On the syntax of multi-focused fragment answers in Korean: An oblique merge analysis*

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Chung, Daeho. 2015. On the syntax of multi-focused fragment answers in Korean: An oblique merge analysis. *Linguistic Research* 32(3), 573-606. As observed in the literature (Park 2005, 2013, Park and Shin 2014, Ku and Cho 2014, among others), focus elements in a multi-focused fragment answer in Korean behave asymmetrically depending on their positions: Focus elements in a non-final position retain their dependent markers, while those in the final position optionally delete them. This paper first shows that the restriction is merely a subcase of a superordinate constraint, which states that a focus element in a non-final position pied-pipes the minimal node that dominates it and c-commands the following focus element(s), whereas a focus element in the final position optionally pied-pipes its dominating node(s). It is argued then that the pied-piping for non-final focus elements is caused by an economy-driven oblique merge operation that clusters elements with a focus feature before the complex focus element formed in this way moves to the focus licensing functional phrase. Focus clustering due to the same oblique merge operation is attested in other constructions containing multiple focus elements. **(Hanyang University)**

Keywords dependent marker (DM), focus clustering, focus feature, multi-focused fragment answer (MFFA), oblique merge, percolation, pied-piping

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1. Introduction

Multi-focused fragment answers (MFFAs) in Korean have received a great deal of attention in the literature, especially as to how they are syntactically derived. Discussions mostly center around the locality between the surviving elements (Park 2005, 2013, Park and Shin 2014, among others), and around the asymmetric behaviors that the final vs. non-final focus elements in MFFAs display with respect to the retention or omission of the so-called dependent markers (DMs) they carry (Park 2005, 2013, Park and Shin 2014, Ku and Cho 2014, among others). This paper first points out that the generalizations made in the previous studies, especially about the locality between surviving elements and about the distribution of the DMs that survivors bear, are either incorrect or not general enough. Then it observes MFFAs in Korean are subject to a superordinate generalization that captures the morphological and syntactic restrictions. More concretely, a focus element in a non-final position pied-pipes the minimal node that dominates it and c-commands the following focus element(s), while the focus element in the final position optionally pied-pipes the node(s) that contains it.

To explain the superordinate generalization, this paper proposes that the focus elements obliquely merge for an economy reason before the complex focus expression formed in this way moves to the SPEC of FocP *a la* Merchant's (2001, 2004) move-followed-by-TP-ellipsis analysis of fragments. The proposed oblique merge analysis is shown to nicely account for the syntactic and morphological restrictions that MFFAs display and to arguably accommodate syntactic behaviors that various other multi-elemental focus constructions display.

This paper is organized as follows. Section 2 revisits major generalizations made in the literature, especially as to the locality between survivors in MFFAs and the distribution of DMs. Generalizations made in the literature as to the locality will be shown to be incorrect in this section. Section 3 observes that the generalization made in the literature as to the distribution of DMs is not general enough. MFFAs are in fact shown to be subject to a superordinate generalization. Section 4 tries to provide an explanation of the superordinate generalization. It will be proposed that survivors in MFFAs obliquely merge within TP due to a Probe-Goal/Agree relation between the focus features carried by the survivors before the complex focus element formed in this way moves to the functional category FocP. In Section 5, various other

focus-related constructions with multiple focus elements are shown to behave like MFFAs regarding the superordinate generalization, supporting the oblique merge analysis provided in Section 4. Section 6 discusses some theoretical implications.

2. Crucial generalizations revisited

2.1 Omission or retention of DMs

A WH-question in Korean can be answered with a fragment sentence as in (1B2) and (1B2), as well as with a full sentence as in (1B1) below:

(1) A: John-i   Mary-eykey   **mwues**-ul   cwu-ess-ni?
          J.-Nom   M.-Dat   what-Acc   give-Pst-QE
          'What did you give to Mary?'
    B1: John-i   Mary-eykey   **sakwa**-lul   cwu-ess-ta
          J.-Nom   M.-Dat   apple-Acc   give-Pst-DE
          'John gave Mary an apple.'
    B2: **sakwa**-lul   B3: **sakwa**
          apple-Acc   apple
          'An apple.'   'An apple.'

The focus element (bold faced) in a fragment answer may or may not retain its DM (case morphemes or postpositional particles), as shown in the variations in (1B2) and (1B3), respectively, as was discussed in Morgan (1989), M.-K. Park (1998), B.-S. Park (2005, 2013), Ahn and Cho (2011, 2012), Ahn (2012), and Kim (2015), among many others.

Fragment answers may be composed of multiple elements, when the antecedent WH-question includes multiple WH-phrases. One prominent restriction that such a construction displays is that the surviving elements in the final position retain or omit its DM, while those in an non-final position must retain their DMs (Park 2005, 2013, Park and Shin 2014, Ku and Cho 2014. cf. Choi and Yoon 2009), as exemplified in (2) and (3), and schematically represented in (4):

(2) A: Cheli-ka **nwukwu**-eykey **mwues**-ul   cwu-ess-ni?
          Ch.-Nom who-Dat   what-Acc   give-Pst-QE
          'What did Cheli give to whom?

   B1: **Yengi**-eykey **sakwa**-lul   B2: **Yengi**-eykey **sakwa**
          Y.-Dat   apple-Acc

   B3: *****Yengi**   **sakwa**-lul   B4: *****Yengi**   **sakwa**

(3) A: **nwu**-ka   **nwukwu**-eykey **mwues**-ul   cwu-ess-ni?
          who-Nom   who-Dat   what-Acc   give-Pst-QE
          'Who gave whom what?'

   B1: **John**-i   **Mary**-eykey **sakwa**-lul   B2: **John**-i **Mary**-eykey **sakwa**
          J.-Nom M.-Dat   apple-Acc

   B3: *****John**-i   **Mary**   **sakwa**-lul   B4: *****John**   **Mary**-eykey **sakwa**-lul

   B5: *****John**-i   **Mary**   **sakwa**   B6: *****John**   **Mary**-eykey **sakwa**

   B7: *****John**   **Mary**   **sakwa**-lul   B8: *****John**   **Mary**   **sakwa**

(4) [... $\mathbf{XP}_{\text{non-final}}$*(-DM)... $\mathbf{YP}_{\text{final}}$(-DM)][1]   (XP/YP = WH-Correlates)

The restriction on DMs seems robust (but see footnotes 3 and 4 for some speaker variations), but it will be shown to be merely a subcase of a superordinate generalization in Section 3.

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[1]   There are some elements, e.g., temporal expressions like *ecey* 'yesterday' and *onul* 'today', that inherently resist DMs but are able to function as non-final focus elements in MFFAs:

   (i)   A: John-i   **encey**   nwukwu-eykey mwues-ul   cwu-ess-ni?
              J.-Nom   when   who-Dat   what-Acc   give-Pst-QE
              'When did John give what to whom?'
         B1: **ecey**   Mary-eykey   sakwa-lul B2: **ecey**   Mary-eykey sakwa
              yesterday M.-Dat   apple-Acc   yesterday M.-Dat   apple
              'An apple to Mary yesterday.'

   Thus, the constraint in (4) is on the retention or omission of a DM rather than on its presence or absence.

2.2 Locality between focus elements in MFFAs

It is noted in the literature, though not in unison, that MFFAs are subject to a certain locality condition. Park and Shin (2014) claim that, based on the examples like (5) below, the surviving elements are to belong to the same clause.

(5) (=Park and Shin 2014: 18, their (33))
    A: **nwu**-ka   [Cheli-ka **nwukwu**-lul ttayli-ess-ta-ko] malha-ess-ni?
         Who-Nom Ch.-Nom who-Acc   hit-Pst-DE-C   say-Pst-QE
         'Who said that Cheli hit who?'
    B: {*__Yengi__-ka **Cinwu**(-lul)/} (kuliko   **Songi**-ka **Minwu**(-lul)
         Y.-Nom C.(-Acc)   and   S.-Nom M.(-Acc)
         (Intended) 'Yengi said that Cheli hit Cinwu (and Songi said that Cheli hit Minwu).'

Notice, however, that a different judgment is reported in Park (2005), according to whom surviving elements can be extracted out of different clauses. Examples like (6) are acceptable, though not perfect, and examples like (7) sound almost perfect.

(6) A: **enu**   **kyoswu**-ka   hakkwacang-eykey [pro   **mwusun**
      which professor-Nom chairperson-Dat   which
      kwamok-ul kaluchi-ko siph-ta-ko] malha-ess-ni?
      subject-Acc teach-want-DE-C   say-Pst-QE
      'Which professor said to the chairperson that she or he wanted to teach which subject?'
    B: **Kim** **kyoswu**-ka   **thongsalon**-ul
      K.   professor-Nom syntax-Acc
      (Intended) 'Professor Kim said to the chairperson that he wanted to teach syntax.'

(7) A: Cheli-ka **nwukwu**-eykey [**nwu**-ka   o-n-ta-ko]   ha-ess-ni?
      Ch.-Nom who-Dat   who-Nom come-Pres-DE-C say-Pst-QE
      'To whom did Cheli say that who was coming?'
    B: **Yengi**-eykey **Songi**-ka

    Y.-Dat   S.-Nom
    (Intended) 'Cheli said to Yengi that Songi was coming.'

As far as the brackets in the examples mark clausal boundaries, the same clause condition does not seem to be respected. Thus, the ungrammatical status (or plausibly low acceptability) of (5B) should not be due to the same clause condition, but to some other (probably processing) constraint.[2]

    Park (2005, 2013) instead claims that there is an island boundary condition, based on the examples like (8). However, the island boundary condition does not seem to be robust, either, when we consider examples like (9) below.

(8) (=Park 2005: 94, his (43))
    A: **nwu**-ka   [ecey   **mwues**-ul   san   salam-ul]   manass-ni?
        who-Nom   yesterday what-Acc   bought person-Acc met-Q
        'Who met a person who bought what yesterday?'
    B: ***John**-i   **chayk**-ul
         John-Nom   book-Acc
        'John met a person who bought a book yesterday.'

(9) A: Cheli-ka **nwukwu**-eykey   [**eti**-ey   sa-nun   chinkwu-lul]
        Ch.-Nom who-Dat   where-at   live-PNE friend-Acc
        sokayha-ess-ni?
        introduce-Pst-QE
        'To whom did Cheli introduce the friend who lives where?'
    B1: **Yengi**-eykey [**Seoul**-ey sa-nun   chinkwu-lul]
        Y.-Dat   S.-at   live-PNE   friend-Acc
        'A friend who lives in Seoul to Yengi.'
    B2: **Yengi**-eykey [**Seoul**-ey sa-nun   chinkwu]
    B3: **Yengi**-eykey [**Seoul**-ey sa-nun]   B4: **Yengi**-eykey [**Seoul**-ey]
    B5: **Yengi**-eykey [**Seoul**]

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2   It will be an interesting research topic to find out exactly what causes the difference in acceptability between the examples like (5) and the ones like (6) and (7). As far as (6) is concerned, the existence of a null element co-indexed with the clause-external WP may facilitate the interpretation, as pointed out by one of the journal reviewers. But what is clear from (6) and (7) is that the same clause condition does not work in its literal sense.

Not only (9B1) but also (9B2~B5) are all acceptable, though not perfect.[3] The acceptability of (9B3~5) indicates that MFFAs obey neither the clause mate condition nor the island boundary constraint.

3. A superordinate generalization

Now consider (10) below, which is identical to (9) except for the inverted word order of the dative NP and the accusative NP:

(10) A: Cheli-ka [**eti**-ey   sa-nun chinkwu-lul] **nwukwu**-eykey
         Ch.-Nom where-at live-PNE friend-Acc   who-Dat
         sokayha-ess-ni?
         introduce-Pst-QE

   B1: [**Seoul**-ey sa-nun   chinkwu-lul]   **Yengi**-eykey
        S.-at   live-PNE friend-Acc   Y.-Dat

   B2: *[**Seoul**-ey sa-nun chinkwu]   **Yengi**-ekey

   B3: *[**Seoul**-ey sa-nun]   **Yengi**-eykey

   B4: *[**Seoul**-ey]   **Yengi**-eykey

   B5: *[**Seoul**]   **Yengi**-eykey

(10B2~5) and (9B2~5) differ in grammaticality.[4] A similar contrast emerges when

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3   One of the journal reviewers disagrees with the acceptability judgment of the examples in (9B3~9B5) and other similar examples in Section 3. However, most of my consultants judge these examples to be basically grammatical, though not perfect. Another journal reviewer (and Myung-Kwan Park (p.c.) as well) admits the contrast between (8) and (9) and she or he suspects that the contrast might be related to the edge effect: Elements at the left edge of a domain tend to behave unusually any way. In contrast, Doo-won Lee (p.c.) also admits the contrast but suspects that adjacency may play a role: For an MFFA to be legitimate, the WH-correlates have to be adjacent to each other. The explanation in terms of an edge effect, however, will have difficulty accounting for the fact that the edge effect disappears when a WH-correlate stays at the left edge of a non-final focus element. (See Section 3.) The account in terms of adjacency will also face difficulty accounting for the fact that two WPs do not have to be adjacent, especially in non-island contexts, as in (6), for example.

4   One of the journal reviewers claims that examples like (10B2) are basically grammatical, though degraded due to a processing problem: With the case marker dropped, the relative clause may be interpreted as an element that modifies *Yengi*. I believe, however, that the processing problem should not arise, or at least should be minimal, due to the existence of the question clause in the

WH-correlates are embedded within a simplex NP, as in (11) and (12), which are alike except for the word order of the accusative NP and dative NP:

(11) A: Cheli-ka   **mwues**-ul   [**nwukwu**-uy oppa-eykey] cwu-ess-ni?
Ch.-Nom   what-Acc   who-Gen   brother-Dat   give-Pst-QE
'What did Cheli give to whose brother?'

B1:   **sakwa**-lul   **Yengi**-uy oppa-eykey   B2:   **sakwa**-lul **Yengi**-uy oppa
apple-Acc   Y.-Gen   brother-Dat
'An apple to Mary's brother.'

B3:   **sakwa**-lul   **Yengi**-uy   B4:   **sakwa**-lul **Yengi**

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immediate discourse context. Moreover, even when such a modification relation is hardly conceivable, as in the following example, the judgement seems to remain the same:

(i) A: nwu-ka   ecey   [etiey   sesikha-nun   konchwung-tul-uy
who-Nom   yesterday   where   inhabit-REL   insect-Pl-ACC
thukcing-ul]   etten   haksayng-tul-eykey   selmyengha-ess-ni?
characteristics-Acc   which   student-Pl-Dat   explain-Pst-QE
'Who explained the characteristics of the insects that inhabit where to which students yesterday?
B: Kim kyoswu-ka   [nuphci-ey sesikha-nun   konchung-tul-uy
K.   professor-Nom   swamp-at inhabit-REL   insect-Pl-Gen
thukcing*(-ul)]   yuchiwensang-tul-eykey
characteristic-Acc   kindergartener-Pl-Dat
'Professor Kim (explained) the characteristics of the insects that inhabit in swamps to kindergarteners.'

As the verb *sesikha* 'to inhabit' does not take a [+human] argument, there should be no chance that the relative clause modifies *yuchiwensayng-tul* 'kindergartners'.

If one still accepts examples like (iB) with the case marker dropped, I suspect that she or he belongs to a group of speakers who freely drop structural case markers, regardless of the case type (Nominative or Accusative) or of the position (the complement position or else). Kim (2015) reports such a dialect. In contrast, Hong (1994, 2004, 2015), Ahn and Cho (2006b, 2007), and Park and Shin (2014) report a different generalization: Case markers can drop only in canonical complement positions, while those in canonical subject positions must be pronounced. Apparent case drop examples in other positions are often attested, but they are attributed to some discourse function like (hanging) topic or left-dislocation, which does not have to bear case markers from the beginning. See Ahn and Cho (2007), among others.

MFFAs like (10B2) become acceptable when a pause is put between the two focus elements, as pointed out by the same journal reviewer. I agree with the reviewer in this respect. It is not clear for the moment, though, why pauses improve the acceptability. Pauses may have to do with hanging topic or left-dislocation. This work simply reports the judgment on MFFAs with no pause inbetween.

(12) A: Cheli-ka [**nwukwu**-uy   oppa-eykey]   **mwues**-ul   cwu-ess-ni?
              Ch.-Nom who-Gen   brother-Dat   what-Acc   give-Pst-QE
       B1: **Yengi**-uy oppa-eykey **sakwa**-lul B2: **Yengi**-uy oppa-eykey **sakwa**
              Y.-Gen   brother-Dat apple-Acc
       B3: ***Yengi**-uy   **sakwa**-lul B4: ***Yengi**   **sakwa**-lul

The genitive phrase must accompany its head noun when it is contained in the first position, as in (12).[5] In contrast, no such restriction applies when it is contained in the final position, as in (11).

The same is true when the relative clause is a WH-correlate, as exemplified below:[6]

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[5]   One of the reviewers judges examples like (11B3) (and (13B2) below) to be totally unacceptable as MFFAs. According to the reviewer, a genitive phrase cannot function as a fragment answer at all, not even as a single-elemental fragment:

(i) A: Cheli-ka   nwukwu-uy   oppa-lul   manna-ess-ni?
              Ch.-Nom   who-Gen   brother-Acc   see-Pst-QE
              'Whose brother did Cheli see?'
     B1: (*)Yengi-uy.
               Y.-Gen
              (Intended) 'He met Yengi's brother.'

However, there exist not a few examples in which fragment sentences end with a genitive marker or with a relative clause ending in the corpus data provided by National Institute of Korean Language (https://ithub.korean.go.kr/user/corpus/corpusSearchManager.do). As far as these corpus examples are natural utterances, there seems to be no reason for such expressions not to be used as fragment answers. Admittedly, examples like (iB1) are not perfect, but they qualitatively differ from examples like (iB2) in which a genitive marked phrase appears in a non-final position.

(i) B2: Yengi-uy *(oppa-lul)   manna-ess-ta.
              Y.-Gen   brother-Acc   meet-Pst-DE
              (Intended) 'He met Yengi's brother.'

Also (iB1) becomes much better when the antecedent question clause takes an echo-question ending: *manna-ess-ta-ko?* instead of *manna-ess-ni?*

[6]   As pointed out by Lee (2009) and Yoon and Lee (2009), pre-nominal (or relative) clauses can appear as a right dislocated position as well, though not in a sentence-medial position:

(i) na-to   anay-ka   philyoha-ta,   yeppu-ko   chakha-n
       I-also   wife-Nom   necessary-DE   pretty-and   good-PNE
       'I need a wife, pretty and good.'

(13) A:　**nwukwu**-eykey　**etten**　anay-ka　philyoha-ni?
　　　　who-Dat　　　which　wife-Nom　necessary-QE
　　　　'What kind of wife is necessary to whom?'

　　B1:　**John**-eykey　[[**yeppu-ko chakha-n]**　anay]-ka
　　　　J.-Dat　　　pretty-and good-PNE　wife-Nom
　　　　'A wife that is pretty and good (is necessary) to John.'

　　B2:　**John**-eykey　[**yeppu-ko　chakha-n]**
　　　　J.-Dat　　　pretty-and good-PNE

(14) A:　**etten**　anay-ka　**nwukwu**-eykey　philyoha-ni?
　　　　which　wife-Nom　who-Dat　　　necessary-QE
　　　　'What kind of wife is necessary to whom?'

　　B1:　[[**yeppu-ko　chakha-n]**　anay]-ka　**John**-eykey
　　　　pretty-and　good-PNE　wife-Nom　J.-Dat
　　　　'A wife that is pretty and good (is necessary) to John.'

　　B2:　*[**yeppu-ko　chakha-n]**　　**John**-eykey
　　　　pretty-and　good-PNE　　J.-Dat

The relative clause must accompany its head noun when it is contained in the first position, as in (14). In contrast, no such restriction applies when it is contained in the final position, as in (13).

An overarching generalization that covers (8)~(14) will be like (15):

(15) **The C-command Condition between Focus Elements in MFFAs**
　　The focus element (WH-Correlate) in the first position pied-pipes the minimal node that dominates it and c-commands the focus element in the second position, while the focus element in the second position optionally pied-pipes its dominating node(s).

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(ii) A:　ne-nun　etten　anay-ka　philyoha-ni?
　　　you-Top　which　wife-Nom　necessary-QE
　　　'What kind of wife do you need?'

　　B:　na-nun　**yeppu-ko chakha**-n　*(anay-ka) philyoha-ta.
　　　I-Top　pretty-and　good-PNE　wife-Nom necessary-DE
　　　'I need a wife that is pretty and good.'

MFFAs may have more than two elements. Consider the discourse example in (16), which is identical to (9) except that the answers in (16) have an additional focus element, i.e., *ecey* 'yesterday', corresponding to the WH-phrase *encey* 'when' in the antecedent question clause:[7],[8]

  (16) A: John-i   **nwukwu**-eykey   [**eti**-ey   sal-nun   chinkwu]-lul
                J.-Nom   who-Dat   where-at live-PNE friend-Acc
                encey sokayha-ess-ni?
                when   introduce-Pst-QE
                'To whom did John introduce the friend who lives where?'
      B1:   **Mary**-eykey [**Seoul**-ey   sal-nun   chinkwu]-lul **ecey**
                M.-Dat   S.-in   live-PNE   friend-Acc   yesterday
                'the friend who lives in Seoul to Mary yesterday'
      B2:   ***Mary**-eykey   [**Seoul**-ey   sal-nun chinkwu]   **ecey**
      B3:   ***Mary**-eykey   [**Seoul**-ey   sal-nun]   **ecey**
      B4:   ***Mary**-eykey   **Seoul**-ey   **ecey**
      B5:   ***Mary**-eykey   **Seoul**   **ecey**

A focus element in a non-final and non-initial position behaves like an initial focus element with respect to pied-piping. Thus, (15) is revised as follows:[9]

  (17) **The C-command Condition between Focus Elements in MFFAs**
        A focus element (WH-Correlate) in a non-final position pied-pipes the
        minimal node that dominates it and c-commands the focus element(s)

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[7]   One of the reviewers judges (16B2) to be more ore less acceptable. I suspect the reviewer belongs to the group of speakers who freely delete structural case markers, as mentioned in footnote 4.

[8]   The final WP in (16A) is an adjunct, as pointed out by one of the journal reviewers, and the accusative expression is believed to have left its original position. Thus, the c-command relation in (15) and (17) is to hold at the "surface" level.

[9]   As one of the reviewers suspects, the generalization made in (17) does not seem to apply cross-linguistically. Piped piping is not obligatory in a language like English, for example, which allows NP deletion. Thus, (iB2) as well as (iB1) is a proper response to (iA) below:

  (i) A: The teacher is going to fax a student's GPA to a company.
      B1: Whose GPA to which company?
      B2: Whose to which?

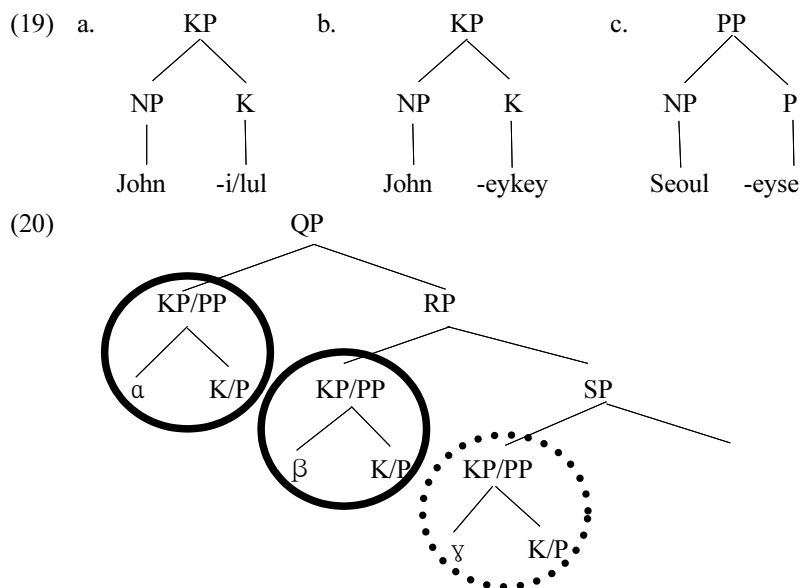that follows, while the focus element in the final position optionally pied-pipes its dominating node(s).

(17) can be schematically represented as in (18), in which ɑ, β, and ɣ are WH-Correlates, the solid circles indicate an obligatory pied-piping, and the dotted circle indicates an optional pied-piping.

(18)　Obligatory vs. Optional Pied-Piping of WH-Correlates (ɑ, β, ɣ)
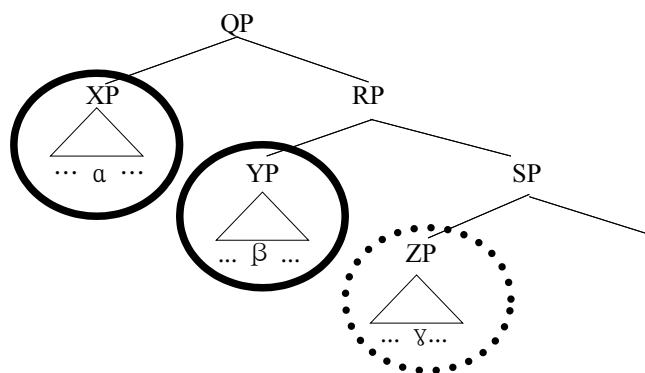
The restriction on DMs, schematically represented in (4), can be subsumed under (17), given that DMs project as independent heads, along the lines of Ahn and Cho's (2006a) head analysis of case morphemes, and Yoon's (1994, 1997) and M.-K. Park's (1994) head analysis of verbal affixes.[10] Under the syntactic head analysis of affixes, case-marked expressions like *John-i/lul* 'John-Nom/Acc', *John-eykey* 'John-Dat' or post-positional expressions like *Seoul-eyse* 'Seoul-at' will have the structures in (19). Thus, when KPs or PPs function as surviving elements in an MFFA, they will have the representation in (20) with respect to pied-piping.

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[10]　Interestingly, Ahn, An, Choi, Hwang, Kim, and Jeon (2011) argue that nominal affixes are syntactic heads, while verbal affixes are not.

(19) a.   KP   b.   KP   c.   PP

           NP   K   NP   K   NP   P

           John   -i/lul   John   -eykey   Seoul   -eyse

(20)   QP

                    KP/PP   RP

                  α   K/P   KP/PP   SP

                                    β   K/P   KP/PP

                                                 γ   K/P

Now the restriction on the retention or omission of DMs attested, for example, in (2) and (3), can be subsumed under the restriction described in (17). In all the legitimate MFFA examples thus far, focus elements in a non-final position are appropriately pied-piped so that the c-command condition may be fulfilled between surviving elements. In all the star-marked MFFA examples, in contrast, focus elements in a non-final position have not undergone an appropriate pied-piping process such that a survivor in a non-final position cannot c-command the following survivors.

A question may arise as to the size of pied-piping. Notice that pied-piping itself does not help. Consider the example in (10) again. The first focus element i.e., *Seoul*, pied pipes all the elements in the relative clause IP/CP in (10B3), and all the element in the PP in (10B4), but the answers remain ungrammatical. To be grammatical, the focus element has to pied-pipe all the elements of a node that is high enough to c-command the following focus element, as in (10B1) and (10B2). In contrast, the final focus element may or may not pied-pipe other elements, as can be seen in (9). The focus element pied-pipes the elements up to the whole relative clause construction in (9B1), up to the relative clause in (9B2), up to an NP in (9B3), and up to a PP in (9B4). (9B5) is an instance where no pied-piping takes

place at all. All the examples in (9B1)~(9B5) are basically grammatical.

The requirement for non-final focus elements to pied-pipe all the elements of a certain dominating node will be hardly explained by a theory that merely deals with the retention or deletion of DMs. Such a theory could not properly accommodate the contrast between (9) vs. (10), between (11) vs. (12), and between (13) vs. (14), especially the illicitness of the examples like (10B4) and (12B3). Section 4 will try to account for the overarching generalization in (17).

4. Towards an explanation: A focus clustering approach

According to Merchant (2001, 2004), fragments are produced due to a focus movement followed by TP-ellipsis. Bearing a focus feature, fragment remnants move to the SPEC of the focus phrase (FocP) and subsequently TP, complement of Foc, gets deleted at PF. For example, the fragment answers in (1B2) and (1B3), repeated below, will be derived as in (21) and (22), respectively:[11]

(1) A: John-i   Mary-eykey   **mwues**-ul   cwu-ess-ni?
        J.-Nom   M.-Dat   what-Acc   give-Pst-QE
        'What did you give to Mary?'
    B1: John-i   Mary-eykey   **sakwa**-lul   cwu-ess-ta
        J.-Nom   M.-Dat   apple-Acc   give-Pst-DE
        'John gave Mary an apple.'
    B2: **sakwa**-lul   B3: **sakwa**
        apple-Acc   apple
        'An apple.'   'An apple.'

---

11 I simply follow Merchant's (2001, 2004) derivation of fragments. Of course, there are alternative approaches like a direct interpretation approach to fragments (Ginzburg and Sag 2000, Culicover and Jackendoff 2005, Kim 2015, among many others) and a hybrid approach (Ahn and Cho 2011, 2012, Ahn 2012, Park and Shin 1914, among others). It is often claimed in the literature (e.g., Ahn and Cho 2011, 2012, Ahn 2012, etc.) that case-marked fragments in Korean have full sentential sources and are derived by TP-ellipsis, while caseless fragments do not have an internal sentence structure and they are directly interpreted. According to this criterion, MFFAs in Korean seem to be elliptically derived, regardless of the case property of the focus element in the final position. This is so as far as focus elements in non-final positions are required to retain their case morphemes.

(21) a. Focus Assignment

  [$_{TP}$ John-i Mary-eykey **<u>sakwa</u>**$_{[+F]}$-lul cwu-ess-ta]

  b. Focus Movement

  [$_{FP}$ [**<u>sakwa</u>**$_{[+F]}$-lul]$_i$ [$_{F'}$ F [$_{TP}$ John-i Mary-eykey t$_i$ cwu-ess-ta]]]

  c. TP-ellipsis

  [$_{FP}$ [**<u>sakwa</u>**$_{[+F]}$-lul]$_i$ [$_{F'}$ F ~~[$_{TP}$ John-i Mary-eykey t$_i$ cwu-ess-ta]~~]]

(22) a. Focus Assignment

  [$_{TP}$ John-i Mary-eykey **<u>sakwa</u>**$_{[+F]}$-lul cwu-ess-ta]

  b. Focus Movement

  [$_{FP}$ [**<u>sakwa</u>**$_{[+F]}$]$_i$ [$_{F'}$ F [$_{TP}$ John-i Mary-eykey t$_i$-lul cwu-ess-ta]]]

  c. TP-ellipsis

  [$_{FP}$ [**<u>sakwa</u>**$_{[+F]}$]$_i$ [$_{F'}$ F ~~[$_{TP}$ John-i Mary-eykey t$_i$-lul cwu-ess-ta]~~]]

Let us now turn to how the MFFA in a language like Korean is derived. We assume that MFFAs are produced very much like fragment answers composed of a single element in that the focus elements in MFFAs move to the SPEC of FocP and subsequently TP gets deleted. However, we argue that MFFAs involves one additional operation: The focus elements in an MFFA get clustered before they move to the SPEC of FocP. Thus, MFFAs are derived as schematically represented in (23), where XP and ZP are two surviving elements:

(23) a. Focus Assignment: [$_{TP}$ ... XP$_{[+F]}$ ... YP ... ZP$_{[+F]}$ ...]

  b. Focus Clustering: [$_{TP}$ ... [[XP]$_{[+F]}$ [ZP]$_{[+F]i}$] ... YP ... t$_i$ ...]

  c. Focus Movement: [$_{FP}$ [[XP]$_{[+F]}$ [ZP]$_{[+F]i}$]$_j$ [$_{F'}$ F [$_{TP}$ ... t$_j$ ... YP ... t$_i$ ...]]]

  d. TP-ellipsis: [$_{FP}$ [[XP]$_{[+F]}$ [ZP]$_{[+F]i}$]$_j$ [$_{F'}$ F ~~[$_{TP}$ ... t$_j$ ... YP ... t$_i$ ...]~~]]

Focus elements first get clustered within TP, as represented in (23b). The focus cluster, i.e., a complex expression composed of two focus elements, now moves to the SPEC of FocP, just as in the case of single membered fragment answers, as in (21c) and (22c). Then TP gets deleted, producing MFFAs, as in (23d).

  A system with a clustering process seems to be more economical than a system

without it. Suppose there are two elements, β and ɣ, bearing a formal feature [+F] that has to be syntactically linked to its corresponding feature at a functional category, as schematically represented below:

(24) Foc$_{[+F]}$ ... [$_{XP}$... β$_{[+F]}$ ...   [$_{YP}$ ... ɣ$_{[+F]}$ ...

If there were no clustering of β and ɣ, then the complete Probe-Goal relation would have to involve at least 3 maximal categories: XP for the relation between the Foc head and β, and XP and YP for the relation between the Foc head and ɣ. Clustering β and ɣ reduces the number of the maximal projections involved. The complete Probe-Goal relation will involve two maximal projections: YP for the relation between β and ɣ, and XP for the relation between the Foc head and the complex expression β-ɣ, which is in the position of β. Other things being equal, a clustering option should be preferred.

Clustering of focus elements is analogous to the so-called WH-clustering according to which WH-phrases get clustered within TP before they undergo WH-movement to the SPEC of CP in the so-called II-A languages like Bulgarian, Korean, Japanese, and German. (See Rudin 1988, Watanabe 1992, Saito 1994, Sohn 1994, Grewendorf 2001, Sabel 2001, among others. cf. Gärtner and Michaelis 2014, who claim that WH-clustering takes place universally.) In a language like Korean and Japanese, the so-called additional WH-effects can be nicely accounted for by this WH-clustering hypothesis. Consider the following Japanese examples, cited from Saito 1994: 205):
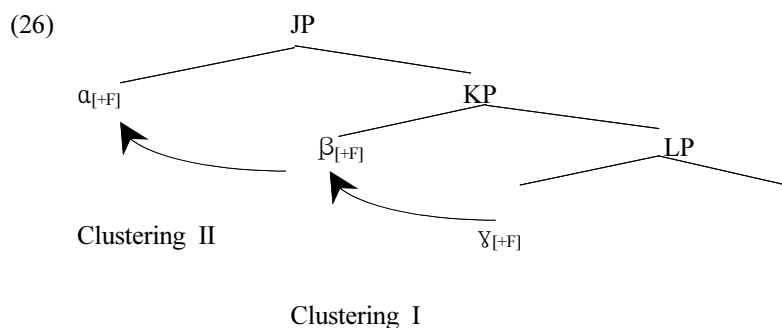
(25) a. *John-wa [$_{PP}$ [$_{IP}$ Mary-ga   sono   hon-o   **naze**   katta]
          J.-Top   M.-Nom   that   book-Acc   why   bought
       kara] okotteru no?
       since angry   Q
       'Give me the reason such that John is angry because Mary bought
       that book for that reason'
     b. ?John-wa [$_{PP}$ [$_{IP}$ Mary-ga **nani-o**   **naze**   katta] kara]
          J.-Top   M.-Nom what-Acc   why   bought since
       okotteru no?
       angry   Q

'Give me things and reasons such that John is angry because Mary bought the respective thing for the respective reason'

The adjunct *naze* 'why' in (25a) (or the null operator associated with it, *a la* Watanabe 1992) would have to move by itself, displaying an island effect. In contrast, *naze* in (25b) can move to the nominal WH-phrase *nani-o*, producing a complex WH-phrase, whose functional status is not an adjunct anymore. Not being an adjunct, the WH-cluster does not display an island effect.[12]

Focus elements in MFFAs similarly undergo a clustering procedure such that focus elements get clustered within IP/TP, before the cluster formed in this way undergoes focus movement to the SPEC of FocP. What causes the clustering in MFFAs? I assume that there is a formal feature [+F] in each of the remnants in MFFAs, most probably a focus feature, that induces the clustering.[13]

Clustering of surviving elements takes place step by step, in a bottom-up fashion, as schematically represented in (26) below:

(26)

Clustering II

Clustering I

Otherwise the obligatory pied-piping property of a WH-Correlate in a medial position could not be explained. For example, if α attracts β and ɣ, then the pied-piping property of β will not be guaranteed.

What happens when WH-Correlates are embedded, as in represented in (27)? In (27), α does not directly c-command β or ɣ, and β does not directly c-command ɣ. Thus, the [+F] feature in α and the one in β percolate up to XP and YP, respectively. Now the percolated [+F] feature in XP and the one in YP c-command β/ɣ and ɣ, respectively.

(27)
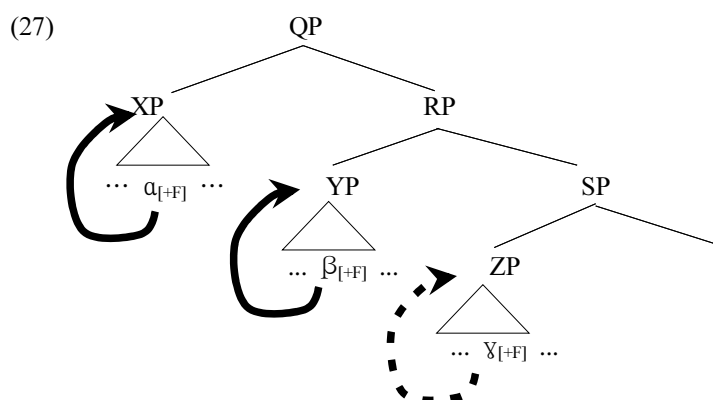
The focus feature in a non-final focus position percolates to cluster WH-correlates in MFFAs. A node with a [+F] feature has to be pronounced.[14] Due to the focus feature percolation in (27), for example, α$_{[+F]}$ pied-pipes all other elements in XP; β$_{[+F]}$ pied-pipes all other elements in YP.

The mechanism of focus feature percolation basically based on Selkirk's (1995) F-assignment rules in (29):

(29) *F-Assignment Rules* (Selkirk 1995: 555)
    a. Basic Focus Rule
       An accented word is F-marked.
    b. Focus Projection
       (i) F-marking of the head of a phrase licenses the F-marking of

---

14 This is orthogonal to the idea of (E)-givenness by Schwarzschild 1999 and Merchant (2001), according to whom what needs to be licensed is not a focused element but an elided one.

the phrase:

$[_{XP} \ X_F] \rightarrow [_{XP} \ X_F]_F$

(ii) F-marking of an internal argument of a head licenses the f-marking of the head:

$[H \ COMPL_F] \rightarrow [H_F \ COMPL_F]$

According to (29b), the focus feature of a head or its internal argument percolates up to the maximal projection. However, as was convincingly shown in Büring (2006), F-marking on a phrase XP does not necessarily require an accent on its head X^0 or its internal argument only; Rather any element dominated by XP (including an external argument and an adjunct) can percolate its F-marking to its mother node. If this is true, (29) has to be modified as in (30), where any dependent of a head, not simply its internal argument, is able to transfer its focus feature to its head, as follows:

(30) *F-Assignment Rules* (Revised)
    a. Basic Focus Rule
        An accented word is F-marked.
    b. Focus Projection
        (i) F-marking of the head of a phrase licenses the F-marking of the phrase:

            $[_{XP} \ X_F] \rightarrow [_{XP} \ X_F]_F$

        (ii) F-marking of a dependent of a head licenses the f-marking of the head:

            $[H \ DEPENDENT_F] \rightarrow [H_F \ DEPENDENT_F]$

(30) is identical to (29) except for the change made in (bii).

Let us now examine how the focus clustering analysis accounts for the restrictions that MFFAs display. It can first account for the asymmetry between final vs. non-final focus elements with respect to the retention or omission of DMs, as follows. For example, MFFAs in (2), repeated below, will have the derivation in (31):

(2) A: Cheli-ka **nwukwu**-eykey **mwues**-ul   cwu-ess-ni?
         Ch.-Nom who-Dat   what-Acc   give-Pst-QE
         'What did Cheli give to whom?

    B1: **Yengi**-eykey **sakwa**-lul   B2: **Yengi**-eykey **sakwa**
        Y.-Dat   apple-Acc

    B3: ***Yengi**   **sakwa**-lul   B4: ***Yengi**   **sakwa**

(31)   a. **Due to (30a)**
      [$_{TP}$ John-i **<u>Mary</u>**$_{[+F]}$-eykey **<u>sakwa</u>**$_{[+F]}$-lul cwu-ess-ta]
    b. **Due to (30bii) and (30bi)**:
      [$_{TP}$ John-i **<u>Mary</u>**-eykey$_{[+F]}$ **<u>sakwa</u>**$_{[+F]}$-lul cwu-ess-ta]

Bold faced elements, *Mary* and *sakwa*, are F-marked due to (30a). [+F] on *Mary* percolates up to *Mary-eykey* in order to attract [+F] on *sakwa,* due to (30bii) and (30bi). [+F] on *sakwa* may or may not percolate, as there is no other focus element to attract. When it does percolate, the derivation proceeds as follows, producing (2B1):

(31)   c. **Focus Clustering**
      [$_{TP}$ John-i [[**<u>Mary</u>**-eykey$_{[+F]}$] [**<u>sakwa</u>**-lul$_{[+F]}$]$_i$] t$_i$ cwu-ess-ta]
    d. **Focus Movement to SPEC-FocP**
      [$_{FP}$ [[**<u>Mary</u>**-eykey$_{[+F]}$] [**<u>sakwa</u>**-lul$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [$_{TP}$ John-i t$_j$ t$_i$ cwu-ess-ta]]]
    e. **TP-ellipsis**
      [$_{FP}$ [[**<u>Mary</u>**-eykey$_{[+F]}$] [**<u>sakwa</u>**-lul$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F ~~[$_{TP}$ John-i t$_j$ t$_i$ cwu-ess-ta]~~]]

When [+F] on *sakwa* does not percolate, the derivation proceeds as follows, producing (2B2):

(31)   c'. **Focus Clustering**
      [$_{TP}$ John-i [[**<u>Mary</u>**-eykey$_{[+F]}$] [**<u>sakwa</u>**$_{[+F]}$]$_i$] t$_i$-lul cwu-ess-ta]
    d'. **Focus Movement to SPEC-FocP**
      [$_{FP}$ [[**<u>Mary</u>**-eykey$_{[+F]}$] [**<u>sakwa</u>**$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [$_{TP}$ John-i t$_j$ t$_i$-lul

cwu-ess-ta]]]

e'. **TP-ellipsis**

[$_{FP}$ [[**<u>Mary</u>**-eykey$_{[+F]}$] [**sakwa**$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [~~$_{TP}$ John-i t$_j$ t$_i$-lul~~

~~cwu-ess-ta~~]]]

If [+F] on *Mary* fails to percolate, then clustering is unavailable due to the c-command failure. This will lead to an economy violation, as the multiple focus elements have to be directly linked to the head of FocP that has a [+F] feature. This accounts for the ungrammatical status of (2B3) and (2B4).

The final vs. non-final contrast with respect to pied-piping (e.g., (9) vs. (10); (11) vs. (12); (13) vs. (14)) can be similarly accounted for in terms of the proposed clustering analysis. Reconsider the contrast between (11) and (12), repeated below:

(11) A: Cheli-ka   **mwues**-ul   [**nwukwu**-uy oppa-eykey] cwu-ess-ni?
         Ch.-Nom   what-Acc   who-Gen   brother-Dat give-Pst-QE
         'What did Cheli give to whose brother?'
  B1: **sakwa**-lul   **Yengi**-uy oppa-eykey B2: **sakwa**-lul **Yengi**-uy oppa
       apple-Acc   Y.-Gen   brother-Dat
       'An apple to Mary's brother.'
  B3: **sakwa**-lul   **Yengi**-uy   B4: **sakwa**-lul **Yengi**

(12) A: Cheli-ka [**nwukwu**-uy   oppa-eykey]   **mwues**-ul   cwu-ess-ni?
         Ch.-Nom who-Gen   brother-Dat   what-Acc   give-Pst-QE
  B1: **Yengi**-uy oppa-eykey **sakwa**-lul   B2: **Yengi**-uy oppa-eykey **sakwa**
       Y.-Gen   brother-Dat apple-Acc
  B3: *****Yengi**-uy   **sakwa**-lul B4: *****Yengi**   **sakwa**-lul

The MFFAs in (11) will be derived as follows:

(32) **Derivations of (11B1) ~ (11B4)**
  a. **Due to (30a)**
     [$_{TP}$ John-i   **<u>sakwa</u>**$_{[+F]}$-lul   [**<u>Mary</u>**$_{[+F]}$-uy oppa-eykey]   cwu-ess-ta]
  b. **Due to (30bii) and (30bi)**:
     [$_{TP}$ John-i   **<u>sakwa</u>**-lul$_{[+F]}$ [**<u>Mary</u>**$_{[+F]}$-uy oppa-eykey]   cwu-ess-ta]

[+F] on *sakwa* percolates up to *sakwa-lul* to attract [+F] on *Mary*. [+F] on *Mary* may or may not percolate, as there is no other focus element to attract. When it does percolate up to the dative NP, the derivation produces (11B1), as follows:

(32)   c. **Focus Clustering**

[$_{TP}$ John-i [[**sakwa**-lul$_{[+F]}$**]** [**Mary**-uy oppa-eykey$_{[+F]}$]$_i$] t$_i$ cwu-ess-ta]

d. **Focus Movement to SPEC-FocP**

[$_{FP}$ [[**sakwa**-lul$_{[+F]}$] [**Mary**-uy oppa-eykey$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [$_{TP}$ John-i t$_j$ t$_i$ cwu-ess-ta]]]

e. **TP-ellipsis**

[$_{FP}$ [[**sakwa**-lul$_{[+F]}$] [**Mary**-uy oppa-eykey$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [$_{TP}$ ~~John-i t$_j$ t$_i$ cwu-ess-ta~~]]]

When [+F] on *Mary* does not percolate, the derivation produces (11B4), as follows:

(32)   c'. **Focus Clustering**

[$_{TP}$ John-i [[**sakwa-lul**$_{[+F]}$] [**Mary**$_{[+F]}$]$_i$] t$_i$-uy oppa-eykey cwu-ess-ta]

d'. **Focus Movement to SPEC-FocP**

[$_{FP}$ [[**sakwa**-lul$_{[+F]}$] [**Mary**$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [$_{TP}$ John-i t$_j$ t$_i$-uy oppa-eykey cwu-ess-ta]]]

e'. **TP-ellipsis**

[$_{FP}$ [[**sakwa**-lul$_{[+F]}$] [**Mary**$_{[+F]}$]$_i$]$_j$ [$_{F'}$ F [$_{TP}$ ~~John-i t$_j$ t$_i$-uy oppa-eykey cwu-ess-ta~~]]]

 [+F] on *Mary* may percolate up to *Mary-uy oppa* or *Mary-uy,* producing (11B2) and (11B3), respectively.

MFFAs in (12) will be derived as follows.

(33)   **Derivations of (12B1) and (12B2)**

a. **Due to (30a)**

[$_{TP}$ John-i [**Mary**$_{[+F]}$-uy oppa-eykey] **sakwa**$_{[+F]}$-lul cwu-ess-ta]

b. **Due to (30bii) and (30bi)**:

[$_{TP}$ John-i [**Mary**-uy oppa-eykey$_{[+F]}$] **sakwa**$_{[+F]}$-lul cwu-ess-ta]

[+F] on *Mary* percolates up to *Mary-oppa-eykey* in order to attract [+F] on *sakwa*. [+F] on *sakwa* may or may not percolate, as there is no other focus element to attract. When it does percolate, the derivation produces (12B1), as follows:

(33)　c.　**Focus Clustering**
　　　　[TP John-i [[**Mary-uy oppa-eykey**[+F]] **sakwa-lul**[+F]]i] ti cwu-ess-ta]

　　　d.　**Focus Movement to SPEC-FocP**
　　　　[FP [[**Mary-uy oppa-eykey**[+F]] **sakwa-lul**[+F]]i]j [F F [TP John-i tj ti cwu-ess-ta]]]

　　　e.　**TP-ellipsis**
　　　　[FP [[**Mary-uy oppa-eykey**[+F]] **sakwa-lul**[+F]]i]j [F F [TP ~~John-i tj ti cwu-ess-ta~~]]]

If, however, [+F] on *sakwa* does not percolate, the derivation produces (12B2), as follows:

(33)　c'.　**Focus Clustering**
　　　　[TP John-i [[**Mary-uy oppa-eykey**[+F]] [**sakwa**[+F]]i] ti-lul cwu-ess-ta]

　　　d'.　**Focus Movement to SPEC-FocP**
　　　　[FP [[**Mary-uy oppa-eykey**[+F]] [**sakwa**[+F]]i]j [F F [TP John-i tj ti-lul cwu-ess-ta]]]

　　　e'.　**TP-ellipsis**
　　　　[FP [[**Mary-uy oppa-eykey**[+F]] [**sakwa**[+F]]i]j [F F [TP ~~John-i tj ti-lul cwu-ess-ta~~]]]

When [+F] on *Mary* does not percolate high enough to c-command the following focus element, the derivation crashes, accounting for the ungrammatical status of (12B3) and (12B4).[15]

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[15]　The contrast between (9) vs. (10) and between (13) vs. (14) can be similarly accommodated, as the reader is invited to verify.

5. Other multi-elemental focus constructions

It was assumed in the previous section that the focus feature is responsible for the clustering of focus elements. Then the expectation is that other multi-focused constructions are similarly constrained with respect to the syntactic relation between focus elements. The expectation seems to be borne out, as there are several focus-related constructions that are similarly restricted.

Pseudo-cleft constructions generally allow a simple focus element, but there are speakers who accept multi-elements in the focus position. Even for these lenient speakers, the generalization made in (17) seems to work, as follows:

(34) a. John-i   cwu-n   kes-un   [Mary-eykey   chayk]-i-ta.16
          J.-Nom   give-PNE   thing-Top   M.-Dat   book-Cop-DE
          'What John gave was books to Mary.'
       b. *John-i cwu-n kes-un [Mary   chayk]-i-ta
       c. John-i cwu-n kes-un [chayk-ul Mary-eykey]-i-ta
       d. *John-i cwu-n kes-un [chayk Mary-eykey]-i-ta

As the contrast between (34a, c) vs. (34b, d), the non-final focus element must retain its DM. The final element may bear a non-structural case morpheme, though not a structural case morpheme due to the property of the Korean copula.

As pointed out in Hartmann (2000) and Ha (2008), the so-called right node raising construction (RNR) involves some sort of contrastive focus. More concretely, the elements prior to the RNR target are supposed to have a contrastive focus interpretation. For example, compare (35a) and (35b) below:

(35)   a. na-nun **John**-ul **Mary**-eykey, **Tom**-ul **Sue**-ekey sokayha-ess-ta.
          I-Top J.-Acc   M.-Dat   T.-Acc S.-Dat   introduce-Pst-DE
          'I introduced John to Mary, and Tom to Sue.'
       b. *na-nun **John**-ul   Mary-eykey, **Tom**-ul   Mary-eykey,
           I-Top   J.-Acc   M.-Dat   T.-Acc   M.-Dat
          sokayha-ess-ta.
          introduce-Pst-DE
          'I introduced John to Mary, and Tom to Mary.'

---

16 No structural case marker can precede the copula in Korean.

Both *John* and *Mary* in (35a) have a contrastive focus reading (as they are contrasted with *Tom* and *Sue* in the second conjunct.) In contrast, *John* in (35b) has a contrastive focus (as opposed to *Tom* in the second conjunct), but *Mary* cannot have such a contrastive focus reading, as there is no appropriate contrasting element in the second conjunct.

Interestingly, the grammaticality of multi-elemental RNRs varies depending on the retention or omission of the DMs of the contrastive focus elements. As in the MFFA, the focus element in the last position may delete its DM, while the focus element in a non-final position must retain its DM, as shown below:

(36) a. na-nun   **John**-ul   **Mary**-eykey,   **Tom**-ul   **Sue**-ekey sokayha-ess-ta.
        I-Top   J.-Acc M.-Dat   T.-Acc   S.-Dat   introduce-Pst-DE

   b. *na-nun **John**-ul   **Mary**-eykey, ...

   c. na-nun **John**-ul   **Mary**-eykey, ...

   d. *na-nun **John**-ul   **Mary**-eykey, ...

(37) a. na-nun   **Mary**-eykey   **John**-ul, **Sue**-ekey **Tom**-ul sokayha-ess-ta.
        I-Top   M.-Dat   J.-Acc S.-Dat   T.-Acc introduce-Pst-DE

   b. *na-nun **Mary**-eykey **John**-ul, ...

   c. na-nun **Mary**-eykey **John**-ul, ...

   d. *na-nun **Mary**-eykey **John**-ul, ...

All the ungrammatical sentences (36) and (37) are the ones where the focus element in the first position has deleted its DM, regardless of whether the focus element in the last position retains or deletes its DM.

The contrast between (38) vs. (39) below indicates that the RNR behaves like the MFFA with respect to pied-piping: The focus element in the first position must pied-pipe other elements, while the one in the final position does not have to:

(38) a. na-nun   **John**-ul   **Mary**-uy tongsayng-eykey ,
        I-Top   J.-Acc   M.-Gen   brother-Dat
        Tom-ul   **Sue**-uy   tongsayng-ekey   sokayha-ess-ta.
        T.-Acc   S.-Gen   brother-Dat   introduce-Pst-DE
        'I introduced John to Mary's brother, Tom to Sue's brother.'

  b. *na-nun **Mary**-uy tongsayng-~~eykey~~   **John**-ul, ...

  c. *na-nun **Mary**-uy ~~tongsayng-eykey~~   **John**-ul, ...

  d. *na-nun **Mary**-~~uy~~ ~~tongsayng-eykey~~   **John**-ul, ...

(39) a. na-nun   **John**-ul   **Mary**-uy tongsayng-eykey,

   I-Top   J.-Acc   M.-Gen   brother-Dat

   Tom-ul   **Sue**-uy   tongsayng-ekey sokayha-ess-ta.

   T.-Acc   S.-Gen   brother-Dat   introduce-Pst-DE

   'I introduced John to Mary's brother, Tom to Sue's brother.'

  b. na-nun   **John**-ul   **Mary**-uy tongsayng-~~eykey~~, ...

  c. na-nun   **John**-ul   **Mary**-uy ~~tongsayng-eykey~~, ...

  d. na-nun   **John**-ul   **Mary**-~~uy tongsayng-eykey~~, ...

Let us now turn to the so-called right dislocation construction (RDC). Although it is not easy to define the semantic property of post-verbal elements in RDCs, they seem to bear some sort of focus feature, as they provide some additional information or clarify the proposition. Ko (2014, 2015), for example, argues that at least post-verbal argument elements bear a specificational focus reading. Thus they are supposed to behave like MFFAs, which seems to be borne out.

In a so-called gapless RDC, as in (40) below, DMs are free to be deleted. In a gapped RDC, structural case markers can be deleted, as in (41a) below, while other DMs are hardly deleted, as in (41b) below, probably due to the deletion-up-to-recoverability principle. Note that postpositions carry some semantic content, while structural case morphemes carry little semantic content.

(40) a. John-i   Tom-ul   Mary-eykey   sokayha-ess-ta,   Tom(-ul)

   J.-Nom   T.-Acc   M.-Dat   introduce-Pst-DE   T.-Acc

   'John introduced Tom to Mary.'

  b. John-i   Tom-ul   Mary-eykey   sokayha-ess-ta,   Mary(-eykey)

   J.-Nom   T.-Acc   M.-Dat   introduce-Pst-DE   M.-Dat

(41) a. John-i e_i Mary-eykey   sokayha-ess-ta,   Tom(-ul)$_i$

   J.-Nom   M.-Dat   introduce-Pst-DE   T.-Acc

   'John introduced Tom to Mary.'

b. John-i   Tom-ul   e_i   sokayha-ess-ta,   Mary*?(-eykey)_i
   J.-Nom   T.-Acc   introduce-Pst-DE   M.-Dat

In multi-elemental RDCs, post-verbal elements in a non-final position must retain their DM, while post-verbal elements in the final position retain or delete their DM, depending on the RDC type. Consider the gapless RDC examples in (42) and (43) and gapped RDC examples in (44) and (45) below:

(42) a. John-i   Tom-ul   Mary-eykey   sokayha-ess-ta,
         J.-Nom   T.-Acc   M.-Dat   introduce-Pst-DE
         Tom-ul   Mary-eykey
         T.-Acc   M.-Dat
         'John introduced Tom to Mary.'
      b. ......, Tom-ul   Mary-~~eykey~~
      c. *......, Tom-~~ul~~   Mary-eykey
      d. *......, Tom-~~ul~~   Mary-~~eykey~~

(43) a. John-i   Mary-eykey   Tom-ul   sokayha-ess-ta,
         J.-Nom   M.-Dat   T.-Acc   introduce-Pst-DE
         Mary-eykey   Tom-ul
         M.-Dat   T.-Acc
         'John introduced Tom to Mary.'
      b. ......,Mary-eykey Tom-~~ul~~
      c. *......, Mary-~~eykey~~ Tom-ul
      d. *......, Mary-~~eykey~~ Tom-~~ul~~

(44) a. John-i   e_i e_j sokayha-ess-ta,   Tom-ul_i Mary-eykey_j
         J.-Nom   introduce-Pst-DE   T.-Acc   M.-Dat
         'John introduced Tom to Mary.'
      b. *?......, Tom-ul_i Mary-~~eykey~~_j
      c. *......, Tom-~~ul~~_i   Mary-eykey_j
      d. *......, Tom-~~ul~~_i   Mary-~~eykey~~_j

(45) a. John-i   e$_i$ e$_j$ sokayha-ess-ta,   Mary-eykey$_i$ Tom-ul$_j$
        J.-Nom   introduce-Pst-DE   M.-Dat   T.-Acc
        'John introduced Tom to Mary.'
    b. ......,   Mary-eykey$_i$ Tom-~~ul~~$_j$
    c. *......, Mary-~~eykey~~$_i$ Tom-ul$_j$
    d. *......, Mary-~~eykey~~$_i$ Tom-~~ul~~$_j$

Gapless RDCs behave like MFFAs with respect to the obligatory vs. optional pied-piping. Post-verbal elements in a non-final position induce pied-ping, while those in the final position does not have to:[17]

(46) a. John-i   Tom-ul   Mary-uy tongsayng-eykey   sokayha-ess-ta,
        J.-Nom   T.-Acc   M.-Gen   brother-Dat   introduce-Pst-DE
        Tom-ul   **Mary**-uy   tongsayng-eykey
        T.-Acc   M.-Gen   brother-Dat
        'John introduced Tom to Mary's brother.'
    b. ......, **Tom**-ul **Mary**-uy   tongsayng-~~eykey~~
    c. ......, **Tom**-ul **Mary**-uy   ~~tongsayng-eykey~~
    d. ......, **Tom**-ul   **Mary**-~~uy tongsayng-eykey~~

(47) a. John-i   Tom-uy   tongsayng-ul   Mary-eykey   sokayha-ess-ta,
        J.-Nom   T.-Gen   brother-Acc   M. -Dat   introduce-Pst-DE
        Tom-uy   tongsayng-ul   **Mary** -eykey
        T.-Gen   brother-Acc   M.-Dat
        'John introduced Tom's brother to Mary.'
    b. *......, **Tom**-uy   tongsayng-~~ul~~ **Mary**-eykey
    c. *......, **Tom**-uy   ~~tongsayng-ul~~ **Mary**-eykey
    d. *......, **Tom**-~~uy   tongsayng-ul~~ **Mary**-eykey

Reduced WH-questions are subject to the same restrictions. Consider the following examples:

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[17] Gapped RDCs do not allow a non-pied-piped version of the focus element in the final position, probably due to the deletion-up-to-recoverability principle.

(48) A: John-i   nwukwunka-lul nwukwunka-eykey sokayha-ess-ta.
          J.-Nom   someone-Acc   someone-Dat   introduce-Pst-DE
          'John introduced someone to someone.'

     B1: **nwukwu**-lul   **nwukwu**-eykey?
          who-Acc   who-Dat

     B2: **nwukwu**-lul   **nwukwu**-~~eykey~~?

     B3: ***nwukwu**-~~lul~~   **nwukwu**-eykey?

     B4: ***nwukwu**-~~lul~~   **nwukwu**-~~eykey~~?

(49) A: John-i   nwukwunka-eykey nwukwunka-lul   sokayha-ess-ta.
          J.-Nom   someone-Dat   someone-Acc   introduce-Pst-DE
          'John introduced someone to someone.'

     B1: **nwukwu**-eykey   **nwukwu**-lul?
          who-Dat   who-Acc

     B2: **nwukwu**-eykey   **nwukwu**-~~lul~~?

     B3: ***nwukwu**-~~eykey~~ **nwukwu**-lul?

     B4: ***nwukwu**-~~eykey~~ **nwukwu**-~~lul~~?

Reduced WH-questions display a similar restriction as to pied-piping as well. As shown in the contrast between (50) and (51) below, WH-phrases in a non-final position need to be pied-piped, while those in the final position do not have to be:

(50) A:John-i   nwukwunka-lul nwukwunka-uy   tongsayng-eykey
          J.-Nom   someone-Acc   someone-Gen   brother-Dat
          sokayha-ess-ta.
          introduce-Pst-DE
          'John introduced someone to someone's brother.'

     B1: **nwukwu**-lul   **nwukwu**-uy tongsayng-eykey?
          who-Acc   who-Gen   brother-Dat

     B2: **nwukwu**-lul   **nwukwu**-uy tongsayng-~~eykey~~?

     B3: **nwukwu**-lul   **nwukwu**-uy ~~tongsayng-eykey~~?

     B4: **nwukwu**-lul   **nwukwu**-~~uy tongsayng-eykey~~?

(51) A: John-i   nwukwunka-uy   tongsayng-lul   nwukwunka-eykey
          J.-Nom   someone-Gen   brother-Acc   someone-Dat
          sokayha-ess-ta.
          introduce-Pst-DE
          'John introduced someone's brother to someone.'

    B1: **nwukwu**-uy   tongsayng-ul   **nwukwu**-eykey?
        who-Gen   brother-Acc   who-Dat
    B2: ***nwukwu**-uy   tongsayng-~~ul~~   **nwukwu**-eykey?
    B3: ***nwukwu**-uy   ~~tongsayng-ul~~   **nwukwu**-eykey?
    B4: ***nwukwu**-uy   ~~tongsayng-ul~~   **nwukwu**-eykey?

We have seen in this section that various focus-related constructions such as pseudo-cleft constructions, RNRs, RDCs, and reduced WH-questions display the same restriction as the MFFAs do, when they involve multiple elements in the relevant focus position. Thus, our assumption that the focus feature is somehow responsible for the oblique merge between elements bearing a focus feature seems to be on the right track.

6. Some theoretical implications

It was observed in this paper that focus bearing survivors in Korean MFFAs show different behaviors as to the focus feature percolation depending on their syntactic positions. As summarized in (17), the focus feature of a focus element in a non-final position has to be percolated up to a dominating node that is high enough to c-command/attract the following focus element, while that of a focus element in the final position does not have to be. This generalization is shown to be well accounted for when the focus bearing elements in the MFFA get clustered before the complex focus element formed in this way undergoes focus movement to the functional category FocP and subsequently TP gets deleted.

Given that the oblique merge analysis of the MFFA in Korean is on the right track, there are some theoretical implications. One is that caseless fragment answers do not necessarily receive a direct/pragmatic interpretation, especially when they function as the final element of an MFFA. Cf. Ahn and Cho (2011, 2012) and Ahn

(2012). Notice that focus elements in a non-final position retain their DMs and thus have to be assumed to have a full syntactic structure. Thus, there is no *a priori* reason for a simplex fragment answer not to be elliptically derived. Of course, such a simplex fragment answer may entertain a direct/pragmatic interpretation option as well.

Another theoretical implication is that, contra the thesis that only heads function as Probe (Chomsky, 2001, 2004, Frampton and Gutmann, 2000, cf. Pesetsky and Torrego 2001, 2004, and Rezac 2003), maximal projections can function as Probe, as far as they bear a relevant feature appropriately percolated so as to c-command the feature in Goal. In a sense, it is a desirable result, as syntax will become simpler when it does not have to care about the projectional (X^o vs. XP) status of an element that participates in a Probe-Goal relation. It suffices that Probe and Goal have a legitimate syntactic relation.

A third implication is that derivation proceeds in a bottom-up fashion, which is required for accounting for MFFAs with three or more focus elements. Otherwise, the obligatory pied-piping for focus elements in a medial position could not be explained.

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