

An experimental study on interpretive properties of multiple nominative/subject constructions (MNCs/MSCs) in Korean*

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Kim, Ji-Hye. 2015. An experimental study on interpretive properties of multiple nominative/subject constructions (MNCs/MSCs) in Korean. *Linguistic Research* 32(2), 379-401. This study investigated interpretive (i.e. semantic and pragmatic) properties in Korean Multiple Nominative/Subject Constructions (MNCs/MSCs), through an experimental syntactic study. An experiment was designed to test key properties (i.e., characteristic property and newsworthy property) of MNCs/MSCs in Korean that have been regarded as contributing to felicity of MNCs/MSCs (Yoon 2004, 2007, 2009). Forty Korean native speakers were tested over Acceptability Judgment Task. The test materials were composed of 60 Korean sentences representing the two interpretive properties of MNCs/MSCs - characteristic property of Sentential Predicate (SP) and newsworthiness of Major Subject (MS). Overall results showed that Korean native speakers seem to treat MNCs/MSCs with both characteristic SP and newsworthy MS more felicitous than the sentences in less than ideal conditions. (Soongsil University)

Keywords Multiple Subject Construction, MSC, Multiple Nominative Construction, MNC, interpretive properties, pragmatic properties, Subject, Major Subject

1. Introduction: Multiple nominative/subject constructions in Korean

Korean has a type of sentences called Double Nominative Constructions/Multiple Nominative Constructions (DNCs/MNCs) or Double Subject Constructions/Multiple

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Subject Constructions (DSCs/MSCs), where more than one nominative markers (or subjects) occur in one sentence, as shown in (1). While (1a) and (1c) show a sentence with two nominative-marked NPs, (1b) and (1d) show a sentence where more than two nominative-marked NPs are in a sentence.

- (1) a. Cheli-**ka** khi-**ka** khu-ta
 Cheli-NOM height-NOM is-tall-DECL
 ‘It is Cheli whose height is tall.’
 b. Cheli-**ka** apeci-**ka** hoysa-**ka** pwuca-i-ta
 Cheli-NOM father-NOM company-NOM is-rich-DECL
 ‘It is Cheli whose father’s company is rich.’
 c. Yelum-**i** maykcwu-**ka** coh-ta
 summer-NOM beer-NOM is-good-DECL
 ‘In summer, beer is good.’
 d. I cip-**i** kyewul-**i** ohwu-**ka** ttattusha-ta
 this house-NOM winter-NOM afternoon-NOM is-warm- DECL
 ‘This house is warm in winter afternoon.’

In addition to demonstrating multiple nom-marked NPs in one sentence, the sentences in (1) show different types of MNCs/MSCs. That is, the two/multiple NPs in (1a, b) are related to each other (i.e., possessor-possessee/part-whole relation), as is also shown in (2a, b). However, interpreting the sentences (1c, d) in the same way does not work well in (2c, d), since the two nom-marked NPs in (2c, d) are not closely related to each other compared to the case of (2a, b).

- (2) a. Cheli-**uy** khi-**ka** khu-ta
 Cheli-POSS height-NOM is-tall-DECL
 ‘It is Cheli whose height is tall.’
 b. Cheli-**uy** apeci-**ka/uy** hoysa-**ka** pwuca-i-ta
 Cheli- POSS father-NOM/POSS company-NOM is-rich-DECL
 ‘It is Cheli whose father’s company is rich.’
 c. ?Yelum-**uy** maykcwu-**ka** coh-ta
 summer- POSS beer-NOM is-good-DECL
 ‘In summer, beer is good.’
 d. ?I cip-**uy** kyewul-**i/uy** ohwu-**ka** ttattusha-ta

this house-POSS winter-NOM/POSS afternoon-NOM is-warm- DECL
 ‘This house is warm in winter afternoon.’

Yoon (2004, 2007, 2009) attempted to distinguish the two types of MNCs/MSCs, calling the first type (cf. 1a, b) ‘Possessor-type MNCs/MSCs’ and the other (cf. 1c, d) ‘Adjunct-type MNCs/MSCs’. Yoon (2004, 2007, 2009) claimed that the rightmost NP that takes VP as predicate in MNCs/MSCs are Grammatical Subject (GS), whereas the outer NPs in MNCs/MSCs are different type of subject which takes the whole embedded clause as its predicate. The analysis of considering the whole embedded clause (i.e., Sentential Predicate (SP)) as the predicate of the first NP in MNCs/MSCs has also been found in many other previous studies of MNCs/MSCs (Teng 1974, B-S Park 1973, 2001, I-H Lee 1997, Heycock & Lee 1989, Heycock 1993, Chae & Kim 2008). However, Yoon (2004, 2007, 2009) called the outer NP in MNCs/MSCs ‘Major Subject (MS)’, in line with others (Choi 1937, B. Park 1973, 2001, Kuroda 1986, I-H Lee 1987, Heycock & Lee 1989, Heycock and Doron 2003, C. Park 2010, etc.)¹. Also, he claimed that Major Subject (MS) is licensed semantically and pragmatically, aside from having its status in syntax (Kuroda 1986, Heycock and Doron 2003). Yoon (2004, 2007, 2009) further argues that the topic/focus-like interpretations of the outer NPs (MS) in MSCs are not from the nominative case-marker, but from independent well-formedness conditions on felicitous MSCs. The present study investigates the interpretive conditions that hold in MNCs/MSCs (Yoon 2004, 2007, 2009); therefore, I will use the term MSCs to denote both MNCs and MSCs.²

¹ This line of thinking is endorsed in traditional accounts of DNCs and defended in B. Park (1973), I. Lee (1997), Heycock (1993), James Yoon (2004, 2009), and C. Park (2010).

² Whether such sentences have to be called Multiple Nominative Constructions (MNCs) or Multiple Subject Constructions (MSCs) has been one of the centered issues in Korean linguistics. The term MNCs is mostly supported by researchers assuming a unique subject in a sentence, which claims that the outer nominatives in the construction are not subject (Yoon 1986, J-Y Yoon 1989, K-S Hong 1991, 2014, K-S Park 1995, Schütze 2001, B-R Ryu 2013, etc.). On the other hand, the name MSCs was used by another line of approach that assumes possibility of having more than one subject in a sentence (B-S Park 1973, Teng 1974, I-H Lee 1997, Y-J Jang 1998, Heycock 1993, B-M Kang 2002, Chae & Kim 2008, Yoon 2004, 2007, 2009, etc.). The third approach takes the similar position, claiming that there can be multiple subjects in such construction in different procedures of syntactic procedures (i.e., derivation). This approach took the first NP in MSCs to be possessor of the second NP and introduced what is called ‘Possessor Ascension’ analysis, showing the status of possessor (i.e., first NP) as ‘derived subject’ in other layers of derivation within the framework of Relational Grammar. However, this approach still claims that

The organization of the current study is as follows. Next section will introduce the theoretical background on the interpretive (i.e., semantic/pragmatic) properties of MSCs, which motivated the design of the current experimental study. The following section will be dedicated to the explanation of methodology and the results of the experiment. Then the discussion of the results and tentative conclusion will follow.

2. Theoretical background

2.1 Multiple subject constructions (MSCs) and major subject(MS)

MSCs are characterized by the fact that a sentence, which normally denotes a proposition, is turned into a predicate of the Major Subject (MS), which is sometimes different from grammatical subject of a sentence (Yoon 2004, 2007, 2009). The process of turning a sentence into a predicate can iterate, which can yield structures with nested SPs and multiple Major Subjects (MSs). Therefore, MSCs can have multiple subjects, which include a unique Grammatical Subject (GS) selected by the predicate and multiple Major Subjects (MSs) that are in construction with nested Sentential Predicates (Teng 1974, B-S Park 1973, 2001, Heycock 1993, Heycock & Lee 1989, I-H Lee 1997). This can explain the case in (1b, d) introduced earlier, where more than one nominative-marked outer NP occur in the construction. Also, this provides explanation why such construction is called Multiple Subject Construction (MSC) rather than Double Subject Construction (DSC).

According to Yoon (2004, 2007, 2009), the characteristic properties of MSCs are the following:

(3) Characteristic Properties of MSCs

- a. Outer nom-marked NPs in MSCs are licensed syntactically by being assigned nominative case.

the subject is unique in a sentence in each procedure, taking the similar position as the former (C. Youn 1990, S-E Cho 2000, etc.). This type of analysis (C. Youn 1990, S-E Cho 2000, etc.) focused on Possessor-type MNCs/MSCs (cf. 1a, b) and cannot explain the other type of MNCs/MSCs shown in (1c, d). Though there has been hot line of debate as to whether the first NP in MNCs/MSCs is subject or not (or whether the construction fits better for the name MNCs or MSCs), the issue is not the scope of the present study.

- b. Outer nom-marked NPs in MSCs are licensed semantically through predication from the **Sentential Predicate (SP)** as **Major Subject (MS)**, through which MS and SP get restricted interpretive properties compared to Grammatical Subject (GS) and VP.
- c. SPs are felicitous if they can be construed as denoting a **salient (characteristic or contextually characterizing) property** of the referent of the MS.
- d. MSs are felicitous if they can be construed denoting a **newsworthy** entity.

As is mentioned in (3a), MS (the outer nom-marked NP) in MSCs has syntactically assigned nominative case in a sentence; however, MS is different from GS in that it is not the direct argument of the predicate that heads the Sentential Predicate (SP). For example, the verb *khuta* ‘copula-big’ in (4a) is the predicate of *nwun* ‘eye’, not *Cheli*; instead, MS takes SP (i.e., semantically, a proposition-turned-predicate) as its predicate. Therefore, the whole SP *nwun-i khuta* ‘eyes are big’ in (4a) becomes the predicate of the MS *Cheli*. Failure to have SP that characterizes MS makes the sentence ungrammatical, as in (4b).

- (4) a. Cheli-ka(MS) [_{SP}nwun-i (GS) khuta]
 Cheli-NOM eye-NOM is-big-DECL
 ‘It is Cheli whose eyes are big.’
- b. *Cheli-ka(MS) [_{SP}Yenghi-ka (GS)khuta]
 Cheli-NOM Yenghi-NOM is-big-DECL
 ‘?It is Cheli whose Yenghi is big(?)’

In addition to having SP, the SP in MSCs must predicate some salient property on the outer NP, as is mentioned earlier in (3c). This can be shown in (5) below. The sentence in (5a) shows an example of felicitous MSC, in which the SP describes a salient property of the MS (i.e., Seoul National University). This is called ‘**characteristic** property’ since the whole SP (i.e., many faculty members live close by) characterizes the salient property of MS (Yoon 2004, 2007, 2009).³ In contrast, the SP in (5b) ‘Cheli lives close by’ cannot be a salient property explaining the MS

³ Chae & Kim (2008) explained such property of semantic restriction through Semantic Compositionality Principle by Sag et al (2003).

(i.e., Seoul National University). Therefore, (5b) does not make a felicitous MSC in its comparison with (5a).

- (5) a. Seoul-tayhakkyo-ka(MS) [SP kyoswutul-i kunche-ey mahni santa]
 Seoul university-NOM professors-NOM nearby-LOC many live
 ‘It is Seoul National University (that) many faculty members live close by.’
 b. *?Seoul-tayhakkyo-ka(MS) [SP Cheli-ka kunche-ey santa]
 Seoul university-NOM Cheli-NOM nearby-LOC live
 ‘It is Seoul National University (that) Cheli lives close by.’

The same logic can be applied in explaining the sentences in (6a) and. (6b). According to B-M Kang (2002), the characteristic property in semantic condition makes the difference, where the SP in (6a) is $\lambda x[x\text{'s mother has died}]$ and the SP in (6b) is $\lambda x[x\text{'s mother fell down}]$. Compared to the SP in (6a), the information of SP in (6b) is not significant enough to make a characteristic property of someone (i.e., Cheli). Similarly, Yoon (2007, 2009) explains that the former SP denotes more generic property, which can be true at more than a single interval, whereas the latter is construed episodically which denotes a one-time event. Therefore, CHARACTERIZE($\lambda x[x\text{'s father is dead}]$, x) in (6a) can be evaluated as true, while CHARACTERIZE($\lambda x[x\text{'s father fell down}]$, x) in (6b) is not. Likewise, the SP in (6a) shows salient characteristic property of *Cheli* while the one in (6b) is worse than (6a) in characterizing *Cheli's* salient property. This can be why the felicity of MSC in (6b) is degraded compared to the case of (6a).⁴

- (6) a. Cheli-ka (MS) emeni-ka tolakasissta
 Cheli-NOM mother-NOM passed away
 ‘It is Cheli whose mother passed away.’
 b. ?#Cheli-ka (MS) emeni-ka ecey cip-eyse nemecisiessta
 Cheli-NOM mother-NOM yesterday home-LOC fell
 ‘It is Cheli whose mother fell down at home yesterday.’

⁴ Yoon (2009) also noted that less salient characterizing property of SP as shown in (6b) can sometimes be ‘contextually characteristic’ property in a discourse. Therefore, he finally collapsed the two cases (i.e., salient characteristic property and contextually characteristic property) by calling them ‘characterizing’ property.

Furthermore, besides having a characteristic/characterizing SP, MS in MSCs must denote a **newsworthy** entity (cf. 3d) (Yoon 2004, 2007, 2009).⁵ Yoon (2007, 2009) claims that newsworthiness is related to the potential for an entity to be chosen as a discourse topic. Compared to the case of felicitous MSC shown in (7a), the outer nom-marked NP *khi* 'height' in (7b) is not as newsworthy without a specific discourse context; therefore, the MSC in (7b) is not felicitous. On the other hand, in the context of (7c), the outer NP *khi* 'height' can be considered to be a newsworthy entity in a discourse, thus can make felicitous MSC. Finally, the indefinite *etten salam* 'certain person' is acceptable when it occurs as the possessor of a GS as in (7d). In contrast, as pointed out earlier by Y-J Jang (1998), the indefinite first NP in (7e) cannot be construed newsworthy. Therefore, the sentence in (7e) is not considered felicitous MSC.

- (7) a. Cheli-ka (MS) [spkhi-ka (GS) khuta]
 Cheli-NOM height-NOMis-tall-DECL
 'It is Cheli whose height is tall.'
- b. *?Khi-ka (MS) [sp Cheli-ka(GS) Khuta]
 height-NOM Cheli-NOM is-tall-DECL
 '?It is height that Cheli is tall(?)'
- c. (Ku thim-eyse-nun) Khi-ka (MS) [spShaquille O'Neal-i (GS) ceyil khuta]
 That team-among-TOP height-NOM Shaquille-NOM most is-tall-DECL
 '(In that team), speaking of height, Shaquille O'Neal is the tallest.'
- d. [Etten salam-uy tongsayng-i] (GS) cwukessta
 Certain person-GEN brother-NOM died
 'As for certain person, his brother died.'
- e. *?Etten salam-i (MS) [sp tongsayng-i (GS) cwukessta]
 Certain person-NOM brother-NOM died
 'As for certain person, his brother died.'

So far, I have introduced theoretical background explaining interpretive properties of Korean MSCs, based on Yoon (2004, 2007, 2009)'s generalization. Though such theoretical inquiries and explanations are logically sound enough to make a set of

⁵ The newsworthiness of the MS shown in (7) above can be interpreted as having 'potential topicality'.

evidence to comprise a good observation about MS and MSCs in Korean, they have not been tested empirically, to the best of my knowledge. Therefore, the current experimental study was designed to test the knowledge of Korean native speakers on MSCs, focusing on the interpretive properties of MSCs represented in Yoon (2004, 2007, 2009)'s study.

2.2 The research question and hypotheses

The research question of the current study is the following: Do Korean native speakers have the semantic/pragmatic interpretive properties of Major Subject (MS) in Korean Multiple Subject Constructions (MSCs) proposed in Yoon (2004, 2007, 2009)?

The main hypothesis based on the research question is as follows.

Hypothesis: Korean native speakers show the two interpretive properties of MSCs in Korean.

The specific predictions to test the hypothesis are the following:

Prediction 1) The MSC sentences where the NP1 (MS) does not take a characteristic SP will be considered less acceptable than those with characteristic SP.

Prediction 2) The MSCs with non-newsworthy MS will be considered less acceptable than those with newsworthy MS. That is, MSC sentences will be less acceptable when NP1 (MS) is not more salient than NP2 (GS), compared to the well-formed/felicitous MSCs.

3. The experiment

3.1 Method

3.1.1 Participants

Forty Korean native speakers (ages ranging between 23 and 38) residing in and around Seoul, South Korea participated in the experiment. They were either current university students or graduates of universities in Korea.

3.1.2 Task and materials

The main task used in the experiment was an Acceptability Judgment Task using the 7-point Likert scale. Each question asked the subjects to judge the degree of acceptability of a given sentence on a 7-point scale (1: Completely unacceptable, 2~3: Relatively unacceptable, 4: Exact halfway between unacceptable and acceptable, 5~6: Relatively acceptable, 7: Completely acceptable).

The test materials consisted of 60 Korean sentences – 20 MSC target items (4 type conditions X 5 tokens) and 40 non-target items (i.e. 12 ill-formed MSC sentences and 28 grammatical vs. ungrammatical non-MSCs sentences). The target sentence types were varied based on 2X2 conditions, according to different interpretive properties (i.e., characteristic SP, newsworthy MS).

Some example sentences used as target items are given below. The sentence in (8a) shows the example of MSCs with ideal conditions (i.e., felicitous MSC): i) characteristic property of the SP for NP1 (MS) and ii) newsworthy NP1 (MS). On the other hand, (8b) and (8c) show the examples of MSC with less than ideal conditions, in which one of the above two conditions is not satisfied; (8b) has non-newsworthy MS and (8c) has less characteristic SP. Finally, the example in (8d) shows the case of the least ideal condition where neither of the condition was met.

- (8) a. Yenghi-**ka** meli-ka acwu ttoktokhata
 Yenghi-NOM head-NOM very smart
 ‘It is Yenghi who is very smart.’ {+Characteristic SP,+Newsworthy MS}

- b. ? Meli-**ka** Yenghi-ka acwu ttokttokhata
 head-NOM Yenghi-NOM very smart
 ‘? Speaking of head (smartness), Yenghi’s brain is very smart.’
 {+Characteristic SP, -Newsworthy MS}
- c. ? Yenghi-**ka** apeci-ka cikum hoysa-ey kassta
 Yenghi-NOM father-NOM now company-LOC went
 ‘? It is Yenghi whose father went to work now.’ {-Characteristic SP,
 +Newsworthy MS}
- d. *Etten salam-i apeci-ka hoysa-ey kassta
 certain person-NOM father-NOM company-LOC went
 ‘?? It is certain person whose friend is going to work now.’
 {-Characteristic SP, -Newsworthy MS}

Each sentence was repeated 5 times with different names and SPs representing similar type of MSCs (to test the reliability of subjects’ response to the similar tokens). In addition, the sentences for non-target items were also constructed to represent non-MSC sentences. The non-target items were constructed based on the target items by changing the case of the first NP to be non-nominative (i.e., topic or possessive). They included grammatical as well as ungrammatical sentences, respectively. They were designed to test the participants’ grammatical sensitivity with non-MSC sentences and to compare the relative degree of acceptability between MSC sentences and non-MSC sentences⁶. Some examples of non-target items are shown in (9). While (9a) and (9b) represent the case of grammatical non-MSC sentences, the sentence in (9c) shows an ungrammatical non-MSC sentence.

- (9) a. Yenghi-**uy** apeci-ka acwu pwucaita
 Yenghi-POSS father-NOM very rich
 ‘It is Yenghi whose father is very rich.’ (Non-MSC)
- b. Khi-**num** Yenghi-ka ceyilkhuta
 height-TOP Yenghi-NOM mosttall
 ‘Speaking of height, Yenghi is the tallest.’ (Non-MSC/Topic)

⁶ It was originally construed that the participants might treat MSC sentences, where multiple nominative cases are presented in one sentence, less acceptable than the single subject construction (i.e., non-MSC sentences).

- construction)
- c. *Yenghi -uy Cheli-ka cakun cip-ey santa
 Yenghi-POSS Cheli-NOM small house-LOC live
 ‘?Yenghi’s Cheli lives in a small house.’

3.1.3 Procedures

Participants were first asked to fill out a simple one-page questionnaire survey about biographical information such as age, gender and dialect(s). They were then asked to proceed to take the main task. In the main task, participants were required to judge the degree of acceptability of a given sentence on a 7-point Likert scale.

There was a screening procedure: If a participant in his/her individual performance judged grammatical non-target sentences (i.e., non-MSD sentences) lower than the mean acceptability score 4, or judged the ungrammatical filler sentences higher than the acceptability score 4, s/he was dropped from the analysis, being considered not having sufficient grammatical sensitivity or not paying attention while completing the task. Also, if a participant judged felicitous MSD sentences (i.e., both having characterizing SP and newsworthy MS) less than 3 (i.e., relatively unacceptable)⁷, s/he was also excluded from the analysis of the results, since the participant was deemed to not understand the logic of the task discriminating different MSD sentences. Through these screening procedures, 6 out of 40 participants were dropped from the analysis of the results.

3.1.4 Analysis

The acceptability scores for each sentence were calculated with median values across subjects. The responses were then grouped according to different 2X2 combination of the interpretive conditions (i.e. characteristic SP vs. non-

⁷ The acceptability baseline score for MSDs for filtering the outlier participants was lower than that of non-MSD grammatical/ungrammatical sentences. This was based on the assumption that the MSDs will be regarded less natural/acceptable than non-MSD sentences that have similar meanings (i.e., topic or focus constructions or possessive construction), to which the participants have been more frequently exposed. The result showed the expected pattern, in which acceptability scores for well-formed MSDs ranged mostly from 5.6 to 1, while the score for grammatical non-MSDs ranged fully from 7 to 1.

characteristic SP; newsworthy MS vs. non-newsworthy MS) and averaged. Non-parametric tests such as Mann-Whitney's U tests, Wilcoxon tests, and a Friedman test were conducted to determine the statistical significance of the differences for distinct within-subject factors.

3.2 Results

The overall results with acceptability scores are the following: The target items which were designed to be well-formed/felicitous MSC sentences were judged as acceptable overall (i.e., higher than mean score 4.0/median value 4.0 in rating). However, since the participants' responses were reported in ordinal scale value, the median values, instead of mean score, from each group of sentences will be presented to discuss the comparison of the participants' responses for different sentence types. The detailed result patterns by different interpretive properties are the following:

- i) The participants assigned significantly higher acceptability scores to the felicitous MSC sentences which had both characteristic SP and newsworthy MS, compared to the ill-formed MSCs (felicitous MSC: median = 4.0, ill-formed MSC: median = 2.0). The sentences with less characteristic SP got significantly lower acceptability scores than those with characteristic SP (felicitous MSC: median = 4.0, MSC with less characteristic SP: median = 2.0). The results with acceptability scores by 'characteristic' property of SP in MSCs are shown in Figure 1.

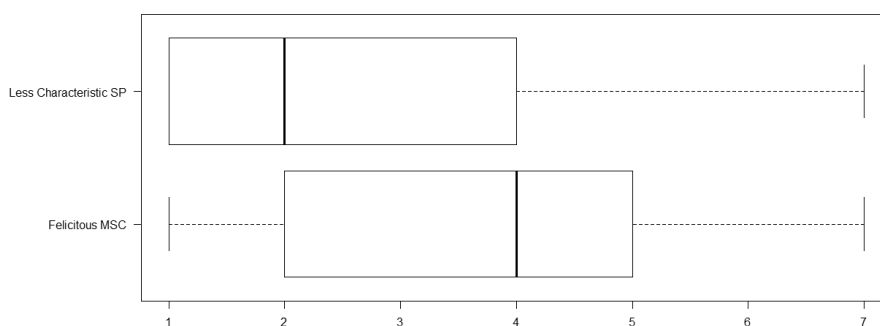


Figure 1. Acceptability by characteristic property of SP in MSCs

As is shown in the Figure 1, the medians of Felicitous MSC and MSC with less characteristic SP were 4.0 and 2.0, respectively. A Wilcoxon Signed-rank test shows that there is a significant effect of MSC-type ($V = 101025$, $Z = 7.354$, $p < 0.001$, $r = 0.775$).

- ii) The sentences with non-newsworthy MS obtained significantly lower acceptability scores than those with newsworthy MS (felicitous MSC: median = 4.0, MSC with non-newsworthy MS: median = 2.0). The results with acceptability scores by ‘newsworthy’ property of MS are shown in Figure 2.

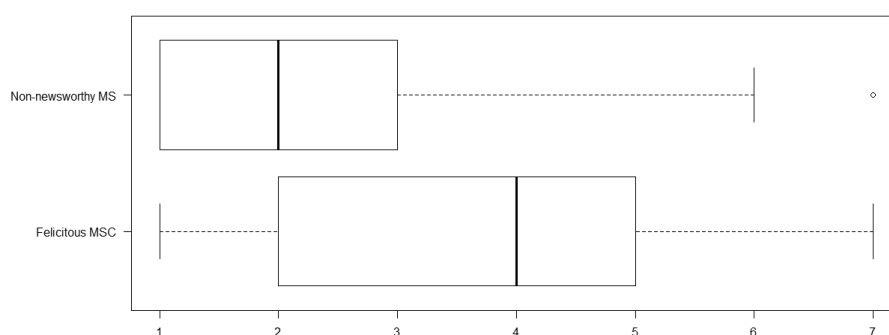


Figure 2. Acceptability by newsworthiness property of MS in MSCs

As is shown in Figure 2 above, the medians of Felicitous MSC and MSC with non-newsworthy MS were 4.0 and 2.0, respectively. A Wilcoxon Signed-rank test shows that there is a significant effect of MSC-type ($V = 101025$, $Z = 9.780$, $p < 0.001$, $r = 1.031$).

- iii) As expected, the sentences representing ill-formed MSCs with both less characteristic SP and non-newsworthy MS got the lowest scores among the target items representing different types of MSCs (felicitous MSC: median = 4.0, MSC with less characteristic SP: median = 2.0, MSC with non-newsworthy MS: median = 2.0, ill-formed MSC: median = 2.0). Figure 3 below provides the comparison of acceptability scores in all different MSC conditions.

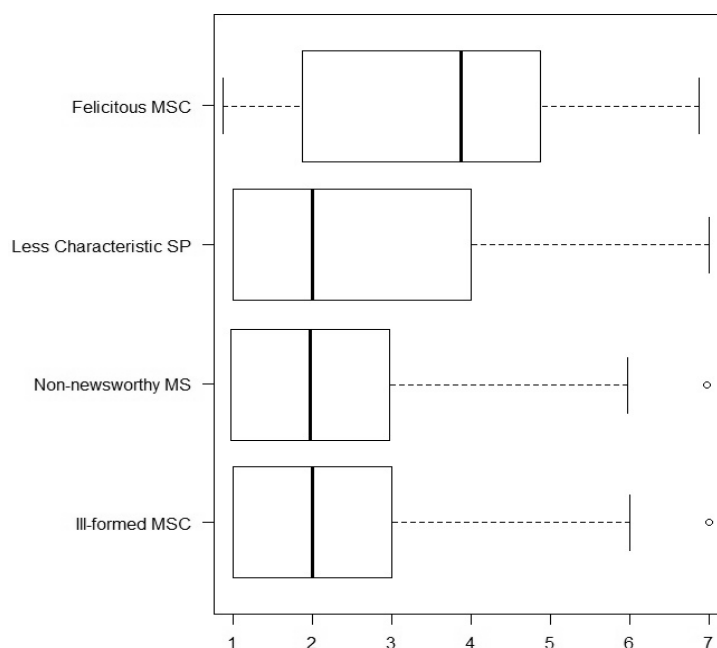


Figure 3. Acceptability by different conditions in MSC

A Friedman test revealed a significant effect of sentence type on Value ($\chi^2(3)=171.753, p < 0.01$). A post-hoc test using Mann-Whitney tests with Bonferroni correction showed the significant differences ($p < 0.05$) except the pair between Less Characteristic SP and Ill-formed MSC ($p=0.39$)⁸.

- iv) Finally, compared to the grammatical non-MSC (i.e., single subject construction) sentences, felicitous MSC sentences got significantly lower acceptability scores (non-MSC grammatical sentences: median = 7.0, felicitous MSCs: median = 4.0). This shows that the native speakers regard even well-formed MSC sentences less acceptable than grammatical sentences in single subject construction (i.e., non-MSC sentences). On the other hand, felicitous MSC sentences with both characteristic SP and newsworthy MS were significantly more

⁸ This pattern of result may suggest that newsworthiness of MS is more important than characteristic properties in the licensing of MSCs, given that the sentences with less characteristic SP obtained significantly higher mean acceptability scores than those with non-newsworthy MS.

acceptable than ungrammatical non-MSCs (i.e., single subject construction) sentences (felicitous MSC: median = 4.0, ungrammatical non-target sentences: median = 1.5). Therefore, we can say that though the native speakers treat MSCs less natural/acceptable than grammatical sentences in non-MSCs (single subject construction), when it comes to the comparison with totally ungrammatical single subject construction sentences, well-formed MSCs are regarded as significantly more natural, despite its complex structure representing multiple subjects in one sentence. The acceptability scores by grammatical vs. ungrammatical non-MSCs (i.e., single subject construction) are shown in Figure 4.

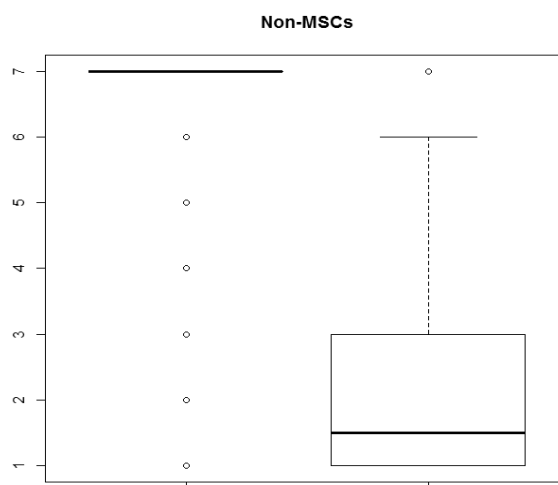


Figure 4. Acceptability by sentence type: Grammatical vs. ungrammatical non-MSCs sentences

The medians of Non-MSCs grammatical sentences (represented by the left boxplot in Figure 4) and Non-MSCs ungrammatical sentences (represented by the right boxplot in Figure 4) were 7.0 and 1.5, respectively. Conducting a Mann-Whitney's U test to evaluate the difference in the responses of our 7-Likert scale question found a significant effect of sentence type (The mean ranks of Non-MSCs grammatical and Non-MSCs ungrammatical were 6.67 and 4.25, respectively; $V = 405450$, $Z = -23.958$, $p < 0.001$, $r = -0.0955$).

In case of MSC sentences for comparison, the medians of Felicitous MSC (represented by the left boxplot in Figure 5) and Ill-formed MSC (shown by the right boxplot in Figure 5) were 4.0 and 2.0, respectively. A Mann-Whitney's U test to evaluate the difference in the responses of our 7-Likert scale question revealed a significant effect of sentence type (The mean ranks of Felicitous MSC and Ill-formed MSC were 4.25 and 2.04, respectively; $V = 582660$, $Z = 10.384$, $p < 0.001$, $r = 0.429$).

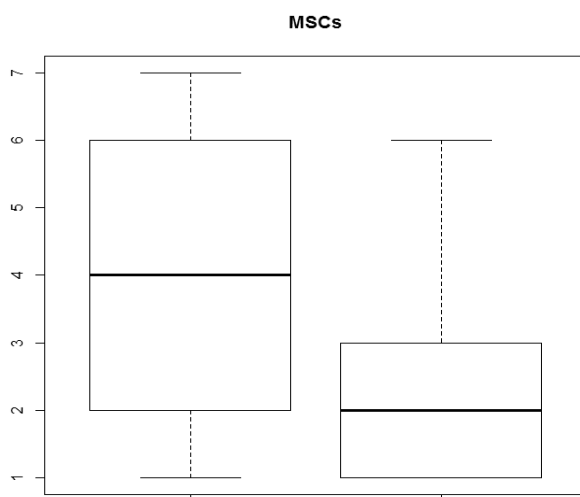


Figure 5. Acceptability by sentence type: Felicitous vs. ill-formed MSC sentences

4. Discussion and conclusion

The current study investigated whether Korean native speakers know the two interpretive properties of Korean Multiple Subject Constructions (MSCs). The main hypothesis and the predictions tested through the experiment were the following:

Hypothesis: Korean native speakers show their understanding of the two interpretive properties of MSCs (i.e., characteristic SP and newsworthy MS) in Korean.

Prediction 1) The MSC sentences where the NP1 (MS) does not take a characteristic SP will be considered less acceptable than those with characteristic SP.

Prediction 2) MSCs with non-newsworthy MS will be regarded as less acceptable than those with newsworthy MS.

The results of the acceptability task demonstrated that felicitous MSCs with both characteristic SP and newsworthy MS were treated more acceptable/natural than those with less characteristic SP, through which the first prediction is borne out. As for the newsworthiness condition of MSCs, the results showed that the MSCs with a non-newsworthy MS were considered less acceptable/natural than the felicitous MSCs containing a newsworthy MS. Therefore, second prediction is also borne out. In addition, in the case of ill-formed MSCs where both conditions are missing (i.e., non-characteristic SP and non-newsworthy MS), the felicity of MSCs was even more degraded. Such patterns of the results seem to give a strong support to the hypothesis in the present study.

Between the two interpretive conditions (i.e., characteristic SP and newsworthy MS), ‘newsworthiness’ condition seems to play more crucial role than the ‘characteristic’ condition. This can be shown from the pattern of the results that the MSCs with an SP that has characteristically less salient were considered more acceptable/natural than those with a non-salient (i.e., non-newsworthy) MS.

Then how can we explain this pattern of results? Yoon (2009) explained that SPs denoting non-characteristic properties can sometimes become more felicitous, especially in the particular context of MS being mentioned. In this case, the non-characteristic property they denote can serve to characterize the MS in certain context or discourse. For example, the sentence in (10b) is not as felicitous as (10a), since the SP in (10b) ‘(Cheli’s) mother fell yesterday’ does not make enough characteristic property of *Cheli* compared to that of (10a); this may be the reason some speakers rejected (10b). However, if (10b) is presented as an answer to a question as in (10c), those speakers will regard (10b) as more acceptable.

- (10) a. Cheli-ka emeni-ka acey tolakassiessta
 Cheli-NOM mother-NOM yesterday passed away
 ‘It is Cheli whose mother passed away yesterday.’

- b. ?#Cheli-ka emeni-ka acey nemecisiessta
 Cheli-NOM mother-NOM yesterday fell
 ‘It is Cheli whose mother fell yesterday.’
- c. Nwu-ka emeni-ka acey nemecisiess-ni?
 who-NOM mother-NOM yesterday fell-QUESTION
 ‘Whose mother fell down yesterday?’

Yoon (2009) explains that the contextual manipulation made the property of SP ‘ $\lambda x[x$ ’s mother fell down yesterday]’ contextually salient, with which speakers can use the SP as the predicate of the MS. Though the current experiment did not present a question like the one in (10c), it is possible that some pragmatically flexible participants in the current study might have obtained similar interpretations of the non-characteristic SPs by imagining particular situations or contexts while reading the given type of sentences.

On the other hand, as shown in the previous examples in (7a-c), repeated here in (11a-c), newsworthiness can also be context-dependent. While the sentence (11b) containing non-newsworthy first NP with no contextual information is bad compared to (11a), the sentence in (11c) with additional NP *ku thim-eyse-nun* ‘in that team’, which contextualizes the MS *khi* ‘height’, seems to be more felicitous.

- (11) a. Cheli-ka (MS) [SP khi-ka (GS) khuta]
 Cheli-NOM height-NOM tall
 ‘It is Cheli whose height is tall.’
- b. *?Khi-ka (MS) [SP Cheli-ka(GS) Khuta]
 height-NOM Cheli-NOM tall
 ‘?It is height that Cheli is tall(?)’
- c. (Ku thim-eyse-nun) Khi-ka (MS) [SP Shaquille O’Neal-i (GS) ceyil
 That team-among-TOP height-NO Shaquille-NOM most
 khuta]
 tall
 ‘(In that team), speaking of height, Shaquille O’Neal is the tallest.’

However, the participants in the present study were not given any specific contextualizing information in the experiment and had just to evaluate the sentences

like (11b). This probably made them not context-dependent at all. Therefore, more in-depth examination and discussion should be done in the follow-up experimental study, which should include test items with contextual information for both of the properties. Such experimental study will be able to explain if the current conclusion can be extended to more general findings or such pattern of results was obtained just because of the nature of the task used in the current experiment.

The current experimental study seems to imply that the notion of MSCs in Korean is real in the knowledge of Korean native speakers. Also, though looking very subtle, the two interpretive properties of MSCs such as characteristic SP and newsworthy MS seem to be represented in the knowledge of the native speakers. For the future research, it remains to be seen how some syntactic properties of Major Subject (MS) other than having nominative markings (i.e. MS properties different from GS, such as what can be seen in Korean subject diagnostics) explain MSCs in Korean.

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Appendix.

List of MSC Target Sentences in the Experiment

Type 1 (+SP, +CH, +NW)

- 1 철이가 머리가 아주 똑똑하다
- 2 철이가 아버지가 인천에서 제일 부자이다
- 3 서울대학교가 교수들이 근처에 많이 산다
- 4 영희가 동생이 아주 예쁘게 생겼다
- 5 영희가 언니가 반에서 제일 크다

Type 2 (+SP, +CH, -NW)

- 6 머리가 철이가 아주 똑똑하다
- 7 아버지가 철이가 인천에서 제일 부자이다
- 8 교수들이 서울대학교가 근처에 많이 산다
- 9 동생이 영희가 아주 예쁘게 생겼다
- 10 언니가 영희가 반에서 제일 크다

Type 3 (+SP, -CH, +NW)

- 11 철이가 머리가 어제 한 시간 동안 아팠다
- 12 철이가 아버지가 방금 회사에 가셨다
- 13 서울대학교가 철이가 근처에 산다
- 14 영희가 동생이 어제 남자친구를 만났다
- 15 영희가 언니가 반에서 어제 쓰러졌다

Type 4 (+SP, -CH, -NW)

- 16 철이가 어떤 머리가 한시간 동안 아팠다
- 17 철이가 어떤 아버지가 방금 회사에 가셨다
- 18 서울대학교가 어떤 학생이 근처에 산다
- 19 영희가 어떤 동생이 어제 남자친구를 만났다
- 20 영희가 어떤 언니가 반에서 어제 쓰러졌다

List of Non-target Sentences

Type 5: ill-formed MSC sentences (without legitimate SP)

- 21 철이가 동수가 작은 집에 산다
- 22 철이가 영희가 아버지가 부자다
- 23 철이가 동수가 성적이 아주 높다
- 24 철이가 동수가 어떤 집에 산다
- 25 철이가 영희가 어떤 동생이 부자다
- 26 철이가 동수가 어떤 성적이 높다
- 27 서울대학교가 숭실대학교가 아주 부자학교다
- 28 서울대학교가 숭실대학교가 예쁜 여학생이 많다
- 29 서울대학교가 숭실대학교가 위치가 아주 좋다
- 30 서울대학교가 서강대학교가 어떤 학생이 다닌다.
- 31 서울대학교가 서강대학교가 어떤 학생이 죽었다
- 32 서울대학교가 서강대학교가 어떤 과목이 없어졌다

Type 6: non-MSC sentences (similar structure as targets but with non-nominative first NP)

- 33 철이의 머리가 아주 똑똑하다
- 34 철이의 아버지가 인천에서 제일 부자이시다
- 35 서울대학교의 교수들이 근처에 많이 산다
- 36 영희의 동생이 아주 예쁘게 생겼다
- 37 영희의 언니가 반에서 제일 크다
- 38 머리는 철이가 아주 똑똑하다
- 39 아버지는 철이가 인천에서 제일 부자이시다
- 40 교수들은 서울대학교가 근처에 많이 산다
- 41 동생은 영희가 아주 예쁘게 생겼다
- 42 언니는 영희가 반에서 제일 크다
- 43 철이의 머리가 어제 한 시간 동안 아팠다
- 44 철이의 아버지가 방금 회사에 가셨다
- 45 서울대학교의 철이가 근처에 산다
- 46 영희의 동생이 어제 남자친구를 만났다
- 47 영희의 언니가 반에서 어제 쓰러졌다
- 48 철이의 어떤 머리가 한 시간 동안 아팠다

- 49 철이의 어떤 아버지가 방금 회사에 가셨다
- 50 서울대학교의 어떤 학생이 근처에 산다
- 51 영희의 어떤 동생이 어제 남자친구를 만났다
- 52 영희의 어떤 언니가 반에서 어제 쓰러졌다

Type 7: Bad/ungrammatical non-MSC sentences

- 53 철이의 동수가 작은 집에 산다
- 54 철이의 동수가 성적이 아주 높다
- 55 철이의 동수가 어떤 집에 산다
- 56 철이의 동수가 어떤 성적이 높다
- 57 서울대학교의 숭실대학교가 아주 부자학교다
- 58 서울대학교의 숭실대학교가 위치가 아주 좋다
- 59 서울대학교의 서강대학교가 어떤 학생이 죽었다
- 60 서울대학교의 서강대학교가 어떤 과목이 없어졌다

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