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Not every finite CP is a phase

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This paper proposes that phases are extended projections containing all the projections in the relevant functional sequence, and that extended projections lacking lower projections in the sequence are in turn not phases. The claim is motivated and supported by a detailed investigation of finite ECM in Korean, where embedded subjects are assigned accusative case across finite CP boundaries. I argue that finite ECM occurs in Korean when the embedded clause lacks a T projection in the verbal domain. A typology of clausal complementation emerges, distinguishing defective finite CPs as distinct entities from full CPs in terms of syntactic locality. The proposal also explains the puzzling individual-level restriction in Korean ECM: a GEN operator must occur in the structure to stopgap the semantic effects of missing T, namely to render the embedded finite clause a proposition of type ***t***. The defective CP analysis extends to other languages exhibiting crossclausal finite A-dependency exclusively with defective CPs.

1 Introduction

Exceptional Case Marking (ECM) describes a phenomenon in which the embedded subject is assigned accusative case, as illustrated in (1a). The case-marking pattern in (1a) is exceptional compared to (1b), where the embedded subject receives nominative case. In English, ECM is only allowed when the embedded clause does not project a complementizer.

(1) a. Alex believes {him/*he} to be smart.
b. Alex believes that {he/*him} is smart.

The standard analysis of (1a) posits crossclausal A-movement of the embedded subject (Postal 1974), which then receives accusative case locally from matrix *v*. According to phase theory (Chomsky 2000), the clausal boundary in (1a) does not act as a barrier to movement because the embedded clause does not project a C, and therefore, is not a phase. A phase is characterized by the Phase Impenetrability Condition (PIC) as a locality domain inaccessible to syntactic operations outside that domain, except for its head and the edge.

(2) Phase Impenetrability Condition (Chomsky 2000)
In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

In contrast, the embedded clause in (1b) is a CP with the complementizer *that*, which qualifies as a phase. The only way for an embedded subject to escape a phasal clause and get accusative case upstairs is to move to the matrix clause via an intermediate touchdown at the phase edge, a position transparent to a movement probe from outside. This derivation, however, is ruled out by the Ban on Improper Movement, according to which A-movement may not proceed from [Spec, CP] (Chomsky 1973). The upshot is that phase-based locality suggests the embedded clause in (1a) is accessible to syntactic operations outside the clause because it does not project C. Therefore, even when the ECM construction in (1a) involves A-movement, there is nothing exceptional from a locality perspective.

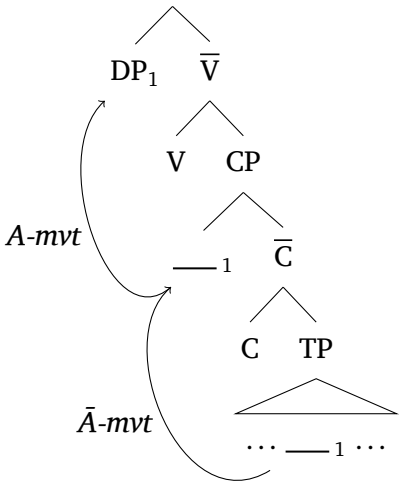
Korean ECM in (3),[1] however, presents a potential challenge to syntactic locality due to presence of a complementizer and finite morphology in the embedded clause. Since the embedded clauses in (3) are finite CPs and, therefore, phases, they are opaque to syntactic operations. In cases where ECM involves A-movement, as will be shown to be the case in Korean, a straightforward solution to address this opacity issue while complying with the PIC is to postulate an A-movement path through the phase edge, which remains accessible according to the PIC. The dilemma that arises again with this analytical option is that A-movement through the phase edge violates the Ban on Improper Movement, as illustrated in (4).

[1] All the data in this paper are primarily based on my acceptability judgments as a native speaker of Korean, cross-checked by two other non-linguist native speakers.

(3) a. Juno-ka [**Nari-ka** ttokttokha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PRES-DEC-COMP think.PRES-DEC

b. Juno-ka **Nari-lul** ttokttokha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart-DEC-COMP think.PRES-DEC
'Juno thinks Nari is smart.'

(4) Improper movement



Korean is not the only quirky language in this respect. Several other languages have been reported to allow ECM with finite CP complements. One compelling line of proposal to work through the above dilemma is the phase edge analysis, which argues for the improper movement path in (4) but renders the first movement step A-movement, not Ā-movement. In this analysis, the resulting path consists of two sequential A-movement steps, the latter of which becomes not improper anymore. Restricting our attention to instances of ECM featured by A-movement, the phase edge analysis has been proposed for Japanese (Tanaka 2002), P'urhépecha (Zyman 2017), and Mongolian (Fong 2019).

As promising as the phase edge analysis is, two nontrivial questions arise: (i) what independent component constrains the A/Ā nature of the embedded C, i.e., under what conditions the first movement step, standardly Ā-movement, counts as A-movement and (ii) whether there is evidence for this intermediate movement to the phase edge. The former is largely left unanswered in these proposals. As for the latter question, Fong (2019), for instance, presents a convincing argument that embedded subjects in Mongolian can remain in the embedded clause, which is taken as evidence that the first movement step exists. I show that this is not the case in Korean. Whenever embedded subjects are accusative-marked, they are in the matrix clause. In addition to this empirical drawback of extending the phase edge analysis to Korean ECM, there is the conceptual challenge that arises in any language from the first issue, which is how to systematically constrain the optional A-nature of [Spec, CP].

On the empirical side, there are two properties that set Korean ECM apart from other languages that allow finite ECM. First, ECM is only allowed when the embedded CP lacks tense. The resistance to tense in finite A-dependency is not unprecedented. For example, it has been argued that Raising to Subject in Greek (Alexiadou & Anagnostopoulou 1999) and Telugu ECM (Messick & Raghotham 2023) exhibit a similar pattern. Still, not all languages that allow finite ECM have this property, for instance, Mongolian (Fong 2019) and Uyghur (Major 2021). (5) illustrates the Korean data. When the past tense is used, ECM is only allowed for a generic interpretation. The interpretive restriction in (5b) is notable when compared to (5a). For instance, (5a) is acceptable in an episodic context where Nari gave an excellent presentation yesterday and Juno thinks Nari was smart during the presentation, unlike her usual self. (5b), however, is not acceptable in such contexts. Section 3.3 discusses how the generalization that ECM complements resist tense accounts for the contrast in the usual episodic interpretation and why the special generic interpretation is still permitted in accusative constructions.

(5) a. Juno-ka [**Nari-ka** ttokttokhayss-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari was smart.' (✓*generic*; ✓*episodic*)

b. Juno-ka **Nari-lul** ttokttokhayss-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari was smart.' (✓*generic*; ×*episodic*)

The second property unique to Korean ECM is that the embedded clause, as noted by Wechsler & Lee (1995), is sensitive to the distinction between individual-level and stage-level in the sense of Carlson (1977). Predicates such as *ttokttokha* 'smart' in (3), which typically receive individual-level interpretation, allow ECM. In contrast, if the embedded predicate is *phikonha* 'tired', whose default interpretation is stage-level in the absence of further context, ECM results in unacceptability.

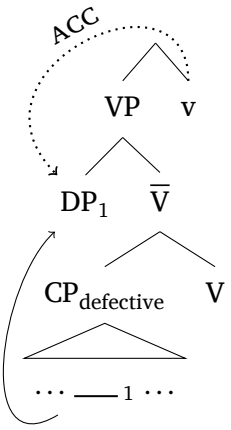
(6) a. Juno-ka [**Nari-ka** phikonha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM tired.PRES-DEC-COMP think.PRES-DEC

b. *Juno-ka **Nari-lul** phikonha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC tired-DEC-COMP think.PRES-DEC
'Juno thinks Nari is tired.'

This paper develops an alternative analysis of ECM that does not endure empirical and conceptual challenges arising from simply extending the existing phase edge analysis to Korean ECM. Specifically, I show that ECM complements in Korean are T-less finite CPs and argue that finite CPs without a T projection are not phases. These defective nonphasal CPs allow one-fell-swoop movement of the embedded subject, which then receives accusative case in the matrix clause, as represented in (7). Unlike in the phase edge analysis, [Spec, CP] unambiguously remains an

Ā-position in the language, as the derivation consists of a single crossclausal movement step without involving [Spec, CP].

(7) Defective CP analysis



The claim that T-less finite CPs do not constitute locality domains follows from the refined ingredient of phase theory (8): a defective extended projection is not a phase. Defectiveness is defined in (9): an extended projection is defective if it lacks any lower projections in the functional sequence. Coupled with the functional sequence in (10), (9) makes systematic predictions about which CPs are defective and, therefore, by (8), not phases.

(8) A defective extended projection is not a phase.

(9) An extended projection is *defective* if it lacks any lower projections in the functional sequence.

(10) Functional sequence in the verbal domain:[2] ⟨C ≻ Mood ≻ T ≻ Asp ≻ v ≻ V⟩

In this account, phase is understood as a more sophisticated formal creature, where phasehood of a clausal complement is not simply determined by the projection of a complementizer. The internal structure matters, especially whether the extended projection topped by CP has all the intermediate projections in Tense-Aspect-Mood (TAM).

The proposal straightforwardly extends to similar cases of crossclausal A-dependency found in languages like Greek and Telugu, in which raising complements lack morphological tense that is expected otherwise. What Korean, Greek, and Telugu share in common is the presence of a movement relation despite the fact that the clausal complement has an overt complementizer and other finite morphology that clearly mark finite CP contexts.

[2] Following Ahn & Yoon (1989) and Cinque (1999), I assume a functional sequence where mood markers project MoodP, above TP and below CP.

Regarding the term *finite*, it is worth noting that T-less CP is not necessarily nonfinite. Although English is a language where finiteness and morphological tense tightly correlate, finite morphology crosslinguistically encompasses not only tense morphemes, but also person, number, mood inflections. In this regard, finiteness is not equivalent to tensedness. Rather, finiteness is a property of an extended projection determined by the projection of a finite complementizer. In other words, a finite context is created by virtue of finite C projecting, as proposed by Rizzi (1997): "C expresses a distinction related to tense but more rudimentary than tense and other inflectional specifications on the verbal system: finiteness" (Rizzi 1997: 284). Embedding the crux of finiteness into the projection of a finite complementizer results in an interpretive restriction unique to finite clauses, as formulated in (11):

(11) Finite CP Constraint
Finite complementizers select propositions of type *t* (setting aside intensionality).

This semantic selectional property of finite complementizers derives the restriction to individual-level predicates in Korean ECM, as shown by the contrast between (3) and (6). I argue that the generic operator, inherent in individual-level predicates, is what satisfies the constraint (11) in T-less finite CPs by turning the clause from type $<i, t>$ into type *t*. Without GEN, ECM complements in Korean would fail to satisfy the constraint (11) because they are tenseless clauses of type $<i, t>$. The lexical semantics of stage-level predicates is incompatible with this GEN operator, which must occur in a T-less finite CP environment.

The paper is organized as follows. Section 2 presents basic morphosyntactic facts about clausal embedding in Korean. Section 3 elaborates on structural and interpretive properties of Korean ECM. Section 4 lays out the main proposal that derives the data presented in the preceding section. Based on the generalization that ECM complements are T-less CPs, I argue that extended projections that lack any intermediate projections, a T projection in this case, are not phases. Section 5 examines four alternative analyses, all of which are ultimately less favored than the defective CP analysis for Korean ECM: (i) a reversal in the order of operations where long-distance case assignment is followed by A-movement, (ii) the Major Subject Raising analysis in Yoon (2007), (iii) the (im)proper movement analysis via the phase edge, and lastly (iv) optional raising. Section 6 discusses crosslinguistic evidence for the proposal and the complementizer status of *ko*. Section 7 concludes.

2 Clausal embedding in Korean

Korean has two morphological indicators of finiteness, tense and mood. In matrix clauses, both tense and mood markers are obligatory. Mood markers in finite clauses vary depending on the sentential force. (12) illustrates four clause types: declarative, interrogative, imperative, and exhortative.

(12) Mood markers in matrix clauses

a. Nari-ka nolayhayss-ta.
Nari-NOM sing.PAST-DEC
'Nari sang.'

b. Nari-ka nolayhayss-ni?
Nari-NOM sing.PAST-ITR
'Did Nari sing.?'

c. Nolayhae-la.
sing-IMP
'Sing.'

d. Nolayha-ca.
sing-EXH
'Let's sing.'

The clause type relevant to ECM is declaratives. In declarative matrix clauses, temporal interpretations are transparently marked by tense morphemes. The past-tense morpheme for V and A is *-ss*; the present-tense morpheme for V and A is *-n* and null, respectively.

(13) Tense markers in matrix clauses (declarative)

a. Nari-ka nolayhan-ta.
Nari-NOM sing.PRES-DEC
'Nari is singing.'

b. Nari-ka nolayhayss-ta.
Nari-NOM sing.PAST-DEC
'Nari sang.'

c. Nari-ka aphu-ta.
Nari-NOM sick.PRES-DEC
'Nari is sick.'

d. Nari-ka aphass-ta.
Nari-NOM sick.PAST-DEC
'Nari was sick.'

The two types of finite markers, mood and tense, exhibit the same patterns in embedded finite contexts. The embedded clauses in (14) are all finite, as indicated by obligatory finite morphology. (14c) and (14d) exemplify finite control (Madigan 2008). The complementizer *ko* is primarily used for verbs of belief and saying.[3]

[3] Factive verbs such as *al* 'know' and *kkaytat* 'realize' take a nominalized clause as their complement. This nominalized clause is marked with accusative case.

(14) Embedded finite clauses

a. Juno-ka [Nari-ka tones-ul mekess-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM doughnut-ACC eat.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari ate the doughnut.'

b. Juno-ka [Nari-ka tones-ul mekess-nya-ko] mulepwass-ta.
Juno-NOM Nari-NOM doughnut-ACC eat.PAST-ITR-COMP ask.PAST-DEC
'Juno asked whether Nari ate the doughnut.'

c. Juno-ka Nari-eykey [tones-ul meku-la-ko] malhayss-ta.
Juno-NOM Nari-DAT doughnut-ACC eat-IMP-COMP say.PAST-DEC
'Juno told Nari to eat the doughnut.'

d. Juno-ka Nari-eykey [tones-ul han-kay-man mek-keyss-ta-ko]
Juno-NOM Nari-DAT doughnut-ACC one-CL-only eat-VOL-DEC-COMP
yaksokhayss-ta.
promise.PAST-DEC
'Juno promised Nari to eat only one doughnut.'

In contrast, embedded nonfinite clauses that involve infinitives lack tense and mood. *lo* in (15b) is a particle used to express a decision or promise, following the nominalizer.

(15) Embedded nonfinite clauses

a. Nari-ka [nolitongsan-ey ka-ki(-lul)] wenhan-ta.
Nari-NOM amusement.park-to go-NMLZ-ACC want.PRES-DEC
'Nari wants to go to an amusement park.'

b. Nari-ka [mayil achim talli-ki-lo] kyelsimhayss-ta.
Nari-NOM everyday morning run-NMLZ-lo decide.PAST-DEC
'Nari decided to run every morning.'

3 Properties of Korean ECM

This section demonstrates four structural and interpretive properties of Korean ECM. First, accusative subjects are located in the matrix clause. Second, accusative subjects start out in the embedded clause. Third, the presence of tense, but not mood, degrades ECM. Finally, ECM is only allowed when the embedded clause has individual-level predication.

3.1 Accusative subjects are in the matrix clause

The first piece of evidence that accusative subjects are located in the matrix clause comes from their distribution in relation to matrix material. (16) is the baseline illustrating that both nominative and accusative embedded subjects can surface after the matrix adverb *ecey* 'yesterday'. Note that *ecey* in (16–17) is unambiguously a matrix element. To be interpreted as an embedded element, the embedded clauses must bear past-tense morphology; in such cases, accusative case marking is not possible under the intended interpretation (Section 3.3). Against this backdrop,

(17) displays a contrast in behavior between nominative and accusative subjects. In (17a), the nominative subject cannot occur before the matrix adverb, as expected, whereas the accusative subject in (17b) can. The fact that only (17b) is acceptable suggests that the accusative subject is located in the matrix clause. If the accusative subject were an embedded element like the nominative subject, (17a) and (17b) would be equally unacceptable.

Baseline

(16) a. Juno-ka ecey [**Nari-ka** ttokttokha-ta-ko] sayngkakhaet-ta.
Juno-NOM yesterday Nari-NOM smart.PRES-DEC-COMP think.PAST-DEC

b. Juno-ka ecey **Nari-lul** ttokttokha-ta-ko sayngkakhaet-ta.
Juno-NOM yesterday Nari-ACC smart-DEC-COMP think.PAST-DEC
'Juno thought yesterday that Nari is smart.'

ACC can precede matrix material

(17) a. *Juno-ka **Nari-ka** ecey ttokttokha-ta-ko sayngkakhaet-ta.
Juno-NOM Nari-NOM yesterday smart.PRES-DEC-COMP think.PAST-DEC

b. Juno-ka **Nari-lul** ecey ttokttokha-ta-ko sayngkakhaet-ta.
Juno-NOM Nari-ACC yesterday smart-DEC-COMP think.PAST-DEC
'Juno thought yesterday that Nari is smart.'

Second, accusative subjects cannot appear following embedded material. In the baseline examples (18–19), the embedded subjects, whether nominative or accusative, precede the embedded adverbials *sangtanghi* 'considerably' and *saciney pihae* 'compared to the photo'. These adverbials are necessarily embedded material in these contexts since they cannot felicitously modify the matrix verb *sayngkakha* 'think.' (18–19) contrast with (20–21). In (20a) and (21a), the embedded adverbials can surface before the nominative subject, which is clearly an embedded element. However, the same configuration is not acceptable with the accusative subject in (20b) and (21b), suggesting that accusative subjects must be in the matrix clause. If the accusative subjects could be placed within the embedded clause, (20b) and (21b) would be equally acceptable as (20a) and (21a).[4]

Baseline

(18) a. Juno-ka [**Nari-ka** sangtanghi khi-ka khu-ta-ko]
Juno-NOM Nari-NOM considerably height-NOM big.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

[4] For alternative interpretations of the data in (18–21), see Section 5.4.

b. Juno-ka **Nari-lul** sangtanghi khi-ka khu-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC considerably height-NOM big-DEC-COMP think.PRES-DEC
'Juno thinks Nari is considerably tall.'

(19) a. Nari-ka [**sofa-ka** sacin-ey pihae te etwup-ta-ko]
Nari-NOM sofa-NOM photo-to compared more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. Nari-ka **sofa-lul** sacin-ey pihae te etwup-ta-ko
Nari-NOM sofa-ACC photo-to compared more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Nari thinks the sofa is darker compared to the photo.'

ACC cannot follow embedded material

(20) a. Juno-ka [sangtanghi **Nari-ka** khi-ka khu-ta-ko]
Juno-NOM considerably Nari-NOM height-NOM big.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. *Juno-ka sangtanghi **Nari-lul** khi-ka khu-ta-ko sayngkakhan-ta.
Juno-NOM considerably Nari-ACC height-NOM big-DEC-COMP think.PRES-DEC
'Juno thinks Nari is considerably tall.'

(21) a. Nari-ka [sacin-ey pihae **sofa-ka** te etwup-ta-ko]
Nari-NOM photo-to compared sofa-NOM more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. *Nari-ka sacin-ey pihae **sofa-lul** te etwup-ta-ko
Nari-NOM photo-to compared sofa-ACC more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Nari thinks the sofa is darker compared to the photo.'

Third, the lack of Weak Crossover (WCO) effects for scrambled accusative subjects provides further evidence that they are in the matrix clause. The hallmark of local scrambling is that it is not subject to WCO effects, unlike long scrambling (Mahajan 1990). (22) and (23) establish that this diagnostic for local scrambling holds for Korean. Consider the simple monoclausal configuration in (22). In (22b), scrambling of the object *motun ai* 'every child' over the subject

DP saves the unacceptable (22a), even when the subject DP *kutul-uy pumo* 'their parent' contains an element co-indexed with the scrambled DP. By contrast, the embedded DP crossing a finite clausal boundary in (23b) is not compatible with the co-indexed reading, in which the matrix subject *kutul-uy pumo* 'their parent' contains a pronoun co-indexed with the the scrambled DP *motun ai* 'every child'.

Local scrambling lacks WCO effects

(22) a. kutul$_{2/*1}$-uy pumo-ka motun ai$_1$-lul salanghan-ta.
they-GEN parent-NOM every child-ACC love.PRES-DEC

b. motun ai$_1$-lul kutul$_{2/?1}$-uy pumo-ka —$_1$ saranghan-ta.
every child-ACC they-GEN parent-NOM love.PRES-DEC
'For every child x, x's parent loves x.'

Long scrambling exhibits WCO effects

(23) a. kutul$_{2/*1}$-uy pumo-ka [sensayngnim-i motun ai$_1$-lul yeyppehan-ta-ko]
they-GEN parent-NOM teacher-nom every child-ACC adore.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. motun ai$_1$-lul kutul$_{2/*1}$-uy pumo-ka [sensayngnim-i —$_1$
every child-ACC they-GEN parent-NOM teacher-nom
yeyppehan-ta-ko] sayngkakhan-ta.
adore.PRES-DEC-COMP think.PRES-DEC
'For every child x, x's parent thinks that the teacher adores x.'

Applying the WCO diagnostic distinguishes whether the scrambled accusative subject and the matrix nominative subject are in a local configuration. (24) and (25) below support the conclusion drawn from the adverb tests. (24b) is a WCO construction where the embedded subject *motun ai* 'every child' long-scrambles over the matrix subject that contains a coindexed element. While (24b) is unacceptable under the intended reading, (25b) significantly improves in judgment. This improvement suggests that the accusative subject is structurally in a local relation with the matrix subject, while the embedded nominative subject is not.[5]

[5] All the sentences in (22–25) are acceptable without binding. To get a non-coindexed reading for (24b), however, it is preferable for the matrix subject to be marked as a topic or for a prosodic boundary to be present to disambiguate the surface string. Without these cues, the string in (24b) is more readily interpreted with *motun ai* 'every child' serving as the matrix subject.

NOM exhibits WCO effects

(24) a. kutul$_{2/*1}$-uy pumo-ka [motun ai$_1$-ka ttokttokha-ta-ko] sayngkakhan-ta.
they-GEN parent-NOM every child-NOM smart.PRES-DEC-COMP think.PRES-DEC

b. motun ai$_1$-ka kutul$_{2/*1}$-uy pumo-ka [__$_1$ ttokttokha-ta-ko]
every child-NOM they-GEN parent-NOM smart.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'For every child x, x's parent thinks that x is smart.'

ACC lacks WCO effects

(25) a. kutul$_{2/*1}$-uy pumo-ka motun ai$_1$-lul ttokttokha-ta-ko sayngkakhan-ta.
they-GEN parent-NOM every child-ACC smart-DEC-COMP think.PRES-DEC

b. motun ai$_1$-lul kutul$_{2/?1}$-uy pumo-ka __$_1$ ttokttokha-ta-ko sayngkakhan-ta.
every child-ACC they-GEN parent-NOM smart-DEC-COMP think.PRES-DEC
'For every child x, x's parent thinks that x is smart.'

Fourth, applying Condition B, according to which pronouns must not be within the same clause as their antecedents, upholds the claim that accusative subjects are located in the matrix clause. (26) demonstrates that accusative pronominal subjects cannot be coindexed with the matrix subject, whereas nominative pronominal subjects can. If the accusative subject in (26b) could be in the embedded clause, it would remain mysterious why the coindexed reading is unacceptable.

(26) a. Nari$_1$-ka [**kunye$_{2/1}$-ka** ttokttokha-ta-ko] sayngkakhan-ta.
Nari-NOM she-NOM smart.PRES-DEC-COMP think.PRES-DEC

b. Nari$_1$-ka **kunye$_{2/*1}$-lul** ttokttokha-ta-ko sayngkakhan-ta.
Nari-NOM she-ACC smart-DEC-COMP think.PRES-DEC
'Nari thinks she is smart.'

I conclude this subsection with a remark on Negative Polarity Item (NPI) licensing in ECM constructions. Previous works on hyperraising in other languages provide data regarding how accusative-marked NPIs behave with respect to negation (e.g., Zyman 2017, Fong 2019). The situation differs here because NPIs in Korean are not overtly case-marked in either subject and object position, as demonstrated in (27–28). The baseline in (27) shows that when NPIs are in the embedded object position, NPI licensing proceeds in an expected way by clausemate negation (Sells & Kim 2006; Giannakidou & Yoon 2016). In contrast, (28) demonstrates that subject NPIs embedded under the ECM verb *sayngkakha* 'think' are licensed by both matrix and embedded negation. *ci* is a suffix used in negation.

NPI in the embedded object position

(27) a. Juno-ka [Nari-ka **amuto** cohaha-ci **anhnun**-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM anyone like-ci not.PRES-DEC-COMP think.PRES-DEC

b. *Juno-ka [Nari-ka **amuto** cohahan-ta-ko] sayngkakha-ci **anhnun**-ta.
Juno-NOM Nari-NOM anyone like.PRES-DEC-COMP think-ci not.PRES-DEC
'Juno thinks Nari doesn't like anyone.'

NPI in the embedded subject position

(28) a. Juno-ka **amuto** ttokttokha-ci **anh**-ta-ko sayngkakhan-ta.
Juno-NOM anyone smart-ci not-DEC-COMP think.PRES-DEC

b. Juno-ka **amuto** ttokttok-ta-ko sayngkakha-ci **anhnun**-ta.
Juno-NOM anyone smart-DEC-COMP think-ci not.PRES-DEC
'Juno thinks nobody is smart.'

When the embedded subject NPI is licensed by embedded negation, as in (28a), the NPI cannot precede the matrix adverb, as was the case for the ordinary nominative subject in (17a). This is shown in (29a) below. However, when the embedded subject NPI is licensed by matrix negation, as in (28b), it can precede the matrix adverb, as the non-NPI accusative subject could in (17b); (29b) illustrates this.

NPI licensed by matrix negation can precede matrix adverb

(29) a. Juno-ka (caknyeney) **amuto** *(caknyeney) ttokttokha-ci **anh**-ta-ko
Juno-NOM last.year anyone last.year smart-ci not-DEC-COMP
sayngkakhaet-ta.
think.PAST-DEC

b. Juno-ka (caknyeney) **amuto** (caknyeney) ttokttok-ta-ko sayngkakha-ci
Juno-NOM last.year anyone last.year smart-DEC-COMP think-ci
anhass-ta.
not.PAST-DEC
'Last year Juno thought that nobody is smart.'

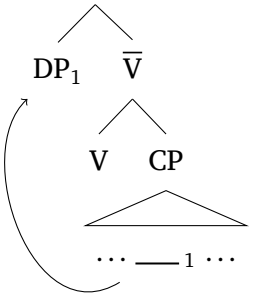
One way to explain the pattern in (28–29) is to treat the NPIs in the (a) sentences as covertly nominative-marked and those in the (b) sentences as covertly accusative-marked. In particular, it is possible to interpret (29) as follows: the covertly nominative NPI in (29a) is only licensed by embedded negation because nominative subjects are clearly in the embedded clause, as evidenced by their inability to precede the matrix adverb. On the other hand, the covertly accusative NPI in (29b), which can appear before the matrix adverb, unlike nominative ones, is licensed by

matrix negation because accusative subjects are positioned in the matrix clause. In summary, the behavior of NPIs, even if they are not overtly case-marked, is compatible with, if not supportive of, the conclusion drawn in this subsection that accusative subjects are in the matrix clause.

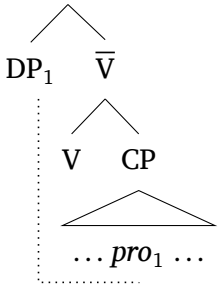
3.2 Accusative subjects have moved from the embedded clause

Having shown that accusative subjects surface in the matrix clause, I provide evidence that accusative subjects start out in the embedded clause and move to the matrix clause. Two possible derivations are movement and prolepsis, shown in (30) and (31), respectively.

(30) movement



(31) prolepsis



First, if accusative subjects were base-generated in the matrix clause, as in (31), they would only be interpreted *de re*, but not *de dicto*, because elements base-generated in the matrix clause cannot reconstruct to a position in the scope of the matrix verb. This is an interpretive consequence expected in a certain structural configuration, often called prolepsis. In prolepsis, a matrix verb takes an additional argument, usually a DP or PP, originating within the matrix clause. This proleptic argument is associated with the embedded predicate via a silent pronoun in the embedded clause without the movement relation. In languages like German and Nez Perce, it has been empirically shown that proleptic arguments receive *de re*, but not *de dicto*, interpretations (Salzmann 2017; Deal 2018). Against this backdrop, accusative subjects in Korean can be read *de dicto*, which argues against the possibility that accusative subjects are base-generated in the matrix clause.

ACC can be interpreted de dicto

(32) a. Nari-ka [enehakkwa haksayng-i ttokttokha-ta-ko] sayngkakhan-ta.
Nari-NOM linguistics student-NOM smart.PRES-DEC-COMP think.PRES-DEC

b. Nari-ka enehakkwa haksayng-ul ttokttokha-ta-ko sayngkakhan-ta.
Nari-NOM linguistics student-ACC smart-DEC-COMP think.PRES-DEC
'Nari thinks a linguistics student is smart.' (✓ *de re*; ✓ *de dicto*)

Consider the following context in which the DP *enehakkwa haksayng* 'linguistics student' can only be read *de re*. Nari believes linguistics students are not smart, but there is a linguistics student who Nari believes is smart without knowing that the student's major is linguistics. Knowing that the student is a linguist, we can report Nari's belief by saying either (32a) or (32b). Contrast this to a context where the DP can only be read *de dicto*. There is a philosophy student and Nari thinks the student is smart, but Nari mistakenly believes the student is a linguistics student. For all the actual linguistics students, Nari has a belief that they are not smart. Knowing that the student is a philosopher, we can still report Nari's belief with (32a) and (32b). The fact that (32b) is acceptable under the latter *de dicto* context suggests that accusative subjects are not base-generated in the matrix clause. If they started out in the matrix clause, it is unclear how we could explain the presence of a *de dicto* reading for (32b). Since accusative subjects are placed in the matrix clause, as established in Section 3.1, they must have undergone movement from the embedded clause.[6]

Another piece of evidence for movement is that accusative case cannot be assigned across syntactic islands. (33) and (34) demonstrate that accusative case cannot be assigned to the DPs within relative clause and adjunct islands, respectively. If it were not for islands, there would be no reason why the DP *Nari* in (33b) and (34b) could not be exceptionally case-marked as in prolepsis, which is insensitive to island constraints.[7] The sensitivity to islands suggests that exceptionally case-marked DPs must move to the matrix clause.

(33) a. Juno-ka [**Nari-ka** cwun senmul]-i/ul nemu pissa-ta-ko
Juno-NOM Nari-NOM gave gift-NOM/ACC too expensive.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

[6] (32) additionally rules out an object control analysis of Korean ECM, since control requires a *de se* interpretation of PRO (Chierchia 1989).

[7] An alternative explanation for (33b) is the A-over-A principle. However, in Mongolian, a nominal inside the accusative-marked nominal can be assigned accusative case by a structurally higher probe (Aravind 2021, (15a)):

(i) *Bi [Bat-iig sugalaa-nd xož-son]-iig med-ne.*
I Bat-ACC lottery-DAT win-PAST-ACC know-DUR
'I know that Bat won the lottery.'

b. *Juno-ka [**Nari-lul** cwun senmul]-i/ul nemu pissa-ta-ko
Juno-NOM Nari-ACC gave gift-NOM/ACC too expensive-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Juno thinks the gift Nari gave is too expensive.'

(34) a. Juno-ka [**Nari-ka** ttokttokhaki ttaymuney] Podo-to ttokttokha-ta-ko
Juno-NOM Nari-NOM smart because Podo-also smart.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. *Juno-ka [**Nari-lul** ttokttokhaki ttaymuney] Podo-to ttokttokha-ta-ko
Juno-NOM Nari-ACC smart because Podo-also smart-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Juno thinks because Nari is smart, Podo is also smart.'

3.3 ECM complements resist tense, but not mood

The third characteristic of ECM in Korean is that accusative case marking is degraded in the presence of tense. (35–37) serve as baseline sentences illustrating ordinary clausal embedding with a nominative embedded subject and the complementizer *ko*. Simple verbs of saying and belief, such as *sayngkakha* 'think', *mit* 'believe', and *malha* 'say', are the ECM verbs in Korean, and these verbs can only take *ko*-clauses as their clausal complement, which must occur with finite morphology.[8] (35–37) involve different lexical projections. In (35), the embedded predicate is the verb *nolayha* 'sing'; in (36) the adjective *ttokttokha* 'smart'; and in (37) the nominal *hankwukin* 'Korean'. The (a) sentences convey a present-tense interpretation, while the (b) sentences have a past-tense interpretation. As shown in Section 2, *ko*-clauses embedded in (35–37) are finite CPs, indicated by the overt complementizer *ko*, and obligatory tense and mood markers. Recall that the past-tense morpheme for V and A is *-ss*; this is also true for N (37b). The present-tense morphemes for V and A are *-n* and null, respectively; N patterns with A in that the present-tense morpheme is null in the language. In all six sentences, the embedded clauses are marked by a declarative mood marker.

(35) a. Juno-ka [**Nari-ka** nolayhan-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM sing.PRES-DEC-COMP think.PRES-DEC
'Juno thinks Nari is singing.'

[8] Sentences with complex verbs of saying, particularly manner-of-speaking verbs, such as *soksaki* 'whisper' and *solichi* 'shout,' are degraded under ECM. It remains to be shown whether these degraded judgments are systematic, and if so, what the differences are between these two groups of verbs of saying in terms of complementation structure and semantic composition. For the remainder, I set aside this issue and focus on the simple and straightforward cases.

b. Juno-ka [**Nari-ka** nolayhayss-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM sing.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari sang.'

(36) a. Juno-ka [**Nari-ka** ttokttokha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PRES-DEC-COMP think.PRES-DEC
'Juno thinks Nari is smart.'

b. Juno-ka [**Nari-ka** ttokttokhayss-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari was smart.' (✓ *generic*; ✓ *episodic*)

(37) a. Juno-ka [**Nari-ka** hankwukin-i-la-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM korean-COP.PRES-DEC-COMP think.PRES-DEC
'Juno thinks Nari is Korean.'

b. Juno-ka [**Nari-ka** hankwukin-iess-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM korean-COP.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari was Korean.' (✓ *generic*; ✓ *episodic*)

Compare (35–37) to (38–40) below, where the embedded subjects are case-marked accusative. When the embedded predicate is a verb (38), ECM is not allowed for present tense nor past tense. On the other hand, when the embedded predicate is an adjective (39) or a noun (40), the (a) sentences are acceptable under ECM, while the (b) sentences are acceptable with an interpretive restriction.

(38) a. *Juno-ka **Nari-lul** nolayhan-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC sing.PRES-DEC-COMP think.PRES-DEC
'Juno thinks Nari is singing.'

b. *Juno-ka **Nari-lul** nolayhayss-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC sing.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari sang.'

(39) a. Juno-ka **Nari-lul** ttokttokha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart-DEC-COMP think.PRES-DEC
'Juno thinks Nari is smart.'

b. Juno-ka **Nari-lul** ttokttokhayss-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari was smart.' (✓*generic*; ×*episodic*)

(40) a. Juno-ka **Nari-lul** hankwukin-i-la-ko sayngkakhan-ta.
Juno-NOM Nari-ACC korean-COP-DEC-COMP think.PRES-DEC
'Juno thinks Nari is Korean.'

b. Juno-ka **Nari-lul** hankwukin-iess-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC korean-COP.PAST-DEC-COMP think.PRES-DEC
'Juno thinks Nari was Korean.' (✓*generic*; ×*episodic*)

The interpretive restriction in (39b) and (40b) is notable when compared to (36b) and (37b), which are interpretable both episodically and generically. For instance, (36b) is acceptable in an episodic context where Nari gave an excellent presentation yesterday, and Juno thinks Nari was smart during the presentation, unlike her usual self. In contrast, (39b) is not acceptable in such context. Similarly, (37b) readily allows both generic and episodic readings; the latter occurs in a context where Nari changed her citizenship at some point in her life. However, (40b) is unacceptable in the citizenship-changing episodic context. Instead, lifetime effects obligatorily emerge in (40b) (i.e., the inference that Nari is no longer alive), suggesting that it only receives a generic interpretation.

The fact that episodic interpretations are disallowed across all examples suggests a generalization that ECM complements resist tense. However, before drawing such conclusion, it needs to be addressed why generic interpretations are still permitted, despite the presence of a tense morpheme. The following pairs clearly illustrate the generic-episodic contrast. (41) is intended to only receive a usual episodic interpretation, while (42) is exclusively generic (I thank the reviewer for helping me construct these examples):

(41) a. Juno-ka [**Nari-ka** (cenyek.siksa-eyse) sayngsen-ul mos mek-ess-ta-ko]
Juno-NOM Nari-NOM evening.meal-at fish-ACC not eat-PAST-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. *Juno-ka **Nari-lul** (cenyek.siksa-eyse) sayngsen-ul mos mek-ess-ta-ko
Juno-NOM Nari-acc evening.meal-at fish-ACC not eat-PAST-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Juno thinks Nari wasn't able to eat fish at the dinner.' (*episodic*)

(42) a. Juno-ka [**Nari-ka** sayngsen-ul mos mek-nun-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM fish-ACC not eat-PRES-DEC-COMP think.PRES-DEC

b. Juno-ka **Nari-lul** sayngsen-ul mos mek-nun-ta-ko sayngkakhan-ta.
Juno-NOM Nari-acc fish-ACC not eat-PRES-DEC-COMP think.PRES-DEC
'Juno thinks Nari cannot eat fish.' (*generic*)

I propose that the acceptable status of (42b), as well as (39b) and (40b) under a generic reading, represents an instance of coercion. Upon encountering an accusative-marked embedded subject,

speakers instinctively try to accommodate strings that follow, crucially in a generic manner, for reasons that will be made clear in Sections 3.4 and 4.2. I assume that accommodating speakers misparse the sentence by ignoring the tense morpheme and thus represent the structure as T-less in comprehension. As far as morphosyntax is concerned, if the generalization that ECM complements resist tense is correct, these sentences should be unacceptable in any reading due to the inclusion of a tense morpheme. However, in real-time judgments, it is natural for speakers to employ a repair strategy to salvage acceptability. When they accommodate the strings during comprehension, the embedded clause of these sentences would be represented as T-less in the speaker's representation. This process could be facilitated if the embedded present tense is semantically agreement-independent zero tense in the sense of Kratzer (1998). While processing effects like coercion may not be as systematic and principled as grammar effects, they should nonetheless arise consistently rather than randomly, adhering to other constraints, namely generic restriction. (39b), (40b), and (42b), whose embedded predicate is individual-level, allow coercion, while (38b) and (41b), whose embedded predicate is stage-level, do not. This is because such laxing is unlikely to occur in episodic sentences with clearly tensed interpretations, even for speakers who accommodate generic sentences. A theoretical explanation for why episodic, but not generic, sentences are incompatible with tenseless environments is provided in Section 4.2.

Setting aside special generic interpretations as a repair strategy applied to accommodate given strings, the following generalization emerges: when the embedded subject is marked with accusative case, there is no room for tense in the verbal projection of embedded clause. In other words, ECM is not licensed when T is present in the embedded verbal projection. For ordinary clauses with a nominative subject, the present-tense exists in the structure of (36a) and (37a); it is just that the morpheme is always phonologically null for AP and DP predicates in Korean. However, in ECM complements with an accusative subject, no tense exists at all in (39a) and (40a), providing an explanation for why only (39a) and (40a) are acceptable (leaving out the complication with coercion). The key to explaining the acceptability of (39a) and (40a) is the fact that the present-tense form and the no-tense form are homophonous for AP and DP. Section 2 showed that the present-tense morpheme for A is null in Korean, which is also true for a nominal predicate. If a null present-tense existed in (39a) and (40a), it is unclear what other independent factor could account for the unexpected pattern, which is that only two out of the six sentences in (38–40) are acceptable. The homophony between the null present-tense form and the no-tense form for certain predicates (A and N, but not V) provides a straightforward explanation for this puzzling pattern: embedded clauses having T in the verbal projections are incompatible with accusative subjects. According to this generalization, (39a) and (40a) do not have embedded null present-tense, but rather are not tensed at all. A question that remains is

then how the temporal interpretations arise in (39a) and (40a), given the absence of tense. This is answered in Section 4.2.

3.4 ECM is only allowed for individual-level predication

The final property of Korean ECM is that accusative case marking on embedded subjects is sensitive to the type of embedded predication. As Wechsler & Lee (1995) observe, embedded subjects can get accusative case only when embedded clauses are interpreted individual-level in the sense of Carlson (1977), for example, with the predicate *smart*. In contrast, predicates usually interpreted as stage-level such as *tired* do not allow ECM. (44b) is only acceptable if the individual-level reading is coerced, where Juno believes Nari is a tiring person.

(43) a. Juno-ka [**Nari-ka** ttokttokha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PRES-DEC-COMP think.PRES-DEC.

b. Juno-ka **Nari-lul** ttokttokha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart-DEC-COMP think.PRES-DEC
'Juno thinks Nari is smart.'

(44) a. Juno-ka [**Nari-ka** phikonha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM tired.PRES-DEC-COMP think.PRES-DEC

b. *Juno-ka **Nari-lul** phikonha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC tired-DEC-COMP think.PRES-DEC
'Juno thinks Nari is tired.'

The restriction of ECM to individual-level predication can also be shown with Multiple Nominal Constructions (MNC) that receive individual-level interpretation. MNC is a construction where there is more than one nominative DP within a single clause. The descriptive term that refers to the first nominative DP is Major Subject, while the rest of the clause is called Sentential Predicate. For instance, in (45a), the Major Subject is 'Nari', whereas in (45b), it is 'Seoul'.

(45) a. **Nari-ka** khi-ka khu-ta.
Nari-NOM height-NOM big.PRES-DEC
'Nari is tall.'

b. **Seoul-i** kyewul-i nalssi-ka chwup-ta.
Seoul-NOM winter-NOM weather-NOM cold.PRES-DEC
'Seoul has a cold winter.'

Both sentences in (45) are interpreted individual-level, describing generic, inherent properties of Major Subjects: Nari's tallness and Seoul's cold winter. (46) and (47) below show that when

(45) is embedded under the ECM verb *saengkakha* ‘think’, Major Subjects can receive accusative case in each case.

(46) a. Juno-ka [**Nari-ka** khi-ka khu-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM height-NOM big.PRES-DEC-COMP think.PRES-DEC

b. Juno-ka **Nari-lul** khi-ka khu-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC height-NOM big-DEC-COMP think.PRES-DEC
‘Juno thinks Nari is tall.’

(47) a. Juno-ka [**Seoul-i** kyewul-i nalssi-ka chwup-ta-ko]
Juno-NOM Seoul-NOM winter-NOM weather-NOM cold.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. Juno-ka **Seoul-ul** kyewul-i nalssi-ka chwup-ta-ko sayngkakhan-ta.
Juno-NOM Seoul-ACC winter-NOM weather-NOM cold-DEC-COMP think.PRES-DEC
‘Juno thinks Seoul has a cold winter.’

When the embedded clause is a stage-level MNC, ECM is not allowed, even in the absence of tense morphology. (48b) only marginally allows an interpretation where Nari is a person causing a headache.

(48) a. Juno-ka [**Nari-ka** meli-ka aphu-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM head-NOM sick.PRES-DEC-COMP think.PRES-DEC

b. *Juno-ka **Nari-lul** meli-ka aphu-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC head-NOM sick-DEC-COMP think.PRES-DEC
‘Juno thinks Nari is having a headache.’

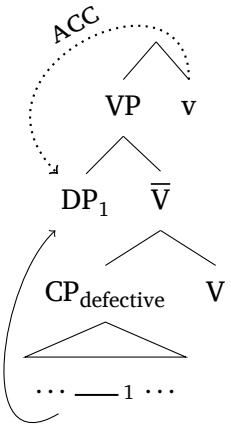
4 Proposal

4.1 Defective CPs are not phases

Sections 3.1 and 3.2 together showed that accusative subjects, having started out in the embedded clause, move to the matrix clause. All the data presented there receive an explanation if embedded subjects undergo raising-to-object, where the DP moves across a finite clausal boundary and accusative case is assigned in a local configuration. Section 3.3 showed that embedded subjects can be marked with accusative case only when the embedded clause lacks tense in the verbal projection. Based on these generalizations, I argue that T is not merged at all in ECM, and these finite CPs without the projection of T are transparent for movement. This is formulated in (49) using the notion of extended projection in the sense of Grimshaw (2000). Embedded subjects of such defective, nonphasal CPs undergo one-fell-swoop movement to the matrix clause, as illustrated in (50).

(49) A defective extended projection is not a phase.

(50)



The defective status of a CP follows systematically from the notion of defectiveness defined in (51): extended projections without lower projections in the functional sequence are defective. Assuming the functional sequence (52) for the verbal domain, (51) provides systematic predictions about which CPs are defective. These defective CPs, I argue, do not constitute locality domains, as stated in (49).

(51) An extended projection is *defective* if it lacks any lower projections in the functional sequence.

(52) Functional sequence in the verbal domain: ⟨C ≻ Mood ≻ T ≻ Asp ≻ v ≻ V⟩

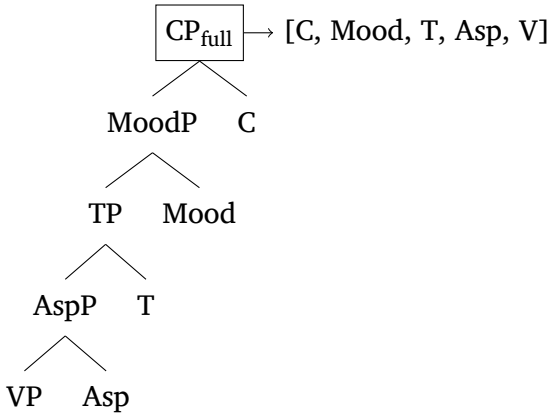
A precursor to the present proposal is Ferreira (2009), who argues, based on evidence from Brazilian Portuguese, that a C selecting a ϕ -defective T, thus unable to assign nominative case, is not a phase head. This claim about phase implies that a T head can be either defective or nondefective, as proposed by Chomsky (2000). The current paper takes the position that there is only one T and this T is not merged at all in nonphasal finite CPs. If we establish a T-less CP as a logically possible structure, it becomes redundant to posit two kinds of T—defective and nondefective—and consequently, two kinds of C, one selecting a defective T and the other selecting a nondefective T.

In this respect, (49) and (51) diverge from the previous defectiveness-based proposals on locality, where defectiveness applies to the functional head T and this defective T is what renders a CP nonphasal. Instead, the distinction between a defective T and a nondefective T is discarded, and defectiveness is coded at the level of extended projections per (51), in terms of the absence of any intermediate projections. This notion of defectiveness defined for an extended projection directly translates into its nonphasal status. In other words, defectiveness is a property of an

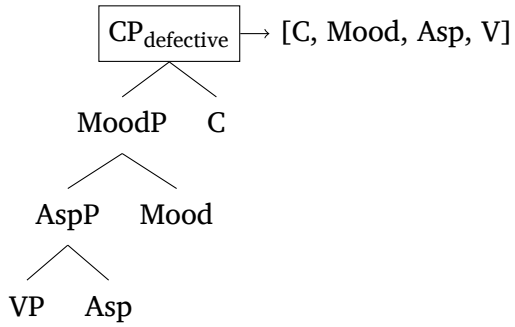
extended projection, not a functional head (neither T nor C), and it determines at the same time whether an extended projection is a phase or not.[9]

The proposed notion of defectiveness and phase, which makes reference to extended projections, requires a formal mechanism for tracking intermediate projections within an extended projection. I adopt category percolation, independently proposed by Grimshaw (2000) to account for phenomena such as subjunctive selection in English. As categories percolate within an extended projection, information about the internal structure of a clause is represented at the CP level. The application of category percolation in the current context is illustrated in (53–54) below.

(53) Category percolation in full CP



(54) Category percolation in defective CP



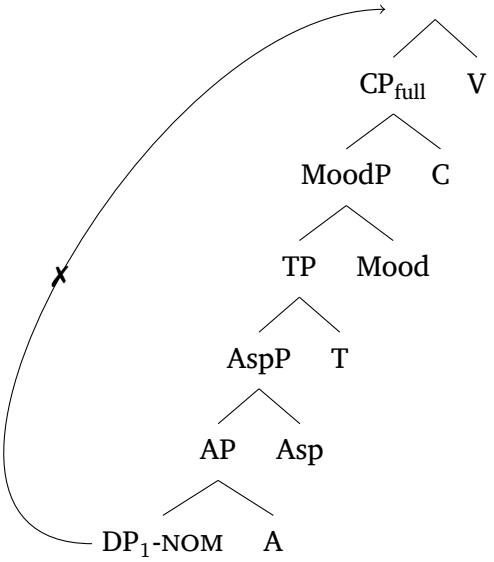
[9] The proposed perspective on defectiveness does not complicate the selection of a matrix verb. Verbs looking for clausal complements consistently select C. A potential complication lies in the selection feature of Mood, as it does not always select T, despite the functional sequence (52). Currently, I do not have a clear solution to this issue. Any existing account of ECM would necessitate a complication of a similar nature, coded at some point in the derivation. This could be placed in the selection of a matrix verb, a functional head, or the optional presence of an A-feature on C, etc.

CPs that have all the intermediate projections in the TAM domain are not defective. The structure for (55a) is illustrated in (56), where the embedded CP is impenetrable. The present-tense morpheme for adjectives was shown to be phonologically null in the language.

(55) a. Juno-ka [**Nari-ka** ttokttokha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PRES-DEC-COMP think.PRES-DEC

b. Juno-ka **Nari-lul** ttokttokha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart-DEC-COMP think.PRES-DEC
'Juno thinks Nari is smart.'

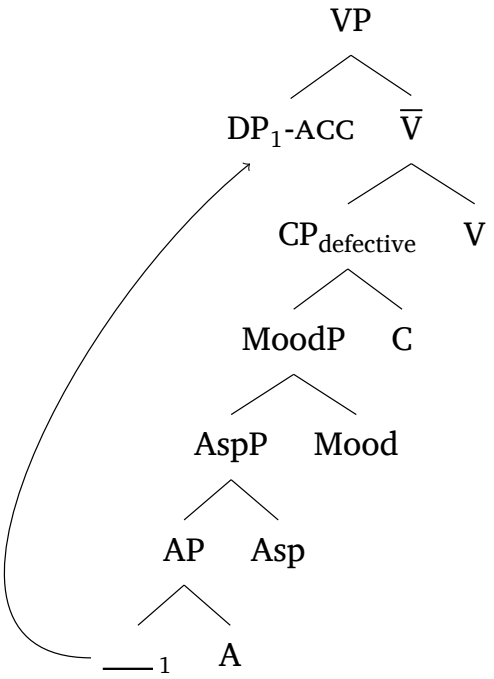
(56) Embedded subjects cannot escape full CP



By contrast, in cases like (57), where no T(ense) projection exists in the verbal projection, the embedded clause is not a phase, despite the clause being finite with C and Mood projections. Embedded subjects escape these defective CPs to move straight to the matrix clause, whenever the embedded clause is T-less. For simplicity, I assume that the obligatory nature of A-movement in T-less environments is enforced by positing [•D•] on ECM verbs.[10] The upshot is that PIC stands as it is, but since defective CPs are not phases, nothing forces an intermediate touchdown of the escaping DP at [Spec, CP]. The embedded subject in (55b) moves in one fell swoop to the place where it receives accusative case locally.

[10] Case Filter (*DP[− case]) can be additionally assumed depending on the theory one adopts.

(57) Embedded subjects can escape defective CP



In summary, T-less finite CP identifies all and only clausal complements that license ECM in Korean. These defective CPs, I claim, are transparent to syntactic operations, allowing the embedded subject to directly move to the matrix clause. The proposal was empirically motivated by the first three characteristics of Korean ECM introduced in the previous section. The following subsection shows how the fourth property is explained, that is, ECM's sensitivity to different types of predication.

4.2 GEN derives predicate restriction in finite ECM

In English, finiteness and morphological tense are tightly correlated. Crosslinguistically, however, finite morphology encompasses not only tense morphemes, but also person, number, mood inflections. Therefore, finiteness is not equivalent to tensedness, meaning a T-less CP is not necessarily nonfinite. Rather, finiteness is a property of an extended projection determined by the projection of a finite complementizer. In other words, a finite context is created by virtue of finite C projecting, as proposed by Rizzi (1997). Embedding the crux of finiteness into the projection of a finite complementizer can result in an interpretive restriction unique to finite clauses. I propose (58) as a universal constraint on finite complementizers: they should select propositions of type *t*, but crucially, not $<i, t>$ with an open time argument. (58) serves as a constraint on interpretation. Consequently, for the purpose of satisfying (58), whether a specific

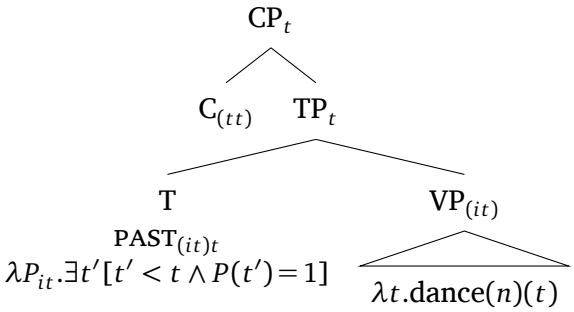
finite CP has a TP or not is irrelevant, as long as the semantic type of the complement clause is the right kind.[11]

(58) Finite CP Constraint
Finite complementizers select propositions of type *t* (setting aside intensionality).

Tense languages usually rely on morphological tense to satisfy the constraint in (58). (59) illustrates this point, assuming quantificational tense for illustration.

(59) a. Nari danced.

b.



(58) is often considered a given in tense languages since it is trivially satisfied by obligatorily occurring morphological tense. In contrast, satisfying (58) becomes nontrivial in tenseless languages, as they lack morphological tense. Proposals on tenseless languages vary in how they explain still rich temporal interpretations even when the languages lack morphological tense (e.g., Tonhauser (2011), Pancheva & Zubizarreta (2023) for Guarani). Regardless of the mechanism that ultimately proves correct for enforcing (58) in tenseless languages, it should not be freely available in tense languages like Korean. This gives rise to a dilemma: ECM complements in Korean are finite CPs lacking morphological tense. Resorting to a nonfinite embedding strategy to satisfy the constraint (58) is not possible for ECM complements, given the nature of declarative *ko*-clause summarized in Section 2. These T-less finite clauses require something to close off the relevant time argument, distinct from PAST or PRES provided by morphological tense.

I argue that the generic operator, which originates lexically from individual-level predicates, satisfies the Finite CP Constraint for T-less ECM complements. Crucially, GEN binds the time argument (Chierchia 1995; Magri 2009). The LF of the generic clause (60a) is given in (60b).

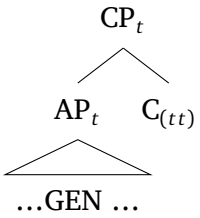
[11] Throughout the paper, I focus on declaratives, the only clause type relevant to ECM. The investigation of how the constraint in (58) operates in other clause types, such as imperatives and interrogatives, is left for future research.

(60c) states the truth conditions: for every time *t'* that overlaps with the evaluation time and satisfies the contextually determined restrictor C, Nari is smart at *t'*.

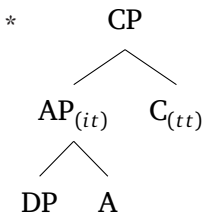
(60) a. Nari is smart.
b. GEN C [Nari smart]
c. $\forall t'[t' \circ t \wedge C(t')]$ [smart(n)(t')] (○: temporal overlap)

What is special about GEN that comes with individual-level predicates is that the operator is inherent in the lexical predicates by virtue of their individual-level interpretation. Unlike adverbs of quantification (e.g., *occasionally*), GEN does not introduce a time argument of its own again.[12] In T-less finite CP contexts, the constraint in (58) is satisfied by this lexical GEN, leading to the structure in (61). If it were not for GEN, the T-less embedded clause would still be of type $<i, t>$ with an open time argument, which is not the right type of argument that the finite complementizer *ko* is looking for. (62) illustrates this type mismatch.[13]

(61) Type match in the presence of GEN



(62) Type mismatch in the absence of GEN



The intuitive understanding of the Finite CP Constraint is that it is simply infelicitous in finite contexts to express a proposition that does not have its own temporality, just like uttering an infinitival clause intended to be a stand-alone matrix declarative clause. This state of affairs contrasts with nonfinite contexts. For instance, the semantics of ECM infinitives in

[12] Quantifications contributed by adverbs of quantification are not enough to satisfy (58) because their type is $<it, it>$. Such adverbs do not make stage-level predication suddenly acceptable in Korean ECM.

[13] For simplicity, (61–62) do not represent irrelevant functional projections aP, AspP, and MoodP.

English can be modeled by vacuous binding with a dummy time argument (Abusch 1994; Heim 1994) or a proposition with an open time argument directly serving as an intensional argument to the selecting verb. Whichever route one chooses, the upshot is that a context where a nonfinite clausal embedding strategy is used is distinct from a finite embedding context. In this regard, the Finite CP Constraint (58) reflects the idea that finite clauses, whether they are morphosyntactically tensed or not, are still deeply tensed from a semantic perspective.

We are ready to see how the predicate restriction is derived. The key examples are repeated below.

(63) a. Juno-ka [**Nari-ka** ttokttokha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM smart.PRES-DEC-COMP think.PRES-DEC

b. Juno-ka **Nari-lul** ttokttokha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC smart-DEC-COMP think.PRES-DEC
'Juno thinks Nari is smart.'

(64) a. Juno-ka [**Nari-ka** phikonha-ta-ko] sayngkakhan-ta.
Juno-NOM Nari-NOM tired.PRES-DEC-COMP think.PRES-DEC

b. *Juno-ka **Nari-lul** phikonha-ta-ko sayngkakhan-ta.
Juno-NOM Nari-ACC tired-DEC-COMP think.PRES-DEC
'Juno thinks Nari is tired.'

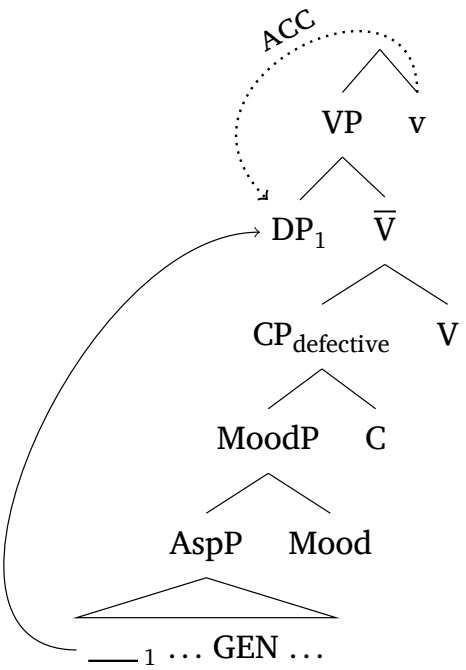
Only embedded clauses that contain GEN can occur in the ECM contexts because (i) ECM complements are T-less, (ii) nonfinite embedding strategy is unavailable for verbs of saying and belief, and (iii) Korean is a tense language, hence (iv) the interpretive constraint on finite CPs is not satisfied unless lexical GEN closes off the proposition so that the finite complementizer *ko* combines with an argument of the right semantic type.

The final structure for (63b) is provided in (65). The embedded subject can escape the lower CP because it is defective and, by the claim in (49), not a locality domain for movement under the refined phase theory. For (63b) to be interpretable, the structure must contain GEN to satisfy the Finite CP Constraint in (58). The rest follows directly from the lexical semantics of *smart* and *tired*. GEN-involving structure is compatible with individual-level predication, as proposed by Chierchia (1995), who claims that individual-level predicates are inherently generic.[14] In contrast, the lexical semantics of stage-level

[14] Although no predicate is inherently individual-level or stage-level as contextual manipulation can force either interpretation, the following still holds: if a predicate is interpreted as individual-level, it is generic.

predicates is not compatible with GEN that must be present in the embedded clause, accounting for unacceptability of (64b).

(65) Exceptional Case Marking in Korean



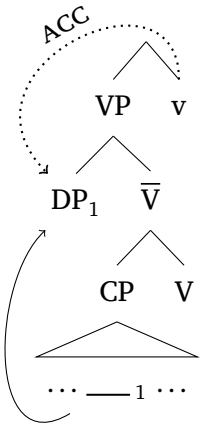
5 Comparison with alternative analyses

This section discusses four alternative analytical options and discuss how each fares on Korean ECM compared to the proposed analysis. The first option reverses the order of operations: case assignment is followed by A-movement. The second alternative is the Major Subject raising analysis of Yoon (2007), who correlates ECM and MNC, and extends the analysis of the latter to ECM. In Section 5.3, I examine the phase edge analysis arguing for A-movement through the phase edge. Lastly, the optional raising analysis is discussed.

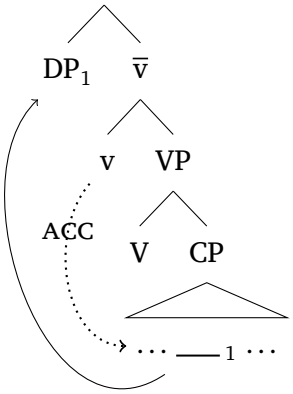
5.1 Long-distance case assignment

Section 4 argued that embedded subjects in ECM constructions cross a clausal boundary and then receive accusative case locally by matrix *v*. The structure is reiterated in (66) below. Compare (66) to (67), with a reversed order of operations in which case assignment precedes A-movement. In this alternative derivation, both movement and case assignment occur across a finite CP boundary.

(66) Long-distance movement



(67) Long-distance case assignment



To appreciate what is on stake, it is worth noting that (67) is indeed a viable path according to (49). If a defective clause is not a phase, we expect it to be transparent not only for movement but also for case assignment, all else equal. The main claim of this paper, therefore, is compatible with both paths in (66) and (67). Moreover, these two analytical options only differ in the order of operations, so the empirical data presented in Section 3 do not help distinguish them. Still, I point out two arguments that support favoring (66) over (67) as a movement path involved in Korean ECM.

The first argument against the path in (67) is theory-internal. It violates the Activity Condition (Chomsky 2000), which prohibits syntactic operations from targeting a DP whose case value has been determined. A more significant issue inherent in (67) is that the long-distance case assignment path cannot properly constrain ECM. With the reversed order of operations, the probe must be on *v*, not V. It is natural to assume that structural properties that differ depending on each verb are encoded on the lexical head, while functional *v* remains consistent in its features throughout different lexical predicates within a language, modulo argument structure. To capture

the fact that only a handful of predicates are ECM verbs in Korean, the feature triggering ECM movement should be encoded on the lexical head, not on the functional head. This shortfall equally transfers to other variants of (67), regardless of how the locality problem is addressed. Whether embedded subjects go through an intermediate touchdown at the edge or not, long-distance case assignment followed by crossclausal movement would suffer from the same issue of functional *v* having to constrain which verbs allow ECM.

5.2 Major Subject raising

One existing analysis of Korean ECM is the Major Subject raising analysis (Yoon 2007). According to Yoon (2007), ECM shares the same distributional property as Multiple Nominative Constructions (MNC), which was introduced in Section 3.4: both ECM and MNC express categorical judgments in the sense of Kuroda (1972), equivalent to individual-level predication. Based on Heycock & Doron's (2003) observation that Major Subjects receive individual-level (categorical) interpretations, Yoon (2007) argues that ECM is the raising of Major Subjects. However, numerous naturally occurring examples show that MNC can also be used for stage-level statements (thetic judgments in Kuroda's term). Section 3.4 presented a counterexample where MNC is interpreted stage-level; (68) further illustrates the point. This contrasts with ECM, for which stage-level episodic interpretation is never allowed.

(68) Multiple Nominative Constructions with stage-level predication

a. Nari-ka meli-ka aphu-ta.
Nari-NOM head-NOM sick.PRES-DEC
'Nari is having a headache.'

b. ecey Nari-ka meli-ka aphass-ta.
yesterday Nari-NOM head-NOM sick.PAST-DEC
'Nari had a headache yesterday.'

c. ce kosoktolo-ka onul cha-ka manh-ta.
DEM highway-NOM today car-NOM many.PRES-DEC
'Traffic is heavy on that highway today.'

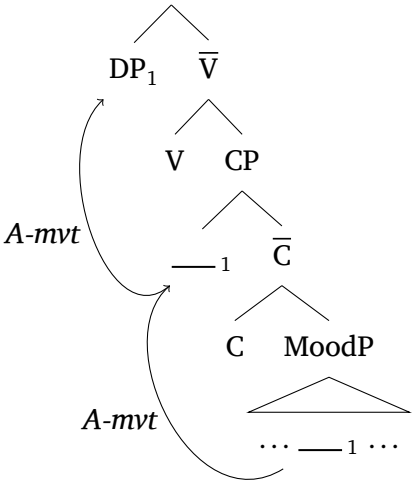
Yoon proposes that embedded subjects in ECM move to the matrix clause from a structural A-position dedicated to Major Subjects. The category of this position is unspecified in the proposal. If we assume, for concreteness, that this position where the Major Subjects start out is [Spec, CP], the structural path that the Major Subject raising analysis argues for becomes equivalent to that of the phase edge analysis (Section 5.3). If this unspecified position is not [Spec, CP], the locality issue remains unaddressed. Even when setting aside the theoretical issue, (68) indicates that any account of ECM that extends the analysis of MNC is empirically not on the right track.

5.3 Phase edge analysis

Another promising candidate for the analysis of Korean ECM is the phase edge analysis, in which embedded subjects A-move through the phase edge. To make the comparison relevant for the current paper, I consider a strong version of the phase edge analysis, according to which the status of CP as a phase is not weakened. All CPs are phases as standardly assumed, whether having or lacking T. Technically, the phase edge analysis itself is not a direct counterclaim to the proposal that some finite CPs are not phases. Defective CPs could be nonphasal, while embedded subjects still move through the edge, if it turns out there is an independent motivation for this intermediate movement step.

To resolve the dilemma that arises from A-movement through the phase edge also having to respect the Ban on Improper movement, a crucial assumption in the phase edge analysis is that the intermediate movement to Spec,CP can be an A-movement if the feature triggering the movement is an A-feature (Van Urk 2015). The idea that C can be an A-position and, consequently, that the movement involved in ECM is a *proper* movement has been argued for Mongolian (Fong 2019). (69) illustrates the extension of the phase edge analysis to Korean ECM.

(69) Phase edge analysis



In general, data on ECM do not empirically distinguish between the phase edge analysis (69) and the defective CP analysis, because the intermediate movement step to [Spec, CP] often cannot be verified by final surface strings. Therefore, previous analyses arguing for the edge movement have offered direct evidence for this intermediate step. For example, Fong presents data showing that accusative subjects in Mongolian can surface after an embedded adverb, suggesting that raising to the matrix clause is not obligatory for accusative subjects. However, Section 3 of this paper demonstrated that embedded subjects in Korean ECM cannot remain downstairs; accusative-marked subjects always appear in the matrix clause. Specifically, (18–21) showed that

accusative subjects, unlike nominative subjects, cannot surface after an embedded adverb (for further discussion, see Section 5.4). This finding weakens the hypothesis that the intermediate movement step exists. In the absence of such evidence, the phase edge analysis is empirically insufficient for Korean ECM.

In addition to the empirical considerations, there is also a theoretical reason to disfavor the phase edge analysis for Korean ECM. While it has been claimed that C can be an A-position (Van Urk 2015), it remains to be addressed how to independently motivate and constrain the optional presence of an A-feature on C. Given the empirical generalization from earlier sections, it would be ideal for the possibility of C having an A-feature in Korean to naturally follow from the T(ense)less property of its ECM complements. To avoid stating it as a mere stipulation, we need a mechanism that enforces the correlation that C has an A-feature whenever no T exists. One possibility for deriving this correlation is to assume that the A-feature always originates on C, and in the absence of T, the feature is not inherited downward onto T but remains on C, which I can only suggest as speculation here. Developing this particular version of the phase edge analysis for Korean ECM would require a commitment to obligatory downward feature inheritance (Chomsky 2008). However, the directionality of feature inheritance is not a parameter that applies on a language-by-language basis, for instance, specifically to Korean; rather, it is a part of the general mechanism of grammar. Against this backdrop, downward feature inheritance has been claimed to be empirically too strong for cases like complementizer agreement, where features can remain on C (Carstens & Diercks 2013; Citko 2014). Furthermore, accepting downward feature inheritance as a component of grammar poses a nontrivial conceptual challenge due to its countercyclicity. These intricate issues, from both empirical and theoretical perspectives, would need to be addressed for the phase edge analysis to be a compelling account for Korean ECM.

5.4 Optional raising

In our discussion of the phase edge analysis in Section 5.3, we accepted without much scrutiny that (18–21), repeated below as (70–73), provide conclusive evidence for accusative subjects consistently residing in the matrix clause. Here I delve deeper into the possibility of accusative subjects first moving to [Spec, CP] and then optionally moving into the matrix clause. The conclusion of this investigation might prompt us to reconsider the phase edge analysis more favorably, at least from the empirical perspective.

Baseline

(70) a. Juno-ka [**Nari-ka** sangtanghi khi-ka khu-ta-ko]
Juno-NOM Nari-NOM considerably height-NOM big.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. Juno-ka **Nari-lul** sangtanghi khi-ka khu-ta-ko
Juno-NOM Nari-ACC considerably height-NOM big-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Juno thinks Nari is considerably tall.'

(71) a. Nari-ka [**sofa-ka** sacin-ey pihae te etwup-ta-ko]
Nari-NOM sofa-NOM photo-to compared more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. Nari-ka **sofa-lul** sacin-ey pihae te etwup-ta-ko
Nari-NOM sofa-ACC photo-to compared more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Nari thinks the sofa is darker compared to the photo.'

ACC cannot follow embedded material

(72) a. Juno-ka [sangtanghi **Nari-ka** khi-ka khu-ta-ko]
Juno-NOM considerably Nari-NOM height-NOM big.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. *Juno-ka sangtanghi **Nari-lul** khi-ka khu-ta-ko sayngkakhan-ta.
Juno-NOM considerably Nari-ACC height-NOM big-DEC-COMP think.PRES-DEC
'Juno thinks Nari is considerably tall.'

(73) a. Nari-ka [sacin-ey pihae **sofa-ka** te etwup-ta-ko]
Nari-NOM photo-to compared sofa-NOM more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC

b. *Nari-ka sacin-ey pihae **sofa-lul** te etwup-ta-ko
Nari-NOM photo-to compared sofa-ACC more dark.PRES-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Nari thinks the sofa is darker compared to the photo.'

Some pieces of evidence presented in Section 3.1 are compatible with the optional raising analysis. For instance, if ECM complements are defective, as argued in this paper, an alternative explanation can be given to the WCO patterns in (24–25). It becomes plausible to interpret (25b) as involving a one-fell-swoop movement from the embedded position to the front of the matrix

clause, suggesting that the accusative subject might not have been in the matrix clause prior to the WCO-free scrambling step. Therefore, it is important to establish (70–73) as solid evidence that accusative subjects cannot remain downstairs.

There are two potential reinterpretations of (70–73). (72b) and (73b) are unacceptable not because the accusative subject is in the embedded clause, but due to either of the following reasons: (i) the language only allows one specifier in the C domain, and with the embedded material already occupying that specifier position, the movement of the accusative subject to the edge is blocked, or (ii) the embedded material, despite not qualifying as a goal for accusative case assignment, can intervene in the process of case assignment, also known as defective intervention.

The first option requires a premise that the language under consideration disallows multiple specifiers in the C domain. However, this is not the case in Korean, as shown in (74). The language permits multiple specifiers, accommodating the occurrence of multiple adverb phrases at the edge of the clause.

(74) Juno-ka [ecey Yuna-mankhum Nari-ka wuskyess-ta-ko]
Juno-NOM yesterday Yuna-as Nari-NOM funny.PAST-DEC-COMP
sayngkakhan-ta.
think.PRES-DEC
'Juno thinks Nari was as funny as Yuna yesterday.'

Another possibility worth exploring is defective intervention of adverbials. However, defective intervention has been proposed explicitly for dative nominals, not adverbs. Holmberg & Hróarsdóttir (2003) show that intervening adverbs cannot block raising-to-subject in Icelandic.

(75) Icelandic (Holmberg & Hróarsdóttir 2003)
a. Ólafur hefur (alltaf) virst vera gáfaður.
Olaf.NOM has always seemed be intelligent
b. *Ólafur hefur (alltaf) virst mér vera gáfaður.
Olaf.NOM has (always) seemed me.DAT be intelligent
'Olaf has (always) seemed to be intelligent.'

Incidentally, some authors have observed that duration/frequency adverbials can be case-marked in Korean (e.g., Maling et al. 2001), although Yoon (2018) points out that the acceptability judgment on the crucial example, such as (76a), has been challenged. With variations in judgment set aside, note that the adverbials used in (70–73) are not duration/frequency adverbials in the first place. Plain adverbials cannot be case-marked at all, as (76b) illustrates.

(76) a. ?Nari-ka wuncen-ul tases-sikan-tongan-ul hayss-ta.
Nari-NOM drive-ACC five-hour-for-ACC do.PAST-DEC
'Nari drove for five hours.'

b. Nari-ka sangtanghi(*lul/*ey) ki-ka keu-ta.
Nari-NOM considerably(*ACC/*DAT) tall-NOM big.PRES-DEC
'Nari is considerably tall.'

6 Discussion

6.1 Crosslinguistic evidence

The empirical insufficiency of CP phasehood as a single locality constraint in several other languages has led to proposals that refine the ingredient of phase theory, for example, phase unlocking (Rackowski & Richards 2005) and contextual phasehood (Bošković 2014; Deal 2016). The claim that defective extended projections are not phases can also be understood as an attempt to modify phase theory in light of empirical evidence arguing against treating all finite CPs as opaque domains. While the detailed case study was presented on Korean ECM, the proposal straightforwardly extends to crossclausal A-dependencies in other languages where T-less finite CPs are transparent to A-movement. Greek and Telugu are two of such languages. Alexiadou & Anagnostopoulou (1999) show that tenseless subjunctive CPs in Greek, despite being finite in that they exhibit person and number morphology, allow raising-to-subject out of them. According to Messick & Raghotham (2023), Telugu only allows ECM when the embedded clause lacks a tense marker, just like in Korean. In the presence of tense morphemes, embedded subjects cannot be marked with accusative case.

(77) *Telugu* (Messick & Raghotham 2023)
a. nenu vaadi-(ni) pičči-vaadu ani bhavinčæænu.
1SG 3MS-ACC mad-one ANI consider.1SG
'I considered him mad.'
b. nenu vaadi-(*ni) pičči-vaadu avu-taa-du ani bhavinčæænu.
1SG 3MS-ACC mad-one be-FUT-3MS ANI thought.1SG
'I thought he would become mad.'

Not all languages that have finite ECM, however, allow ECM only in T-less environments. For example, in P'urhépecha, Mongolian, and Uyghur, tense does not seem to be the relevant parameter for ECM, at least from the data given in Zyman (2017), Fong (2019), and Major (2021), respectively. In these languages, the proposal in (49–51) might not necessarily derive correct generalizations. Of course, this does not mean that the proposed criterion for phasehood is incompatible with the presence of tensed ECM complements in other languages. For instance, the fact that embedded subjects can remain downstairs in Mongolian has been proposed to be an argument for the A-movement path through the phase edge. The phase edge analysis might be correct for languages like Mongolian, independently of the defective CP analysis for languages like Korean, where postulating an intermediate movement step leads to both conceptual and empirical challenges.

Major's (2021) proposal for Uyghur ECM shares the same spirit as the current proposal, in that ECM complements are claimed to be defective CPs. In Uyghur, defectiveness is signaled by the fact that these ECM complements exhibit default agreement as opposed to the expected agreement pattern, although the source of defectiveness remains unexplained. The main claim of this paper does not rule out the possibility that factors other than the projection of T could render a finite CP complement defective. The source of defectiveness in CPs may be attributed to grammatical aspect, mood, or something other than missing projections in the TAM domain. For example, if we assume that agreement morphology is introduced by an Agr head and ECM clauses do not project an AgrP, the defective CP analysis could account for the Uyghur ECM data. This would also support the general notion of defectiveness (51) proposed in this paper.[15] A comprehensive investigation of this matter is only possible through a detailed examination of individual languages.

Another proposal on crossclausal A-dependency that can be grouped as a defective CP analysis is Carstens & Diercks (2013). For Raising to Subject in Lubukusu, they locate the source of defectiveness in the complementizer because raising complements are headed by a distinct complementizer. Assuming an articulated C domain, Carstens (2016) proposes that the defective complementizer *mbo* projects FinP, at a position lower than ForceP projected by a nondefective complementizer. Crucially, the phase head Int projects between these two complementizers, explaining why only *mbo*-clauses are transparent for A-movement. The empirical observation that defective CPs are headed by a distinct complementizer certainly does not argue against the present proposal. However, if the theory proposed in this paper is correct for Lubukusu hyperraising, the nonphasal status of *mbo*-clauses would result from the lack of one or more internal projections within these CPs, rather than from clause size as claimed by Carstens (2016). It is not clear whether the occurrence of the defective complementizer *mbo* correlates with the presence of internal projections in raising complements, such as T, Asp, Mood, or Agr.

This paper has not addressed whether nonphasal finite CPs lacking intermediate projections are also transparent to Ā-operations. Although the strongest version of (49) predicts that T-less finite CPs, for example, will not show successive-cyclic Ā-movement, it may be hard to find the right environment to test this. This is because a language must (i) have overt reflexes of successive-cyclic movement, and moreover, (ii) allow at least some of its finite CPs to lack tense morphology to start with (or defective in some other consistent way). Recall that in Korean, the homophony between the present-tense and no-tense forms for certain lexical projections was what made the strings with T-less finite CPs acceptable. All else equal, the arbitrary deletion of tense morpheme should not be an option, let alone that such deletion does not make ECM suddenly acceptable. To put it differently, the proposal does not claim that every arbitrary T-less instantiation of CP should allow ECM. There can be language-specific, morphosyntactic reasons why a given defective CP is not acceptable in the first place.

[15] I thank the anonymous reviewers for this suggestion.

6.2 The status of *ko* as a complementizer

There are two alternative analyses of *ko*, which has been treated as a complementizer throughout this paper.[16] First, Major (2021) analyzes the complementizer-like element *dep* in Uyghur as a verb, motivated by its decomposition into the verb *de* 'say' and the converbial suffix *-p*. In contrast, the verbal analysis of Korean *ko* lacks such empirical support since *ko* does not involve any verb-like element in it. Korean verb stems are inflected for tense and mood (e.g., *malha* 'say' inflected for past and interrogative would be *malha-yss-ni*), whereas *ko* that heads the ECM complements is an uninflected suffix attached to clausal elements.

Another potential analysis of *ko* is as a quotative particle, similar to Japanese *to* as proposed by Kawai (2006). However, quotative particle is a descriptive term, unlike complementizer. The syntax and semantics of ECM proposed in Section 4 of this paper are independent of whether *ko* is a quotative particle, since the presence of a quotative particle alone does not say much about the syntactic locality of a clause headed by such particles. The theoretical question I addressed is why some, but not all, *ko*-clauses are transparent to syntactic operations, and when they are transparent, why there is a predicate restriction. The answer to this question has been claimed to be a refined diagnostic for phasehood and the semantics of finite complementizers. The quotative particle view of *ko* will make the same predications as the present analysis if the clauses headed by such quotative particles are simply CPs.

A reviewer asks whether *ko* can be used in nonclausal environments, such as onomatopoeia and naming constructions, as observed by Shimamura (2018) for Japanese *to*. A variant of *ko*, used for quotation, can appear in these contexts because these constructions are instances of quotation, similar to English (78b), an example from Shimamura (2018).

(78) a. She named her son Bill.
b. She named her son "Bill."

(79a) provides an example of direct report involving quotation using the form *lako*. Reporting names or sounds, which are not necessarily clauses, can be understood in a similar way, as shown in (79b).

(79) a. Nari$_1$-ka "na$_{1/*2}$-nun pappa." *(la)ko malhayssta.
Nari-NOM I-TOP busy QUOT said
'Nari said, "I am busy."'

b. Nari-ka kangaci ilum-ul "Podo" *(la)ko ciessta.
Nari-NOM puppy name-ACC Podo QUOT named
'Nari named the puppy "Podo."'

[16] I thank the reviewer for raising the points discussed in this section.

Based on onomatopoeia and naming constructions, Shimamura (2018) claims that *to* is not a complementizer but an adjunct clitic. For direct reports, which are quotative in nature, I am favorable to the view that the quoted element, whether clausal or nonclausal, is an adjunct rather than a complement. However, the standard view is that indirect reports involve complementation. To my knowledge, there is a lack of convincing arguments for treating direct and indirect reports in Korean as collapsing into a single type, whether complementation or adjunction. Furthermore, if typical clausal complements in ECM turn out to be adjuncts, it becomes even more mysterious why A-movement is allowed out of some but not all adjuncts.

Incidentally, the empirical patterns presented by Kawai (2006) for Japanese ECM closely resemble those of Korean ECM, with both disallowing tensed, stage-level clauses. Kawai proposes that ECM complements are small clauses lacking tense. Although characterizing them as small clauses does not directly address the locality issue in finite ECM, the small clause idea can be made compatible with the current analysis, as it shares the core generalization that ECM complements resist tense. In this case, what Kawai (2006) describes as small clauses would be defective CPs as defined in this paper.

7 Conclusion

This paper argued for the defectiveness principle in determining phasehood: extended projections that lack any lower projections in the functional sequence are not phases. According to this refined notion of a phase, finite CPs lacking intermediate projections, crucially a T projection in the case of Korean, are transparent to movement probes outside those CPs. Taking into account the internal structure of clausal complements, the emerging typology of clausal complementation is that defective CPs and full CPs are distinct creatures from the locality perspective. The projection of an overt finite complementizer at the edge, despite being a reliable indicator in many cases, does not necessarily entail that a given complement constitutes a locality domain.

On the empirical side, four structural and interpretive properties of Korean ECM were presented. Accusative subjects are located in the matrix clause, start out in the embedded clause, and are only allowed in T-less finite CPs that receive individual-level interpretations. To account for the pattern that only T-less CPs allow ECM, I proposed that defective CPs are not phases, where defectiveness is determined by the presence and absence of intermediate projections. In conjunction with the semantic constraint on finite complementizers, this paper also explained the interpretive restriction to individual-level predication in Korean ECM. The proposed defective CP analysis accounts for the puzzling syntactic locality shared by other languages that exhibit crossclausal A-dependency with defective finite CPs.

Abbreviations

ACC = accusative, CL = classifier, COMP = complementizer, COP = copula, DAT = dative, DEC = declarative, DEM = demonstrative, EXH = exhortative, FUT = future, GEN = genitive, IMP = imperative, ITR = interrogative, NMLZ = nominalizer, NOM = nominative, PAST = past, PRES = present, QUOT = quotative, TOP = topic, VOL = volitional

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Competing interests

The author has no competing interests to declare.

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