Exploring VP/vP Preposing in Multiple Nominative Constructions

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ABSTRACT

This study investigates VP/vP preposing within the context of Multiple Nominative Constructions (MNCs). In Korean, a verbal constituent can be moved to the sentence-initial position. However, when an unbound trace is contained within the preposed constituent, it violates the Proper Binding Condition (PBC), rendering the sentence ungrammatical. The PBC effect has non-trivial implications for the structure of VP/vP. This paper investigates VP/vP preposing across diverse categories of MNCs in Korean to illuminate their structural characteristics. MNCs occur in various environments, broadly classified into Major Subject constructions and Nominative Object constructions (Kuno 1973). Previous literature classifies the two types of MNCs into several sub-types. An important question is concerned with the structure of the various MNCs. This paper explores whether previous analyses can adequately explain the (im)possibility of VP/vP preposing within each sub-type of MNCs. We show that the (im)possibility of VP/vP preposing in MNCs results from their unique structure, in combination with the PBC effect and many other syntactic principles.

Keywords: VP/vP preposing, proper binding condition, multiple nominative construction, major subject construction, nominative object construction

1. Introduction

In Korean, a verbal constituent moves to a clause-initial position and the dummy verb *ha* 'do' appears in its base position, as shown in (1b) (see Ahn 1991 and Lee 1995).[1)]

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1) A reviewer wonders whether *hayss* 'did' in (1) is pronounced as a result of *do*-insertion or whether it is a PF replacement of the preposed VP/vP. We believe either property does not affect the main topic of this paper. For this topic, see Jo (2013) and Bae (2022).

(1) a. Chelswu-ka   ppang-ul   ppalli   mek-ki-nun   hayss-ciman
       C.-Nom   bread-Acc   fast   eat-NM-Top   did-although
       'Although Chelswu did eat bread fast'

   b. ppang-ul   ppalli   mek-ki-nun   Chelswu-ka   hayss-ciman
      bread-Acc   fast   eat-NM-Top   C.-Nom   did-although
      'Lit. Although eat bread fast, Chelswu did'

   c. *Chelswu-ka   ppalli   mek-ki-nun   ppang-ul   hayss-ciman
       C.-Nom   fast   eat-NM-Top   bread-Acc   did-although
      'Lit. Although Chelswu eat fast did bread'

                                                    (cf. Ahn & Cho 2023)

In (1b), the verb and the direct object along with a manner adverb undergo preposing, and the subject is left as a remnant. Interestingly, as shown in (1c), when a verb and a manner adverb along with a subject undergo preposing and an object is a remnant, the sentence is ungrammatical.

This contrast can be explained by considering the hierarchical structure of VP/vP (and VP/vP preposing) in Korean. (1b) and (1c) have structures like (2a) and (2b), respectively.[2]

(2) a. [$_{VP}$ ppang-ul   ppalli mek-ki-nun] Chelswu-ka hayss-ciman
    b. *[$_{vP}$ Chelswu-ka t$_i$ ppalli mek-ki-nun] ppang-ul$_i$ hayss-ciman

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2) Bae (2022: fn.1) shows that the fronted material can be modified by VP adverbs such as *ppalli* 'quickly' but not by the adjective *ppalun* 'quick', as shown in (i), and the fronted material can be coordinated, as shown in (iia), and cannot be coordinated with NP, as shown in (iib).
(i) ppalli/*ppalun   ket-ki-nun   Kim-i   hayssta.
    fast$_{adv}$/fast$_{adj}$ walk-Nm-Top   K.-Nom   did
    'As for walking fast, Kim did walk.' Adapted from Ahn (1991)
(ii) a. mek-ko   ket-ki-nun   Mary-ka   hayssta.
        eat-and   walk-Nm-Top   M.-Nom   did
        'As for eating and walking, Mary did eat and walk.'
     b. *sayngkak-kwa   ket-ki-nun   Mary-ka   hayssta.
        thought-and   walk-Nm-Top   M.-Nom   did
        'As for thought and walking, May did.'
This suggests that the fronted material is a VP (or vP), and it is combined with a nominalizer *ki*, as shown in (iii).
(iii) a. [$_{NP}$[$_{vP}$ ppang-ul ppalli mek]-ki-nun]] Chelswu-ka hayss-ciman
      b. *[$_{NP}$[$_{vP}$ Chelswu-ka t$_i$ ppalli mek-ki-nun]] ppang-ul$_i$ hayss-ciman
Given the previous literature calls this phenomenon VP preposing, we will frame our discussion in terms of VP/vP preposing.
 A reviewer wonders whether the fronted phrase in (2b) is a vP or a TP. Since the fronted phrase including the subject does not host a tense morpheme, it should be smaller than a TP. We speculate that it is a vP, and the landing site is a FocP. The reviewer wonders how the EPP on T is satisfied in (2b). We assume without discussion that the EPP does not hold in null subject languages, and the Nom case in Korean is an instance of a default case.

Because the subject is assumed to be base-generated in a position higher than the object, the fronted verb phrase contains an unbound object trace when the object is a remnant. Under the pre-Minimalist framework, (2b) violates the Proper Binding Condition (PBC).

(3) Proper Binding Condition (PBC: Fiengo 1977)
    Trace must be bound.

Since the Minimalist framework puts forward that movement leaves a copy instead of a trace, the condition like (3) should be replaced by other tools, but we assume "the PBC effect" still exists as shown in (2b).[3]

This paper investigates VP/vP preposing across diverse categories of MNCs in Korean to illuminate their structural characteristics. Korean allows several types of MNCs in the domain of a single predicate. According to Kuno (1973), MNCs are classified into two types: Major Subject types and Nominative Object types. Kuno (1973) argues that in major subject type MNCs (hereafter, MSCs), the first nominative-marked NP can be replaced with genitive marked NP or locative marked NP but the replacement is not possible in nominative object type MNCs (henceforth, NOCs). First, this paper explores sub-types of MSCs, as shown in (4).[4] As Yang

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3) According to Ahn (1991), ill-formed examples in VP preposing in Korean violate the Empty Category Principle. The PBC effects can be explained by the PBC substitutes under the framework of the minimalist program: Nunes's (2004) Linearization Chain or Saito's (2021, 2022) Minimal Yield. As a reviewer notes, under the copy theory of movement the copy of *ppang-ul* 'bread-Acc' inside preposed VP/vP in (2b) does not c-command its lower copy, which results in a problem with respect to chain linearization. Recently Saito (2021, 2022) made an analysis of VP preposing within the framework of the Minimalist Program. On this account, Minimal Yields (hereafter MY) is violated in the case of ill-formed examples in VP preposing: Merge can introduce at most one new accessible item in the Workspace. Consider (i).
(i) a. [IP Ame-ga   [VP __ huri]-sae   si-ta]
        rain-Nom   fall-even   do-Pst
        'It even rained.'
    b. *[VP __ huri]-sae [IP ame-ga ___ si-ta] (Saito 2021: 174)
The derivation of (ib) is shown in (ii).
(ii) [CP[VP ame-ga₃ huri]-sae [IP ame-ga₁ [VP [VP ame-ga₂ huri]-sae-si]-ta]]
                not accessible (Saito 2021: 176)
The internal merge of VP in (ii) produces two newly accessible items, *ame-ga₃* and the CP that internal merge forms.
  Ahn & Cho (2023) also discuss the PBC effect of VP preposing in various types of multiple accusative constructions in Korean and show which types of structure are suitable in explaining (im)possibility of VP preposing in multiple accusative constructions. However, none of the previous literature discusses vP/VP preposing in multiple nominative constructions in Korean in depth.

(1972) noted, not all MSCs have genitive counterparts, so we classify them as possession type and non-possession type.[5]

(4) a. Possession type

    Yenghi-ka   tali-ka   kilta.

    Y.-Nom   leg-Nom   long

    'Yenghi's leg is long.'

  b. Non-possession type

    kkoch-i   cangmi-ka   yeypputa.

    flower-Nom   rose-Nom   pretty

    'As for flowers, roses are pretty.'

In (4a), the first nominative nominal *Yenghi-ka* is the inalienable possessor of the second nominative nominal *tali-ka* 'leg-Nom'. In (4b), *kkoch-i* 'flower-Nom' is not a possessor of *cangmi-ka* 'rose-Nom'.

In the case of a possession type like (4a), the first NP can be marked with a genitive case but in the case of a non-possession type like (4b), such case alternation is not possible.[6]

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4) In MSCs, an issue is concerned with the functions of nominative marked NPs. Lee (2008: 479) classifies previous approaches into four types.

(i) a. subject-subject approach: NP1(subject) NP2(subject)
    Park (1982), Kuno (1973), Lee (1987), Kang (1986), Choe (1988), Youn (1990),
    Moon (2000), Im (2002), J.-H Yoon (2006)
  b. focus-subject approach: NP1 (Focus) NP2 (Subject)
    J.-H Yoon (1987, 1990), J.-Y. Yoon (1989), Schutze (1997), Kim (2001), Jung (2001),
    O'Grady (1991), Cho (1999), Vermulen (2005)
  c. topic-subject approach: NP1 (Topic) NP2 (subject)
    Im (1972), Li & Tompson (1976), Sohn (1981), Suh (1996)
  d. subject-adjunct approach: NP1 (subject) NP2 (adjunct)
    O'Grady (1991), Cho (1999)

The function of nominative marked NPs is a non-trivial issue and each type of approach has insightful points, but this paper does not directly discuss the (dis)advantage of each approach. Instead, we mainly focus on the structural positions where nominative marked NPs occur.

5) Kim & Kim (2002) also suggest that possession type and non-possession type are derived from different structures.

6) Yoon (2015:80) also indicates that when MNCs are paraphrased as sentences containing a possessive marker *-uy*, they are called Possessor Type. Yoon (2015) discusses three types of MNCs: Possessor type, adjunct type & nominative object type. Among adjunct type MNCs given in Yoon (2015), only type-token types illustrated in (4b) are non-possession types under our proposal since the following adjunct type appears to allow genitive case alternation (contra Yoon's judgment):

(i) a. Enehak-i/uy   chwicik-i   elyepta.
    Linguistics-Nom/Gen   employment-Nom   difficult
    '(It is) in linguistics (that) getting employed is difficult.' Yoon (2015: 83)

(5) a. Yenghi-uy tali-ka   kilta.
    Y.-Gen   leg-Nom   long
    'Yenghi's leg is long.'
  b. *kkoch-uy   cangmi-ka   yeypputa.
    flower-Gen   rose-Nom   pretty
    'As for flowers, roses are pretty.'

Given that (4a) and (5a) are close paraphrases, it seems reasonable that the first NP and the second NP in (4a) are a constituent at their base-generated positions and the two NPs are separated by movement. However, given that (4b) cannot be a close paraphrase of (5b), the constituent analysis similar to (4a) cannot apply to (4b).

The second type of MNCs is the nominative object type which can be classified into two by dative alternation possibility, as shown in (6).

(6) a. Dative alternation type
    Yenghi-ka   chayk-i   manhta.
    Y.-Nom   book-Nom   many
    'Yenghi has many books.'
  b. Non-dative alternation type
    Yenghi-ka   uysa-ka   toyessta.
    Y.-Nom   doctor-Nom   became
    'Yenghi becomes a doctor.'

As discussed in Shibatani (1999), NOCs occur with predicates of possession, necessity, or psychological states/physiological states. In the case of the dative alternation type, one nominative argument can take a dative case, as shown in (7a). In the non-dative alternation type, such alternation is impossible, as shown in (7b).

(7) a. Yenghi-eykey chayk-i   manhta.
    Y.-Dat   book-Nom   many
    'Yenghi has many books.'
  b. *Yenghi-eykey uysa-ka   toyessta.
    Y.-Dat   doctor-Nom   became
    'Yenghi becomes a doctor.'

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    b. Yelum-i/uy   maykcwu-ka   masissta.
       summer-Nom/Gen   beer-Nom   delicious
      'In summer, beer is delicious.'

The first nominative NP functions as a sentential subject; as we can see by the name, the second nominative NP has object-like properties. As discussed by Park & Kim (2022), the second nominative NP, however, does not have a full range of object-like properties. They point out that the second nominative NP cannot undergo relativization and scrambling but it undergoes clefting and pronominalization, and *wh*-question formation is possible. The first nominative NP, by contrast, displays a full range of "grammatical subject" properties. For example, as noted in the previous literature, it can serve as a controller of subject honorification (for extensive discussion, see Hong 1997, Yoon 2009, 2015):

(8) a. Apeci-ka   ton-i   manh-usi-ta.
      father-Nom   money-Nom   be.much-Hon-Dec
      '(My) father has a lot of money.'
    b. Sensayngnim-i   hoycang-i   toy-si-ess-ta.
       teacher-Nom   president-Nom   become-Hon-Pst-Dec
       'Teacher became a president.'

Furthermore, some previous literature observes dative subjects may also exhibit grammatical subject properties (Yoon 2004, Park & Kim 2022):[7]

(9) Apeci-eykey   ton-i   manh-usi-ta.
    father-Dat   money-Nom   be.much-Hon-Dec
    '(My) father has a lot of money.'

Although a lot of extensive and insightful investigation has been tried, a couple of questions about the structure of MNCs are still raised: In addition to the multiple nominative marking, are there shared structural properties in major subject types and nominative object types? Furthermore, is there a unified structure for each sub-type of MNCs?

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7) Lim (1997: 38), however, indicates that the dative subject in NOCs may not agree with the honorific marker *−si*. We are partially sympathetic to Lim's judgment in that (9) is marginal and less acceptable than (8a). Park & Kim (2022: 1491) also note that in the case of psych predicates, there is a difference between the double nominative NOC and its dative counterpart.
 (i) Yenghi-ka/eykey   holangi-ka   mwusepta.
     Y.-Nom/Dat   tiger-Nom   afraid
     '(I feel like) Yenghi is afraid of a tiger.'
Langacker (2009) indicates that the first nominative subject is not construed as a reference point in the double nominative NOC, unlike the dative subject in NOCs. We leave the contrast for a future study.

This paper is organized as follows. Section 2 examines VP/vP preposing in several sub-types in major subject type MNCs. Section 3 discusses VP/vP preposing in two sub-types in nominative object type MNCs. Concluding remarks are presented in Section 4.

2. VP/vP Preposing in Major Subject Type MNCs

This section discusses VP preposing in two sub-types of MSCs: Possession type vs. non-possession type (aka tendency type, subset type).

2.1. VP/vP Preposing in Possession Type MSCs

First, let us look at possession type, as shown in (10).

(10) a. Inalienable Possession
        Yenghi-ka   tali-ka   kilta.
        Y.-Nom   leg-Nom   long
        'Yenghi's leg is long.'
    b. Alienable Possession
        Yenghi-ka   kapang-i   pissata.
        Y.-Nom   bag-Nom   expensive
        'Yenghi's bag is expensive.'
    c. Kinship
        Yenghi-ka   apeci-ka   pwucata.
        Y.-Nom   father-Nom   rich
        'Yenghi's father is rich.'
    d. Part-Whole
        Hankwuk-i   namccok-i   tepta.
   Korea-Nom   south-Nom   hot
        'In Korea, the south is hot.'

According to the relation between nominative NPs, we classify possession type MSCs into four types: inalienable possession, alienable possession, kinship, and part-whole.[8] As mentioned in the introduction, the first nominative-marked nominals in (10) can be marked genitive case, as shown in (11).

(11) a. Inalienable possession

    Yenghi-uy   tali-ka   kilta.

    Y.-Gen   leg-Nom   long

    'Yenghi's leg is long.'

  b. Alienable possession

    Yenghi-uy   kapang-i   pissata.

    Y.-Gen   bag-Nom   expensive

    'Yenghi's bag is expensive.'

  c. Kinship

    Yenghi-uy   apeci-ka   pwucata.

    Y.-Gen   father-Nom   rich

    'Yenghi's father is rich.'

  d. Part-Whole

    Hankwuk-uy namccok-i   tepta.

    Korea-Gen   south-Nom   hot

    'Korea's south is hot.'

The possession raising (PR) analysis including Kuno (1973) proposes that the possessor and the possessum form a constituent and that the possessor moves away from its base-generated position to some other position. Following the PR analysis, we assume that the inalienable possession in (11a) has a structure like (12).[9]

(12)

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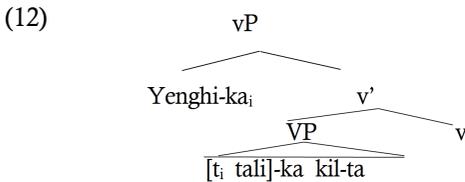
8) As noted in the previous section, the following Oblique types in (i) that is somewhat similar to part-whole types in (ii) may also be included in the possession types:

(i) a. Enehak-(eyse)ka/uy   chwicik-i   elyepta
    Linguistics-(Loc)Nom/Gen   employment-Nom   difficult
    '(It is) in linguistics (that) getting employed is difficult.'

  b. Yelum-(ey)ka/uy   maykcwu-ka   masissta.
    summer-(Temp)Nom/Gen   beer-Nom   delicious
    'In summer, beer is delicious.'

(ii) Hankwuk-(eyse)ka/uy   namccok-i   tepta.
    Korea-(Loc)Nom/Gen   south-Nom   hot
    'In Korea, the south is hot.'

9) Ura (1996) and Kim & Kim (2002) suggest that in the possession type MNCs, nominative marked NPs are constituents at their base-generated position, as shown in (12).

The possessor *Yenghi-ka* is a constituent with *tali-ka* 'leg-Nom' and undergoes movement, leaving a trace inside the nominal.[10]

Now, let us look at VP preposing in inalienable possession type MNCs, as shown in (13).

(13) a. Yenghi-ka   tali-ka   kil-ki-nun   hayssta.
        Y.-Nom   leg-Nom   long-NM-Top   did
        'Yenghi's leg is long.'
    b. ?*tali-ka   kil-ki-nun   Yenghi-ka   hayss-ciman
        leg-Nom   long-NM-Top   Y.-Nom   did-although
        'Although Yenghi's leg is long....'
    c. *Yenghi-ka   kil-ki-nun   tali-ka   hayss-ciman
        Y.-Nom   long-NM-Top   leg-Nom   did-although
        'Intended: Although Yenghi's leg is long'

As shown in (13b) the second nominative *tali-ka* 'leg.-Nom' cannot undergo VP preposing when the first nominative is a remnant. As shown in (13c), the first nominative *Yenghi-ka* cannot undergo VP preposing when the second nominative is a remnant.

With the structure in (12), (13b-c) are expected to show a PBC effect, as shown in (14a-b), respectively.[11][12][13]

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10) Following Marantz (1991), we tentatively assume that the nominative case is assigned as an unmarked case. We do not further address the case assignment mechanism here.

11) Here we omit the relevant details of the NP-shell structure VP-*ki-nun* 'VP-Nominalizer-Top' involved in the VP fronting structure in the tree.

12) A reviewer asks where the preposed VP/vP is landed. We assume that the final landing site is FocP which occurs above TP.

13) A reviewer wonders whether (i) is well-formed or not.
    (i) tali-ka   Yenghi-ka   kil-ki-nun   hayss-ciman
        leg-Nom   Y.-Nom   long-NM-Top   did-although
        'Although Yenghi's leg is long'
    The derivational structures of (i) is syntactically ambiguous and can be parsed at least in two ways. The first parse: (i) can be interpreted as 'As for legs, Yenghi's is long'. In this case, the sentence does not involve any VP fronting, but it sounds odd to most people except for the contrastive reading of the fronted NP. Although the first NP *tali-ka* 'leg-Nom' is the topic and the rest of the sentence should be sufficient characterization, the semantic requirement is not satisfied. The second parse: When (i) is interpreted as 'As for Yenghi, her leg is long', we can think about the possibility that (i) has the derivation like (ii).
    (ii) a. Yenghi-ka [$_{vP}$ tali-ka kil-ki-nun] hayss-ciman => Move tali-ka =>
         b. tali-ka$_j$ [$_{vP}$ Yenghi-ka [$_{vP}$ t$_j$ kil-ki-nun]] hayss-ciman => Move vP =>
         c. [$_{vP}$ Yenghi-ka [$_{vP}$ t$_j$ kil-ki-nun]] tali-ka$_j$ hayss-ciman => Move tali-ka =>
         d. tali-ka$_j$ [$_{vP}$ Yenghi-ka [$_{vP}$ t$_j$ kil-ki-nun]] hayss-ciman (=(i))

(14) a. *[vP tj tali-ka kil-ki-nun] Yenghi-kaj hayss-ciman
      b. *[vP Yenghi-ka ti kil-ki-nun] tali-kai hayss-ciman

In (14), the fronted VP/vP has an unbound trace of *Yenghi-ka* and *tali-ka*, respectively, which results in the PBC effect.

A similar pattern is observed with alienable possession in (15b) and (15c).

(15) a. Yenghi-ka   kapang-i   pissa-ki-nun   hayssta.
         Y.-Nom   bag-Nom   expensive-NM-Top   did
         'Yenghi's bag is expensive.'
      b. *kapang-i   pissa-ki-nun   Yenghi-ka   hayss-ciman
          bag-Nom   expensive-NM-Top   Y.-Nom   did-although
          'Although Yenghi's bag is expensive'
      c. *Yenghi-ka   pissa-ki-nun   kapang-i   hayss-ciman
          Y.-Nom   expensive-NM-Top   bag-Nom   did-although
          'Intended: Although Yenghi's bag is expensive'

Under the assumption that possessor raising occurs in (15), (15b-c) show a PBC effect, as shown in (16a-b), respectively.[14]

(16) a. *[vP tj kapang-i pissa-ki-nun] Yenghi-kaj hayss-ciman
      b. *[vP Yenghi-ka ti pissa-ki-nun] kapang-ii hayss-ciman

A similar pattern is observed with the kinship sub-types in (17b) and (17c).

(17) a. Yenghi-ka   apeci-ka   pwuca-ki-nun   hayssta.
         Y.-Nom   father-Nom   rich.person-NM-Top   did
         'Yenghi's father is rich.'

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The *tali-ka* first undergoes movement to the position higher than the vP as shown in (iib), and the subsequent vP movement involves an unbound trace of it, as shown in (iic), which results in the PBC violation at this stage of the derivation. Now what if *tali-ka* further moves to ameliorate the PBC violation, as shown in (iid), which wrongly predicts (i) to be well-formed? We suggest that under the derivational PBC advanced by Saito (2003) and Takita (2010), the PBC violation cannot be saved by another movement, which can explain the ill-formedness of (i).

14) Regarding the alienable possession type, the previous literature argues that there is a subject/object asymmetry concerning multiple case markings (cf. Kim & Kim 2002). Although alienable possession is more freely allowed in the MNC, multiple accusative constructions are less acceptable, as shown in (i). See Ahn & Cho (2023) for related discussion.
(i) ??Chelswu-ka Yenghi-lul   kapang-ul   pwuthcapassta.
      C.-Nom   Y.-Acc   bag-Acc   caught
      'Chelswu caught Yenghi's bag.'

b. ?*apeci-ka   pwuca-ki-nun   Yenghi-ka   hayss-ciman
   father-Nom   rich.person-NM-Top   Y.-Nom   did-although
   'Although Yenghi's father is rich'

c. *Yenghi-ka   pwuca-ki-nun   apeci-ka   hayss-ciman
   Y.-Nom   rich-NM-Top   father-Nom   did-although
   'Intended: Although Yenghi's father is rich'

Along a similar vein, (17b-c) have a structure like (18a-b), respectively, and they show a PBC effect.

(18) a. *[$_{VP}$ t$_j$ apeci-ka pwuca-ki-nun] Yenghi-ka$_j$ hayss-ciman
     b. *[$_{vP}$ Yenghi-ka t$_i$ pwuca-ki-nun] apeci-ka$_i$ hayss-ciman

VP/vP preposing in part-whole types, as shown in (19), can be explained similarly.

(19) a. Hankwuk-i   namccok-i   tep-ki-nun   hayssta.
        Korea-Nom   south-Nom   hot-NM-Top   did
        'In Korea, the south is hot.'

     b. *namccok-i   tep-ki-nun   hankwuk-i   hayss-ciman
        south-Nom   hot-NM-Top   Korea-Nom   did-although
        'Although in Korea, the south is hot...'

     c. *hankwuk-i   tep-ki-nun   namccok-i   hayss-ciman
        Korea-Nom   hot-NM-Top   south-Nom   did-although
        'Intended: Although in Korea, the south is hot...'

As shown in (20a-b), (19b-c) are ungrammatical since they show the PBC effect.

(20) a. *[$_{VP}$ t$_j$ namccok-i tep-ki-nun] hankwuk-i$_j$ hayss-ciman
     b. *[$_{vP}$ hankwuk-i t$_i$ tep-ki-nun] namccok-i$_i$ hayss-ciman

2.2. VP/vP Preposing in Non-possession Type MSCs

This section discusses two sub-types of non-possession type MSCs. We may call the first type the "tendency" type. Kuno (1973) claims that the semantic relation between the first nominative NP and the rest of the sentence is that of "aboutness":

The rest of the sentence should be "about" the topic. However, Hong (1990) suggests that the semantic relationship is not as general a relationship as "aboutness" and that the semantic condition for this construction is that of "sufficient characterization." Cho (1994) also indicates that the rest of the sentence must refer to permanent rather than temporary characteristics.

(21) Tendency Type
    a. i   os-i   salamtul-i   yocum   manhi   santa.
        this clothing-Nom   people-Nom these.days a.lot   buy
        'This clothing is the one that people buy a lot these days.'
    b. ce   keli-ka   cha-tul-i   cekkey   taninta.
        that street-Nom   car-Pl-Nom   less   travel
        'It is that street where there are less cars.'
    c. achim   yetel si-ka   cihachel-i   kacang   manhi
        morning eight o'clock-Nom subway-Nom the.most a.lot
        pwumpinta.
        crowded
        'It is 8 o'clock when the subway is the most crowded.'

In (21a), the first nominative NP *i os-i* 'this clothing-Nom' is an object of *santa* 'buy' and the rest of the sentence provides a sufficient characterization of this clothing. Likewise, the rest of the sentence denotes a characteristic property of the locative *ce keli-ka* 'that street-Nom' in (21b) and the temporal *yetel si-ka* 'eight o'clock-Nom' in (21c).[15]

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15) A reviewer points out some differences between (21ab) vs. (21c): the first NP in (21ab) can be marked with an accusative case, as shown in (i-ab), while that in (21c) cannot occur with an accusative case, as shown in (i-c).
 (i) a. i   os-ul   salamtul-i   yocum   manhi   santa.
          this clothing-Acc people-Nom these.days a.lot   buy
          'This clothing is the one that people buy a lot these days.'
      b. ce   keli-lul   cha-tul-i   cekkey   taninta.
          that street-Acc car-Pl-Nom less   travel
          'On that street there are less cars.'
      c. *achim   yetel   si-lul   cihachel-i   kacang   manhi   pwumpinta.
          morning eight o'clock-Acc subway-Nom the.most a.lot   crowded
          'At 8 o'clock the subway is the most crowded.'
  We agree with the reviewer that (21ab) and (21c) originate from two distinct structures. However, it doesn't preclude the possibility that they belong to the same types of MNCs.
  Further, the reviewer points out that the two nominative NPs can change the order in (21c), as shown in (ii-c), but the word order alternation is not allowed in (21ab), as shown in (iia-b).
  (ii) a. *salamtul-i   i   os-i   yocum   manhi   santa.

Regarding the structure of the tendency type MSCs, we adopt the structure like (22) from Yoon (2007) for (21).[16]

(22)

TP
- i os-i$_i$ TP [sentential predication]
  OP$_i$ TP
              vP   T
      salamtul-i yocum manhi pro$_i$ santa
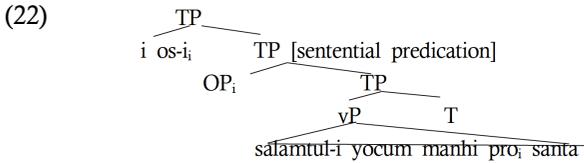
According to Yoon (2007: 622), sentences that are thematically closed can be turned into predicates. When sentences function as predicates, they are called sentential predicates. Predicate abstraction yields a sentential predicate by a null operator. The first NP *i os-i* 'this clothing-Nom' is base-generated in Spec-T, and the sentential predicate assigns its theta-role to it. Because the process of sentential predicate formation can be recursive, multiple subjects under this formation are possible.[17]

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people-Nom   this   clothing-Nom   these.days   a.lot   buy
'As for people, they buy this clothing a lot these days.'
b. *cha-tul-i   ce   keli-ka   cekkey   taninta.
car-Pl-Nom   that   street-Nom   less.frequently   travel
'As for cars, they pass on that street less frequently.'
c. cihachel-i   achim   yetel si-ka   kacang   manhi   pwumpinta.
subway-Nom   morning   eight o'clock-Nom   the.most   a.lot   crowded
'As for subway, 8 o'clock is when the subway is the most crowded.'
The reviewer indicates that this difference strengthens the distinct syntactic properties of the structures between (21ab) vs. (21c). However, the ill-formedness of (iia) and (iib) seems to be related to the "aboutness" requirement about the first NP and the rest of the sentence. In (iia), buying this clothing does not seem to be a sufficient characterization of people, and in (iib), running on the street less frequently does not seem to be a sufficient characterization of cars. By contrast, in (iic), 8 o'clock being the most crowded time can be a sufficient characterization of the subway.

16) As pointed out by a reviewer, according to Heim & Kratzer (1998), Predication Abstraction takes place when there is an element (for example, a pronoun) that can play a role as a variable within a predication that was type t. Due to the presence of the variable, the predicate can turn into <e, t> type. In this line of reasoning. the reviewer doubts how the Predication Abstraction takes place in (21b-c) which does not seem to have a pro. We note that in (21b-c), the first nominative NPs are locative NPs and temporal NPs, respectively. Ahn & Cho (2020) show that they are semi-arguments, which can be a pro. Inside a vP, temporal or locative pro occurs, which works as a variable. Hence, in a way parallel with (22), Predication Abstraction takes place in (21b-c).

17) Recall that tendency-type MNCs cannot be derived from the PR, and hence some other means to derive the structures are needed. A reviewer wonders if possession-type MNCs are also derived like (22). In addition to the genitive case alternation possibility, the two MNCs show some other different properties which may be properly captured by the same syntactic structure. For example, honorification can be supporting evidence for the structural difference advanced here.
(i) a. halapeci-ka   meli-ka   ki-si-ta.

Now, let us look at preposing in tendency type MSCs.

(23) a. i   os-i   salamtul-i   yocum   manhi   sa-ki-nun
        this   clothing-Nom   people-Nom   these.days   a.lot   buy-NM-Top
        hayssta
        did
        'This clothing is the one that people buy a lot recently.'
     b. *salamtul-i   yocum   manhi   sa-ki-nun   i   os-i
        people-Nom   recently   a.lot   buy-NM-Top   this   clothing-Nom
        hayss-ciman
        did-but
        'Although this clothing is the one that people buy a lot recently'
     c. *i   os-i   yocum   manhi   sa-ki-nun   salamtul-i
        this   clothing-Nom   recently   a.lot   buy-NM-Top   people-Nom
        hayss-ciman
        did-but
        'Although this clothing is the one that people buy a lot recently'

First, the ill-formedness of (23b) is unexpected. Note that *i os-i* 'this clothing-Nom' is base-generated in Spec of TP, and when the second nominative undergoes movement along V, the fronted VP does not have an unbound trace, as shown in (24a).

(24) a. [$_{vP}$ salamtul-i pro yocum manhi sa-ki-nun] i os-i hayss-ciman
     b. [$_{TP}$ i os-i t$_i$ pro yocum manhi sa-ki-nun] salamtul-i$_i$ hayss-ciman

By contrast, (23c) involves an unbound trace of *salamtul-i* 'people-Nom', which makes the sentence ill-formed, as shown in (24b).

Nonetheless, vP preposing in (23b) makes the sentence ill-formed. We note that the vP preposing/movement crossing the two TPs is barred, as shown in (25).[18]

_____

          grand.father-Nom   hair-Nom   long-Hon-Dec
          '(My) grandfather's hair is long.'
     b. *i   halapeci-ka   salamtul-i   yocum   manhi   ttalaha-si-nta.
        this grandfather-Nom   people-Nom   these.days   a.lot   follow-Hon-Dec.
        'Lit. This grandfather is the one that people follow a lot recently.'
   As shown in (ia), the first NP in the possession-type MNC can occur with an honorific marker *-si* while as shown in (ib), the first NP in the tendency-type MNC cannot. Accordingly, the contrast between (ia) and (ib) supports that the two constructions do not have the same structure.

18) Scrambling also seems to be impossible across two TPs that include a null operator in non-possession

(25)
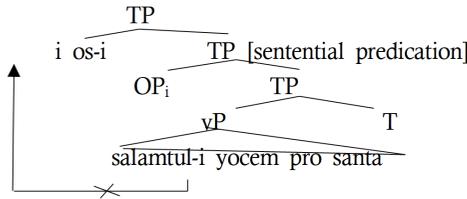
This reminds us of the prohibition of movement across barriers in the pre-minimalist framework.[19] To the best of our knowledge, in the framework of the minimalist program, new tools to capture barrier effects have not been proposed.[20]

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type MNCs as shown in (i).

(i) a. ku kakey-ka   haksayngtul-i   cacwu   chayk-ul   santa.
       the shop-Nom   students-Nom   often   book-Acc   buy.
       'It is the shop from which students often buy books.'

   b. *chayk-ul   ku   kakey-ka   haksayngtul-i   __   cacwu   santa.
       book-Acc   the   shop-Nom   students-Nom   often   buy.
       'It is the shop from which students often buy books.'

Movement like (ii) seems to be barred since it crosses at least two "blocking categories" in one fell swoop, which may violate the Subjacency condition and the like.

(ii) [chayk-ul$_i$ [$_{TP}$ ku kakey-ka [$_{TP}$ Op [$_{TP}$ haksayngtul-i cacwu t$_i$ santa]]]]

19) Numerous technical questions arise regarding the nature of illicit syntactic derivations incurred by the vP movement as in (25). A reviewer points out the possibility that the vP/VP preposing can adjoin to a TP and that such adjunction can nullify the barrierhood. However, Chomsky (1986: 5) suggests that adjunction to IP is barred except for quantifier raising. Following Chomsky's original proposal, we suggest that the TP intermediate adjunction of vP/VP preposing in (25) is not allowed. An alternative possibility is that TP must be "syntactically adjacent" to the so-called Major Subject since it serves as a sentential predicate created by a null operator. This is reminiscent of the relative clause formation where a null operator is involved to yield predicate abstraction for the predicated head nominal which patterns essentially like the Major Subject in MSCs. Note that the head nominal and the relative clause might also be "syntactically adjacent" for this reason. That's presumably why adjoining TP is blocked by vP-movement in (25). We will set aside further technical issues here.

20) As pointed out by a reviewer, Ahn (1991) argues that the traditional PBC is subsumed under the ECP. The reviewer wonders what is newly added under the proposal advanced here. Ahn (1991) focuses on the grammatical contrast between unaccusative and unergative VP preposing in English and Korean. Ahn (1991) does not investigate VP preposing in multiple case constructions discussed here. The gist of his analysis is observed with (i).

(i) a. [arrive t$_i$ early] I think that the train$_i$ did __.   (Ahn 1991: 92)
    b. *[swipkey   t$_i$ ssmang-]-(ul) [Yenghi-ka$_i$____ hayessta]   (Ahn 1991: 89)
        easily   die-(Acc)   Y.-Nom   did

Both (ia) and (ib) contain an unbound trace within a preposed constituent. Nonetheless, (ia) is well-formed while (ib) is ill-formed. Hence, the following question arises: what makes the grammatical contrast in (i)? Ahn (1991) suggests that the detailed structure of (ia) and (ib) is like (iia) and (iib), respectively.

(ii) a. [$_{AspP}$ t'$_i$ [arrive t$_i$ early]] I think that the train$_i$ did __.   (Ahn 1991: 98)
     b. *[$_{VP}$ swipkey t$_i$ ssmang-]-(ul) [Yenghi-ka$_i$____ hayessta]   (Ahn 1991: 89)

Ahn (1991) suggests that in English, the preposed constituent is an AspP and the trace t$_i$ is antecedent-governed by t'$_i$ and notes that under Lasnik & Saito's (1984) system, an intermediatetrace t'$_i$ is deleted at LF. Hence, there is no offending trace at LF in (iia). By contrast, Ahn (1991) suggests

vP preposing is also impossible in locative NP MSCs and temporal NP MSCs, as shown in (26) and (27). This is accounted for in the same way as the ill-formedness of (23b-c).[21]

(26) a. ce   keli-ka   cha-tul-i   cekkey   tani-ki-nun   hayssta.
         that   street-Nom   car-Pl-Nom   less   travel-NM-Top   did
         'It is that street where there are less cars.'
     b. *cha-tul-i   cekkey   tani-ki-nun   ce   keli-ka
         car-Pl-Nom   less   travel-NM-Top   that   street-Nom
         hayss-ciman
         did-although
         'Although it is that street where there are less cars.'

(27) a. achim   yetel   si-ka   cihachel-i   kacang   manhi
         morning   eight   o'clock   subway-Nom   the.most   a.lot
         pwumpi-ki-nun   hayssta.
         crowded-NM-Top   did
         'It is 8 o'clock when the subway is the most crowded.'
     b. *cihachel-i   kacang   manhi   pwumpi-ki-nun   achim
         subway-Nom   the.most   a.lot   crowded-NM-Top   morning
         yetel   si-ka   hayss-ciman
         eight   o'clock   did-although
         'Although it is 8 o'clock when the subway is the most crowded'

---

that the preposed constituent is a VP in Korean. Thus, the trace in the preposed VP is not antecedent governed and violates the ECP.

  Under the framework of the Minimalist Program, in order to capture the difference between (ia) and (ib), Saito (2021, 2022) use Minimal Yields (MY). Similarly, the impossibility of vP preposing in Possession type MNCs can be accounted for under MY. However, the ill-formedness of (23) has nothing to do with the PBC effect, which does not seem to be accounted for under Saito's (2021: 175) MY and Nunes's (2004) Chain Linearization.

21) A reviewer indicates that the examples in (i) are also odd (on par with (23c)):
    (i) a. i   os-ul   yocum   manhi   sa-ki-nun   salamtul-i   hayss-ciman
          this   clothing-Acc   recently   a.lot   buy-NM-Top   people-Nom   did-but
          'Lit. Although buy this clothing a lot recently people did'
       b. ce   keli-lul   cekkey   tani-ki-nun   cha-tul-i   hayss-ciman
          that   street-Acc   less   travel-NM-Top   car-Pl-Nom   did-but
          'Lit. Although travel less on that street cars did'
    To our ears, however, only (ib) is ill-formed. We suggest that (ia-b) have a structure like (iia-b), respectively.
    (ii) a. [VP i os-ul yocum manhi sa-ki-nun] salamtul-i hayss-ciman
        b. *[VP t_i ce keli-lul cekkey tani-ki-nun] cha-tul-i_i hayss-ciman
    Given that *tani* 'travel/pass-by' is an unaccusative verb, the trace of *cha-tul-i* 'car-PL-Nom' occurs inside the fronted VP. Hence, the PBC effect is also observed in (iib).

Now, we have to note Yoon's (2007, 2015) claim that the possessor raising analysis cannot account for the absence of Subjacency effects even when the presumed possessor is deeply embedded inside the nominal, as shown in (28).

(28) a. Cheli-ka$_i$ [[[e$_i$/ku-uy$_i$ tali]-uy   olunccok]-uy]   wispwupwun-i]
      C.-Nom   he-Gen   leg-Gen   right-Gen   top.portion-Nom
      mengtulessta.
      got.a.bruise
      'The top part of Cheli's right leg is bruised.'

    b. Nampankwu-ka$_i$ [[[e$_i$ mwunmyeng-kwukka]-uy   namca]-uy
      south.hemisphere-Nom   civilized-country-Gen   men-Gen
      phyengkywun-swumyeng]-i   ccalpta.
      average-lifespan-Nom   short
      'Lit. The southern hemisphere's civilized countries' men's average
       lifespan is short.'

                                                (cf. Kuno 1973, Yoon 2015: 83)

Under the PR analysis, *Cheli-ka* 'C-Nom' in (28a) and *nampankwu-ka* 'south.hemisphere-Nom' in (28b) undergo movement across three NP boundaries. Nonetheless, (28a-b) are well-formed.

However, the presence of (28) does not seem to be crucial evidence against the PR analysis of canonical possessive MNCs. We suggest that (28) should be analyzed as tendency-type MNCs. In fact, genuine "multiple" nominative constructions like (29) beyond double nominative constructions cannot be derived from the PR under our analysis.

(29) a. Yenghi-ka tali-ka   olunccok-i wispwupwun-i   mengtulessta.
      Y.-Nom   leg-Nom right-Nom top.portion-Nom got.a.bruise
      'The top part of Yenghi's right leg is bruised.'

    b. Nampankwu-ka   mwunmyeng-kwukka-ka   namca-ka
      south.hemisphere-Nom   civilized-country-Nom   men-Nom
      phyengkywun-swumyeng-i   ccalta
      average-lifespan-Nom   short
      'It is the southern hemisphere where it is in the civilized countries where
       it is the men whose average lifespan is short.'

Put another way, had the PR taken place in (29), it would violate Subjacency.

Note further that the impossibility of VP/vP preposing in (30b) and (31b) is accounted for in a similar way to that of VP/vP preposing in non-possession tendency type MNCs that we have observed in this section.

(30) a. Yenghi-ka   tali-ka   olunccok-i   wispwupwun-i
Y.-Nom   leg-Nom   right-Nom   top.portion-Nom
mengtul-ki-nun   hayssta.
get.a.bruise-NM-Top   did
'Yenghi's right leg did get a bruise.'

    b. *tali-ka   olunccok-i   mengtul-ki-nun   wispwupwun-i
leg-Nom   right-Nom   get.a.bruise-NM-Top   top.portion-Nom
Yenghi-ka   hayss-ciman
Y.-Nom   did-although
'Although Yenghi's right leg did get a bruise'

(31) a. Nampankwu-ka   mwunmyeng-kwukka-ka   namca-ka
south.hemisphere-Nom   civilized-country-Nom   men-Nom
phyengkywun-swumyeng-i   ccalp-ki-nun   hayssta
average-lifespan-Nom   short-NM-Top   did
'It is the southern hemisphere where it is in the civilized countries where it is the men whose average lifespan is short.'

    b. *mwunmyeng-kwukka-ka   namca-ka   phyengkywun-swumyeng-i
civilized-country-Nom   men-Nom   average-lifespan-Nom
ccalp-ki-nun   nampankwu-ka   hayss-ciman
short-NM-Top   south.hemisphere-Nom   did-although
'Although it is the southern hemisphere where it is in the civilized countries where it is the men whose average lifespan is short'

In other words, given the structure like (32) for non-possession tendency type MNCs, vP preposing in (30b) and (31b) can be ruled out as a constraint on extraction; namely, crossing two (blocking categories) TPs in one fell swoop.

(32)
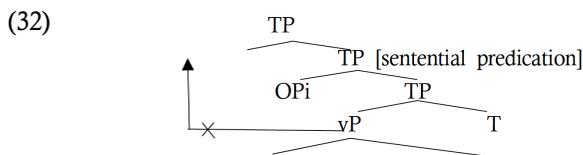
Now, let us consider "subset" type MSCs, as shown in (33).

(33) a. kkoch-i   cangmi-ka   yeypputa.
         flower-Nom   rose-Nom   pretty
         'As for flowers, roses are pretty.'
     b. sayngsen-i yene-ka   masissta.
         fish-Nom   salmon-Nom   tasty
         'As for fish, salmon is tasty.'
     c. pihayngki-ka   747-i   ceycil   khuta.
         airplane-Nom   747-Nom   most   big
         'As for airplanes, 747 is the biggest.'

In (33), the second nominative NP is the subset of the first Nom NP. We must note that the subset type MNCs are different from the tendency MNCs. As pointed out by Cho (2011), the meaning of the second NP/DP restricts the meaning of the first NP/DP. For example, (33a) is interpreted as 'roses are pretty among flowers'. (33b) is interpreted as 'salmon is delicious among fish'. (33c) is interpreted as '747 is large among airplanes'. We suggest that the first nominative NPs in the subset types are typical hanging topics that are base-generated in the adjoined position of ForceP which is the topmost structural projection in the left periphery put forward in Rizzi (1997).[22] This aligns with the cross-linguistic observation that hanging topics are adjunct-like utterance-initial elements without any syntactic function inside

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22) One notable difference between subset-type MNCs and the other types of MNCs (such as Possessive, Oblique, and Tendency) is that the first nominative NP in the former can undergo relativization, as shown in (i), while the one in the latter can't, as shown in (ii) (here we illustrate only Oblique types):
(i) a. chwicik-i   elyep-un   enehak
        employment-Nom   difficult-Rel   linguistics
        'Lit. linguistics that getting employed is difficult'
    b. maykcwu-ka   masiss-nun   yelum
        beer-Nom   delicious-Rel   summer
        'Lit. summer that beer is delicious'
(ii) a. *cangmi-ka   yeyppu-nun   kkoch
        rose-Nom   pretty-Rel   flower
        'Intended. flowers that roses are pretty'
     b. *yene-ka   masiss-nun   sayngsen
        salmon-Nom   tasty-Rel   fish
        'Intended. fish that salmon is tasty'
     c. *747-i   ceycil   khu-n   pihayngki
        747-Nom   most   big-Rel   airplane
        'Intended. airplanes that 747 is the biggest'
    It seems that only "argument" may undergo relativization in Korean, and hence the first nominative NPs in Subset types are not arguments proper; They are introduced as hanging topics.

the clause they are attached to (cf. Stark 2022).[23)]

Now, consider vP preposing in subset type MNCs, as shown in (34).

(34) a. kkoch-i   cangmi-ka   yeyppu-ki-nun   hayssta.
      flower-Nom   rose-Nom   pretty-NM-Top   did
      'As for flowers, roses are pretty.'
   b. *cangmi-ka   yeyppu-ki-nun   kkoch-i   hayss-ciman
      rose-Nom   pretty-NM-Top   flower-Nom   did-although
      'Although as for flowers, roses are pretty...'
   c. *kkoch-i   yeyppu-ki-nun   cangmi-ka   hayss-ciman
      flower-Nom   pretty-NM-Top   rose-Nom   did-although
      'Although as for flowers, roses are pretty...'

The ill-formedness of (34b-c) can be accounted for with the structure, as shown in (35).

(35) a. [ForceP kkoch-i[ForceP[FocP [vP cangmi-ka yeyppu-ki-nun]i ...ti hayssta]]]]
   b. *[vP cangmi-ka yeyppu-ki-nun]i [ForceP kkoch-i [ForceP[FP ti ti hayssta]]]]
   c. *[ForceP[ForcePkkoch-i [FocP [vP tj yeyppu-ki-nun]i cangmi-kaj ti hayssta]]]

As shown in (35a), *kkoch-i* 'flower-Nom' occurs in the adjoined position of Force and the preposed vP sits in Spec of Focus. However, as shown in (35b), vP cannot undergo movement across the ForceP because ForceP is the topmost projection. In other words, there are no proper landing sites for the moved vP in (35b) beyond the topmost ForceP. One might consider the possibility that the moved vP is adjoined to the ForceP as an instance of the hanging topics. However, the possibility disappears since hanging topics in general have a parenthetical nature, and the basic property of the vP itself is heavily integrated into the core of the utterance, which shows that the fronted vP cannot serve as a hanging topic. vP preposing in (35c), on the other hand, is ruled out as a PBC violation.

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23) Ahn & Cho (2009) show that at least two types of topic constructions are observed in Korean. One of them is the hanging topic construction, which does not show island sensitivity and connectivity effects. Ahn & Cho (2009) assume that the hanging topic is base-generated in a sentence-initial position unlike the other types of topic constructions that show island sensitivity and connectivity effects.

3. VP/vP Preposing in Nominative Object Type MNCs

This section discusses VP preposing in two types of NOCs. As discussed in the Introduction, one has dative alternation, and the other does not have dative alternation.

### 3.1. VP/vP Preposing in Dative Alternation Type of NOCs

First, consider dative alternation type NOCs. (36a) is also called the existential NOC because the predicate *manh-* means existence.

(36) a. Yenghi-ka   chayk-i   manhta.
          Y.-Nom   book-Nom   many
          'Yenghi has many books.'
      b. Yenghi-ka   chayk-i   manh-ki-nun   hayssta.
          Y.-Nom   book-Nom   many-NM-top   did
          'Yenghi has many books.'
      c. *chayk-i   manh-ki-nun   Yenghi-ka   hayss-ciman
          book-Nom   many-NM-top   Y.-Nom   did-although
          'Although Yenghi has many books'
      d. *Yenghi-ka   manh-ki-nun   chayk-i   hayss-ciman
          Y.-Nom   many-NM-top   book-Nom   did-although
          'Intended: Although Yenghi has many books'

As shown in (36c-d), a verb cannot undergo movement with one of the nominative-marked NP when the other is a remnant. Although this construction is generally called nominative object type MNCs, this behavior is contrasted with transitive constructions as shown in (1b-c), repeated here as (37a-b).

(37) a. Ppang-ul   ppalli   mek-ki-nun   Chelswu-ka   hayss-ciman
          bread-Acc   fast   eat-NM-Top   C.-Nom   did-although
          'Lit. Although eat bread fast, Chelswu did...'
      b. *Chelswu-ka   ppalli   mek-ki-nun   ppang-ul   hayss-ciman
          C.-Nom   fast   eat-NM-Top   bread-Acc   did-although
          'Lit. Although Chelswu eat fast did bread...'

As shown in (37a), an object can undergo preposing with a verb leaving a subject as a remnant. The impossibility of VP preposing seems to give us an implication for the structural difference between nominative object construction and transitive construction. We suggest that (36a) has the structure like (38) which we have slightly adapted from the possessive *have* construction proposed in Freeze (1992: 558):[24]


(38)
```
            VP
           /  \
              V'
            /    \
          PP      V
         /  \
     chayk   P'
            /  \
        Yenghi   P
        [+LOC] = '-eykey' or '-ey'
```
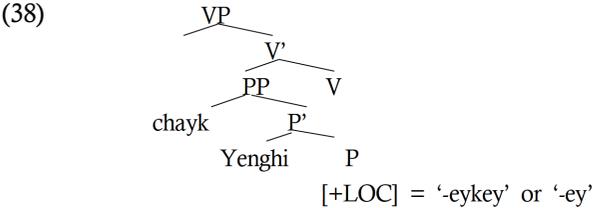

Note that in (38) the two arguments make a constituent (the theme argument *chayk* 'book' is the specifier of the P and the location *Yenghi* is complement). When one argument undergoes movement with V and the other is a remnant, the fronted constituent has a trace of a remnant argument, as shown in (39).[25]

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24) Harley (2002) also suggests that theme argument and location argument make a PP constituent and that theme occurs in a position higher than location within the PP constituent. The structure follows the thematic hierarchy as argued by Jackendoff (1972) and Grimshaw (1990).
(i)   Agent>Theme>Location
Following Park (2009: 554), (35) may have a structure like (ii).

(ii)
```
            VP
           /  \
              V'
            /    \
          PP      V
         /  \
    Yenghi   P'
            /  \
        chayk    P
             [+LOC]
```
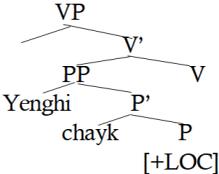
In (ii), location occurs in a position higher than a theme. Park (2009: 565) argues that scope facts support the structure like (ii). Under the structure, the two arguments also make a PP constituent. When one argument undergoes movement with V and the other is a remnant, the fronted constituent has a trace of a remnant argument. Hence, a similar explanation is possible for the ill-formedness of (36c) and (36d). For a detailed analysis of theme-location construction, see Park (2009).

25) A reviewer indicates that one may draw two generalizations from this paper: (i) vP/VP preposing would not be allowed once the first NP and the second NP form some sort of constituent in the base structure (e.g. a possessor-possessum or PP-small clause (38)), or (ii) when the first NP and the second NP are separated by a double-layered TP, predicate fronting is impossible. This paper employs the PBC for the former and posits a separate constraint for (ii). The common property of the two is that the order reversal between the subject and its predicate (or elements included in the predicate projection) is not allowed under the aforementioned conditions. The reviewer points out the possibility that Ko (2014, chapter 4) and Takita's (2010) Cyclic Linearization analyses may account for some of the PBC effects and so-called barrier effects in sentential predication contexts such as (25). It seems to be plausible that the ill-formed order reversal in vP/VP fronting in MNCs

(39) a. *[t$_i$ chayk-i manh-ki-nun] Yenghi-ka$_i$ hayss-ciman

 b. *[Yenghi-ka t$_j$ manh-ki-nun] chayk-i$_j$ hayss-ciman

In (39a) or (39b), the fronted constituent has an unbound trace of *Yenghi-ka* or *chayk-i* 'book-Nom', respectively, which gives rise to the PBC effect.

Now, consider the VP movement involving psych predicates in (40).[26][27]

(40) a. Yenghi-ka   holangi-ka   mwusewessta.
　　　 Y.-Nom   tiger-Nom   was.afraid
　　　 'Yenghi was afraid of a tiger.'
 b. Yenghi-ka   holangi-ka   mwusep-ki-nun   hayssta.
　　　 Y.-Nom   tiger-Nom   afraid-NM-Top   did
　　　 'Yenghi was afraid of a tiger.'
 c. holangi-ka   mwusep-ki-nun   Yenghi-ka   hayss-ciman
　　　 tiger-Nom   afraid-NM-Top   Y.-Nom   did-although
　　　 'Although Yenghi is afraid of a tiger'
 d. *Yenghi-ka   mwusep-ki-nun   holangi-ka   hayss-ciman
　　　 Y.-Nom   afraid-NM-Top   tiger-Nom   did-although
　　　 'Although Yenghi is afraid of a tiger'

The theme *holangi-ka* 'tiger-Nom' can undergo VP preposing along with the verb when the experiencer *Yenghi-ka* is a remnant, as shown in (40b). The experiencer *Yenghi-ka* cannot undergo VP preposing when the theme *holangi-ka* is a remnant, as shown in (40c). The (im)possibility of VP preposing in (40b-c) can be accounted for under Ura's (1999) analysis, as shown in (41).

(41)　　　　　　vP
　　　　Experiencer　v'
　　　　　　　VP　　　v
　　　　　Theme　　V

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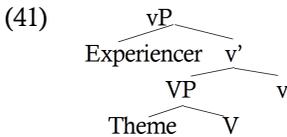
can be explained under Cyclic Linearization-based analysis. We leave this issue for future research.

26) Park & Kim (2022: 141) note that in the case of psych predicates, there is a difference between the NOC and its dative counterpart. According to Langacker (2009), unlike dative subject construction, in the NOC, the subject nominal is not construed as a reference point in the NOC.

(i) Yenghi-eykey   holangi-ka   mwusepta.
　　 Y.-Dat   tiger-Nom   afraid
　　 '(I feel like) Yenghi is afraid of a tiger.'

27) A reviewer indicates that (40c) is unacceptable to his or her ears.

As shown in (41), Ura (1999) assumes that an experiencer subject combines with a theme just like an agent subject in regular transitive constructions. This structure accounts for the well-formedness of (40c). This reminds us that in regular transitive constructions, an object can undergo movement with V leaving the subject as a remnant.

(42) ppang-ul   ppalli   mek-ki-nun   Chelswu-ka   hayss-ciman
     bread-Acc fast   eat-NM-Top   C.-Nom   did-although
     'Lit. Although eat bread fast, Chelswu did'

The structure (41) accounts for VP preposing in (40b-c).

(43) a. [holangi-ka mwusep-ki-nun] Yenghi-ka hayss-ciman
     b. *[Yenghi-ka t$_j$ mwusep-ki-nun] holangi-ka$_j$ hayss-ciman

In (43a), the fronted VP does not contain an unbound trace, and hence acceptable (40c). By contrast, in (43b), the fronted VP contains an unbound trace/copy of the theme *holangi-ka* 'tiger-Nom', which results in ill-formedness of (40d).

3.2. VP/vP Preposing in the *Toy-ta* 'become' Construction

This section discusses VP preposing in *toy-ta* 'become' construction. Unlike the other type in the NOC, the first nominative NP does not show the case alternation with the dative case. Although Yoon (2007) and Cho (2011) classify this construction as the NOC, Park & Kim (2022) exclude the *toy-ta* construction from the NOC. Park & Kim (2022: 1509) argue that (44a) shows an identity relation between *Yenghi* and *uysa* 'doctor', and the *toy-ta* verb maintains two core arguments *Yenghi* and *uysa* without exhibiting any degree of transitivity.[28]

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28) We focus only on VP preposing here and leave this issue for future research. A reviewer indicates that (44c) is unacceptable (or at least marginal) to his or her ears. The reviewer doubts why (40c) and (44c) sound worse than VP preposing in (1b). Consider (1b), (40c) and (44c), repeated here as (ia-c), respectively.

(i) a. ppang-ul   ppalli   mek-ki-nun   Chelswu-ka   hayss-ciman
         bread-Acc   fast   eat-NM-Top   C.-Nom   did-although
         'Lit. Although eat bread fast, Chelswu did'
    b. holangi-ka   mwusep-ki-nun Yenghi-ka   hayss-ciman
         tiger-Nom   afraid-NM-Top   Y.-Nom   did-although
         'Although Yenghi is afraid of a tiger'
    c. Uysa-ka   toy-ki-nun   Yenghi-ka   hayss-ciman
         doctor-Nom   become-NM-Top   Y.-Nom   did-although

(44) a. Yenghi-ka   uysa-ka   toyessta.
         Y.-Nom   doctor-Nom   became
         'Yenghi becomes a doctor.'
     b. Yenghi-ka   uysa-ka   toy-ki-nun   hayssta.
         Y.-Nom   doctor-Nom   become-NM-Top   did
         'Yenghi becomes a doctor.'
     c. Uysa-ka   toy-ki-nun   Yenghi-ka   hayss-ciman
         doctor-Nom   become-NM-Top   Y.-Nom   did-although
         'Although Yenghi becomes a doctor'
     d. *Yenghi-ka   toy-ki-nun   uysa-ka   hayss-ciman
         Y.-Nom   become-NM-Top   doctor-Nom   did-although
         'Intended: Although Yenghi becomes a doctor'

As shown in (44c), the second nominative NP *uysa-ka* 'doctor-Nom' can undergo movement along with V when the first nominative NP *Yenghi-ka* is a remnant. As shown in (44d), on the other hand, the first nominative NP *Yenghi-ka* cannot undergo movement along with V when the second nominative NP *uysa-ka* is a remnant.

Cho (2011) calls this construction "complement" MNC. Following this claim, we assume that the second NP is a complement of V, as shown in (45).

(45)
```
              vP
           ／
   Yenghi-ka     v'
              ／
           VP       v
        ／
   uysa-ka    V
```
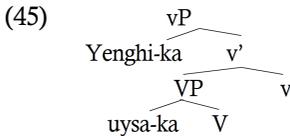
            'Although Yenghi becomes a doctor'
We may consider the possibility that the speakers who judge (ib-c) ill-formed may regard *hayss* 'did' only as a heavy verb that takes an Agent subject and an Event complement. In this case, because the fronted VP in (ia) denotes activity, its co-occurrence with the heavy verbs can sound good to the speakers. By contrast, the fronted VPs in (ib-c) denote states and change of states, respectively, and the subjects are non-Agentive. Accordingly, their co-occurrence with the heavy verbs should sound awkward to the speakers.
    The reviewer also asks if there is any "good" case of VP preposing leaving the subject that was base generated within the specifier of a functional phrase higher than VP. The following example may be a good case in point:
(ii) a. Yenghi-ka   sakwa-ka   mekko   siphessta.
         Y.-Nom   apple-Nom   eat   wanted
         'Yenghi wanted to eat an apple.'
     b. Sakwa-ka   mekko   siph-ki-nun   Yenghi-ka   hayss-ciman
         apple-Nom   eat   want-NM-Top   Y.-Nom   did-although
         'Although Yenghi wanted to eat an apple'
In (iib), VP preposing leaves the subject that was base generated within the specifier of a functional phrase higher than VP. To our ears, (iib) is acceptable, however, for those who process *hayss* 'did' only as a heavy verb, they might judge (iib) as somewhat degraded. We leave speakers' variations for future research.

The structure accounts for the possibility of VP preposing in (44c) and the impossibility in (44d), as shown in (46).

(46) a. [Uysa-ka toy-ki-nun] Yenghi-ka hayss-ciman
     b. *[Yenghi-ka t$_j$ toy-ki-nun] uysa-ka$_j$ hayss-ciman

In other words, the fronted VP In (46a) does not contain an unbound trace, while the fronted VP in (46b) involves an unbound trace/copy of the theme *uysa-ka* 'doctor-Nom', which invokes the PBC effect. Recall that the architectures of psych NOCs (41) and *toy-ta* 'become' constructions (aka complement NOCs) apparently share the core structural relations; namely, the grammatical subject is base-generated in Spec-v and the theme (complement) in Spec-V. At this stage, we are not sure how the two constructions can be distinguished structurally (or syntactically). We leave this issue in the future.

4. Concluding Remarks

We have explored VP/vP preposing in various types of multiple nominative constructions (MNCs) in Korean and discussed the empirical and theoretical consequences of the related phenomena. More specifically, we have examined major subject constructions, nominative object constructions, and their possible sub-types. We have shown that (im)possibility of VP/vP preposing in each sub-type of MNCs results from their unique structures in combination with the PBC effect and many other syntactic principles.

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