Multiple Sluicing in English[*]

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Abstract. This paper explores the nature of multiple sluicing in English, which has two or more remnant wh-phrases in clause edge position. At the beginning part of the paper we argue against Nishigauchi's (1998) and Lasnik's (2007) Gapping analysis of multiple sluicing, which says that two remnant wh-phrases each actually occupies the left and right edge of a clause, with the in-between string of words undergoing Gapping. We rather argue that multiple sluicing in English is the same kind as found in Bulgarian and Serbo-Croatian. In other words, multiple sluicing in English is also derived by multiple wh-fronting which otherwise does not apply. We demonstrate that some important properties of the construction noted by Lasnik (2007) under the Gapping approach to it can be accounted for in a principled way by our proposed analysis.

Keywords: multiple sluicing, multiple wh-movement/fronting, sluicing, TP/IP-deletion, multiple pair or pair-list reading, Gapping, rightward focus movement, Wh-QP interaction, locality, clause-boundedness

1. Introduction

Human languages enjoy the common rule of economy: when some word or words are repeated, we do not verbally pronounce what is repeated. This linguistic phenomenon is called ellipsis or, in more technical terms, deletion, which is to delete or suppress the phonological features of repeated word/words in the course of syntactic derivation. Deletion is known to be rather widely available to the relevant contexts in English. It has been noted that there are three types of ellipsis depending on what constituent undergoes deletion: (i) VP ellipsis (or maybe vP ellipsis); (ii) NP ellipsis (in the DP system); (iii) T/IP ellipsis. What draws particular attention recently among the three types of ellipsis is the last kind, where wh-movement is mandatory before TP is elided. T/IP ellipsis or what Ross (1969) calls sluicing is illustrated by the following example:

(1) John met <u>someone</u>, but I don't know [CP [**who**] [TP ~~John met t~~]]

The fact that wh-movement feeds sluicing raises a question of whether in contrast to English with single wh-fronting, multiple sluicing (sluicing with multiple survivors) is possible in languages with multiple wh-fronting. Bulgarian and Serbo-Croatian, which allow for multiple wh-fronting, make a test case for this question, and indeed multiple sluicing is attested in these two languages as follows:

(2) <u>Njakoj</u>   vidja <u>njakogo</u>,   no   ne znam   [**koj**] [**kogo**] [~~vidja~~]   Bulgarian
  someone saw someone,   but not I-know   who whom   saw   Richards (1997)
(3) <u>Neko</u>   je vidio <u>nekog</u>,   ali ne znam   [**ko**] [**koga**] [~~je vidio~~] Serbo-Croatian
  someone is seen someone, but not I-know who whom   is seen   Stjepanovic (2003)

Returning to English, a question that arises is whether multiple sluicing is allowed in non-multiple wh-fronting languages like English. Bearing on this question, Bolinger (1978:109) reports several examples like (4), which is quite similar in appearance to those involving multiple sluicing as in Bulgarian and Serbo-Croatian.

(4) I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>.   But [**which**] [**for which**]   Bolinger (1978: 109)

Incidentally, Bolinger notes that a certain restriction applies to the formation of more than one remnant wh-phrase. In particular, the second remnant wh-phrase is required to be PP, not DP, which is shown by the contrast between grammatical (4) and ungrammatical (5):

(5) *I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>. But [**which**] [**which**]

The purpose of this paper is to probe into the nature of examples like (4). In particular, we will investigate whether examples like (4) are analyzed on a par with corresponding examples in Bulgarian and Serbo-Croatian. Although both Nishigauchi (1998) and Lasnik (2007) take a different tack, we will argue in this paper that peculiar properties of examples like (4) can be accounted for by the hypothesis that they are genuine instances of multiple sluicing.

2. A Gapping analysis of multiple sluicing in English: Nishigauchi (1998) and Lasnik (2007)

When we suppose that examples like (4) in English are genuine multiple sluicing which is derived by deleting a TP after multiple wh-fronting occurs out of it, an immediate problem facing us is why the example without TP deletion as in (6) is ungrammatical:

(6) *They didn't tell me [**which**] [**for which**] got something

The following pair also makes the same case. If it is true that (7) is derived by TP deletion after multiple wh-fronting, what rules out the example (8) without the supposed TP deletion?

(7) ?<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**] [**to which**]
(8) *<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**] [**to which**] spoke

To resolve this problem, Nishigauchi (1998) suggests that examples like (4) and (7) are not really multiple sluicing, but a kind of Gapping constructions. In this analysis, while the first wh-phrase is in Spec of CP, the second occupies some other position at the right edge of the clause, which can be represented roughly as follows:

(9) I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>. But [**which**] g~~ot something~~ [**for which**]

If the example (4) results through the derivation represented in (9), it is taken not to involve multiple wh-fronting.

Lasnik (2007) renders further support to Nishigauchi's (1998) analysis of apparent multiple sluicing in English as involving Gapping by showing that the second wh-phrase in this construction exhibits the same properties as the second element in the Gapping construction does: it undergoes rightward focus movement. In this connection, Lasnik provides three pieces of evidence for the rightward focus movement hypothesis of the second wh-phrase.

First, the contrast between (10) and (11), and also between (12) and (13) shows that the second wh-phrase in the apparent multiple sluicing construction is required to be PP, but it cannot be DP:

(10) ?<u>Someone</u> talked <u>about something</u>, but I can't remember [**who**] [**about what**]
(11) ?*<u>Someone</u> saw <u>something</u>, but I can't remember [**who**] [**what**]
(12) ?Mary showed <u>something</u> <u>to someone</u>, but I don't know [**exactly what**] [**to whom**]
(13) ?*Mary showed <u>someone</u> <u>something</u>, but I don't know [**exactly who**] [**what**]

The contrast between PP and DP as the second wh-phrase in these examples is understood as saying that only the former can undergo rightward focus movement.

However, it has often been noted that DP can be shifted rightwards when it counts as 'heavy'. In the same vein with this finding, Lasnik notes that (14b) is ungrammatical because the second light DP wh-phrase cannot undergo rightward focus movement as in (14a). In contrast, as the second heavy DP wh-phrase can undergo rightward focus movement as in (15a), (15b) is ruled in:

(14)a. ?***Who** bought yesterday [**what**]
     b. ?*<u>Someone</u> bought <u>something</u>, but I don't know [**who**] [**what**]
(15)a. Which linguist criticized yesterday [**which paper about sluicing**]
     b. ?<u>Some linguist</u> criticized (yesterday) <u>some paper about sluicing</u>, but I don't know [**which linguist**] [**which paper about sluicing**]

Second, as Merchant (2001) notes, one striking fact about multiple sluices is that they tend not to be separated by a tensed clause boundary, which is what we learn from the example (18). This restriction does not hold for regular wh-movement as in (16) and (17):

(16) Which one of the professors did the students say that Mary spoke to
(17) The students said that Mary spoke to <u>one of the professors</u>, but I can't remember [**which professor**] the students said that Mary spoke to
(18) *<u>One of the students</u> said that Mary spoke <u>to one of the professors</u>, but I don't know [**which student**] ~~said that Mary spoke~~ [**to which professor**]

Lasnik (2007) interprets this restriction differently by saying that it in fact obtains because the second wh-phrase in the apparent multiple sluicing construction is subject to the Right Roof Constraint (Ross (1967)), which roughly says that a rightward focus moved element cannot move out of a finite clause. In Lasnik's terms, (18) is ungrammatical because the second wh-phrase *to which professor* has to move illicitly out of the embedded finite clause before Gapping applies.

Third, the clause with apparent multiple sluicing cannot be construed as a complex one containing an embedded finite clause, which is attributed to the Right Roof Constraint. As noted by Nishigauchi (1998), (19) is interpreted as (20), but not as (21):

(19) Mary said <u>everybody</u> talked <u>about something</u>, but I want to know [**who**] [**about what**]
                                                                 Nishigauchi (1998)
(20) Mary said <u>everybody</u> talked <u>about something</u>, but I want to know [**who**] talked [**about what**]
(21) Mary said <u>everybody</u> talked <u>about something</u>, but I want to know *[**who**] Mary said e talked [**about what**]

Lasnik (2007) develops an ingenious test by using anaphor binding to confirm Nishigauchi's finding. He first notes that in (22) the remnant remaining after regular sluicing can contain an anaphor, bound via 'reconstruction', whose antecedent is in the deleted context.

(22) ?Everyone$_i$ said that some pictures of himself$_i$ hung on certain walls, but I'm not sure [**how many pictures of himself$_i$**]

With apparent multiple sluicing as in (23), however, acceptability degrades considerably:

(23) ?*Everyone$_i$ said that <u>some pictures of himself$_i$</u> hung <u>on certain walls</u>, but I'm not sure [**how many pictures of himself$_i$**] [**on which walls**]

For the sake of anaphor binding, the deleted part is required to include the matrix subject *everyone$_i$*, which is the antecedent of the reflexive. In that case, however, the second remnant wh-phrase ***on which walls*** would have to move of the embedded finite clause, inviting a violation of the Right Roof Constraint.

3. Some problems with the Gapping analysis of multiple sluicing
Despite several new insightful findings that the Gapping analysis of apparent multiple sluicing makes possible, it confronts some problems. First, the restrictions on Gapping do not apply to multiple sluicing in an identical fashion. Notably, Gapping occurs in limited coordination contexts as in (24) (Johnson (1996/2003)):

(24)a. Betsy likes cats and Liz likes dogs
    b. Julie put out the trash, or Andrew put out the recycling bin
    c. First Sarah bought a car, then Liz bought a garage
    d. ?*Vivek likes Chinese action films, but Nishi likes sci-fi movies
    e. *Sam ate something, but Mittie ate nothing
    f. *Some ate nattoo today, because others ate natto yesterday

It occurs only when the two clauses are strictly parallel in terms of structure and interpretation. It cannot occur in coordinate ***but*** clause as in (24d-e), nor in adjunct clause as in (24f). Nor does it occur in the structural context of (25) because the clause where Gapping applies is not parallel to the corresponding first conjunct in terms of embedding:

(25) *John saw Bill, and Tom said that Mary saw Susan

However, multiple sluicing can occur in the structural contexts where Gapping is banned. The representative examples of multiple sluicing, which are repeated from the above, show that multiple sluicing can occur in the ***but*** and embedded clauses:

(4) I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>. But [**which**] [**for which**]
                                                               Bolinger (1978:109)

(7) ?<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**] [**to which**]   Lasnik (2007)

Second, there is another difference between multiple sluicing and Gapping in terms of the category of the second remnant. As shown in (26), the second remnant is a wh-phrase.

(26) I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>. But they didn't tell me [**which**] [**for which**]

A question is raised whether the second remnant can be a non-wh-phrase as found in the Gapping construction. Lasnik (2007) importantly notes that this is not possible as in (28). This is unexpected given the example (27), where *about phonology* can be focus moved rightwards, thereby potentially being survived as the second remnant in the multiple sluicing construction:

(27) **Who**$_i$ did Mary talk to t$_i$ t$_j$ yesterday [**about phonology**]$_j$?
(28) I know who Mary talked to yesterday about phonology, ?*but I don't know [**who**] [**about semantics**]

Note, however, that typical instances of Gapping allow the first remnant to be a wh-phrase, and the second one to be a non-wh-phrase, as follows:

(29)a. Which boy read Hamlet, and [**which girl**] [**Macbeth**]?
   b. Which boy talked about baseball, and [**which girl**] [**about ballet**]?
   c. ?Which boy did Mary talk to about music, and [**which girl**] [**about movies**]?

Third, the Gapping analysis of apparent multiple sluicing predicts that when the second remnant is forbidden from undergoing rightward focus movement, it is not possible to produce examples with multiple sluicing. One relevant test case is the exceptionally Case-marked element, which is known not to undergo rightward focus movement, as in (31):

(30) I believe <u>the politician with high profile in international affairs</u> to be dishonest
(31) *I believe to be dishonest <u>the politician with high profile in international affairs</u>

It seems that this structural context, however, can feed multiple sluicing, as follows:

(32) <u>One of the boys</u> believes <u>behind one of the trees</u> to be the best place to hide, but I don't know [**which**] [**behind which tree**]
(33) <u>One of the RAs</u> expects <u>from one of the cells</u> to emerge a tiny being, but I don't know [**which**] [**from which cell**]

In this section it has been noted that the Gapping analysis of apparent multiple sluicing faces some non-trivial problems. Instead of resolving these problems under the Gapping analysis, we will pursue an alternative analysis of multiple sluicing in English.

4. Towards a 'canonical' multiple sluicing analysis
The analysis we are exploring is that the two wh-phrases in the multiple sluicing construction both are in Spec of CP. The first one undergoes typical wh-movement into Spec of CP, and then the second one tucks into the position using the mode

developed by Richards (1997). Multiple wh-fronting then feeds TP deletion. The derivation along this line of analysis can be represented below:

(34) ?<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**]_i [**to which**]_j [t̶ᵢ̶ ̶s̶p̶o̶k̶e̶ ̶t̶ⱼ̶]

Our proposed analysis has to account for the three properties of multiple sluicing noted under the Gapping approach to it: (i) remnants are only wh-phrases; (ii) the second remnant wh-phrase is a 'heavy' constituent; (iii) multiple sluicing only occurs in a simple clause.

 The first property of multiple sluicing follows without any stipulation from the proposed analysis. Since it is assumed that two remnants undergo movement into Spec of CP before TP deletion applies, they have to be wh-phrases.

 However, the assumption that two remnants undergo movement into Spec of CP in the multiple sluicing construction raises a question of why two wh-phrases cannot move into Spec of CP in the sentence without TP deletion. The examples, repeated below, make the point:

(7) ?<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**] [**to which**]

(8) *<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**] [**to which**] spoke

To understand the contrast between (7) and (8), we first need to assume a certain theory of how wh-movement proceeds. We adopt the recent theory of wh-movement advanced by Richards (1997/2001) and Pesetsky (2000). According to them, the difference in overt and covert wh-movement is not due to the presence or absence of wh-movement itself, but to the application of the copy deletion operation afterwards. Both overt and covert wh-movement apply "overtly," and the first is realized apparently when the tail of the movement is deleted, but the second is realized when the head of the movement is deleted. The thing which determines which copy is deleted is a strong feature. When the probe has a strong EPP feature, the tail of the movement undergoes copy deletion. Otherwise, the head of the movement does.

 Assuming this theory of wh-movement, we return to the contrast between (7) and (8). In the latter case, the first but not the second wh-phrase is associated with the strong feature of the probe. Hence the tail of the first wh-phrase undergoes copy deletion, while the head of the second wh-phrase does so. (8) is ruled out because not the head but the tail of the second wh-phrase undergoes copy deletion.

 Turning to the former case of multiple sluicing, what distinguishes (7) from (8) is that the tail position of the second wh-phrase is included within the TP constituent affected by the more general operation of (canonical) deletion. In this structural context, if its head is deleted by the copy deletion operation, the second wh-phrase will violate the Recoverability condition on deletion. To avoid this result, its head survives instead, while its tail is part of TP deletion, yielding the multiple sluicing construction. In a nutshell, the head copy not associated with a strong feature can be realized just when the tail copy is included within the constituent undergoing deletion.

 We now move on to the second property of the multiple sluicing construction: the second remnant wh-phrase is a 'heavy' constituent. We do not have in hand a good account for the property, but the previous note or formulation regarding it will be helpful in understanding it. First, reporting the contrast between (4) and (5), repeated below, Bolinger (1978) notes that as for (5), "it illustrates a kind of homonymic

conflict under the worst possible conditions of repeated accents. Even without accent problem ..., similar repetitions are avoided elsewhere. ....":

(4) I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>.   But [**which**] [**for which**]
(5) *I know that in each instance <u>one of the girls</u> got something <u>for one of the boys</u>.   But [**which**] [**which**]

In (4), homonymic conflict does not arise when the second wh-phrase is PP. Nor does it arise in (15b), repeated below, where the second heavy wh-phrase ensures distinctness from the first wh-phrase.

(15)b. ?<u>Some linguist</u> criticized (yesterday) <u>some paper about sluicing</u>, but I don't know [**which linguist**] [**which paper about sluicing**]

Moreover, on the basis of the contrast between (4) and (5) as well as other various constructions, Richards (2006) proposes a ban on structurally adjacent DPs, which he calls a Distinctness Condition.

(35) Distinctness
    If a linearization statement $<\alpha, \alpha>$ is generated, the derivation crashes.

This condition rejects trees in which two nodes that are both of type α are to be linearized in the same phase. Though it can rule out the basic case in (5), however, the condition as it is is too strong, in that it rules out (15b) wrongly. In this sense Bolinger's account for the contrast between (4) and (5) based on the intuitive notion of homonymic conflict seems to be on the right tract.
  We now turn to the third property of the multiple sluicing construction: multiple sluicing only occurs in a simple clause. As we saw above, in Lasnik's (2007) analysis this locality restriction of the multiple sluicing construction is ascribed to the fact that the second wh-phrase undergoes rightward focus movement obeying the Right Roof Constraint before Gapping applies. Although some problems were already raised with the Gapping analysis of multiple sluicing in the previous section, there still seems to be another problem with this analysis's treatment of the locality restriction. In particular, it is to be noted that the similar locality restriction holds in the multiple sluicing construction of some languages which disallow rightward focus movement; for example, in Korean and Japanese, which are head-final languages. The following examples in Korean make a case:

(36)a. <u>nuwkuwnka-ka</u>   <u>etten iyaki-ul</u>   malhayss-ciman,
    someone   -Nom some story-Acc said   -but
    na-nun [**nuw-ka   etten iyaki**-inci]   kiekha   mos-ha-nta
      -Top   who-Nom   which story-Comp   remember not   do
    'Someone told some story, but I cannot remember who which story.'
    b. *Mary-ka   <u>nuwkuwnka-eykey</u> [John-i   <u>etten umsik-ul</u>
      -Nom   someone-to   -Nom   some food-Acc
    cohahanta-ko] malhayss-ciman, kunye-nun [**nuwkuw-eykey**
    like-Comp]   said-but   -Top   whom-to
     etten umsik-inci]   kiekhaci   mos hanta
     which food-Q   remember   not   do
    'Mary said to someone that [John liked some food], but Mary cannot remember to whom which food.'   (modeled on Takahashi's (1994) Japanese example)

The contrast between (36a) and (36b) bears on the question of whether the two remnants are separated by a tensed clause boundary in their launching positions before they undergo wh-movement. The fact that the locality restriction holds even in rightward movement-forbidding languages does not provide a direct argument against Lasnik's account for the restriction in English. However, it is desirable to seek after a more general account for the locality restriction in multiple sluicing.

Unlike Lasnik (2007), we attribute the locality restriction in multiple sluicing to the fact that indefinite expressions in the antecedent clause are quantificational; hence they are subject to the well-known clause-bound condition when they take scope at Logical Form (May (1985); Hornstein (1995)). We demonstrate this idea with the example dealt with by Nishigauchi (1998), repeated from the above:

(19) Mary said <u>everybody</u> talked <u>about something</u>, but I want to know [**who**] [**about what**]

We represent (19) in a more detailed manner as (37), with some names of the constituents we will use for our description below:

(37) Mary said <u>everybody</u> talked <u>about something</u>,   [antecedent clause]
      <indefinite correlate>   <indefinite correlate>
  but I want to know [**who**]$_i$ [**about what**]$_j$ [~~t$_i$ talked t$_j$~~]   [ellipsis clause]
      <corresponding wh>/<corresponding wh>

In (37) the correlate *everybody* in the antecedent clause takes scope in the clause where it appears. Furthermore, in compliance with the scope parallelism condition (Fox and Lasnik (2003); Merchant (2001; to appear)), the corresponding multiple wh-phrases in the ellipsis clause take scope parallel to the indefinite correlates in the antecedent clause. In this way we can ensure that the elided constituent in the antecedent clause of (37) is a simple clause.

There are, however, the multiple sluicing constructions where two indefinite expressions in the antecedent clause are apparently existential, as in (38), which is cited from Lasnik (2007):

(38) Mary said that <u>one of the students</u> spoke <u>to one of the professors</u>, but I can't remember [**which**]$_i$ [**to which**]$_j$ [~~(?*Mary said that) [t$_i$ spoke t$_j$]~~]

If existentially quantified expressions can take freer scope than universally quantified ones as argued by Pesetsky (1987) and Reinhart (1997), the unacceptability of (38) with the complex TP deleted is unexpected, which raises a problem with our proposed analysis.

To resolve this problem, we rely on Nishigauchi's (1998) report that the multiple sluicing construction tends to yield multiple pair reading in which the two fronted remnant wh-phrases are interpreted pair-wise. In this respect the sluiced clause of (7), repeated below, is similar to the multiple wh-construction as in (39), which also allows a multiple pair reading of the two wh-phrases:

(7) ?<u>One of the students</u> spoke <u>to one of the professors</u>, but I don't know [**which**] [**to which**]
(39) **Which student** spoke **to which professor**?

Comorovski (1996) makes the important note that when (39) is interpreted with a multiple pair reading, the first wh-phrase has the following properties:

(40)a. It has universal force.
   b. It must be d(iscourse)-linked.

If this is true, then we are ready to account for the unacceptability of (38) with a complex sluiced clause. Since it has universal force, being quantificational, the first remnant wh-phrase of (38) obeys the clause-bound condition in taking scope. The scope parallelism condition then requires that the preceding correlate indefinite expression in the antecedent clause takes scope parallel to the remnant wh-phrase. Hence the contrast between (41) and (42), corresponding to (38):

(41) Mary said that <u>one of the students</u> spoke <u>to one of the professors</u>, but I can't remember [**which**]$_i$ [**to which**]$_j$ [t̶$_i$ ̶s̶p̶o̶k̶e̶ ̶t̶$_j$]

(42) ?*Mary said that <u>one of the students</u> spoke <u>to one of the professors</u>, but I can't remember [**which**]$_i$ [**to which**]$_j$ [(M̶a̶r̶y̶ ̶s̶a̶i̶d̶ ̶t̶h̶a̶t̶)̶ ̶[t̶$_i$ ̶s̶p̶o̶k̶e̶ ̶t̶$_j$]̶]

It is to be noted that unlike the multiple sluicing construction, the following multiple wh-construction is grammatical even when it is interpreted with a multiple pair reading:

(43) [**Which student**]$_i$ [did Mary say [t$_i$ spoke [**to which professor**]] ?

This is because this construction is not subject to the scope parallelism condition. In (43) the moving wh-phrase ***which student*** can take scope at the embedded clause and then undergo further movement into Spec of the matrix CP (Saito and Murasugi (1992)). In other words, it can take cyclic movement which consists of QR followed by wh-movement.
  However, in the antecedent clause of (42) the typical quantified expression takes scope by making a non-cyclic, one-fell-swoop movement (May (1985)). Therefore, the ellipsis clause is construed as a simple clause because otherwise the antecedent and ellipsis clauses in the multiple sluicing construction will violate the scope parallelism condition. To be short, the size restriction on the elided constituent in multiple sluicing is attributed to the scope parallelism condition as well as the clause-bound condition on quantificational expressions.
  We now turn to another example the unacceptability of which the Gapping analysis of multiple sluicing blames for a violation of the Right Roof Constraint, (18), repeated below:

(18) *<u>One of the students</u> said that Mary spoke <u>to one of the professors</u>, but I don't know [**which student**] s̶a̶i̶d̶ ̶t̶h̶a̶t̶ ̶M̶a̶r̶y̶ ̶s̶p̶o̶k̶e̶ [**to which professor**]

In our present approach, (18) is analyzed on a par with the following example reported by Dayal (2002), which is unacceptable when it is construed with a multiple pair reading:

(44) **Which student** believes that Mary read **which book**?

(18) exhibits the same pattern with the following example discussed by Sloan (1991), which is ruled out when it has multiple pair interpretation between the universal quantifier and the trace of the wh-phrase:

(45) **Which book** does **every student** believe that Mary read?

It seems that the conclusion drawn from these examples is that a usual universal quantifier or universally interpreted wh-phrase has a local relation with another wh-phrase when they produce pair-wise interpretation. The former functions as a distributor, and the latter as a share associated with it. As both distributor and share are quantificational, they have to take scope in the clause where they are generated. It is still not clear how multiple pair interpretation is derived, but it seems right to say that the interpretational operation that yields multiple pair interpretation, like the absorption operation proposed by Higginbotham and May (1981), calls for a locality or clause-bound condition. We leave for future study the elaboration on this issue.

5. Conclusion

The recent Gapping approach to multiple sluicing has made an important contribution to the understanding of it. The approach uncovers the following properties of the multiple sluicing construction. First, remnants are only wh-phrases. Second, the second remnant wh-phrase is a 'heavy' constituent. Third, multiple sluicing only occurs in a simple clause. Despite the contribution the Gapping approach has made, we have tried to show that it confronts several problems which seem not easy to overcome in keeping with the approach.

  We rather have argued that two remnant wh-phrases in multiple sluicing reside in Spec of CP. In other words, multiple sluicing in English constitutes a rare instance which is fed by multiple wh-fronting. It has also been demonstrated that our proposed approach can provide a non-ad-hoc, principled account for the properties of the construction noted by Lasnik (2007) under the Gapping analysis. In particular, the locality restriction on multiple sluicing, that is, the fact that multiple sluicing only occurs in a simple clause, follows from two things. One is the scope parallelism condition which applies to ellipsis constructions in general. The other is multiple pair interpretation available to the multiple sluicing construction which obtains when the first remnant wh-phrase with universal force functions as a distributor, while the second remnant wh-phrase with existential force functions as a distributor share.

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