

- b. John-i **Mary-ekey** **phal-ey**³ cwusa-lul noh-ass-ta. (MDC)
 John-NOM Mary-DAT arm-DAT injection-ACC put-PAST-DEC
 ‘John gave an injection to Mary in the arm.’
- c. **John-i** **emeni-ka**⁴ uysa-i-si-ta. (MNC)
 John-NOM mother-NOM doctor-COP-HON-DEC
 ‘It is John whose mother is a doctor.’

As well documented in the literature, Korean EPCs present several problems to syntax or the syntax-semantics interface. In particular, they pose a recalcitrant problem to Case theory, as the number of structural cases occurring in them and the number of suitable Case licensors do not match.

This paper is an attempt to offer a new and a relatively unified account of the EPCs in Korean. More specifically, it aims to provide answers to the following questions:

- (i) What is the source of the extra Cases in each type of EPC in Korean?
- (ii) What are the grammatical statuses of the bold-faced elements in (2)?
- (iii) Are there any constraints on the EPCs in Korean? If so, what are they?

In section 2, I introduce a set of problems that Korean EPCs present to any theory of syntax or semantics, synthesizing what has been said about them in the literature. In section 3, I offer a new syntactic analysis of Korean EPCs, which is similar to but also differs from what authors like Yoon (1989) have proposed. In this section, building on the insights of Schütze (1996) and Sohn (1994), I first propose an analysis under which the extra “Cases” in each EPC are treated as focus markers. I then explain the linear order restriction on PRs and their PMs, as well as some other restrictions imposed on PMs. In section 4, I discuss the semantics of Korean EPCs, proposing a possible formal semantic analysis which resorts to type-shifting of the sentential predicate of an EPC. This will be followed by identifying semantic restrictions on Korean EPCs. In this process, I show that Korean MACs cannot be fully accounted for without considering some pragmatic or cognitive factors as has been noted in the literature (e.g., Yoon 1989; Yeon 1999); however, I will add some new observations to the phenomena at hand as well. Finally, section 5 concludes the paper, briefly reviewing the proposed analysis in comparison with previous analyses, addressing some remaining issues.

2 Problems posed by Korean EPCs

In this section, I present problems posed by Korean EPCs which have been discussed in the literature.

³ The case particle *-ey* in Korean is also used as a locative case marker. But Maling and Kim (1992: 43) analyze it as a dative marker, based on the fact that *-eykey* and *-ey* are in complimentary distribution depending on the animacy of the nominal they combine with: *-eykey* always occurs with animate nouns whereas *-ey* occurs with inanimate ones. In this paper, following their analysis, I take these two case particles as “allomorphs” of the same morpheme, i.e., a dative case particle.

⁴ Korean has three morphophonemic variants of the nominative case particle, *-i*, *-ka*, and *-ika*, and the choice among them is determined by the pronunciation of the nominal the particle combines with.

2.1 No restriction on the number of PM arguments

As noted by numerous authors (Choe 1987; Kim 1989, 1990; Yoon 1989, 1990; Maling and Kim 1992; Cho 1998, among others), there is in principle no limit to the number of PM arguments that can appear in Korean EPCs, provided that two adjacent NPs stand in a PR and PM relationship. This is illustrated in (3). Here, the first nominal is the PR of the next nominal, which is in turn the PR of the following nominal, and so on and so forth. Notably, there is an intonational break between the PR and PM nominals, as indicated by commas, though I will not indicate this in the data that appear after (3) in order to abstract away from any role such pauses may play in analyzing the syntax and semantics of EPCs in Korean. Given this, the reader should read all the sentences instantiating the EPCs in Korean presented below positing a pause after each PR nominal.

- (3) a. John-i **Mary-lul, phal-ul, oynccok-ul, kkuth-ul** ttayli-ess-ta.
 John-NOM Mary-ACC arm-ACC left-ACC end-ACC hit-PAST-DEC
 ‘John hit Mary on the left end of the arm.’
- b. John-i **Mary-ekey, phal-ey, oynccok-ey, kkuth-ey** cwusa-lul
 John-NOM Mary-DAT arm-DAT left-DAT end-DAT injection-ACC
 non-ass-ta.
 put-PAST-DEC
 ‘John gave an injection to Mary in the left end of the arm.’
- c. John-i **emeni-ka, kohyang-i** seoul-i-si-ta.
 John-NOM mother-NOM hometown-NOM Seoul-COP-HON-DEC
 ‘It is John whose mother’s hometown is Seoul.’

2.2 Fixed linear order between a PR and a PM

In Korean EPCs, a PR must occur preceding its PM, as shown in (4)-(5).

- (4) a. John-i **Mary-lul phal-ul** ttayli-ess-ta. (PR > PM)
 John-NOM Mary-ACC arm-ACC hit-PAST-DEC
 ‘John hit Mary on the arm.’
- b. *John-i **phal-ul Mary-lul** ttayli-ess-ta. (PM > PR)
 Intended: ‘John hit Mary on the arm.’
- (5) a. John-i Mary-lul **phal-ul kkuth-ul** ttayli-ess-ta. (PR > PM)
 John-NOM Mary-ACC arm-ACC end-ACC hit-PAST-DEC
 ‘John hit Mary on the end of her arm.’
- b. *John-i Mary-lul **kkuth-ul phal-ul** ttayli-ess-ta. (PM > PR)
 Intended: ‘John hit Mary on the end of her arm.’

Based on data like (4)-(5), one may suspect that in each EPC, the PR and the PM form a single nominal constituent (and there is some sort of Case spreading happening between them). But the data in (6) show that they do not; if they did, adverbs and other types of adverbials should not occur intervening between them.

(6) Intervention by a manner adverb:

- a. John-i Mary-lul phal-ul **seykey** ttayli-ess-ta.

- John-NOM Mary-ACC arm-ACC hard hit-PAST-DEC
 b. John-i Mary-lul **seykey** phal-ul ttayli-ess-ta.
 John-NOM Mary-ACC hard arm-ACC hit-PAST-DEC
 ‘John hit Mary hard on the arm.’

(7) Intervention by a temporal adverbial:

- a. John-i **ecey** Mary-lul phal-ul ttayli-ess-ta.
 John-NOM yesterday Mary-ACC arm-ACC hit-PAST-DEC
 b. John-i Mary-lul **ecey** phal-ul ttayli-ess-ta.
 John-NOM Mary-ACC yesterday arm-ACC hit-PAST-DEC
 ‘Yesterday John hit Mary on the arm.’

(8) Intervention by a locative adverbial:

- a. John-i Mary-lul phal-ul **kyosil-eyse** ttayli-ess-ta.
 John-NOM Mary-ACC arm-ACC classroom-in hit-PAST-DEC
 b. John-i Mary-lul **kyosil-eyse** phal-ul ttayli-ess-ta.
 John-NOM Mary-ACC classroom-in arm-ACC hit-PAST-DEC
 ‘John hit Mary on the arm in the classroom.’

2.3 Case (dis)agreement between PRs and PMs

Several authors have claimed that a PR and its PM in a Korean EPC must agree in Case (e.g., Chun 1985; Choe 1987; Kim 1989, 1990; Yoon 1989, 1990; Cho 1998; Nakamura 1999). However, Maling and Kim (1996) have pointed out that this is not necessarily the case. To illustrate, (9c) shows that even when the Cases of the PR and the PM differ from each other, the sentence is still judged to be grammatical; in fact, (9c) is judged better than (9b), which exemplifies Case Agreement.

- (9) a. John-i **Mary-ekey** **phal-ey** cwusa-lul noh-ass-ta.
 John-NOM Mary-DAT arm-DAT injection-ACC put-PAST-DEC
 b. ?John-i **Mary-lul** **phal-lul** cwusa-lul noh-ass-ta.
 John-NOM Mary-ACC arm-ACC injection-ACC put-PAST-DEC
 c. John-i **Mary-lul** **phal-ey** cwusa-lul noh-ass-ta.
 John-NOM Mary-ACC arm-DAT injection-ACC put-PAST-DEC
 ‘John gave an injection to Mary in the arm.’

Notably, similar facts obtain in ECM constructions in Korean, where the subject of the embedded clause is raised to the object position of the matrix clause, surfacing with an accusative case (ACC) marking as a result, as exemplified in (10).⁵

- (10) John-i **May-lul** **elkwul-i** yeppu-ta-ko sayngkakha-n-ta.
 John-NOM Mary-ACC face-NOM be.pretty-IND-COMP think-IMPRF-DEC
 ‘John thinks of Mary that she has a pretty face.’

In this example, the PR *Mary* and the PM *elkwul* surface without agreeing in Case. If Case agreement is indeed one of the defining characteristics of Korean EPCs, then the data in

⁵ I thank Ellen Woolford for suggesting that I look at this type of data.

(9)-(10) cannot be explained. Hence, a more accurate description of the Case phenomenon in Korean EPCs seems to be that the PR and the PM do not have to agree in Case, though they often do.

2.4 The grammatical statuses of the PR and PM

In the literature, it has been reported that there is an asymmetry between a PR and its PM that occur in a Korean EPC with regard to their grammatical status (e.g., Kim 1989, 1990; Yoon, 1989, 1990; Kitahara 1993; Cho 1998; Yoon 1998): the PR behaves like an ordinary core grammatical element in that it can undergo (i) scrambling, (ii) relativization, and (iii) passivation. In contrast, the PM acts like a non-core grammatical element in that it fails all such diagnostics for argument hood. To see this, compare the (a) and the (b) sentences in (11)-(13).

(11) Scrambling:

- a. **Mary_i-lul** John-un *t_i* phal-ul ttayli-ess-ta. (PR)
 Mary-ACC John-TOP arm-ACC hit-PAST-DEC
 ‘John hit Mary on the arm.’
- b. ***phal_i-ul** John-un Mary-lul *t_i* ttayli-ess-ta. (PM)
 arm-ACC John-TOP Mary-ACC hit-PAST-DEC
 Intended: ‘John hit Mary on the arm.’

(12) Relativization:⁶

- a. [John-i *t_i* phal-ul ttayli]-n **Mary_i-nun** ... (PR)
 [John-NOM arm-ACC hit]-REL Mary-TOP
 ‘Mary, who John hit on the arm, ...’
- b. *[John-i Mary-lul *t_i* ttayli]-N **phal_i-un** ... (PM)
 [John-NOM Mary-ACC hit]-REL arm-TOP
 Intended: ‘Mary, who John hit on the arm, ...’

(13) Passivizability:

- a. **Mary-ka** John-eykey phal-ul mac-ass-ta.⁷ (PR)
 Mary-NOM John-by arm-ACC get.hit-PAST-DEC
 ‘Mary got hit on the arm by John.’
- b. *Mary-ka John-eykey **phal-i** mac-ass-ta. (PM)
 Mary-NOM John-by arm-NOM get.hit-PAST-DEC
 Intended: ‘Mary got hit on the arm by John.’

When it comes to passivization, however, the facts are not so cut and dried. As Maling and Kim (1992: 50) note, for reasons not so well understood at this point, it is sometimes possible to passivize a PM. This is illustrated in (14), which is adapted from Maling and Kim (1992: 50, ex. (26)-(27)).

- (14) a. Ku ai-ka John-eykey **pal-i/lul** palp-hi-ess-ta. (PM)

⁶ For simplicity, I assume a head raising analysis of Korean externally headed relative clauses here but adopting an operator movement analysis will not make any difference in appreciating the paradigm.

⁷ Note that *mac-* ‘to get hit’ is a lexically passive verb.

- that child-NOM John-by foot-NOM/ACC stomp-PASS-PAST-DEC
 Intended: ‘The child was stomped on the foot by John.’
- b. Ku namwu-ka **kaci-ka/*lul** cal-li-ess-ta. (PM)
 that tree-NOM branch-NOM/ACC cut-PASS-PAST-DEC
 Intended: ‘That tree’s branches were trimmed, not a different one.’

The above data show that PMs *can* be passivized, or passivization is sometimes even necessary for them, as it appears to be the case in (14b). If this is an accurate generalization of the facts, then it can be taken to suggest that some PMs in EPCs do not entirely lack an argument status.

Further evidence for the partly argument-like status of PMs comes from the fact that an external possession sentence may become ungrammatical if the PM is omitted. To see this, consider (15)-(16).

(15) MAC:

- a. John-i **Mary-lul** *(**phal-ul**) pule-ttuli-ess-ta.
 John-NOM Mary-ACC (arm-ACC) break-CAU-PAST-DEC
 Intended: ‘John broke Mary’s arm.’
- b. John-i **Mary-lul** *(**os-ul**) ccic-ess-ta.
 John-NOM Mary-ACC (clothes-ACC) tear.apart-PAST-DEC
 Intended: ‘John tore Mary’s clothes.’

(16) MNC:

- a. **John-i** *(**meli-ka**) coh-ass-ta.
 John-NOM (head-NOM) be.good-PST-DEC
 Intended: ‘John is smart.’ (More literally: ‘John’s brain is good.’)
- b. (Context: Out of the blue)
Mary-ka *(**mok-i**) kil-ta.
 Mary-NOM (neck-NOM) be.long-DEC
 Intended: ‘Mary has a long neck.’
- c. **Mary-ka** *(**emeni-ka**) tolaka-si-ess-ta.
 Mary-NOM (mother-NOM) pass.away-HON-PAST-DEC
 Intended: ‘It is Mary whose mother passed away.’

2.5 The categorial status of PMs

Several authors, in particular, Kim (1989), Yoon (1989), Cho (1998), and Yoon (1998), have argued that PMs occurring in Korean EPCs are non-referential constituents, so they cannot be modified or extracted. On this basis, Yoon (1989) claims that PMs are N-bar-level species. However, I would like to challenge such a treatment by drawing the reader’s attention to the following data:

- (17) a. John-i Mary-lul [[t₁ **tachi**]-n **phal₁**]-ul ttayli-ess-ta.
 John-NOM Mary-ACC [[___ injured]-REL arm]-ACC hit-PAST-DEC
 ‘John hit Mary on the injured arm.’⁸

⁸ Some Korean speakers may find (17a) to be marginally acceptable but this sentence becomes perfectly grammatical if *Mary* is replaced by *na* ‘I-ACC’, as shown below:

- b. John-i Mary-lul [ku [t₁ sangchena]-n kos₁]-ul
 John-NOM Mary-ACC [that [__ scratched]-REL part]-ACC
 kkocip-ess-ta.
 pinch-PAST-DEC
 ‘John pinched Mary on that scratched/wounded part of her body.’
- c. Ku cha-ka [motun pakhwy]-ka kocangna-ss-ta.
 that car-NOM [every wheel]-NOM break.down-PAST-DEC
 ‘It is that car whose wheels are all broken.’

The data in (17) are illuminating in several respects. First, both (17a) and (17b) exemplify that PMs in Korean EPCs *can* be modified by relative clauses. Second, (17b) shows that PMs can be “closed off” by a determiner if demonstratives in Korean are determiners, as standardly assumed in the literature (e.g., Sohn 1994). Third, (17c) illustrates that PMs can be even quantificational. Taken together, these facts suggest that PMs are better analyzed as full DPs, rather than N-bar-level intermediate categories, contra authors like Yoon (1989, 1990) and Yoon (1998).

Before closing this section, I would like to add one additional argument for the DP status of PMs. In the standard Case theory (e.g., Chomsky 1995), only full DPs can surface with a Case-marking on them. Crucially, PMs in Korean EPCs *do* surface with what appears to be a Case-marker on them. Hence, there is yet another reason to rethink an intermediate category analysis of them.

2.6 Summary

In this section, I have outlined several notable properties of Korean EPCs, which can be summarized as follows:

- (18) Problems presented by Korean EPCs:
- (i) In Korean EPCs, extra nominals can occur, beyond the number of arguments the lexical predicate of the sentence can ordinarily take, *if* they stand in a PR and a PM relation.
 - (ii) It is not necessary for a PR and its PM to agree in Case.
 - (iii) Even though Korean is a relatively free word order language, a PR and its PM always occur in ‘PR > PM’ order, but they need not occur adjacent to each other.
 - (iv) Between a PR and its PM, the former behaves more like a true argument of the sentential predicate, but the latter also exhibits some argument-like behavior.
 - (v) Just like their PRs, PMs can be modified by relative clauses, demonstratives, and quantificational determiners.

-
- (i) John-i na-lul [[t₁ tach₁]-n phal₁]-ul ttayli-ess-ta.
 John-NOM I-ACC [[__ injured]-REL] arm-ACC] hit-PAST-DEC
 ‘John hit me on the injured arm.’

I suspect that some cognitive or pragmatic factor such as *point of view* may be responsible for the difference between (17a) and (i), if there is any grammaticality difference between them at all, although verifying this idea must be left for future research.

Having introduced these problems, in the next section, I focus on the following more syntactically oriented questions:

- (19) More specific questions to be addressed in the next section:
- (i) What is the source of the “extra” Cases that are borne by PMs or PRs?
 - (ii) Why do a PR and its PM sometimes disagree in Case?
 - (iii) Why is there a fixed linear order between a PR and its PM?
 - (iv) Why are there restrictions on the extraction and passivization of PMs?
 - (v) What is the syntactic structure of each type of EPC?

3 The syntax of Korean EPCs

In this section, I first take up the Case related problems. I then account for why there should be syntactic restrictions on PMs. Finally, I propose new syntactic structures for each type of Korean EPCs by treating *some* PMs as DP *complements* of the sentential predicates.

3.1 How to account for the multiple “Case” phenomena?

Following Schütze (1996) and Sohn (1994), I argue that some of the occurrences of seemingly structural case particles in EPCs are actually *focus* markers. I offer three arguments for this analysis.

The first argument comes from the fact that, in an EPC, a PR and its PM do not have to agree in Case, as we have observed in (9c) and (10). If the particles they bear are Case markers, then we must stipulate that a PR and its PM of an EPC always agree in Case, as has been suggested by Kim (1989, 1990). But if we impose any type of Case concord restriction on them, then we cannot account for *when* they must agree in Case and when not. On the other hand, if we treat *-i/ka* and *-ul/-lul* in Korean as ambiguous between Case markers and focus markers as argued by Schütze (1996: 357), then we can more readily account for seemingly problematic data like (9c) and (10). In brief, under an analysis that follows Schütze (1996), a PR and its PM need not agree in Case because while one of them bears a structural case (Case) marker, the other actually bears a focus marker.

The second argument for treating some of the “Case” markers occurring in Korean EPCs as focus markers comes from data like (20).

- (20) a. **John-i emeni-ka kohyang-i seoul-i-si-ess-ta.**
 John-NOM mother-NOM hometown-NOM Seoul-COP-HON-PAST-DEC
 ‘It was John whose mother’s hometown was Seoul.’
- b. **John-i Mary-lul phal-ul cwungkan-ul cap-ass-ta.**
 John-NOM Mary-ACC arm-ACC middle-ACC grab-PAST-DEC
 ‘John grabbed Mary in the middle of her arm.’

In (20a), three nominals occur bearing what appears to be a nominative case (NOM). However, in generative grammar, a tensed INFL or a finite T can license just one NOM (see, e.g., Haegeman 1994; Chomsky 1995), so the source of such “extra” NOMs remains a mystery. Similarly, in (20b), three nominals occur bearing what appears to be an ACC, but a transitive verb can assign maximally two ACCs even if we assume a VP shell structure, following Larson (1988), so at least one of the “extra” ACCs is unaccounted for. On the other hand, if we assume that, except for one, all occurrences of structural cases in

(20a) or (20b) are focus particles which happened to be homophonous with a NOM or an ACC particle, then we don't have to change anything about how Case licensing is done.

That said, in order to provide additional support for an ambiguity analysis of NOMs or ACCs in Korean EPCs, we need to first decide which of the three nominals in (20a) or (20b) is the true argument of the sentential predicate. According to my intuition, in (20a), the true argument of the sentential predicate is *kohayng* 'hometown' because the predicate's meaning holds true of it. And since the copula occurs with a past tense morpheme on it, we can assume that this sentence contains a finite INFL, which assigns NOM to this nominal.

In view of these considerations, then, the other extra NOMs in (20a) cannot be NOMs. More concretely, the particle *-i*, which occurs on the first nominal *John*, is construed as a focus marker, and this agrees with Korean speakers' intuition that this nominal carries an identificational focus meaning. As for the *-ka* marking on the second nominal *emeni*, it cannot be a Case marker either because the only NOM that the tensed INFL can assign is already absorbed by *kohyang*. Therefore, if we posit that what appears to be a Case particle in Korean can only be two-ways ambiguous, that is, it is either a Case particle or a focus particle, then the *-ka* that occurs on *emeni* must be a focus particle as well. And this agrees with Korean speakers' intuition that this nominal is part of all new information.

The last argument for treating some of the "Case" particles in Korean EPCs as focus particles comes from so-called case stacking phenomenon. To see this, first consider (21).

- (21) a. **Yelsoy-ka na-hanthey(-ka) iss-ta.**
 key-NOM I-LOC(-NOM) exist-DEC
 'It is me who has the key.' (Lit.: 'To me, the key exists.')
- b. Na-nun **Mary-lul han sikan-tongan(-ul) manna-ss-ta.**
 I-TOP Mary-ACC one hour-DUR(-ACC) meet-PAST-DEC
 'I met Mary for an hour (as opposed to two hours)' or 'It was Mary that I met for an hour.'
- c. John-i **mwulkoki-lul sey-mali-lul cap-ass-ta.**
 John-NOM fish-ACC three-CL(-ACC) catch-PAST-DEC
 'John caught three fish (as opposed to two).' or 'It is worth noting that John caught *three* fish.'

Notably, the relative order between these stacked "cases" is fixed, as shown in (22): the oblique case particle must occur *preceding* what appears to be a structural case particle.

- (22) a. *Yelsoy-ka **na-ka-hanthey iss-ta.** (NOM < LOC)
 key I-NOM-DAT exist-DEC
 Intended: 'It is me who has the key.'
- b. *Na-nun Mary-lul han **sikan-ul-tongan manna-ss-ta.** (ACC < DUR)
 I-TOP Mary-ACC one hour-ACC-DUR meet-PAST-DEC
 Intended: 'I met Mary for an hour (as opposed to two hours).'

I take these empirical facts to suggest that the *-ka* and the *-lul* which occur on the second nominals of (21a) and (21b) are focus markers, rather than Case markers, as

reflected in the English translations of the sentences. I further argue that, in addition to NOM and ACC markers, the dative (DAT) marker in Korean can function as a focus marker, though it is not a purely structural case marker. Therefore, under the present analysis, MACs, MNCs, and MDCs all receive similar treatments.

At this point, the reader may wonder whether it is possible to make a generalization about under what circumstances *-i/ka* (i.e., NOM) is chosen over *-ul/lul* (i.e., ACC) when they occur functioning as focus markers. Schütze (1996) addresses this issue and offers the following generalization:

- (23) The *-ka* versus *-lul* focus-marking (Schütze 1996: 363):
 i) *-lul* focus-marks an object of a transitive V.
 ii) Otherwise, *-ka* marks a focused element, being the default focus marker.

What Schütze (1996) offers is elegant, but it raises the question of why Case stacking of two NOMs, two ACCs, or a stacking of a NOM over an ACC or vice versa, does not occur in Korean, where one is a structural case marker and other is a focus marker. Given this, I would like to offer the following constraint on Korean cases.

- (24) In Korean, structural case markers are overridden by a focus marker, but oblique case markers are not.

Under the analysis I have just proposed, then, Korean EPCs are predicted to be ambiguous. And this prediction is borne out, as the differing English glosses and translations for the seemingly string-identical sentence in (25) show. (Here and below, capitalization indicates focal stress.)

- (25) a. John-i **Mary-lul** **phal-ul** ttayli-ess-ta.
 John-NOM Mary-FOC phal-FOC hit-PAST-DEC
 ‘John hit Mary on the arm.’
 b. John-i **MARY-lul** **phal-ul** ttayli-ess-ta.
 John-NOM Mary-FOC phal-ACC hit-PAST-DEC
 ‘It is Mary that John hit on the arm.’
 c. John-i **Mary-lul** **PHAL-ul** ttayli-ess-ta.
 John-NOM Mary-ACC phal-FOC hit-PAST-DEC
 ‘It is on the arm that John hit Mary.’
 d. Context: In response to someone saying that John hit Sue on the head
 (Ani.) John-i **MARY-lul** **PHAL-ul** ttayli-ess-e.
 No. John-NOM Mary-FOC phal-FOC hit-PAST-DEC.INFRML
 ‘(No,) John hit Mary (not Sue), and it was on the arm (not on the head).’

Since Korean is a multiple focus language (Choe 1995), the fact that (25d) contains two different focused nominal constituents is not surprising. But I should note that this sentence has a different prosody than (25a) and therefore carries a different type of focus meaning as well. In this context, let me also remark that, unlike (25d), (25a) is uttered in an out-of-the blue context and the two *-lul*-marked nominals occurring in it are construed

as part of all new information. This shows that prosody plays an important role in focus marking in Korean, though I cannot address the role of prosody in this paper.

3.2 Accounting for syntactic restrictions on PMs

In section 2.5, I suggested that PMs in Korean EPCs are full DPs rather than N-bar-level categories. But a full DP analysis of PMs is afflicted by the fact that (i) they cannot be extracted, (ii) they must occur following their PRs, and (iii) they are not readily passivizable, as we have seen above.

I claim that the first two restrictions come from the same source: a PM must be both syntactically and semantically linked to its PR. Thus, I posit (26) as a construction-specific binding condition for PMs.⁹

- (26) A PM that occurs in an EPC must be bound by its PR, where binding means co-indexation and c-command.

Under the present analysis, then, a more accurate gloss for the MAC in (25a) would be what is given in (27), where a PM and its PR bear the same index, and the PR nominal both precedes and c-commands the PM nominal.

- (27) John-i **MARY_i-lul** **phal_i-ul** ttayli-ess-ta.
 John-NOM Mary-FOC arm-FOC hit-PAST-DEC
 ‘John hit Mary_i on the_i arm.’

Assuming the constraint in (26), we can now begin accounting for some of the restricted syntactic behavior of PMs. For example, the extraction facts we have considered thus far suggest that PMs cannot be extracted. However, PMs *can* be extracted *if* they are extracted along with their PRs and the resulting order retains ‘PR > PM’, as shown in (28).

- (28) **MARY₁-lul**, **MELI₂-lul**, John-i *t*₁ *t*₂ ttayli-ess-ta.
 Mary-FOC head-FOC John-NOM ___ ___ hit-PAST-DEC
 Possible reading: ‘John hit Mary. Not only that, he hit her on the head.’
 (Implicature: It is noteworthy that he hit her (= Mary) on the head.)

In light of (28), we can conclude that, in Korean EPCs, movement of PMs can happen as long as the outcome adheres to what is stated in (26).

By the same reasoning, we can also account for the relativization facts: the reason why a PM in an EPC cannot be relativized is because, by virtue of occurring as the head noun of the RC, it will end up c-commanding the PR.

As to explaining the passivization facts, however, we need to resort to a slightly different mechanism, and this is the topic of the next subsection, to which we now turn.

3.3 The grammatical status of PMs and the syntactic structure of each type of EPC

Some previous work on Korean EPCs has treated PMs as nominal constituents of *chômeur* status; that is, they have lost their argument status in the process of possessor raising (e.g.,

⁹ In this paper, I cannot take up exactly how the binding of a PM by its PR is executed. Therefore, I leave this important task to future research.

Chun 1985). Contra such line of analysis, I have suggested, however, that there is reason to treat them as retaining their core grammatical status. In this section, I argue that some of them are indeed core grammatical elements: more specifically, they have the status of syntactic *complements* and some even have the status of *true arguments* of the sentential predicates.

Adopting Williams' (1994) Function Composition Hypothesis, and along the lines of the Theta-Binding Hypothesis by Speas (1990, Ch. 2), Yoon (1989, 1990) and Yoon (1998) have argued that, in a Korean EPC, the unsaturated argument of the relational NP is inherited by the verb that it combines with and as a result, in an MAC like (2a), a PR is theta-marked by its PM, not by the predicate of the sentence. In other words, what semantically licenses a PR is its PM, not the verb.

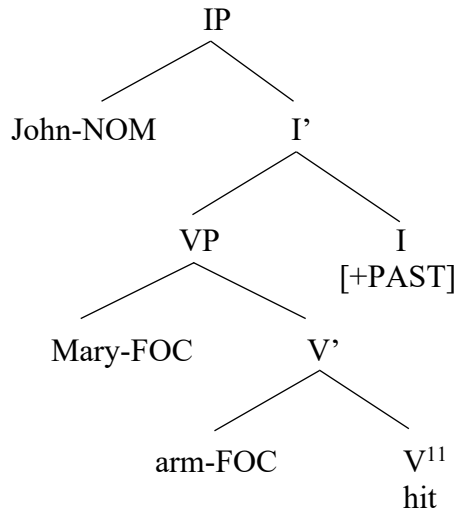
Building on their insights, yet approaching the matters from a slightly different angle, I propose that, in a Korean EPC, the lexical predicate of the sentence is capable of taking *one extra syntactic complement*, though its inherent argument structure stays the same. However, depending on the inherent argument structure of the lexical predicate, what functions as its true *internal argument* varies. In short, if the lexical predicate is a mono-transitive like *ttayli-ta* 'to hit', then the *highest* PR nominal that occurs inside the verb's maximal projection (i.e., VP) functions as its (direct) object; if the lexical predicate is an intransitive or an adjective like *yeppu-ta* 'to be pretty', then the *lowest* PM nominal that occurs sister to the predicate functions as its true internal argument.

In the end, the syntactic analysis I offer for Korean MACs will look similar to what authors like Yoon (1989, 1990) have proposed. However, it differs from the existing analyses in two crucial respects. First, it posits that the lexical predicate of an external possession sentence in Korean selects for *maximally two* syntactic DP *complements* inside the VP, namely, the highest PR and the lowest PM, and it takes *just one* DP *object*, namely, what occurs as the highest PR. Under the present analysis, then, some of the PR or PM nominals that occur in Korean EPCs will not be considered syntactic complements nor arguments of the lexical sentential predicate; rather, they will be considered syntactic adjuncts. Second, while the previous analyses mentioned above only discuss MACs, the present analysis deals with all three types of EPCs in Korean, giving them a relatively uniform account while capturing their differences at the same time.

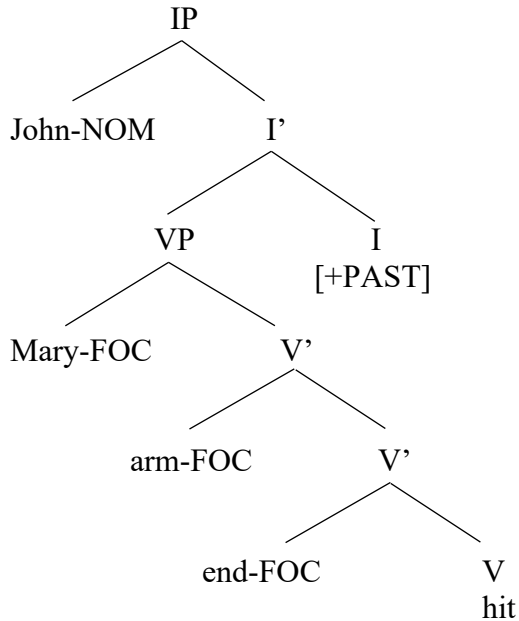
Revising Yoon's (1989, 1990) structural analysis of an MAC, and putting together the ideas outlined above, I thus propose that the syntactic structures of MACs look like what are schematically represented in (29a, b): the difference between (29a) and (29b) is that, while the former has two "ACC"-marked nominals, the latter has three. (Note: Here and below, for expository convenience, in the syntactic trees, I will use the English glosses for the Korean lexical or grammatical categories, and my trees will be highly simplified.¹⁰)

¹⁰ In addition, I will abstract away from how exactly syntactic features like Case are checked since, while important, such matters are somewhat orthogonal to our immediate concern in this paper. Besides, the reader can find a relatively sensible account in Schütze's (1996) and Choe's (1995) works.

- (29) a. Structure for MAC *John-i Mary-lul phal-ul ttayli-ess-ta* meaning ‘John hit Mary on the arm’:



- b. Structure for MAC *John-i Mary-lul phal-ul kkuth-ul ttayli-ess-ta* meaning ‘John hit Mary on the end of her arm’:

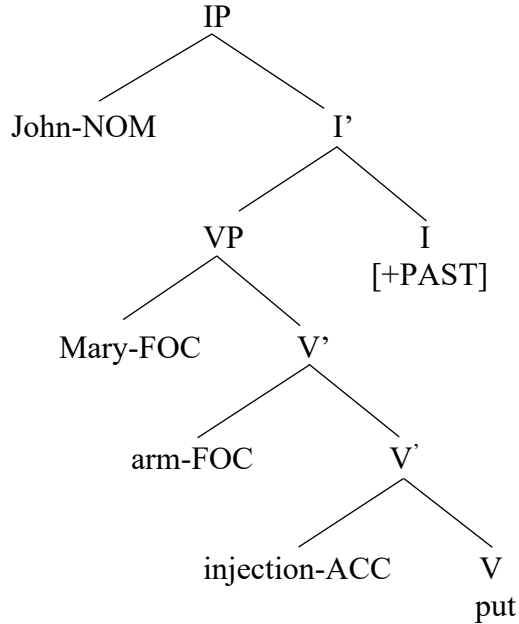


If this syntactic analysis is correct, then, in both (29a) and (29b), the verb *ttayli-ta* ‘to hit’ takes just one object, namely, *Mary-lul*. However, while it takes *phal-ul* and *Mary-lul* as its two syntactic complements in (29a), it takes *kkuth-ul* and *Mary-lul* as its two syntactic complements in (29b); that is, in (29b), *phal-ul* is an adjunct.

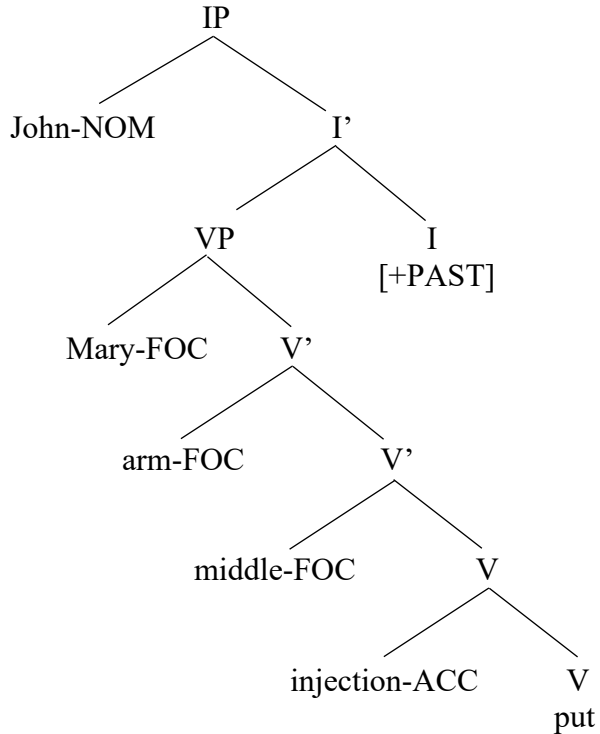
¹¹ Here and below, I will ignore the declarative mood marker *-ta* on the verb of each sentence. I will also assume that the verb later raises to I to bear the tense morphology.

Turning now to the syntax of MDCs, based on essentially the same set of assumptions as outlined above, I propose (30a, b) as the basic structures of some of the most commonly used MDCs in Korean.

- (30) a. Structure for MDC *John-i Mary-eykey phal-ey cwusa-lul noh-ass-ta* meaning ‘John gave an injection to Mary in her arm’:



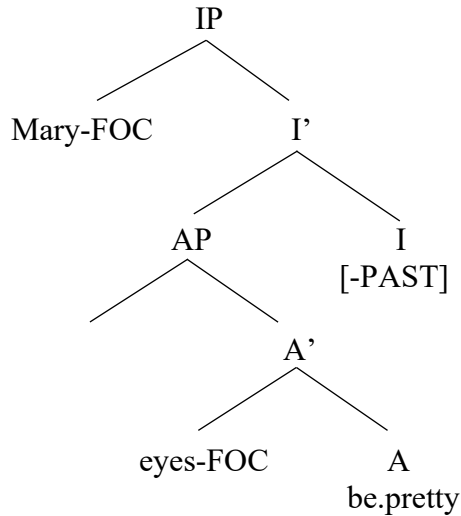
- b. Structure for MDC *John-i Mary-eykey phal-ey cwungkan-ey cwusa-lul noh-ass-ta* meaning ‘John gave an injection to Mary in the middle of her arm’:



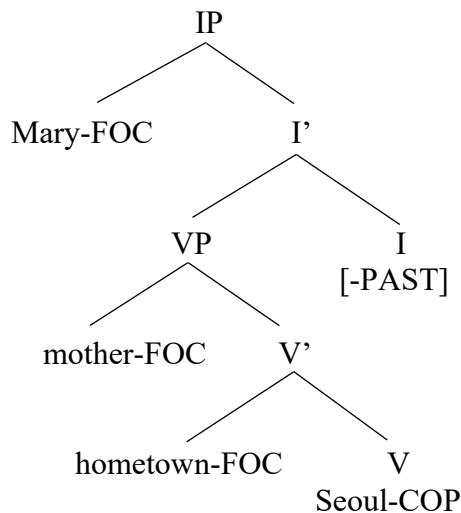
Notably, in (30a, b) too, *Mary* functions as the true DP object of the verb, though it is an indirect object, unlike in (29a, b). And this means that the other DAT-marked nominals, i.e., *phal-ey* and *cwungkan-ey*, are syntactic adjuncts.

Finally, turning to the syntax of MNCs: since MNCs always involve intransitive predicates or adjectives, under the analysis put forward here, they will have syntactic structures that are schematically represented in (31a, b), in which the complement to the adjective (A) or the copular verb (COP) functions as the true internal argument of the lexical predicate, rather than the higher nominal(s), *Mary* and/or *emma*.

(31) a. Structure for MNC *Mary-ka nwun-i yeppu-ta* meaning ‘Mary has beautiful eyes’:



b. Structure for MNC *Mary-ka emma-ka kohyang-i Seoul-i-ta* meaning ‘It is Mary whose mom’s hometown is Seoul’:



If these proposed syntactic analyses of Korean EPCs are on the right track, then the next task is to provide a semantic account that would be compatible with them. Doing so is one of the purposes of the next section, to which we now turn.

4 The semantics of Korean EPCs

In the previous section, I have proposed that, in Korean EPCs, both the highest PR and the lowest PM are syntactic complements of the sentential predicate. In addition, I have provided the syntactic templates for the three types of Korean EPCs. But numerous issues are still left open. First, what is special about the predicates that occur as the sentential predicates in an EPC? Second, how does the thematic role assignment work? Third, is there any constraint on Korean EPCs? For example, can any nominal occur in an EPC as a PM? Similarly, is there any restriction on the sentential predicate of an EPC? In what follows, I provide answers to these questions, in addition to deriving the truth conditions for two sentences, which respectively instantiate an MAC and an MNC in Korean.

4.1 Deriving the truth conditions for Korean EPCs

In this paper, I would like to explore the possibility that, in an EPC, the lexical sentential predicate undergoes type-shifting and what triggers this operation is the syntactic position of a PR nominal relative to its PM nominal, i.e., the fact that it is external to the PM. More concretely, the idea is that a relational noun (e.g., ‘arm’, ‘mother’) has its own argument structure, but when occurring in an EPC, its PR argument is left unsaturated, and this unsaturated argument gets inherited by the sentential predicate when it takes the PM as its syntactic complement, as has been suggested by authors like Yoon (1989, 1990) and Yoon (1998) also.

From a semantic point of view, this phenomenon is reminiscent of the type-shifting operation that verbs like *seem* and *expect* in English raising constructions undergo, as expounded in Partee 1973 and Thomason 1976: according to Partee (1973) and Thomason (1976), one can base-generate both the raising structure and the non-raising structure and create a pair of lexically related matrix verbs via a lexical raising rule in the sense of Dowty (1976). In other words, one can derive “syntactic raising” via “semantic lowering”, as Partee (2000: 1) puts it.

Inspired by Partee’s (1973) and Thomason’s (1976) analyses of raising constructions in English, I posit that, in Korean EPCs too, the sentential predicates are type-shifted. As a result, an ordinarily mono-transitive verb like *ttayli-* ‘to hit’ is shifted to a functor of type $\langle\langle e, et \rangle\rangle, \langle e, et \rangle\rangle$. Similarly, an adjective such as *yeppu-* ‘be.pretty’ (which morpho-syntactically behaves like an intransitive verb in Korean) is turned into a functor of type $\langle\langle e, et \rangle\rangle, \langle et \rangle\rangle$.

Turning now to deriving the truth conditions for some of the Korean external possession sentences, first, below, I will assume the following inventory, which is taken from Partee 2000: 1 (see also Partee and Borschev 1998).

(32) Categories, types, and variables that we need

Category	Type	Variable(s) of that type	Notes
plain VP or AP	$\langle et \rangle$	P	e.g., <i>pretty</i>
referential DP	e	x, y	<i>John</i>
transitive verb	$\langle e, et \rangle\rangle$	R'	<i>hit</i>
relational noun	$\langle e, et \rangle\rangle$	R	<i>arm (of), mother (of)</i>

speakers' intuitions about the meaning of the sentence (modulo the focus meanings on 'Mary' or 'arm' that one can detect depending on how they read the sentence).

Turning now to deriving the truth conditions for the MNC *Mary-ka emma-ka yeppu-ta*,¹⁴ which can be construed as meaning 'It is Mary whose mom/mother is pretty', to begin with deriving the definition for the type-shifted adjective first:

(35) Definition of type-shifted **pretty**:

- (i) **pretty**₁' : of type <et> Equivalently $\lambda x.\text{pretty}'(x)$
 (ii) **pretty**₂'(mother)(x) \equiv **pretty**₁'(x's mother)

More formally and generally,

- (iii) **pretty**₂'(R)(x) \equiv **pretty**₁'($\iota z[\mathbf{R}'(x)(z)]$)

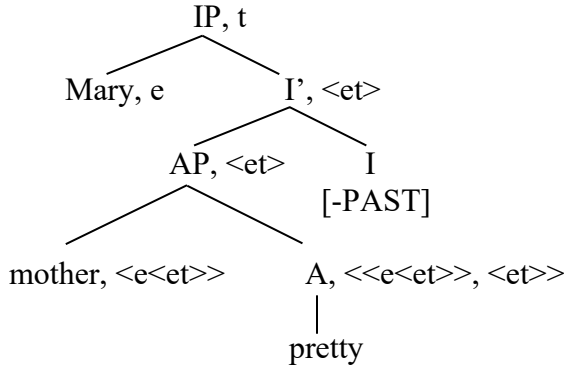
Therefore,

- (iv) **pretty**₂' \equiv $\lambda R.\lambda x.\text{pretty}_1'(\iota z[\mathbf{R}'(x)(z)])$

Now to compute the truth conditions for the entire sentence:

(36) Derivation of the truth conditions for the MNC *Mary-ka emma-ka yeppu-ta*:

a. LF representation:



b. Computation of the truth conditions:

[[(36a)]] \equiv

- (i) **(pretty**₂'(mother))(Mary) \equiv (by def. of **pretty**₂')
 (ii) $\lambda R.\lambda x.\text{pretty}_1'(\iota z[\mathbf{R}'(x)(z)])(\text{mother})(\text{Mary})$ \equiv (by λ -reduction)
 (iii) **pretty**₁'($\iota z[\text{mother}'(\text{Mary})(z)]$)

Given (36biii), the sentence *Mary-ka emma-ka yeppu-ta* will be true iff the unique individual z such that z is Mary's mother is pretty. And this approximates what Korean speakers would intuit as the meaning of this sentence (though it does not capture the identificational focus meaning that one detects with *Mary-ka*.)

¹⁴ To be more fully adequate, this sentence should contain the honorific marker *-si*, which occurs on the sentential predicate before the declarative sentence ending, as we have seen in (2c) and (3c), but for simplicity, I ignore this fact here.

description. In other words, these sentences will be unacceptable if they are uttered in a context where the individual denoted by the PM is physically detached from Mary at the time of the event. For example, as Yeon (1999) points out, (38b) will be ungrammatical if John tore Mary's clothes which were hanging in the closet at the time of the tearing event.

What these data reveal to us, then, is that, in Korean MACs, what matters is not whether the PM at issue is a BPN or not, but rather whether its denotation is *physically attached* to the PR or not at the time of the event under description.

When approached from this perspective, the observations numerous authors have made about the BPN constraint on MACs merit revision. Yet what some of them have stated about the role of *affectedness* still holds. I therefore conclude that, in licensing MACs in Korean, something like what Yeon (1999) calls *physical contiguity* between the PM and the PR plays an important role.

This revised generalization seems empirically adequate but comparing (38) with (39) leads us to see that we also need to consider two additional factors. First, the PM should be a part of the PR, not the other way around; that is, it cannot be just any type of possessum. Second, the PM must be a part of the PR *even after* the event described by the sentence culminates.

- (39) a. (Context: Mary was in her car when the police stopped her.)
 *Keyngchal-i **Mary-lul** **cha-ul** swusaykha-yess-ta.
 Police-NOM Mary-FOC car-FOC inspect-PAST-DEC
 Intended: 'The police searched Mary's car, directly affecting her.'
- b. (Context: Mary was wearing shoes when John threw them away.)
 *John-i **Mary-lul** **shinpal-ul** tenci-ess-ta.
 John-NOM Mary-FOC shoe-FOC throw.away-PAST-DEC
 Intended: 'John threw away Mary's shoe(s), directly affecting her.'

Combining these series of observations, then, I offer (40) as a licensing condition for MACs in Korean.

- (40) A licensing condition for MACs in Korean:
 For an MAC to be licensed, there must be a physical contiguity between the denotation of the PM and that the PR even after the event described by the sentence culminates, not to mention during the time when the event develops, and the PM should be a part of the PR, not the other way around.¹⁵

4.3.2 Constraints on predicates

Turning now to discussing what kinds of constraints are imposed on the predicates of EPCs, in what follows, I provide three factors that can be attributed to the varying degrees of grammaticality of MAC-type sentences in Korean.

¹⁵ At present, I do not have a satisfactory way to formally capture this descriptive generalization; however, one thing that seems clear is that, for a Korean MAC to be judged felicitous or grammatical, it must be the case that applying the meaning of the verb to the PM's denotation should count as applying the meaning of the verb to the PR's denotation in the *given discourse context*. I leave verifying this idea against a wider range of data and formally implementing it to future research (if it turns out to be correct).

First, one can generalize that action verbs that have a physical effect on the PM, such as ‘to hit’, ‘to kick’, ‘to pinch’, ‘to grab’, and ‘to step on’, most frequently occur as the sentential predicates in an MAC. (The reader can readily verify this by reconsidering the examples presented in this paper. Therefore, in the interest of space, I will not repeat the relevant data here.)

This generalization faces an empirical challenge, however, because some action verbs such as ‘to wash’ and ‘to cut’ cannot occur in Korean EPCs, as shown in (41).

- (41) a. *John-i **Mary-lul** **elkwul-ul** siss-ess-ta.
 John-NOM Mary-FOC face-ACC wash-PAST-DEC
 Intended: ‘It was Mary whose face John washed.’
- b. *John-i **Mary-lul** **sonthop-ul** kkakk-ass-ta.
 John-NOM Mary-FOC fingernail-ACC cut-PAST-DEC
 Intended: ‘It was Mary whose fingernails John cut.’

Why are these sentences ungrammatical? My tentative answer is that this is due to the lexical idiosyncrasies of the predicates involved: in Korean, they are intrinsically *reflexive* verbs in the sense of Reuland and Reinhart (1993). Consequently, their meanings cannot be applied to an individual that is different from what the subject nominal denotes.

One reason for thinking this way comes from the fact that the predicates *elkwul-ul siss-ta* ‘to wash face’ and *sonthop-ul kkakk-ta* ‘to cut fingernail’ can occur even without the anaphoric possessive determiner *casin-uy* ‘self-GEN’ modifying the PM nominals, still obligatorily receiving reflexive interpretations, as shown in (42). Furthermore, when the anaphor *casin* is replaced by other expressions such as *Mary* or *kunye* ‘she’, the genitive case (GEN)-marked PRs cannot be omitted without changing the intended meanings, as shown in (43); without these noun modifiers, the sentences receive reflexive interpretations.

- (42) a. John-i (**casin-uy**) **elkwul-ul** siss-ess-ta.
 John-NOM (SELF-GEN) face-ACC wash-PAST-DEC
 ‘John_i washed his_i face.’
- b. John-i (**casin-uy**) **sonthop-ul** kkakk-ass-ta.
 John-NOM (SELF-GEN) fingernail-ACC cut-PAST-DEC
 ‘John_i cut his_i fingernails.’
- (43) a. John-i *(**Mary-uy**) **elkwul-ul** siss-ess-ta.
 John-NOM (Mary-GEN) face-ACC wash-PAST-DEC
 Intended: ‘John washed Mary’s face.’
- b. John-i *(**kunye-uy**) **sonthop-ul** kkakk-ass-ta.
 John-NOM (she-GEN) fingernail-ACC cut-PAST-DEC
 Intended: ‘John cut her (not his own) fingernails.’

One other thing to note here is that the predicates used in data like (42)-(43) are inherently unsuitable for EPCs. One reason to think so is that even the SELF-denoting anaphoric PRs in data like (42) cannot occur separated from their PMs, instantiating what can be considered an EPC, as shown in (44). Relatedly, the data in (41) can be made

perfectly grammatical if the benefactive morpheme *cwu-* occurs on the sentential predicates, as shown in (45); since the morpheme *cwu-* can be analyzed as altering the argument structure of the original predicate by adding an applied argument, we can conclude that the predicates appearing in (41) simply lack the ability to take a PR argument which occurs external to the PM nominal.

- (44) a. John-i (***casin-ul**) **elkwul-ul** siss-ess-ta.
 John-NOM (SELF-FOC) face-FOC wash-PAST-DEC
 Intended: ‘John washed self’s face.’
- b. John-i (***casin-lul**) **sonthop-ul** kkakk-ass-ta.
 John-NOM (SELF-FOC) fingernail-FOC cut-PAST-DEC
 Intended: ‘John cut self’s fingernails.’
- (45) a. John-i **Mary-lul** **elkwul-ul** siss-e-**cwu**-ess-ta.
 John-NOM Mary-FOC face-FOC wash-CONN-BEN-PAST-DEC
 Intended: ‘John washed Mary’s face for her.’
- b. John-i **Mary-lul** **sonthop-ul** kkakk-a-**cwu**-ess-ta.
 John-NOM Mary-FOC fingernail-FOC cut-CONN-BEN-PAST-DEC
 Intended: ‘John cut Mary’s fingernail for her.’

In sum, then, the data in (41)-(45) show that, in licensing an external possession sentence in Korean, the argument structure of the sentential predicate plays a role, and the role that it plays is of a grammatical nature than of a pragmatic nature.

Finally, I would like to note that, in Korean MACs, the agentivity of the subject plays a role as well. To see this, consider (46).

- (46) a. ??John-i **Mary-lul** **elkwul-ul** po-ass-ta.
 John-NOM Mary-FOC face-FOC see-PAST-DEC
 Intended: ‘John saw Mary’s face.’ (Lit. ‘John saw Mary at the face.’)
- b. John-i **Mary-lul** **elkwul-ul** chyeta-po-ass-ta.
 John-NOM Mary-FOC face-FOC look.up-PAST-DEC
 Intended: ‘John looked at Mary’s face.’ (Lit.: ‘John looked Mary at the face.’)

In (46a), the thematic role that the subject *John-i* receives from the verb *po-ta* ‘to see’ is that of *Experiencer* whereas, in (46b), the thematic role that the subject receives from the verb *cheta-po-ta* ‘to look up at’ is that of *Agent*. Since this is the only difference between the two sentences in (46), we are led to conclude that the agentivity versus non-agentivity of the sentential subject is responsible for their grammaticality difference.

Before closing this subsection, I should also point out that, even in (46b), the PR is not directly affected by the action that is performed by the subject. Given this, the conclusion we are led to draw here is that what has been characterized as *affectedness* is neither a sufficient nor a necessary condition for licensing external possession sentences in Korean, though it appears to play a role in data like (37)-(39).

4.3.3 Summary

In this subsection, I have suggested two sets of constraints on MAC-type EPCs in Korean. One set applies to the PMs and the other applies to the predicates, and they can be summarized as follows:

(47) Constraints on MAC-type EPCs in Korean:

- a. The PM of an MAC is physically attached to the PR when the event under description culminates as well as during the entire time when the event described by the sentence develops, and the PM should be a part of the PR, not the other way around.
- b. The predicate of the sentence is both non-reflexive and agentive.

4.4 Differences between MACs and MNCs in Korean

Up to this point, our discussion has been confined to MACs, and this is because, unlike MACs, MNCs in Korean does not seem to be subject to any constraint.

First, as we have just observed, in an MAC, the PM must meet certain conditions. In contrast, in an MNC, essentially any kind of PM can occur. To see this, consider (48).

- (48) a. **Mary-ka** **emeni-ka** yeppu-si-ta.
 Mary-FOC mother-NOM be.pretty-HON-DEC
 ‘It is Mary whose mother is pretty.’
- b. **Mary-ka** **cha-ka** oycey-i-ta.
 Mary-FOC car-NOM foreign.made-COP-DEC
 ‘It is Mary whose car is imported from a foreign country.’

As exemplified earlier, kinship terms like *emeni* ‘mother’ and non-relational nouns like *cha* ‘car’ cannot occur in MACs. Hence, the question is: why can they occur in MNCs?

In answer to this question, I hypothesize that the difference between the two types of EPC in Korean has to do with what Hirotsu (2000) characterizes as the “aboutness” condition on MNCs in Japanese. In brief, in an MNC, the highest PR is what the sentence is *about*, so any type of PM can in principle occur in the sentence, provided that the combination of the PM and the (lexical) predicate of the sentence predicates something of the PR.¹⁶

¹⁶ This difference between Korean (or Japanese) MNCs and MACs does not seem to be a language-specific phenomenon. Evidence comes from Mohawk: According to Baker (1999), Mohawk has five types of EPC and among them, two are derived via noun incorporation. Importantly, Baker notes that, when an EPC in Mohawk is derived by noun incorporation, it is normally the case that only BPNs can appear in object position, but there is no such restriction on subject position. This contrast is illustrated by the data in (i) and (ii), which respectively involve transitive verbs and an intransitive verb.

(i) EPC involving object position:

- a. Wa'-khe-hsin-ohare-'.
 FACT-1SG:SUBJ/FEM:SG:OBJ-leg-wash-PUNC
 ‘I washed her leg.’

(Baker 1999: ex. (3), citing from Michelson 1991: sec. 4)

- b. *Wa-hi-'sere-ht-ohare-'.
 FACT-1SG:SUBJ/MASC:SG:OBJ-car-NOM-wash-PUNC
 ‘I washed his car.’

Second, in MNCs, there is virtually no restriction on the sentential predicates. For example, the sentential predicate can be stage (S)-level or individual (I)-level, or it can bear perfect/perfective or imperfective morphology, as shown in (49)-(50).

- (49) a. Mary-ka elkwul-i **yeppu-ta.** (I-level)
 Mary-FOC face-FOC be.pretty-DEC
 ‘Mary has a pretty face.’ or ‘It is Mary who has a pretty face.’
 b. Mary-ka pay-ka **kopha-ss-ta.** (S-level)
 Mary-FOC stomach-FOC be.hungry-PAST-DEC
 ‘Mary was hungry.’ or ‘It was Mary who was hungry.’
- (50) a. Mary-ka cip-i **pwultha-ss-ta.** (Perfect(ive))
 Mary-FOC house-NOM burn-PERF-DEC
 ‘It is Mary whose house has been burnt down.’
 b. Mary-ka cip-i **pwultha-ko iss-ta.** (Imperfective)
 Mary-FOC house-NOM burn-COMP AUX-DEC
 ‘It is Mary whose house is on fire.’

Again, the absence of a predicate restriction on MNCs in Korean can be attributed to the *aboutness condition*. That said, at present, we do not know whether there are any additional factors playing a role or not, and if so, whether they stem from grammatical sources or purely pragmatic sources.

5 Conclusion

As mentioned in the introduction, I would like to conclude this paper by comparing the present analysis with some of the previous work on the Korean EPCs, followed by pointing out some remaining issues.

5.1 Comparison with previous analyses

The issues surrounding the Korean external possession phenomena fall into two types: (i) issues pertaining to extra Case-licensing, and (ii) those pertaining to the grammatical statuses of the PR and the PM nominals.

Obviously, these two sets of issues are interconnected. But most previous analyses have been primarily concerned with the first set of issues. For example, Kim (1989, 1990) appeals to Case concord between nominals that are associated with each other. This analysis faces an empirical challenge, however, because there are cases where the PR and

(Baker 1999: ex. (5), citing from Mithun 1995: 644; Michelson 1991: 760)

(ii) EPC involving subject position:

Ro-[a]nitskwara-tsher-a-hnir-u.

(NEUT:SG:SUBJ)/MASC:SG:OBJ-chair-NOM-Ø-be.hard-STAT

‘His chair is hard.’

(Baker 1999: ex. (2), citing from Michelson 1991: fn. 2)

The Mohawk facts noted above suggest that more languages are likely to exemplify similar type of asymmetry between object and subjection positions in EPCs. Hence, there arises a need for further typological investigation. But I must leave this task for future research.

the PM do not necessarily agree in Case, as we have observed in (9c) and (10). On the other hand, Cho (1998) postulates the presence of the functional-head KP in the sense of Bittner and Hale (1996). Cho's analysis is also problematic, however, because it cannot provide a principled answer as to why in certain instances the PR and the PM may not agree in Case. In addition, it posits numerous movements to derive a syntactic structure that contains multiple PMs (see Cho's work for details). Hence, in view of economy related considerations, it is not so desirable, either, though this can be more of a theory-internal problem.

The present analysis can readily capture the "Case" disagreement between the PR and the PM of an EPC because it posits that structural case markers in Korean are homophonous with focus markers, so they can be ambiguous depending on the information structure of the sentence or the speaker's intention in uttering the sentence at hand. The proposed approach is arguably more economical as well in that all PMs and PRs are base-generated in the syntactic positions they are pronounced at, so there is almost no need for Case-driven DP movement in languages like Korean.

Turning now to the other outstanding issue which concerns the grammatical status of the PM(s) of an EPC: as far as I know, the argument versus adjunct status of PMs has been among the most debated issues in the literature. Even so, except for Yoon (1989, 1990) and Yoon (1998),¹⁷ authors are not so explicit about their exact stand on the matters at hand.

In the present paper, I have offered evidence in favor of an argument analysis of PMs such as Yoon's (1989); and the syntactic analysis I have offered is similar to his as well. But I believe the proposed analysis has made some progress in at least two respects. First, while the existing analyses including Yoon's (1989, 1990) investigate only MACs, the present study deals with all three types of EPCs including MDCs and MNCs. Second, unlike the previous studies, the present study offers some compelling reasons to treat *some* PMs in Korean EPCs as syntactic complements or even as true arguments of the sentential predicates. In addition, it also discusses which occurrences of PMs are better treated as syntactic adjuncts, and thus makes more concrete and falsifiable claims about the status of PMs or PRs than previous analyses do.

With that said, there is one adjunct analysis of PMs that is worth looking at, namely, Kim 1989: Kim argues that a PM is some sort of adjunct which modifies the predicate. Although she does not fully develop this idea within a formal semantic framework, one way to implement it would be to analyze PMs as endocentric adjunct operators. That is, a PM in an EPC converts predicates of type $\langle e \langle et \rangle \rangle$ (e.g., **hit**) and $\langle et \rangle$ (e.g., **pretty**) into predicates of type $\langle \langle e \langle et \rangle \rangle \rangle$, $\langle e \langle et \rangle \rangle$ and $\langle \langle et \rangle \rangle$, $\langle et \rangle$, respectively. And in this process, the relationality of the PM gets transmitted through the sentential predicate, and as a result, in the case of MACs, the PM gets "reconnected" with its PR.

Adopting such a mechanism will generate truth conditions that are essentially identical to what we have derived for some of the MAC sentences in section 4.1. Given this, it is not clear which approach should be adopted in the end. But there seem to be more reasons to adopt a *complement* analysis for at least *some* PMs, as I have argued here, rather than treating all PMs as syntactic adjuncts, as argued by Kim (1989).

¹⁷ These authors claim that the PM of an MAC is base-generated as sister to the verb; and this implies that they treat the PM as an argument of the verb, rather than an adjunct thereof.

First, as illustrated in (15)-(16), the PMs of some external possession sentences are not optional; if they were true adjuncts, then they should be readily omissible, without affecting the grammaticality of the sentences.

Second, as we have observed, in licensing EPCs in Korean, the semantics of predicates plays an important role; if all PMs were just adjunct operators, then they should not impact the lexical predicate's meaning to the extent that we have seen; such a behavior is typically exhibited by arguments.

Third, under a PM as-an-adjunct-operator approach, the difference between MACs and MNCs with regard to their restrictions will be harder to explain, because operators should behave similarly regardless of their syntactic positions.

Fourth, if PMs were true adjuncts, then it is not clear why they never surface with an oblique case-marking on them, unlike the way other types of verb modifiers in Korean behave, as we saw (21).

Finally, if all PMs were true adjuncts, then they should have more syntactic freedom (modulo potential semantic consequences; see Cinque 1999), contrary to fact.

5.2 Additional remaining issues

Apart from what I have pointed out above, there are at least two outstanding issues that I must leave for future work.

First, as I have suggested in several places, there is little doubt that cognitive, pragmatic, and/or information structural factors play a role in Korean external possession phenomena, but exactly how to derive their effects within a formal semantic framework is an outstanding issue.

Second, under the semantic analysis we have explored, there is no truth-conditional semantic difference between an EPC and its corresponding IPC. Yet Korean speakers intuit that the two constructions do not mean the same. Given this, in future research, precisely how and why EPCs and IPCs have different semantics needs to be more fully articulated, and in this process, what I have offered in footnote 15 should be verified as well.

References

- Baker, Mark. 1999. External possession in Mohawk: body parts, incorporation, and argument structure. In *External possession*, ed. Doris Payne and Immanuel Barshi, 293–324. Amsterdam: John Benjamins.
- Bittner, Maria and Ken Hale. 1996. The structural determination of Case and agreement. *Linguistic Inquiry* 27: 1–68.
- Cho, Sungeun. 1998. A new analysis of Korean inalienable possession constructions. In *Proceedings of NELS 28*, 79–93. Amherst, MA: GLSA.
- Choe, Hyon Sook. 1986. Syntactic adjunction, A-chain and the ECP: Multiple identical Case construction in Korean. In *Proceedings of NELS 17*, 100–120. Amherst, MA: GLSA.
- Choe, Hyon Sook. 1995. Focus and topic movement in Korean and licensing. In *Discourse configurational languages*, ed. Katalin É. Kiss, 269–334. New York: Oxford Press.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Ma: The MIT Press.

- Chun, Soon Ae. 1985. Possessor ascension for multiple Case sentences. In *Harvard Studies in Korean Linguistics 1*, 30–39. Seoul: Hanshin.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press.
- Dowty, David. 1976. Montague grammar and the lexical decomposition of causative verbs. In *Montague grammar*, ed. Barbara H. Partee, 202–245. New York: Academic Press.
- Haegeman, Liliane. 1994. *Introduction to Government and Binding Theory*. 2nd edition. New York: Blackwell.
- Hirotoni, Masako. 2000. Possible world-aboutness and accessibility condition of properties: genitives and topics in Japanese. Ms. University of Massachusetts, Amherst.
- Kang, Myeong-yoon. 1987. Possessor raising in Korean. In *Harvard Studies in Korean Linguistics 2*, 80–88. Seoul: Hanshin Publishing.
- Kim, Young-joo. 1989. Inalienable possession as a semantic relationship underlying predication: the case of multiple-accusative constructions. In *Harvard Studies in Korean Linguistics 3*, 445–468. Seoul: Hanshin Publishing.
- Kim, Young-joo. 1990. The syntax and semantics of Korean case: the interaction between lexical and syntactic levels of representation. Doctoral dissertation. Harvard University.
- Kitahara, Hisatsugu. 1993. Inalienable possession constructions in Korean: scrambling, the proper binding condition, and case-percolation. In *Japanese/Korean Linguistics 2*, 394–408. Stanford, CA: CSLI.
- Larson, Richard K. 1988. On the double object construction. *Linguistic Inquiry* 19(3): 335–391.
- Maling, Joan and Soowon Kim. 1992. Case assignment in the inalienable possession construction in Korean. *Journal of East Asian Linguistics* 1: 37–68.
- Nakamura, Wataru. 1999. An entailment-based account of “possessor raising” constructions. In *Harvard Studies in Korean Linguistics 7*, 502–516. Seoul: Hanshin Publishing.
- Partee, Barbara H. 1973. Some transformational extensions of Montague Grammar. *Journal of Philosophical Logic* 2: 509–534.
- Partee, Barbara H. and Vladimir Borschev. 1998. Integrating lexical and formal semantics: genitives, relational nouns, and type-shifting. In *Proceedings of the Second Tbilisi Symposium on Language, Logic, and Computation*, ed. R. Cooper and Th. Gamkrelidze, 229–241. Tbilisi: Center on Language, Logic, Speech, Tbilisi State University.
- Partee, Barbara H. 2000. Class notes for Genitives Seminar. University of Massachusetts, Amherst.
- Payne, Doris and Immanuel Barshi. 1999. External possession: what, where, how, and why. In *External possession*, ed. Doris Payne and Immanuel Barshi, 3–29. Amsterdam: John Benjamins.
- Reuland, Eric and Tanya Reinhart. Reflexivity. 1993. *Linguistic Inquiry* 24: 657–720.
- Schütze, Carson T. Why Korean case-stacking isn’t? In *Proceedings of NELS 26*, 351–165. Amherst, MA: GLSA.
- Speas, Margaret. 1990. *Phrase structure in natural language*. Dordrecht: Kluwer Academic Publishers.

- Sohn, Ho-min. 1994. *Korean*. London: Routledge.
- Thomason, Richmond H. 1976. Some extension of Montague grammar. In *Montague Grammar*, ed. Barbara H. Partee, 77–118. New York: Academic Press.
- Vergnaud, Jean-Roger and Maria Luisa Zubizarreta. 1992. The definite determiner and the inalienable constructions in French and in English. *Linguistic Inquiry* 23: 595–652.
- Williams, Edwin. 1994. *Thematic structure in syntax*. Cambridge, MA: MIT Press.
- Yeon, Jaehoon. 1999. A cognitive account of the constraints on possessor-ascension constructions. *Language Research* 35: 211–230.
- Yoon, James Hye Suk. 1989. The grammar of inalienable possession construction in Korean, Mandarin and French. In *Harvard Studies in Korean Linguistics* 3, 357–368. Seoul: Hanshin Publishing.
- Yoon, James Hye Suk. 1990. Theta theory and the grammar of inalienable possession constructions. In *Proceedings of NELS 20*, 502–516. Amherst, MA: GLSA.
- Yoon, Jeong-Me. 1998. Ambiguity of relational nouns and the argument structure of nouns. In *Japanese/Korean Linguistics* 8, 515–528. Stanford, CA: CSLI.