QUD, Focus, and Adjunct Ellipsis*

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Park, Jong Un. (2023). QUD, focus, and adjunct ellipsis. *The Linguistic Association of Korea Journal*, *31*(4), 153-179. The goal of this paper is to argue, building on Park (2022), that the deletion of an adjunct is restrictively allowed in Korean only when an elliptical clause is congruent with Questions Under Discussion (QUDs). However, since Park's analysis faces a couple of issues to be reconsidered, I elaborate his QUD-based approach, especially by incorporating Kobayashi et al.'s (2023) claim that depending on the context, different types of focus, such as verum focus, contrastive focus, and negation of predicate focus, may play a role in evoking QUDs required for adjunct ellipsis licensing. Then, it is shown that the amended QUD approach can successfully explain not only the data of adjunct ellipsis previously dealt with by Park but also novel data inspired by Kobayashi et al. Finally, it is briefly discussed what the so-called 'verb-echo answers' in Korean suggests to the proposed QUD approach.

Key Words: adjunct ellipsis, QUD, focus, contrastive topic, verb-echo answers

1. Introduction

In the literature on ellipsis there has been a debate on whether adjunct deletion like (1) below is available in Korean (and Japanese), and this is because adjuncts are not selected by a predicate and are expected to be optionally present.

(1) a. John-un   kkomkkomhi   cepsi-lul   takk-ass-ta.
     J.-Top   carefully   dishes-Acc   wash-Past-Decl
     'John did the dishes carefully.'

    b. Mary-nun   [e]   cha-lul   takk-ass-ta.

      M.-Top   car-Acc   wash-Past-Decl

    'Mary washed a car [e].' ([e] = carefully)

A group of researchers report that adjuncts, whether they are locative PPs, reason PPs or low adverbs like manner adverbs, are never elidable (Park, 1994; Lee, 2016 for Korean; Oku, 1998 for Japanese). According to them, the silent element in (1b) cannot be interpreted as the manner adverb *kkomkkomhi* 'carefully'. Another group maintain that adjunct deletion may be allowed but is limited to certain kinds of adjuncts (Lee, 2019; Ahn & Cho, 2021 for Korean; Funakoshi, 2016 for Japanese).

    However, it has recently been argued that adjuncts are eligible for deletion if they respect a discourse-pragmatic condition that relies on the notion of Question under Discussion (QUD) in Roberts's (1996/2012) sense (cf. Park, 2022 for Korean; Kobayashi et al., 2023 for Japanese). In brief, if an elliptical clause with a missing adjunct is congruent with a QUD invoked by the discourse context, the unpronounced adjunct can be recovered. According to this view, which will be dubbed as a 'QUD-based approach' here, any types of adjuncts in Korean and Japanese can, in principle, survive deletion under certain environments.

    Against this backdrop, one of the main goals of this paper is to reassess Park's (2022) QUD-based analysis of adjunct ellipsis in Korean, showing that there are a couple of issues to be reconsidered, especially regarding how QUDs for adjunct ellipsis licensing are generated. In order to resolve the issues, I will elaborate Park's analysis by adopting Kobayashi et al.'s (2023) idea that there are various types of focus that may come into play in inducing QUDs. Then, it will be shown that the updated QUD-based approach can successfully explain not only the data previously handled by Park but also novel data some of which are adapted from Kobayashi et al. Finally, it will be examined briefly what adjunct ellipsis in 'verb-echo answers' (VEAs) in Korean tells us regarding the proposed QUD-based approach. Notice, in passing, that VEAs are very similar to core data like (1), except that there is an overtly spelled-out question that is equivalent to implicit QUDs for (1a,b).

    This paper is organized as follows: section 2 briefly reviews previous approaches to adjunct ellipsis including Park's (2022) QUD-based analysis. Then, in section 3, Park's analysis will be implemented by incorporating Kobayashi et al.'s (2023) QUD approach to Japanese adjunct ellipsis. Section 4 discusses possible implications of VEAs on the core data and analysis of this paper, and then, section 5 wraps up our discussion.

2. Previous Approaches to Adjunct Ellipsis

2.1. Ahn and Cho (2021) and Lee (2019)

Since adjuncts are different from arguments as the former are not selected by a predicate, it would be hard to judge whether an unpronounced constituent represented as '[e]' in (2) has been eliminated via deletion, or it does not enter a derivation at all.

(2) Chelswu-nun [caki-uy pang-ese] Hamlet-ul ilkess-ko
C.-Top self-Gen room-at Hamlet-Acc read-and
Tongswu-to [e] Hamlet-ul ilkess-ta.
T.-also Hamlet-Acc read
'Chelswu$_i$ read Hamlet in his$_i$ room and Tongswu$_j$ also read Hamlet [e].'
([e] can be in his$_j$ room.) Ahn and Cho (2021, p. 122)

Indeed, there has been a debate in the literature regarding whether the unselected locative PP *caki-uy pang-ese* 'in his room' in the first conjunct above can be recovered in the second conjunct. For example, according to Ahn and Cho (2021), the locative PP at issue is an unselected adjunct, and unless what they call 'free pragmatic enrichment' applies, it cannot be deleted nor recovered in the second conjunct.[1] More specifically, although the location of the event of reading Hamlet need not be specified in the event structure for

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1) Following Recanati (2010), Ahn and Cho (2022) assume that there are three types of locative PPs. The first type of locative PPs are not adjuncts but arguments, since they are selected by a predicate (e.g., PP in *John lives in his father's house*). As such, they can be easily deleted and recovered as long as the standard conditions for ellipsis are met. By contrast, one type of adjunct locative PPs, which are not selected by a verb, still need to be specified in the event structure of a predicate like *arrive* explicitly or implicitly, as shown in (i) (from Recanati, 2010, p. 83). Therefore, in order for this type of adjunct PP to be deleted, what is called 'obligatory pragmatic enrichment' should apply, but there is neither an explicit linguistic expression for the location slot nor can it be inferred from the context. in (i) below. Finally, there is another type of adjunct locative PPs that are not entailed by the meaning of a predicate (e.g., *dance*), but unlike the first type of adjunct PPs, they can be recovered through what is called 'optional pragmatic enrichment', as in (ii), where the PP *at the ball* is furnished by the contextual information (from Recanati, 2010, p. 85).

(i) A: John has arrived. (ii) A: Was John present at the ball?
    B: Where has he arrived.   B: Yes. He danced all night.
    A: *I have no idea.

the verb 'read', the locative PP can be recovered through the process of the free (or optional) pragmatic enrichment.

On the other hand, Lee (2019) argues that the locative PP of the sort in (2) above is tolerant to ellipsis. According to her, no element can be elided if it is given focus, but since the PP at issue is not given focus, it may undergo deletion, rendering non-focused elements contrastively focused. This ban on the deletion of a focused element is consonant with Oku's (2016) constraint for ellipsis-resistant elements, which is traced back to Kuno's (1982) Ban against Partial Discourse Deletion in (3) below.

(3) Ban Against Partial Discourse Deletion
    If discourse deletion of recoverable constituents is to apply, apply it across the board to nonfocus constituents. Nonfocus constituents which are left behind by partial discourse deletion will be reinterpreted, if possible, as representing contrastive foci.   Kuno (1982, pp. 84-85)

However, as comprehensively discussed in Park (2022), these two approaches have their own problems. To begin with, for Ahn and Cho (2021), obligatory or free pragmatic enrichment processes are important in recovering an adjunct locative PP, but they do not make explicit how such processes can take place. More importantly, adjunct ellipsis is only limited to locative (or temporal) PPs in Ahn and Cho's analysis, but as reported by Lee (2019), other kinds of PPs than locative (or temporal) ones, such as instrument PPs, are eligible for ellipsis, as in (4).[2]

(4) a. Cheli-nun [caki-uy khad-lo]   i   chayk-ul kyelcayhay-ss-ciman,
       Cheli-Top self-Gen card-with this book-Acc charge-Pst-but
       'Cheli_i charged this book to his_i credit card, but'

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2) One reviewer raises a question whether there is any chance that the instrument PP 'with one's credit card' in (4) can be an argument selected by a predicate. If so, as (s)he points out, whether the same PP is recoverable in (4b) amounts to the issue of whether a selected PP can undergo ellipsis. Although the reviewer's question deserves careful examination, I will not delve into the issue of whether all adjuncts can be redefined as arguments if they are recoverable, as in (4). This is because the issue would take us too far afield, and thus, I will continue to adhere to the standard view that instrumental PPs are adjuncts, which cannot be selected by a predicate.

   b. Hana-nun   [e]   ce   chayk-ul   kyelcayhay-ss-ta.
      Hana-Top   that book-Acc   charge-Pst-Decl
      'Hana_j charged that book to his_j credit card.'   Lee (2019, (9))

As shown in (4b), a sloppy reading is available for the missing instrumental PP *caki-uy khad-lo* 'with his credit card', but it is incorrectly predicted to be unavailable in Ahn and Cho's analysis.[3] Furthermore, contrary to Ahn and Cho's claim, even a reason PP turns out to be tolerant to ellipsis, as given in (5).

   (5) a. Chelswu-ka   [phoksel-ttaymwuney]   nuckey   oass-ko,
         C.-Nom   heavy.snow-for   late   came-and
         'Chelswu came late because of a heavy snow, and'
      b. Yenghi-to [e] nuckey   oassta.
         Y.-also   late   came
         'Yenghi came late [e].' ([e] can be 'because of a heavy snow'.)
                                                              Park (2022, (28))

   Just as are there some drawbacks in Ahn and Cho's analysis, Lee (2019) is also faced with a couple of issues. First, Park (2022, p. 92) observes that unlike what is predicted by Lee's analysis based on the Ban against Partial Discourse Deletion in (3), sentences like (6) are still judged grammatical along with a sloppy reading even if only one of the two potential targets of ellipsis is missing in the second conjunct. According to her analysis, when the locative PP *caki-uy pwumonim-uy cip-ey* 'in her parents' house' is deleted while the temporal PP *olay-tongan* 'for a long time' reserved, the latter is naturally interpreted as a focus of negation, producing the reading 'Yenghi didn't live for a long time at all'. As such, the locative PP is incorrectly predicted to be ineligible for ellipsis.

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 3) According to a reviewer, the legibility of ellipsis of the instrument PP in (4b) might not be detrimental to Ahn and Cho's (2021) approach if we assume that (4b) is a case where 'free pragmatic enrichment' applies to the missing adjunct. However, Ahn and Cho's approach is not tenable, since they argue that obligatory or free pragmatic enrichment fails to work for other adjuncts than locative or temporal ones. Furthermore, it does not seem to be clear when free pragmatic enrichment can apply.

(6) a. Cheli-nun [caki-uy pwumonim-uy cip-ey]   olay-tongan
   Cheli-Top   self-Gen parent-Gen   house-in long.time-for
   sal-ass-ciman,
   live-Past-but
   'Cheli lived in his parents' house for a long time, but'

   b. Yenghi-nun [e]   olay-tongan   sal-ci   ahn-ass-ta.
   Yenghi-Top   long.time-for live-Noml not-Past-Decl
   'Yenghi$_j$ didn't live in his/her parents' house for a long time.'
   ([e] can be 'in her$_j$ parents' house')   adapted from Ahn and Cho (2021)

Following Ahn and Cho's idea that locative PPs can be an argument depending on the type of a predicate co-occurring with them, Park (2022) suggests that the locative PP *caki-uy pwumonim-uy cip-ey* 'in their parents' house' in (6b) can be deleted, since this type of locative PP is not an adjunct but a complement selected by the predicate *sal-* 'live'. Furthermore, the condition in (3), originally suggested by Kuno, appears to be nothing but a descriptive generalization.

2.2. QUD-based Approach to Adjunct Ellipsis

In order to resolve the issues of the two latest works on adjunct ellipsis in Korean, which include an undergeneration problem, Park (2022) argues that adjuncts, whether they are locative, temporal, or reason PPs, are basically eligible for ellipsis if they meet a discourse-pragmatic condition that appeals to the notion 'Questions under Discussion' (QUDs). As Park discussed, discourses are often characterized as interlocutors' attempt to share the way things are, and coherence for each discourse is obtained through a hierarchical structure of question-answer relationships. In particular, interloctutors are supposed to reach the goal of answering the most common question in their discourse context, which subsequently invokes subquestions that are also expected to be answered by the same interlocutors. Those on-going questions for each discourse are labeled as 'QUDs' in the literature (Roberts, 1996/2012, *a.o.*). This notion, QUD, has also been adopted by a number of studies on ellipsis, since it is useful in explaining how ellipsis including sluicing or VP ellipsis can be licensed in cases where an antecedent and a target constituent do not match in their form or there is no explicit antecedent at all (see Park (2022) for more detailed information).

Building on Büring's (2003) models of contrastive topics, Park suggests that QUDs form a discourse tree (d-tree), where a more common QUD exists as a 'superquesiton' on the top, which in turn dominates a set of QUDs as 'subquestions.' In generating a superquestion and a set of subquestions on a d-tree, it is required to identify, from the discourse context, what receives a focus and which elements serve as a contrastive topic (which is similar to B-accent in Jackendoff's (1972) sense). In particular, subquestions are generated from a superquestion by replacing a focused element of XP with a *wh*-word or fronting a focused head, as well as replacing the contrastive topic with its alternatives. More importantly, Park proposes a discourse-pragmatic condition for adjunct ellipsis, which states that an adjunct can be deleted and recovered only when an elliptical clause is a member of a set of possible answers to the QUDs that serve as subquestions.
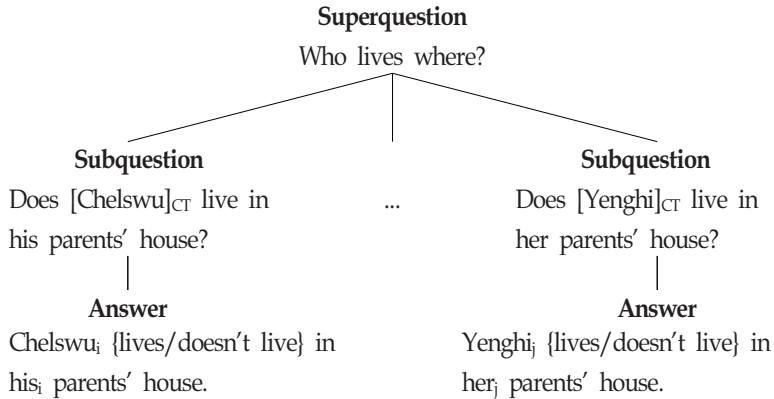
In order to understand how Park's QUD-based approach works, let us first consider the following example in (7).

(7) a. Chelswu-nun [caki-uy   pwumonim-uy cip-ey]   santa.
       Chelswu-Top   self-Gen   parent-Gen   house-in   live
       'Chelswu lives in his parents' house.'
    b. kulentey   Yenghi-nun   [e]   salcianhnunta.
       but   Yenghi-Top   live-not
       'But Yenghi does not live in her parents' house.'

<div align="right">Ahn and Cho (2021, p. 120)</div>

According to Park, the most common QUD that functions as a superquestion, which is inferred from the antecedent and elliptical clause in (7), is *Who lives where?* This is because what the interlocutors are talking about is the current residence of Chelswu and Yenghi. He further suggests that in the next step, subquestions can be generated from the superquestion, by replacing the C(ontrastive) T(opic) value with Chelswu and Yenghi, as these two individuals are in contrast in the given conversational context. In this step, the information about the living place of each individual needs to be provided due to the argumenthood of the locative PP, whereas it is the verb *sal-* 'live' that receives a focus. As a result, *yes-or-no* questions, such as *Does Chelswu live in his parents' house?* and *Does Yenghi live in her parent's house?* are generated as subquestions. These two steps eventually produce the following kind of d-tree in (8).

(8) d(iscourse)-tree for (7)

<div align="center">

Superquestion

Who lives where?

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Subquestion		**Subquestion**
Does [Chelswu]$_{CT}$ live in	...	Does [Yenghi]$_{CT}$ live in
his parents' house?		her parents' house?
Answer		**Answer**
Chelswu$_i$ {lives/doesn't live} in		Yenghi$_j$ {lives/doesn't live} in
his$_i$ parents' house.		her$_j$ parents' house.

Among the set of possible answers on the d-tree above, there is a sentence *Yenghi doesn't live in her parents' house*, which is almost identical to the elliptical clause in (7), except for the presence of the locative PP. As such, Park argues that since the discourse-pragmatic congruency condition is satisfied, the ellipsis of the locative PP in (7b) can be licensed, also explaining the availability of a sloppy reading from the same clause.[4]

On the other hand, consider the following example in (9), where the locative PP is not eligible for ellipsis.

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4) One reviewer asks if there is any other piece of evidence than the availability of sloppy readings, which supports that missing adjuncts are the result of deletion at PF. Collins (2015, p. 120) argues that the contrast in interpretation between (ia) and (ib) in English lends support to the deletion view: (ia) with a missing adjunct can be interpreted as 'John and Mary want to perform in different cities,' but (ib) with the deictic adverb *there* cannot. It seems that the same contrast can be found in the Korean equivalent, as shown in (iia-b), which favors the deletion view.
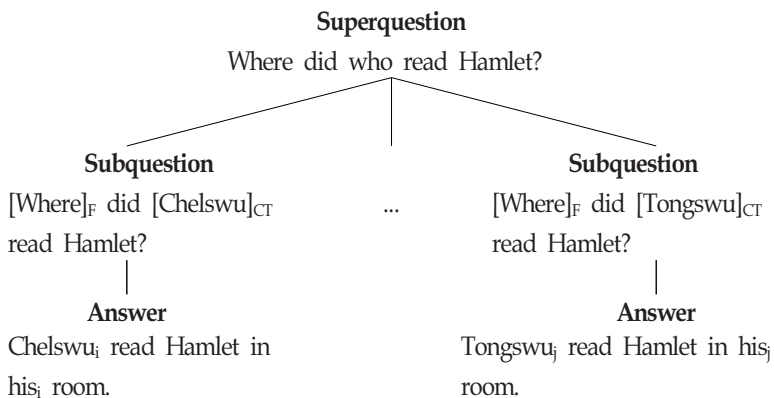
(i) a. John wants to sing at a location in every major city, and Julie wants to sing [e].   [English]

   b. John wants to sing at a location in every major city, and Julie wants to sing there.

(ii) a. John-un   motun cwuyo tosi-eyse nolayha-ki-lul   wenha-ko,   [Korean]

       J.-Top   every   major   city-in   sing-Noml-Acc want-and

       Julie-to   [e]   nolayha-ki-lul   wenhan-ta.

       J.-also   sing-Noml-Acc want-Decl.

   b. John-un   motun cwuyo tosi-eyse nolayha-ki-lul   wenha-ko,

       J.-Top   every   major   city-in   sing-Noml-Acc want-and

       Julie-to   kekise nolayha-ki-lul   wenhan-ta.

       J.-also   there   sing-Noml-Acc want-Decl.

(9) Chelswu-nun   [caki-uy   pang-eyse] Hamlet-ul   ilkess-ko
     C.-Top   self-Gen   room-at   Hamlet-Acc   read-and
     Tongswu-nun [e]   Hamlet-ul   ilkciahnassta.
     T.-Top   H.-Acc   read.not
     'Chelswu$_i$ read Hamlet in his$_i$ room and Tongswu$_j$ didn't read Hamlet.'
     (*"Tongswu didn't read Hamlet in his room.')   Ahn and Cho (2021, p. 121)

Park suggests that since the locative PP *caki-uy pang-eyse* 'in his room', unlike the PP in (7), is a genuine adjunct, it is the location of a reading event that the interlocutors want to talk about. Therefore, *Where did who read Hamlet?* should be the most salient common QUD, which serves a role as the superquestion. In the second step, a set of QUDs can be generated as subquestions by replacing the CT value with Chelswu and Tongswu. As a result, proper answers to the subquestions are expected to include *Chelswu read Hamlet in his room* and *Tongswu read Hamlet in his room*, as shown in (10). According to Park, given the common view (cf. Kuno, 1982; Collins, 2015) that focused elements cannot be deleted, the locative PP in (9) is not eligible for deletion, since it receives narrow focus, providing new information about the location of the reading event. Furthermore, the subquestion is a constituent question, not a polar one, it would not sound natural to answer it with a negative form like the second conjunct in (9). Therefore, it follows that the elliptical clause in (9) is incongruent with the immediate QUD, thereby adjunct ellipsis being prohibited.

(10) d(iscourse)-tree for (9)

<div align="center">

Superquestion
Where did who read Hamlet?

Subquestion   ...   **Subquestion**
[Where]$_F$ did [Chelswu]$_{CT}$ [Where]$_F$ did [Tongswu]$_{CT}$
read Hamlet?   read Hamlet?

Answer   **Answer**
Chelswu$_i$ read Hamlet in   Tongswu$_j$ read Hamlet in his$_j$
his$_i$ room.   room.

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Park's QUD-based approach appears to fare better than Lee (2019) and Ahn and Cho in a couple of aspects. More than anything else, it can resolve the so-called 'undergeneration' problem of both approaches. For example, it was shown in Sec. 2.1 that while Ahn and Cho would fail to predict other adjunct PPs than locative or temporal ones, there are cases where even an instrumental PP is eligible for ellipsis, as shown in (11), repeated from (4).

(11) a. Cheli-nun [caki-uy khad-lo] i chayk-ul kyelcayhay-ss-ciman,
         Cheli-Top self-Gen card-with this book-Acc charge-Pst-but
         'Cheli$_i$ charged this book to his$_i$ credit card, but'
    b. Hana-nun [e] ce chayk-ul kyelcayhay-ss-ta.
        Hana-Top that book-Acc charge-Pst-Decl
        'Hana$_j$ charged that book to his$_j$ credit card.'   Lee (2019, (9))

Under Park's analysis, the superquestion, the most common QUD, inferred from both the antecedent and elliptical clause above is something like *What did who charge how?* (see Park (2022, (41)) for the relevant d-tree). From this superquestion, a couple of subquestions such as *What did Chelswu charge to his card?* and *What did Hana charge to his card?* are derived by replacing the CT value with Chelswu and Hana. A set of possible answers to each subquestion can include *Cheli$_i$ charged this book to his$_i$ card* and *Hana$_j$ charged that book to his$_j$ card*, and thus, the elliptical sentence in (11b) can be said to be congruent with the QUDs, explaining the availability of a sloppy interpretation.

In a similar vein, we have seen that Lee's analysis makes an incorrect prediction about the availability of the locative PP deletion in (6), repeated below as (12).

(12) a. Cheli-nun [caki-uy pwumonim-uy cip-ey] olay-tongan
         Cheli-Top self-Gen parent-Gen   house-in long.time-for
         sal-ass-ciman,
         live-Past-but
         'Cheli lived in his parents' house for a long time, but'
    b. Yenghi-nun [e] olay-tongan sal-ci anh-ass-ta.
        Yenghi-Top   long.time-for live-Noml not-Past-Decl
        'Yenghi$_j$ didn't live in his/her parents' house for a long time.'
        ([e] can be 'in her$_j$ parents' house')   adapted from Ahn and Cho (2021)

Although he does not directly address how the QUD-based approach can handle this case of adjunct ellipsis, it is predicted, given Park's analysis of (7), a sentence like *Who lives where?* can be invoked as the superquestion by the antecedent and elliptical clause. This question can in turn generate a couple of subquestions, such as *Did Cheli live in his parents' house for a long time?* and *Did Yenghi live in her parents' house for a long time?* Then, it follows that the elliptical clause in (12b) is congruent with the QUD, since it is included in a set of possible answers to the subquestions, which may include *Chelswu {lived/didn't live} in his parents' house for a long time* and *Yenghi {lived/didn't live} in her parents' house for a long time*.

Furthermore, there are other empirical advantages of Park's QUD-based analysis, in that the availability of ellipsis of a reason PP or even a manner adverb is correctly predicted (see Park, 2022, (39) and (42) for the relevant cases).

Despite these advantages, however, Park's QUD-based approach appears to have a couple of issues to be made clearer. For example, in explaining the eligibility of ellipsis of a locative PP in (7), he adopts Ahn and Cho's view that this type of PP is a selected complement, while he also assumes that the complement PP needs to be presupposed in the subquestion—i.e., *Does Chelswu live in his parents' house* or *Does Yenghi live in her house?* However, there is no reason for which a PP needs to be present (as old information) in the QUD simply because the PP is a selected argument. Similarly, in order to explain why a certain type of adjunct PPs, such as reason or manner PPs, can be elided, Park makes an *ad hoc* assumption that the information about those PPs should be provided as background information in the subquestion (see a discussion surrounding example (21) toward the end of Sec 3.2).

Furthermore, even the eligibility of the same type of an adjunct can change depending on the discourse context and information structure, but Park, let alone any of the previous works, does not properly acknowledge this empirical fact.[5]

To summarize, Park (2023) proposes a QUD-based approach to adjunct ellipsis in Korean, and his approach is shown to be superior to the recent works, Lee (2019) and Ahn and Cho (2021), in a couple of aspects. Nonetheless, however, his QUD-based

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5) For instance, in example (9), the locative PP 'in one's room' fails to be elided, since the most salient issue in the given context is the location of the event of Hamlet reading. On the other hand, the deletion of the same locative PP is banned in example (19), which is minimally different from (9) in polarity, and it can be attributed to the context where the discourse participants are more interested in who read *Hamlet* in one's room, rather than where two individuals in contrast read it.

approach has a couple of issues, calling for reconsideration. This paper will elaborate Park's (2022) analysis, so that all the three issues pointed out above can be resolved. For this purpose, Kobayashi et al.'s (2023) view that different types of focus may play a role in evoking QUDs for adjunct ellipsis will be adopted.[6)]

3. Three Types of Focus and QUD

This paper assumes with Park (2022) that adjunct ellipsis in Korean can be licensed by a discourse-pragmatic condition in terms of QUDs. In other words, it is permitted only in the environments where an elliptical clause is congruent with QUDs inferred from both the antecedent and the elliptical clause. What's more, this paper argues, along the lines of Kobayashi et al. (2023), that when QUDs are generated, different types of focus, such as verum focus, contrastive focus for a predicate or other elements, or predicate focus of negation, are called into consideration, depending on the discourse context. In this section, it will be discussed how the current analysis explains the availability of adjunct ellipsis. In

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6) Notice that both Park (2022) and Lee (2019), as opposed to Ahn and Cho (2021), endorse a view that missing adjuncts are the deletion of the adjuncts at PF. One reviewer asks why adjunct ellipsis cannot be an instance of VP-ellipsis. According to this position, which is close to the 'verb stranding VP-ellipsis' (VSVPE), a silent adjunct is taken to be the result of a deletion of a remnant VP, out of which other constituents than the adjunct have been extracted. Simpson et al. (2013) suggest a diagnostic for the VSVPE view. For example, in Hindi, if both a verb and its object are deleted alongside a temporal adverb, adjunct inclusion is available, as in (ib); on the other hand, if an object DP is stranded, the same interpretation is banned, as in (ic). Given this contrast, they argue that VP-ellipsis has taken place only in (ib), not in (ic). But as seen in (17) and (19), adjunct inclusion reading is still possible, even with a stranded object DP in Korean, which shows a sharp contrast to the Hindi case in (ic). Since exploring the difference between the two languages is beyond the scope of this paper, I will stick to the view that missing adjuncts are the result of adjunct deletion.

(i) a. Ram-ne   Chomsky-ka   naya   lekh   do   baar padha.   [Hindi]
    Ram-erg   Chomsky-gen   new   writing two   time read-past
    'Ram read the new paper by Chomsky twice.'
  b. Raj-ne-bhi   [e]   padha.
    Raj-erg-also   read-past
    'Raj also read the paper twice.'
  c. Raj-ne-bhi   vo   lekh   [e] padha.
    Raj-erg also   that   writing   read-past
    'Raj also read the paper.' NOT communicated: 'twice'   Simpson et al. (2013, p. 112)

so doing, not only the data handled in the previous section but also some untouched ones will be examined in terms of the type of focus involved for each.

3.1. Verum Focus

Before examining cases where verum focus is involved for invoking QUDs, let us briefly discuss what verum focus is. As discussed in Kobayashi et al. (2023), verum focus is used for affirming or negating the truthhood of a salient proposition in the on-going discourse (Höhl, 1992; Gutzmann et al., 2020). Specifically, Gutzmann et al. (2020) note that verum focus can be defined as follows:

(13) A special kind of H*L accent that, instead of focusing the accent-bearing expression, is used to emphasize the truth of the propositional content of a sentence.

<div align="right">Gutzmann et al. (2020, p. 3)</div>

For example, in (14B) below, the ordinary accent is given on the emphatic auxiliary verb *did*, but neither the auxiliary verb nor its tense is focused in this case. Rather, the accent is used to emphasize the truth of the proposition in question, namely 'that Peter kicked the ball', and B's utterance can be paraphrased as 'It is true that Peter kicked the ball'.

(14) A: I cannot imagine that Peter kicked the ball.
     B: Peter DID kick the ball.   Gutzmann et al. (2020, p. 3)

This being said, this paper suggests, along the lines of Kobayashi et al. (2023), that verum focus plays a critical role in inducing QUDs in many cases where there is a contrast in polarity between a predicate of the antecedent clause and that of the elliptical clause. One related example includes (7), repeated below as (15), where a locative PP is allowed to be deleted. In explaining why the locative PP *caki-uy pwumonim-uy cip-ey* 'in his parents' house' is eligible for deletion, it was proposed in Park (2022) that the QUDs as subquestions for two conjuncts are *Does Chelswu live in his parents' house?* and *Does Yenghi live in her parents' house?*

(15) a. Chelswu-nun   [caki-uy   pwumonim-uy   cip-ey]   santa.
      Chelswu-Top   self-Gen   parent-Gen   house-in   live
      'Chelswu lives in his parents' house.'

b. kulentey   Yenghi-nun [e]   salcianhnunta.

  but   Yenghi-Top   live-not

  'But Yenghi does not live in her parents' house.'

<div align="right">Ahn and Cho (2021, p. 120)</div>

In order to see more clearly how verum focus plays a role in creating QUDs, let us reconstruct the example in (15) into (16). Suppose that the interlocutors are exchanging information about whether Chelswu and Tongswu were individuals who lived with their parents, and thus, the superquestion, the most common QUD for this discourse context, is *Who lived in one's parents' house?*, from which subquestions for both conjuncts are derived.[7]

(16) A: Chelswu-nun [caki-uy pwumonim-uy cip-ey]   SAni?

      Chelswu-Top self-Gen parent-Gen   house-in live.Pres.Int

      '[VERUM [Does [Chelswu]$_{CT}$ live in his parents' house]]?'

  B: Ung. Chelswu-nun [caki-uy pwumonim-uy cip-ey]   SANta.

    Yes Chelswu-Top self-Gen parent-Gen   house-in live.Pres.Decl

    'Yes, [Chelswu]$_{CT}$ live in his parents' house.'

  A': Yenghi-nun ettay?   Yenghi-nun [caki-uy pwumonim-uy cip-ey]

    Yenghi-Top what.about Yenghi-Top self-Gen parent-Gen   house-in

    SAni?

    live.Pres.Int

    'What about Yenghi? [VERUM [Does [Yenghi]$_{CT}$ live in her parents' house]]?'

  B': Ani. Yenghi-nun [e] SAL-CI   anhnunta.

    No   Yenghi-Top   live-Noml   not.Pres.Decl

    'No, [Yenghi]$_{CT}$ doesn't live in her parents' house.'

The question in (16A) corresponds to the QUD soliciting the hearer's answer in (16B), which is equivalent to the antecedent clause in (15a), and it can be paraphrased as *Is it true that Chelswu lives in his parents' house?* Similarly, the question in (16A') is an instance of QUD that calls for the hearer's reply in (16B'), which corresponds to the elliptical

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7) According to one anonymous reviewer, it is argued in Han and Romero (2004) that the epistemic adverb *cengmal* 'really' in Korean serves to signal verum focus, with primary focus pitch on it, thereby giving an emphasis on the polarity in cases like (16). I agree with the reviewer regarding what Han and Romero argue, but in order to keep the core data as close to original ones as possible, the adverb is not added. Thanks to the reviewer for informing me of this information.

clause in (15b), and it can also be paraphrased as *Is it true that Yenghi lives in her parents' house?* Notice that the answer in (16B′) with the predicate *sal* 'live' accented is congruent with the question in (16A′), explaining why the locative PP can be elided in (15).[8],[9]

Secondly, as mentioned in Section 1, this paper argues, following Park (2022), that not only locative or temporal PPs but also manner adverbials are eligible for ellipsis in Korean (contra Ahn and Cho, 2021, *a.o.*). For example, as in (17b), the manner adverb *kkomkkomhi* 'carefully' can be deleted. Let's imagine a situation where the interlocutors of (17) are talking about about whether John and Mary participated in the car-cleaning event in a careful way. The current analysis, which combines Park's QUD-based approach with the notion of 'verum focus', can capture why the ellipsis of the manner adverb is permitted.

(17) a. John-un   kkomkkomhi   cha-lul   takk-ass-ta.
      J.-Top   carefully   car-Acc   wash-Past-Decl
      'John washed a car carefully.'
    b. Mary-to   [e]   cha-lul   takk-ass-ta.
      M.-also   car-Acc   wash-Past-Decl
      'Mary washed a car [e].' ([e] = carefully)

As represented in the d-tree in (18), the most common QUD, namely the superquestion, which is inferred from both the antecedent and elliptical clause, is *Who washed the car*

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8) As mentioned in Gutzmann et al. (2020), languages differ regarding which element can be accented for expressing verum focus. For example, in German, the heavy H*L accent is placed on a finite verb in the verb second position under C^0. On the other hand, in English, the same type of accent falls on an auxiliary verb, as in (14). I assume with Kobayashi et al. (2023) that in Korean (and Japanese), the verum accent is basically given to a verb, as exemplified in (16).
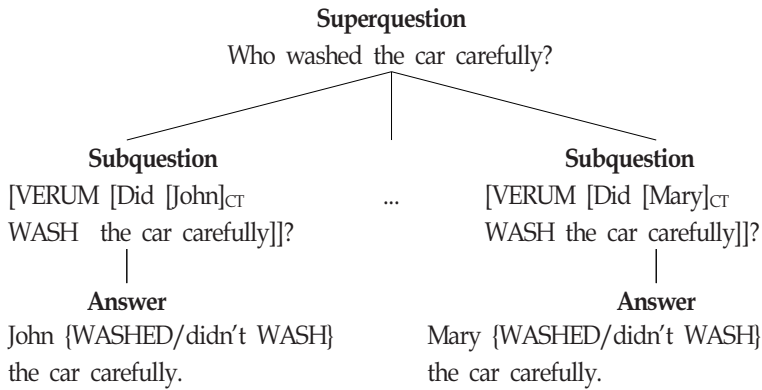
   It is also worth noting that according to Höhle (1992), there is no specific syntactic position of a verum predicate that is linked to a verum accent. Instead, he assumes that there is a covert verum predicate in the logical representation of every sentence, which explains why an identificational or contrastive focus accent can be independently imposed on another element in the sentence expressing the verum focus, as in (i). Following Höhle's idea, this paper assumes that there is a covert verum predicate present in the right periphery in Korean.

  (i) a. Karl is writing a BOOK.

     b. [VERUM [*Karl is writing* [*a book*]_F]].

     c. ≃ It is true that Karl is writing a BOOK.   adapted from Gutzmann et al. (2020, (5))

9) Note that the same analysis can apply to to the minimally different case in (6), which accompanies an additional temporal adjunct PP along with the locative PP.

carefully?, and this question subsequently gives rise to subquestions, such as *Did John wash the car carefully?* and *Did Mary wash the car carefully?*[10] These two subquestions can be paraphrased as *Is it true that John washed the car carefully?* and *Is it true that Mary washed the car carefully?*, respectively. It is important to observe that each paraphrased meaning can be attributed to the verum focus. The ellipsis of the manner adverb in (17b) can be licensed, since the elliptical clause belongs to the set of possible answers to the QUD, thus satisfying the congruency condition for adjunct ellipsis.

(18) d(iscourse)-tree for (17)

Superquestion
Who washed the car carefully?

Subquestion　　　　　　　　　**Subquestion**
[VERUM [Did [John]$_{CT}$　　...　　[VERUM [Did [Mary]$_{CT}$
WASH　the car carefully]]?　　　　WASH the car carefully]]?

Answer　　　　　　　　　　　**Answer**
John {WASHED/didn't WASH}　　Mary {WASHED/didn't WASH}
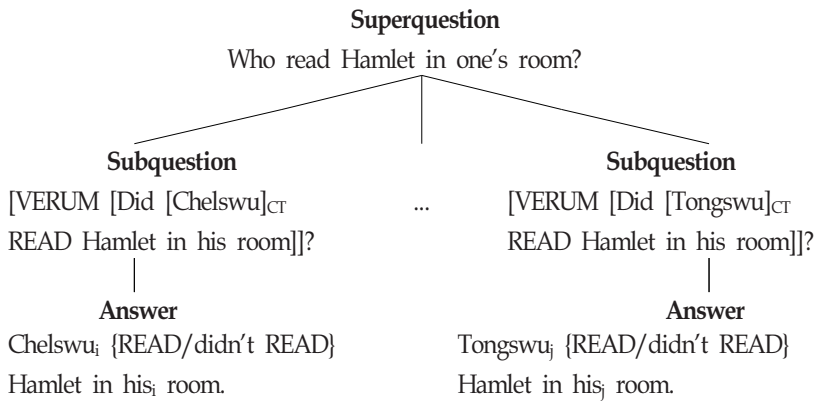the car carefully.　　　　　　　the car carefully.

We have seen how the current analysis can capture adjunct ellipsis in the cases where predicates in two conjuncts are contrastive in polarity. However, it is also possible to apply the same line of analysis to cases where predicates show no contrast in polarity. First, consider the following example where the adjunct locative PP can be elided, which is minimally different from the case in (9) where the predicates in both conjuncts are contrastive in polarity and the deletion of the same adjunct PP is banned.

(19) Chelswu-nun　　[caki-uy　　pang-eyse]　　Hamlet-ul　　ilkess-ko
　　　C.-Top　　　　self-Gen　　room-at　　　　Hamlet-Acc　read-and
　　　Tongswu-to　　[e]　　Hamlet-ul　　　　ilkess-ta.
　　　T.-also　　　　　　Hamlet-Acc　　　　read-Decl
　　　'Chelswu$_i$ read Hamlet in his$_i$ room and Tongswu$_j$ also read Hamlet [e].'
　　　([e] can be in his$_j$ room.')　　　　　　　　　　　　Park (2022, (18a))

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10) Note that words typed in small capitals indicate that they are given the verum accent H*L.

Let's suppose that in the context above, the interlocutors are exchanging the information about whether Chelswu and Tongswu are individuals who participated in the event of reading Hamlet in each one's room. The d-tree in (20) below shows that the antecedent and elliptical clause generate a sentence like *Who read Hamlet in one's room?* as the superquestion, the most plausible common QUD, for the given conversational context.

(20) d(iscourse)-tree for (19)

Superquestion
Who read Hamlet in one's room?

Subquestion ... **Subquestion**
[VERUM [Did [Chelswu]$_{CT}$ [VERUM [Did [Tongswu]$_{CT}$
READ Hamlet in his room]]? READ Hamlet in his room]]?

Answer **Answer**
Chelswu$_i$ {READ/didn't READ} Tongswu$_j$ {READ/didn't READ}
Hamlet in his$_i$ room. Hamlet in his$_j$ room.

From the superquestion, a couple of QUDs can be generated as subquestions by replacing the CT-values with Chelswu and Tongswu, and more importantly, by imposing a verum accent on the finite verb *ilk* 'read'. Among them are *Did Chelswu read Hamlet in his room?* and *Did Tongswu read Hamlet in his room?*, and since these two QUDs are assumed to express the verum accent, they can be interpreted as *Is it true that Chelswu read Hamlet in his room?* and *Is it true that Tongswu read Hamlet in his room?*, respectively. The answers to those QUDs include *Chelswu read Hamlet in his room* and *Tongswu read Hamlet in his room*, the latter of which is identical to the elliptical clause, thereby adjunct ellipsis being licensed.

Note, in passing, that what distinguishes (19) from (9) in the eligibility for adjunct ellipsis is that the locative PP under discussion is presupposed as old information in the former while the same PP appears in the form of a *wh*-phrase that receives an identificational focus in the latter, thus resisting ellipsis.

Secondly, there are cases where a reason PP is eligible for ellipsis, as in (21), repeated from (5). The availability of reason PP ellipsis here can be analyzed along the lines of the case of manner adverb ellipsis in (19). For this case, imagine a situation where the interloctuors are exchanging the information about whether Chelswu and Yenghi are

individuals who arrived late due to a heavy snow.

(21) a. Chelswu-ka   [phoksel-ttaymwuney]   nuckey   oass-ko,
       C.-Nom   heavy.snow-for   late   came-and
       'Chelswu came late because of a heavy snow, and'
    b. Yenghi-to   [e]   nuckey oassta.
       Y.-also   late   came
       'Yenghi came late [e].' ([e] can be 'because of a heavy snow'.)

<div align="right">Park (2022, (28))</div>

As shown in the d-tree for (21), the most common QUD inferred from the antecedent and elliptical clause is *Who came late because of a heavy snow?*, and this superquestion yields the subquestions for both conjuncts, namely, *Did Chelsu come late because of a heavy snow?* and *Did Yenghi come late because of a heavy snow?* When each subquestion is generated, Chelswu and Yengi are marked as contrastive topics, and the predicate is given the verum accent. Thus, each subquestion can be paraphrased as *Is it true that Chelswu came late because of a heavy snow?* and *Is it true that Yenghi came late because of a heavy snow?* Given that the set of possible answers to the QUDs as the subquestions include *Chelswu {came/didn't come} late because of a heavy snow* and *Yenghi {came/didn't come late because of a heavy snow*, the elliptical clause is congruent with the QUDs, satisfying the licensing condition for adjunct ellipsis.

(22) d(iscourse)-tree for (21)

<div align="center">

Superquestion
Who came late because of a heavy snow?

</div>

<div align="center">

Subquestion   **Subquestion**
[VERUM [Did [Chelswu]$_{CT}$ COME   ...   [VERUM [Did [Yenghi]$_{CT}$ COME
late because of a heavy snow?]]   late because of a heavy snow?]]

Answer   **Answer**
Chelswu {CAME/didn't COME} late   Yenghi {CAME/didn't COME} late
because of a heavy snow.   because of a heavy snow.

</div>
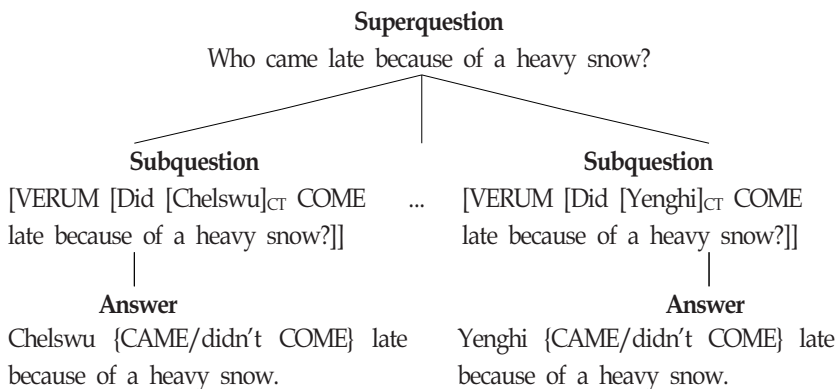
In Park's (2022) analysis, it was assumed that *Why did who come late?* corresponds to the superquestion, which generates *Did Chelswu came late because of a heavy snow?* and *Did Yenghi come late because of a heavy snow?* However, in order to avoid a situation where the reason for the two individuals' delayed arrival becomes new information in the answers to each subquestion, he stipulated that reason or instrumental adjuncts, as opposed to manner adverbs, should be provided as part of the subquestion, which seems to be an *ad hoc* assumption. But the current analysis does not need to adopt it.
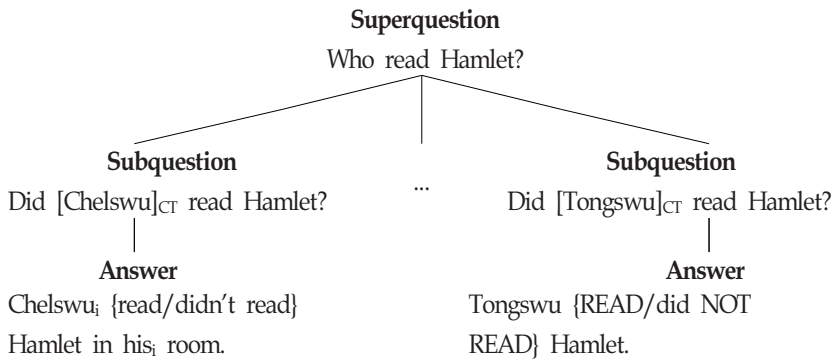
3.2. Predicate Focus of Negation

This subsection deals with cases where the eligibility of adjunct ellipsis is contingent upon another type of focus, namely predicate focus of negation. As argued in Kobayashi et al. (2023), the failure of adjunct ellipsis can be attributed to predicate focus of negation. According to them, for example, in cases like (9), repeated below as (23), where adjunct ellipsis is not allowed, the QUD for the antecedent and elliptical clause is something like *Did Chelswu and Yenghi read Hamlet?* Note that in (23), a focal accent is placed on the predicate and negation, and if the focus of negation falls on the predicate, its broad scope reading like 'It is not the case that Tongswu read Hamlet' arises, which explains why the adjunct can hardly be recovered in the second conjunct.

(23) Chelswu-nun   [caki-uy pang-eyse]   Hamlet-ul   ilkess-ko
     C.-Top   self-Gen room-at   Hamlet-Acc read-and
     Tongswu-nun [e] Hamlet-ul   ILK-CI   ANH-ass-ta.
     T.-Top   H.-Acc   read- Noml   not-Past-Decl
     'Chelswu$_i$ read Hamlet in his$_i$ room and Tongswu$_j$ didn't read Hamlet.'
     (*'Tongswu didn't read Hamlet in his room.')

If we reinterpret Kobayashi et al.'s analysis under the current QUD-based approach, the superquestion invoked from the two conjuncts would look like *Who read Hamlet?*, which in turn generates *Did Chelswu read Hamlet?* and *Did Tongswu read Hamlet?* as subquestions. Notice that sentence (23) above is almost identical with (19), except for the eligibility of adjunct ellipsis, and in the former, unlike the latter, the adjunct PP is not presupposed in neither the superquestion nor the subquestions. Furthermore, as argued in Kobayashi et al., the presence of the focal accent on both the inflected predicate and the

negative expression *-ci ahn* in the second conjunct enhances such a reading. Indeed, the most probable situation for (23) would be that the interlocutors are exchanging the information about whether Chelswu and Tongswu are the individuals who participated in the Hamlet-reading event, regardless of the event location.

(24) d(iscourse)-tree for (23)

Superquestion
Who read Hamlet?

Subquestion
Did [Chelswu]$_{CT}$ read Hamlet?

...

Subquestion
Did [Tongswu]$_{CT}$ read Hamlet?

Answer
Chelswu$_i$ {read/didn't read} Hamlet in his$_i$ room.

Answer
Tongswu {READ/did NOT READ} Hamlet.

The second conjunct is not included in the set of possible answers to the QUD as a subquestion, which renders the putative elliptical clause incongruent. If the addressee uttered the sentence in (23b) with an intention to mean that *Tongswu$_j$ didn't read Hamlet in his$_j$ room*, the answer would be judged infelicitous, as it violates a conversational maxim, particularly the Maxim of Quantity in Grice's (1975) sense.[11]

Secondly, consider the case in (25) where the instrumental PP *caki-uy yelsoay-lo* 'with his key' is not permitted. Notice that both the predicate and the negative expression are given a focal accent. Furthermore, let's suppose that the interlocutors are talking about whether the event of safe opening took place, not about how the safe was opened.

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11) It is worth noting that the suggested way of explaining the failure of adjunct ellipsis above is different from Park's (2022) QUD-based analysis. As laid out in Section 2.2, he argues that the superquestion is *Where did who read Hamlet?*, which generates subquestions like *Where did Chelswu read Hamlet?* and *Where did Tongswu read Hamlet?* According to Park, however, the locative PP expressing the location of the reading event is missing in the elliptical clause, which is prohibited by a general restriction on the deletion of a focused element (see Kuno's Ban against Partial Discourse Deletion in (3)). The immediate question is which of the current analysis and Park's approach fares better. The answer seems to depend on the discourse context. If the interlocutors are curious about who did the reading event, the current analysis should be preferred. If they are more interested in the location of the reading event, Park's analysis can be a more proper analysis.

(25) Sub-QUD: Did Cheli & Yenghi open the safe?

    a. Cheli-nun   [caki-uy yelsoay-lo]   ku   kumko-lul   opened-but

       Cheli-Top   self-Gen key-with   the safe-Acc   yeless-ciman,

       'Cheli$_i$ opened the safe with his$_i$ key, but'

    b. Yenghi-nun ([e])   ku kumko-lul   YEL-CI   ANH-ass-ta.

       Yenghi-Top   the safe-Acc   open-Noml   Not-Past-Decl

       'Yenghi$_j$ didn't open the safe.' (*[e] = with her$_j$ key)

<div align="right">adapted from Lee (2019)</div>

Given this situation, the most common QUD as the superquestion, which is invoked by both conjuncts, would be something like *Who opened the safe?*, from which such QUDs as *Did Cheli open the safe?* and *Did Yenghi open the safe?* are generated as subquestions. However, the elliptical clause does not belong to the set of possible answers to those subquestions. Notice again that both the predicate and the negative element receive the focal accent in the second conjunct, which forcefully yields the reading such that Yenghi didn't open the safe at all. This explains why the ellipsis of the instrumental PP is banned in (25b).

    One lesson we can learn from this section is that the eligibility of adjunct ellipsis is not just determined by whether a given adjunct is a manner, location or reason adverb/PP but more contingent upon the discourse context where a sentence at issue is uttered and the information structure and prosody compatible with the discourse move.
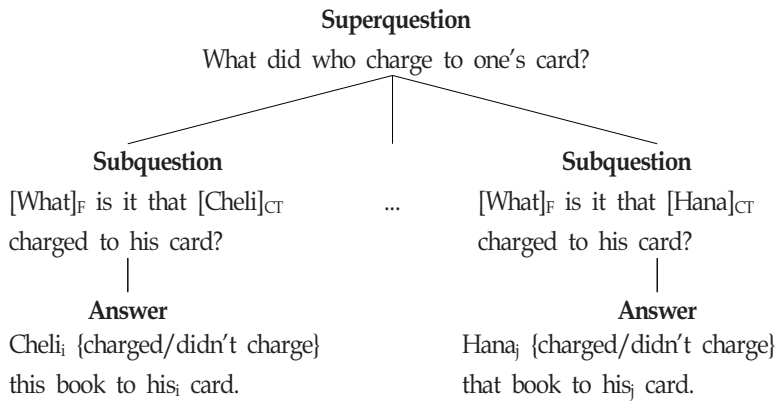
3.3. Contrastive Focus

    This subsection shows that the third type of focus that plays a role in creating QUDs is contrastive focus. First, consider the following case in (26), repeated from (4)/(11), where the interlocutors are exchanging the information about things that Chelswu and Hana bought with each one's credit card. Given this situation, the QUD as the superquestion looks like *What did who charge to one's credit card?*, and QUDs such as *What is it that Cheli charged to his card?* and *What is it that Hana charged to his card?* are generated by replacing the CT values with Cheli and Hana.

(26) a. Cheli-nun   [caki-uy khad-lo]   i   chayk-ul   kyelcayhay-ss-ciman,

       Cheli-Top   self-Gen card-with this book-Acc charge-Pst-but

       'Cheli$_i$ charged this book to his$_i$ credit card, but'

    b. Hana-nun   [e] ce   chayk-ul   kyelcayhay-ss-ta.
       Hana-Top   that book-Acc   charge-Pst-Decl
       'Hana$_j$ charged that book to his$_j$ credit card.'   Lee (2019, (9))

As represented on the d-tree below, the second conjunct in (26b) belongs to the set of possible answers to the QUDs as subquestions, thereby the congruency condition for adjunct ellipsis met. This explains why the instrumental PP can be deleted in (26b). It is also noteworthy that *ce chayk* 'this book' and *ce chayk* 'that book' end up being contrastively focused.

    (27) d(iscourse)-tree for (26)

Superquestion
What did who charge to one's card?

Subquestion   **Subquestion**
[What]$_F$ is it that [Cheli]$_{CT}$ ...   [What]$_F$ is it that [Hana]$_{CT}$
charged to his card?   charged to his card?

Answer   **Answer**
Cheli$_i$ {charged/didn't charge}   Hana$_j$ {charged/didn't charge}
this book to his$_i$ card.   that book to his$_j$ card.

    Secondly, as observed in Kobayashi et al. (2023), there are cases where adjunct ellipsis is possible when objects (of the event or action) are contrastively focused, as shown in (28). For this case, let's suppose that Bill and John washed a different item, but they didn't do it in a careful manner, and the QUD inferred as the superquestion in this context is something like *What didn't who wash carefully?* From the superquestion, such QUDs as *What is the thing that Bill didn't wash carefully?* and *What is the thing that John didn't wash carefully?* can be generated as subquestions.

    (28) Sub-QUD: What is the thing that Bill & John didn't wash carefully?
      a. Bill-un   kkomkkomhi   cepsi-lul   takk-ci   ahn-ass-ko.
        B.-Top   carefully   dishes-Acc wash-Noml Neg-Past-and
        'Bill didn't wash the dishes carefully, and.'

    b. John-nun [e] cha-lul takk-ci   ahn-ass-ta.

      J.-Top   car-Acc wash-Noml Neg-Past-Decl

      'John didn't wash a car [e].' ([e] = carefully)

Therefore, it follows that the second conjunct in (28b) belongs to the set of possible answers to each QUD, and it can be analyzed as congruent with the QUD. This is why adjunct ellipsis is possible in (28).

    Finally, as also reported in Kobayashi et al., adjunct ellipsis can be licensed when predicates are contrastively focused. Example (29) below is the relevant case, and what Bill and John didn't do is different in this case. Given this situation, the superquestion that can be inferred from both conjuncts is *What didn't who do carefully?* The possible subquestions that can be created from this superquestion are *What is it that Bill didn't do carefully?* and *What is it that John didn't do carefully?* Thus, it can be concluded that the second conjunct in (29b) belongs to the set of possible answers to these QUDs, and the discourse-pragmatic congruency condition for adjunct ellipsis is satisfied.

(29) Sub-QUD: What is it that Bill & John didn't do carefully?

    a. Bill-un   kkomkkomhi   cepsi-lul   takk-ci   ahn-ass-ko.

      B.-Top   carefully   dishes-Acc   wash-Noml Neg-Past-and

      'Bill didn't wash the dishes carefully, and.'

    b. John-nun [e]   cepsi-lul   kencosiki-ci ahn-ass-ta.

      J.-Top   dishes-Acc dry-Noml   Neg-Past-Decl

      'John didn't dry the dishes [e].' ([e] = carefully)

4. Discussion: Adjunct Ellipsis in Verb-echo Answers

    Before concluding the paper, let us briefly touch on one possible consequence of the current analysis of adjunct ellipsis in terms of the discourse-pragmatic congruency condition. That is, the core idea of the current analysis is that adjunct ellipsis is only licensed when a sentence involving an adjunct is a member of the set of possible answers to implicit QUDs generated by the discourse context and the information structure. As such, it is predicated that if an implicit QUD were explicitly spelled-out, then adjunct ellipsis would be licensed more straightforwardly. Indeed, the prediction seems to be

borne out by what is called a verb-echo answer (VEA), as in (30) below. In particular, Park and Park (2018) argue that similar to Japanese VEA, Korean VEAs allow a manner adverb to be elided in this example.

(30) A: John-i   pang-ul   kkakkushakey   takk-ass-ni?
          J.-Nom   room-Acc   cleanly   polish-Past-Q
        'Did John polish his room clearly?'
     B: takk-ass-e.
        polish-Past-Decl
        [Intended] 'Yes, he polished his room cleanly.'

<div align="right">Park and Park (2018, (21))</div>

It is suggested by Park and Park that missing adverbs in Korean VEAs like (30) have undergone PF deletion, and adjunct ellipsis should be licensed by the head of PolP, which is present above the CP layer in polar (i.e., *yes-or-no*) questions, as in (31).

(31) Adjunct ellipsis
     [PolP Pol   [CP   [TP ... [adjunct] ...]]]]
              |_____↑   licensed   Park and Park (2018, (25))

Interestingly enough, in all the instances of adjunct ellipsis discussed in Sec. 3.1, implicit QUDs created as subquestions are 'polar' questions (e.g., (15), (17), (19), (21)), and given this similarity, one might suggest that at least in those cases, there is also a covert PolP whose head licenses the elided adjunct in the syntax. But it would be difficult to pursue this idea at its face value, since the cases analyzed in Sec. 3.3 where contrastive focus plays a role in generating QUDs do not involve polar questions but constituent questions. Nonetheless, however, Park and Park's analysis of adjunct ellipsis in VEAs and our analysis of the one in the coordinated declaratives can be said to be similar, in that both take missing adjuncts to be the result of deletion at PF.

Furthermore, Park and Park also acknowledge, along the lines of Collins (2005), that the information structure plays a role in licensing adjunct ellipsis. It seems that this view somehow lends support for the current view. In particular, they contend, based on example (32), that when an adjunct gets focused, it cannot be deleted. According to them, the manner adverb *khukey* 'loudly' can be ambiguously interpreted depending on whether

it is focused or not. More importantly, when the adverb is not focused (i.e., what matters is whether the event of singing took place or not), the VEA can have an adverb inclusive interpretation; by contrast, when it is focused (i.e., what matters is whether the singing event took place in a loud manner), the VEA does not allow for the adjunct inclusive reading. For this reason, they revise the adjunct licensing condition in (31), as in (33).[12]

(32) Tom: John-i   khukey   nolayha-ess-ni?
            John-Nom   loudly   sing-Past-Q
            'Did John sing loudly?'
     Bill: Nolayha-ess-e.
            sing-Past-Decl
            '(Intended) He sang loudly.'   Park and Park (2018, (33))

(33) Adjunct ellipsis (final version)
    a. The elision of an adjunct interpreted as a part of broad focus
       [$_{PolP}$ Pol [$_{CP}$ [$_{Focus}$ ... [~~adjunct~~] ...]]]]
       |_____↑   licensed (OK)
    b. The elision of an adjunct interpreted as a narrow focus
       [$_{PolP}$ Pol [$_{CP}$ [[$_{Focus}$ ~~adjunct~~]]]]]
       |_____↑   licensed (NO)
                        Park and Park (2018, (34))

5. Conclusion

The aim of this paper is to argue, following Park (2022), that adjunct ellipsis is restrictively allowed in Korean only when a discourse-pragmatic congruency condition in terms of QUDs is satisfied. However, after showing that Park's QUD-based analysis of adjunct ellipsis is not unproblematic, this paper has suggested an elaborated version of QUD approach to adjunct ellipsis, especially by incorporating Kobayashi et al.'s (2023)

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12) As one anonymous reviewer points out, the way adjunct deletion is licensed appears to be distinguished from the way other run-of-mill cases of ellipsis, such as NP-ellipsis, VP-ellipsis, and sluicing. This is because a c-commanding local head, such as D^0, $Voice^0$ or C^0, is responsible for licensing the deletion of its complement in the latter, while a non-local head, Pol^0, does the same job in the former. It will be left open for future research where this difference comes from.

idea that certain types of focus, such as verum focus, contrastive focus, and predicate focus of negation, may play a role in generating QUDs for licensing adjunct ellipsis. Then, it has been demonstrated that the updated analysis fares better than Park's analysis, in that not only the data discussed by the latter but also novel ones can be successfully handled by the former. Toward the end, we have discussed one possible consequence of the current analysis by comparing with what is called verb-echo answers (VEAs), showing that Park and Park's (2018) analysis of adjunct inclusion in VEAs indirectly supports the current approach in that overtly spelled-out QUDs would make adjunct ellipsis more straightforward and information structure influences the availability of adjunct ellipsis.

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