 b. *Mary ran faster than the world record ran.
 (10) a. To be taller than John would be quite amazing.
 b. *To be taller than John to be would be quite amazing.

The putative source sentences for the sentences in (9a) and (10a) would be those in (9b) and (10b), respectively. In addition, we can observe that there exist putative underlying sources that cannot be reduced to well-formed phrasal comparatives, either, as also noted by Huddleston and Pullum (2002):

- (11) a. There couldn't have been any more people than there were.
 b. *There couldn't have been any more people than there.

Different from the examples in (9) and (10), the clausal comparative is acceptable, but its corresponding phrasal comparative does not exist. The data here thus tell us that we cannot simply classify English comparatives into two main types.

In addition, we observe another intriguing type of comparatives in English. Consider the following:

- (12) a. John met more linguists than biologists.
 b. John met more of the linguists than I met.
 c. John met more of the linguists than I met of the biologists.

Examples (12a) and (12b) could be canonical comparative ones in which either the compared expression or the entire compared constituent of the comparative clause is removed. However, (12c) is different: the compared constituent is a left lexical element of the *of* PP, as represented in its LF form:

- (13) John met more of the linguists than I met [~~many~~] of the biologists].

As noted by Grimshaw (1987), the propositional object in such cases must be definite, and further the constructions can appear only in the sentence final position: they cannot occur in the subject or within a VP. Consider the following contrast:

- (14) a. I found more linguists dull than I found biologists interesting.
 b. More linguists were dull than biologists were interesting.
 (15) a. *I found more of the linguists dull than I found of the biologists interesting.
 b. *More of the linguists were dull than of the biologists were interesting.

As observed in (14), the compared NP can appear either within the VP or in the subject position. However, these two positions are not available for the *of*-comparatives.

Similar to this *of*-comparatives, English allows such so-called subcomparatives:

- (16) a. We own more books than we own magazines.
 b. We met more linguists than we met teachers.

In these examples, what is compared is the left branch of the NP:

- (17) a. We own more books than we own [~~many~~ magazines].
 b. We met more linguists than we met [~~many~~ teachers].

This assumption appears to be a legitimate one when considering that the following examples are ungrammatical:

- (18) a. *We own more books than we own ten magazines.
 b. *We met more linguists than we met five teachers.

These *of*-comparatives and subcomparatives have been challenging to the uniform analysis of English comparatives: the deletion process needs to apply to a specifier position, leaving out the head, which runs quite the opposite of the traditional wisdom in transformational grammar.¹⁾

As observed so far, English comparatives are notorious for the syntactic and semantic complexities. We haven't done justice here, but have seen how intriguing the interface between syntax and semantics is at least.

3. Korean Comparatives

3.1. Basic Facts: Some Similarities

At first glance, Korean also seems to have two main types of comparatives: phrasal and clausal (cf. Jhang 2001, Choe 2007, and Park 2008). Following examples are canonically assumed phrasal and clausal comparatives:

1) See Corver (2005) for detailed discussion of the issues in transformational analyses.

- (19) a. [Chelswu-pota] Yonghi-ka chayk-ul (te) manhi ilkessta
 Chelswu-than Yonghi-NOM book more many read
 ‘Yonghi read more books than Chelswu.’
- b. [[Chelswu-ka __ ilk-un] kes-pota] Yonghi-ka (te)
 Chelswu-NOM read-MOD KES-than Yonghi-NOM more
 manhi ilkessta
 many read
 ‘Yonghi read more than Chelswu.’

(19a) is phrasal in the sense that the ‘standard’ of comparison expression is just the nominal NP ‘Chelswu’. Meanwhile, (19b) is clausal in that the compared expression is a clause with the noun *kes*. The clause has a syntactic gap inside which functions as the object of *read*. In both phrasal and clausal comparatives, the comparative morpheme is realized as an optional adverb *te* ‘more’, modifying the gradable element *manhi* ‘many’.²⁾

The comparative marker in the language is the postpositional marker *pota* ‘than’ attaching only to a nominal, but this does not mean that comparison is possible only between nominal elements. In terms of what can be compared, like English, Korean allows a comparison between individuals, times, locations, or even events (Kim and Sells 2009). First note that all argument types can be compared (cf. Chae 1998):

- (20) John-pota Tom-i khu-ta [external argument]
 John-than Tom-NOM tall-DECL
 ‘Tom is taller than John.’
- a. John-un swuhak-pota sayngmwulhak-i chota [internal arguments]
 John-TOP math-than biology-NOM likes
 ‘John likes biology more than math.’

2) See Choe 2008 for a detailed discussion about the status of *te*.

- b. John-un na-pota Tom-eykey te cal hanta [dative argument]
 John-TOP I-than Tom-DAT more well do
 'He is nicer to Tom than to me.'

The gradable predicate can be various syntactic categories too, even including a nominal element (Chae 1998, Kim and Sells 2009):

- (21) a. emma-ka apeci-pota [pappu-ta] (Adjectival)
 mom-NOM dad-than busy-DECL
 'Mom is busier than dad.'
- b. tongsayng-i hyong-pota [pwuca]-i-ta (NP)
 younger.brother-NOM elder.brother-than rich-COP-DECL
 'The younger brother is richer than the elder.'
- c. Mary-pota [te ilccik] tochakhaystta (AdvP)
 more early arrived
 '(We) arrived earlier than John'
- d. wuli.cip-pota [te say] cip-i-ta (adnominal)
 our house-than more new house-COP-DECL
 '(This house) is newer than our house.'

As noted here, even the predicative noun can be compared as long as the noun is gradable:

- (22) a. tongsayng-pota te pwuca-i-ta
 younger.brother-than more rich.person-COP-DECL
 '(He) is richer than the young brother.'
- b. *tongsayng-pota te haksayng-i-ta
 younger.brother-than more student-COP-DECL

'*(He) is more a student than the younger brother.'

The main difference between *pwuca* 'rich.person' and *haksayng* 'student' is that the former, not the latter, is inherently gradable, making it possible for it to occur in comparatives. The semantic constraint thus requires the inherently non-gradable predicate to have the comparative marker *te* 'more' as an obligatory element for it to be gradable.

It is also possible to compare the properties of two temporal points or locations:

- (23) a. ecey-pota onul-i te hayngpokhata
 yesterday-than today-NOM more happy
 'He is happier than yesterday.'
- b. hakkyo-eyse-pota cip-eyse kongpwuka te cal toy-nta
 school-LOC-than home-LOC study more well become
 'Studying at home is better than at school.'

The standard of comparison here is 'yesterday' and 'at school'. These expressions are compared with the corresponding targets 'today' and 'at home'.

Note that two events can also be compared with respect to certain degree properties (cf. Kim and Sells 2010):

- (24) a. [wuli-ka ka-nun kes]-i [haksayng-tul-i o-nun
 we-NOM go-MOD KES-NOM student-PL-NOM come-MOD
 kes-pota] phyenha-ta
 KES-than convenient-DECL
 'For us to go is more convenient than for students to come.'
- b. etten salam-un [ttiy-e ka-nun kes-pota] palli
 Some people-TOP run-COMP go-MOD KES-than fast

kel-ess-ta
 walk-PST-DECL
 'Some people walked faster than running.'

In these examples, two propositions are compared with respect to the degree of comparison.

Also observe the following to see further complex comparisons in terms of semantics:

- (25) a. i cha-un kwuknay-eyse-pota oykwuk-eyse te cal
 the car-TOP domestic-LOC-than foreign-LOC more well
 phali-n-ta
 sell-PRES-DECL
 'This car sells better in the foreign markets than in the domestic.'
- b. sikan-un [[wuli-ka sangkakha-n] kes-pota] te manhi
 time-TOP we-NOM think-MOD KES-than more much
 keli-ess-ta
 take-PAST-DECL
 'It took more time than we thought.'

The sentence (25a) expresses a comparison between the degrees to which the same object (the clothes) possesses different properties whereas (25b) relates the actual degree that an object (interview) possesses a property to an expected degree.

3.2. Some Differences

As we have seen, both Korean and English can express varied different ways of comparison. However, there are several main syntactic differences

between the two languages. For example, unlike English, the language does not allow subcomparatives which can compare the degrees to which different objects possess different properties:³⁾

- (26) *i chaykcang-un ce mwun-i nelp-un kes-pota noph-ta
 this self-TPC that door-NOM wide-MOD KES-than tall-DECL
 'This shelf is taller than that door is wide.'

The assumed LF structure for (26) would be something like the following:

- (27) [This shelf is ~~*d-much*~~ higher than the door is *d-much* wide]

As noted here, even though the comparison of the two different properties (height and width) is possible in the sub-element syntactic position in English, Korean does not allow such a sub-comparative. However, observe the following:

- (28) a. ?Mary-ka sinmwun-ul ilk-un kes-pota John-un te
 Mary-NOM newspaper-ACC read KES-than John-TOP more
 manun capci-lul ilkess-ta
 many magazine-ACC read
 'John read more magazines than Mary read newspapers.'
 b. ?i hoswu-nun ce san-i noph-un kes-pota kip-ta
 this lake-TOP that mountain high-MOD KES-than deep
 'This lake is deeper than the mountain is high.'

These sentences seem to be better than the one in (26). One thing we can observe is that in both cases, the comparison here is on the same scale. That is, in (28a) the compared elements are the number of magazines and

3) See Beck et al. (2004) for Japanese.

newspapers that Mary read. Meanwhile, in (28b) the depth and height are compared with the same measurement unit. Given that the data are acceptable, the examples here imply that even though Korean does not allow subcomparatives, it can be possible when we compare two different numbers or degrees (in the subcomparative SPEC position) on the identical scale.

Another intriguing property of Korean's comparative constructions, quite frequent in real corpus data, is that the standard marker *pota* can also be used as a comparative expression, meaning *more* (Kim and Sells 2009, 2010):

- (29) a. *pota manhun haksayng-tul-i ku swuep-ul tul-ess-ta*
 more many student-PL-NOM the class-ACC listen-PST-DECL
 'More students took the class.'
- b. *salamtul-un pota ancenhan kos-ulo ka-ass-ta*
 person-PL-TPC more safe-MOD place-to go-PST-DECL
 'People went to a safer place.'

The multi-function property of *pota* allows it to have different uses in the same sentence:

- (30) a. *calinkopi-pota pota hyenmyengha-key sopihan-ta*
 miser-than more wise-COMP consume-DECL
 '(He) consumes more wisely than a miser.'
- b. *wuli-ka sayngkakha-yess-ten kes-pota pota caymi-iss-ta*
 we-NOM think-PAST-MOD KES-than more interesting-BE-DECL
 'It was more interesting than we thought.'

These uses of *pota* are obviously different. The use of the first *pota* in (30a) is a postpositional marker of a standard of comparison whereas the second one in (30b), used as a comparative marker, functions as an adverb.

3.3. More on Phrasal and Clausal Comparatives

As in English, the phrasal and clausal-like comparatives have often regarded as the same type, observing that most of the phrasal comparatives can be re-paraphrased as clausal types:

- (31) a. John-un Mary-pota sakwa-lul te manhi mekessta
 John-TOP Mary-than apple-ACC more many ate
 'John ate more apples than Mary.'
- b. John-un [Mary-ka ___ mek-un kes]-pota sakwa-lul
 John-TOP Mary-NOM eat-MOD KES-than apple-ACC
 te manhi mekessta
 more many ate
 'John ate more apples than the ones Mary ate.'

Based on such semantic similarities between the two, phrasal comparatives are often assumed to have a clausal source, as in English (Choe 2008, Park 2009)

However, note that there are many cases where phrasal comparatives cannot be linked to clausal counterparts (Kim and Sells 2009, 2010):

- (32) a. John-un nai-pota eli-key pointa
 John-TOP age-than young-COMP looks
 'John looks younger for his age.'
- b. kockip-un Chelswu-ka Yonghi-pota te hata
 stubborn-TOP Chelswu-NOM Yonghi-than more do
 'As for the stubbornness, Chelswu is more stubborn than Yonghi.'

There appears to no plausible clausal counterpart for (32a) since the age cannot be 'young' or anything.

Corpus search gives us another peculiar type of examples for which it is hard to assume any clausal-like source sentences (cf. Kim and Sells 2010):

- (33) a. ku-uy sengcek-i chinkwu-pota twicheyciessta
 he-GEN grade-NOM friend-than low
 'His grade was lower than his friend's.'
- b. ol hay ipsi-ka caknen-pota eleypta
 this year entrance.exam-NOM last year-than difficult
 'This year's entrance exam is more difficult than last year's.'

As noted in Kim and Sells (2010), such examples are intriguing in that there is a mismatch between the associate and the standard expression. That is, what is compared here is between his grade and friend in (33a) and between this year's entrance exam and last year. Such mismatched comparison is not allowed in English:

- (34) a. *His grade was lower than his friend.
 b. *This year's entrance exam is more difficult than last year.

Within an CD and CE-based analysis, such examples would mean deleting the head noun of the standard expression, as represented in the following rough LF form:

- (35) [the teacher's forehead-NOM [Chelswu's forehead-NOM shiny]-than shiny]

Given the traditional assumptions, such a deletion process is illegitimate since both the deletion and ellipsis process apply only to a syntactic constituent.

Note that Japanese is similar in employing both phrasal and clausal-like comparatives. But one clear difference lies in the that the nominalizer *no* in

Japanese is optional, thus allowing both plain clausal-complements and *no*-NP complements (cf. Beck et al. 2004, Oda 2008, Sudo 2009):

- (36) a. Hanako-wa [Taro-ga katta]-yori takai hon-o
 Hanako-TOP Taro-NOM bought-no-than expensive book-ACC
 katta
 bought
 'Hanako bought a more expensive book than Taro did.'
- b. Hanako-wa [[Taro-ga katta]-no]-yori takai hon-o
 Hanako-TOP Taro-NOM bought-no-than expensive book-ACC
 katta
 bought
 'Hanako bought a more expensive book than what Taro bought.'

Korean does not allow the plain-clausal complement as the complement of *pota*: It licenses only *kes*-NP complements.

There is evidence that clausal-like comparatives are in fact free relatives headed by the formal noun *kes* (cf. Kim and Sells 2010). This comes from: the fact that in all the clausal-like comparatives we collected, the obligatory noun *kes* can be replaced by a common noun (as in (37a)), can be preceded by a determiner (as in (37b)), and the clause + *kes* has the same distribution as an NP. This challenges any clausal analysis in which *kes* is a complementizer introducing a CP (e.g., Park 2009).

- (37) a. John-un [Tom-i sa-n sakwa]-pota pissan
 John-TPC Tom-NOM buy-MOD apple-than expensive
 kes-ul sassta
 thing-ACC bought
 'John bought a more expensive book than what Tom bought.'
- b. John-un [Tom-i sa-n ku kes]-pota pissan

John-TPC Tom-NOM buy-MOD the thing-than expensive
 kes-ul sassta
 thing-ACC bought
 'John bought a more expensive book than the one Tom bought.'

The functional noun *kes* in Korean canonically refers to an inanimate entity or an event (Kim 2008):

- (38) a. ce kes-i John-i ___ ilk-un chayk-i-ta
 that thing-NOM John-NOM read-MOD book-COP-DECL
 'This is the book that John read.'
- b. *ce kes-i John-i ___ manna-n salam-i-ta
 that thing-NOM John-NOM meet-MOD person-COP-DECL
 'This is the person that John met.'

The noun *kes* in (38a) refers to an inanimate 'book' whereas the one in (38b) refers to a person, which is not possible in the language (see Kim and Sells 2007). This same restriction holds in comparatives too:

- (39) a. *John-un [Tom-i manna-n kes]-pota chakha-n
 John-TPC Tom-NOM meet-MOD KES-than honest-MOD
 salam-ul mannassta
 person-ACC met
 'John met a more honest person than Tom met.'
- b. John-un [Tom-i manna-n salam]-pota chakha-n
 John-TPC Tom-NOM meet-MOD person-than honest-MOD
 salam-ul mannassta
 person-ACC met
 'John met a more honest person than the person Tom met.'

An issue may arise with respect to gapless-clauses like (40) if we assume that all the clausal-like comparatives are treated as free relative:

- (40) a. John-un [Mary-ka talli-n kes]-pota te ppalli
 John-TPC Mary-NOM run-MOD KES-than more fast
 kel-ess-ta
 walked-PAST-DECL
 'John walked faster than Mary ran.'
- b. [wuli-ka ka-nun kes]-i [haksayng-tul-i o-nun
 we-NOM go-MOD KES-NOM student-PL-NOM come-MOD
 kes-pota] phyenha-ta
 KES-than convenient-DECL
 'For us to go is more convenient than for students to come.'

Such examples are expected since Korean allows amount relative clauses, and *kes* here can be replaced by a noun like *cengto* 'degree', *sokto* 'speed', or *kil* 'way'. In fact all the clausal-like comparatives with no overt gap can be reinterpreted as amount relative clauses:

- (41) a. John-un [Bill-i ttokttokha-n kes/cengto]-pota te
 John-TPC Bill-NOM smart-MOD KES/degree-than more
 ttokttokhata
 smart
 'John is smarter than Bill.'
- b. John-un Bill-i sayngkakha-n kes/cengto-pota te
 John-TPC Bill-NOM think-MOD KES/degree-than more
 ttokttokhata
 smart
 'John is smarter than Bill thought (he is).'

Examples given here have been claimed to support clausal analyses for phrasal comparatives (cf. Choe 2008, Park 2009). However, we can interpret such examples as individual-denoting comparatives on the assumption that *kes* functions as an amount degree nominal like *cento* 'degree'.

In sum, Korean comparatives are semantically alike English in having ways to express diverse comparison types, but syntactically different from English. One clear difference comes from the status of clausal-like comparatives headed by the formal noun *kes*.

3.4. Compositional vs. Context-dependent

One traditional way of interpreting English comparatives is to assume that as given in Heim and Kratzer (1998), the comparative morpheme 'er' takes two sets of degrees and maps to a larger-than-relation of two maximal degrees. Maximal degrees are obtained by applying a maximality operator to a set of degrees that picks up the unique maximal degree from the set:⁴⁾

$$(42) \text{ [[-er]] (D2)(D1) = 1 iff } \max(D1) > \max(D2)$$

Under this analysis, the sentence (43a) will have the interpretation such that the maximal number of the students John met is bigger than the maximal number of the students that Mary met, as represented in (43b):

- (43) a. John met more students than Mary met.
 b. [[-er]]([[Mary met *d*-many students]])([[John met *d*-many students]])

This kind of analysis is basically compositional: the meaning of the sentence is composed from parts of its constituent and syntactic combinations.

4) See Kennedy (2005) too for detailed discussion of the semantics.

One immediate question in Korean, as noted in the previous section, comes from the existence of examples where the comparison is highly context:

- (44) a. ku-nun nai-pota celm-e pointa
 he-TOP age-than young-COMP look
 '(lit.) He looks younger than age.'
- b. ku-uy khi-nun na-pota khu-ta
 he-GEN height-TOP I-than tall
 '(lit.) His height is taller than I.'

As noted in Kim and Sells (2010), there is no explicit comparison between the standard expression and target. For example, we cannot compare between 'he' and 'age' as in (44a) or between 'his height' and 'I' as in (44b). In (44a), the standard expression *nai-pota* is similar to 'compared to' in English. In (44b), the compared targets are induced from context: his height and my height. Such examples support Beck et al's idea that languages like Korean.

As pointed out earlier, Korean does not allow subcomparatives, but similar comparison appears to be possible when the degree of two objects in the same scale as given in (45b).

- (45) a. ???ce san-i noph-un kes-pota I pata-ka
 the mountain-NOM high-MOD KES-than this ocean-NOM
 te kip-ta
 more deep-DECL
 'The ocean is deeper than the mountain is high.'
- b. ce san-uy nophi-pota I pata-ka te kip-ta
 the mountain-GEN high-than this ocean-NOM more deep-DECL
 '(lit.) The ocean is deeper than the mountain's height.'

As noted in the contrast between (44a) and (44b), the natural counterpart is the one where the standard expression is given as a context setter. That is, even in (44b), the two compared expressions are not clearly realized in syntax. Even though the syntax compares 'the mountain's height' and the ocean, the context provides us to compare the mountain's height with the ocean's depth in terms of the comparison of their numbers. Adopting Beck et al. (2004), a better interpretation for such a sentence seems to be like the following:

- (46) $\max(\lambda d \text{ the ocean is } d\text{-much deep}) < c$
 c = the number made salient by the utterance context
 $:$ = the number of the mountain's height

This interpretation basically assumes that the comparative marker *pota* sets a context for comparison, and that the comparison is made by this contextually provided degree variable c whose value is inferred from the set of individuals denoted by the standard of comparison 'the mountain's height' in (45b). Such context-dependent interpretation of Korean comparatives are thus different from English comparatives whose comparisons are made by strict compositional calculations (cf. Kim and Sells 2010).

A further plausible piece of evidence for context-dependent analysis can be observed from the negative island effect. Korean behaves differently from Japanese with respect to the negative island effect. In the following example, the Japanese sentence is well formed, whereas the English and Korean sentence are not.⁵⁾

- (47) a. '*John bought a more expensive book than nobody did.'
 b. John-wa [dare-mo kawa-naka-tta no yori(mo)] takai
 John-TOP anyone buy-NEG-PAST KES than expensive
 hon-o katta

5) See Park (2008) with a different judgement.

book-ACC bought
 c. *John-un [amwu-to saci anh-un kes-pota] pissan
 John-TOP anybody buy not-MOD KES-than expensive
 chayk-ul sassta
 book-ACC buy

However, this ungrammatical one can be improved when the noun KES refers to a specific noun:

(48) John-un [amwu-to saci anh-un ce chayk-pota] pissan
 John-TOP anybody buy not-MOD book-than expensive
 chayk-ul sassta
 book-ACC buy
 'John bought a more expensive one than the book that no one buys.'

The difference in the grammaticality between (47b) and (48) seems to come from the difference in the referential power of KES. That is, in (47b), the noun KES has no clear referential element. This makes hard to infer the context-setter for comparison. Meanwhile, in (48) the pronoun KES refers to one specific book. This will make us easier to set up the context variable *c* for the comparison.

The observations we have made so far have shown us that comparisons in English are rather compositional, but those in Korean are highly context-dependent. That is, from context and the given set of individuals denoted by the complement of *pota* we infer the degrees of comparison in various ways.

4. Conclusion

Every language employs its own morphological and syntactic ways of expressing gradable concepts and making comparison between properties of two objects. Typologically different English and Korean display clear contrasts in many respects. For example, Korean uses the adverb *te* 'more' and the postposition *pota* 'than' to express such relations objects, but displays quite different grammatical properties from a language like English.

One main difference between English and Korean is that Korean clausal-like comparatives are in fact relative clauses headed by the formal noun *kes*. In addition, in terms of semantics, we have seen that the interpretation of English comparatives is compositional, whereas that of Korean comparatives highly hinges on context. Issues remain what these language differences imply for the cognition system of the comparative constructions in these individual language as well as in universal languages.

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