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What Sluicing Can do, What it Can't and in Which Language: On the cross-linguistic syntax of ellipsis

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25.1 Introduction

The study of ellipsis in current generative grammar is still strongly—perhaps too strongly—construction oriented. Every introductory article on the subject recognizes at least sluicing, VP-ellipsis, NP-ellipsis, gapping, stripping, pseudogapping, conjunction reduction, and a handful of other constructions as falling under the general rubric of ellipsis (cf. e.g. Merchant 2009). On the one hand, this diversification is not surprising, as it is well-known that not all of these elliptical phenomena behave alike. For example, Lobeck (1995) shows in detail that sluicing, VP-ellipsis, and NP-ellipsis share certain properties that set them apart from gapping, stripping, and pseudogapping. On the other hand, however, such properties might simply be telling us what are—or rather, what are not—good diagnostics for identifying a particular elliptical construction. A revealing example in this respect is the line of reasoning initiated by Jayaseelan (1990), who tries to reduce pseudogapping to VP-ellipsis (see Gengel 2007 for recent discussion and references). To the extent that this analysis is on the right track, it suggests that whatever properties set apart pseudogapping from VP-ellipsis (e.g. sensitivity to the Backwards Anaphora Constraint) is not a distinctive trait of VP-ellipsis and hence should not be used in the identification of this construction.

A strong indication that this approach is worth exploring comes from cross-linguistic research into ellipsis. What emerges from such studies is that independent syntactic differences between languages can cause the elliptical constructions of those languages to come out differently as well. This implies that those aspects that differ can no longer be seen as defining characteristics—that is diagnostics—for that particular elliptical construction. A case in point is the study of VP-ellipsis in

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languages that unlike English have generalized V-to-I movement (see McCloskey 1991a; Doron 1999; Goldberg 2005a). An example from Hebrew is given in (1) (Goldberg 2005a: 36).¹

- (1) A: (Ha'im) Tamar kanta kafe?
 Q Tamar buy.PAST3FSG coffee
 B: Ken, hi kanta.
 yes she buy.PAST3FSG
 'A: (Did) Tamar buy coffee? B: Yes, she did' (Hebrew)

The English gloss for B's reply in (1) looks more like a case of object drop than an instance of VP-ellipsis. In particular, the main verb is spelled out and only the direct object *kafe* 'coffee' appears to be missing, while in English VP-ellipsis the main verb is never pronounced, the entire VP is gone and T is invariably filled by an auxiliary, a modal, or dummy *do*. In spite of these first appearances, however, Goldberg (2005a) argues in detail that (1) constitutes a case of VP-ellipsis. The upshot of this for the present discussion is that the absence of a main verb can no longer be considered a diagnostic of VP-ellipsis. A similar point is made by Tomioka's (2003) (re)analysis of pro-drop in South-East Asian languages. He argues that what is traditionally analysed as *pro* represents NP-ellipsis licensed by a null determiner. Once again, this forces us to rethink what the defining characteristics of NP-ellipsis are. In particular, having a morphologically realized D-layer can no longer be one of them (*pace* Lobeck 1995). The general thrust of this discussion should be clear by now: cross-linguistic research into elliptical phenomena can shed new light on what the distinctive features of those phenomena are. In this chapter we add to that discussion by looking at the cross-linguistic syntax of sluicing. We show that a typologically more refined picture of sluicing leads to the abandonment of certain widely accepted diagnostics for this construction.

This chapter is organized as follows. In the next section we introduce what at first sight appears to be a new type of elliptical construction in Hungarian. In Section 25.3 we apply some diagnostics for VP-ellipsis to the Hungarian facts and conclude that they do not meet these diagnostics. This leads to the conclusion (in Section 25.4) that we are dealing with an instance of sluicing, albeit one in which the ellipsis remnant is not a *wh*-phrase. In Section 25.5 we use this analysis to present a cross-linguistic typology of sluicing, in which the type of overt *wh*-movement a language has determines what sluicing will look like in that language. In the second half of the chapter we shift the perspective and use the typologically refined analysis of sluicing

¹ The following abbreviations are used in the glosses in this paper: ACC=accusative, AUX=auxiliary, DAT=dative, F=feminine, HABIT=habitual auxiliary, INF=infinitive, NOM=nominative, M=male, PAST=past tense, PRES=present tense, PV=preverbal particle, Q=question particle, REL=relative marker, RE=reflexive, SG=singular, TOP=topic marker. The use of SMALL CAPS in the examples signals focus.

as a probe into the cross-linguistic syntax of *wh*-movement. In particular, in Section 25.6 we argue that the absence of non-*wh*-sluicing in Italian and its dialects suggests that *wh*-movement does not target specFocP (*pace* Rizzi 1997), while in Section 25.7 we show that sluicing data can help a choice between various competing analyses of multiple *wh*-movement in Bulgarian. Finally, in Section 25.8 we broaden the picture somewhat and address the more general question to what extent non-ellipsis can be used as a diagnostic for ellipsis and vice versa. We do so based on a comparison between multiple focus fronting and multiple non-*wh*-sluicing. The conclusion will be that the ability of ellipsis to repair PF-illicit representations can reduce the diagnostic value of certain non-elliptical data. Section 25.9 summarizes and concludes.

25.2 The puzzle: a new type of ellipsis in Hungarian relatives?

Hungarian relatives can be reduced in a way that at first sight is unlike any of the elliptical processes mentioned in the previous section. An example is given in (2).

- (2) Kornél AZT A LÁNYT hívta meg, akit ZOLTÁN.
 Kornél that-ACC the girl-A invited PV REL-who-ACC Zoltán
 ‘The girl who Kornél invited was the one who Zoltán did’

Informally speaking, it looks like the entire relative clause has been deleted, save for the relative pronoun and one more constituent (in this case the subject *Zoltán* ‘Zoltán’). The non-elliptical version of this example is given in (3).

- (3) Kornél AZT A LÁNYT hívta meg, akit ZOLTÁN hívott meg.
 Kornél that-ACC the girl-A invited PV REL-who-ACC Zoltán invited PV
 ‘The girl who Kornél invited was the one who Zoltán did’

Data such as those in (2) raise precisely the type of question discussed in the previous section. In particular, when taken at face value, relative clause deletion in Hungarian does not meet the defining characteristics of any of the known elliptical processes: sluicing is ruled out because sluicing never targets relative clauses, it cannot be VP-ellipsis because T is not spelled out in (2), NP-ellipsis is impossible because an entire clause is missing, gapping is out because gapped clauses cannot be embedded, etc. Another way of making the same point is by looking at the literal translation of (2) in languages such as English, Dutch, or French. As (4) shows, this results in ill-formedness across the board.

- (4) a. *John invited the girl who Bill. (English)
 b. *Jan heeft het meisje uitgenodigd dat Piet. (Dutch)
 c. *Jean a invité la fille que Pierre. (French)

This line of reasoning seems to lead to the conclusion that relative clause deletion in Hungarian is *sui generis*, that is, it represents a new type of ellipsis that can be taxonomized and compared to other elliptical processes, and for which a new analysis should be proposed. As has become clear from the preceding discussion, however, this is not the line we want to take in this chapter. We argue that the data in (2) force us to rethink what the diagnostics are for a particular type of ellipsis—in this case sluicing—and propose a unified analysis that does not involve expanding the taxonomy of known elliptical processes. As a first step towards that goal, we argue in the next section that relative clause deletion in Hungarian should not be reduced to VP-ellipsis.

25.3 Ruling out VP-ellipsis

Out of the known elliptical processes, the two main contenders for incorporating Hungarian relative clause deletion seem to be VP-ellipsis and sluicing. In this section we rule out a VP-ellipsis analysis, and in the next we argue that sluicing is indeed the correct option. However, given that this entire chapter is about how to diagnose particular types of ellipsis, determining the criteria to distinguish Hungarian relative clause deletion from VP-ellipsis is a far from trivial matter. For example, the data and analyses discussed in Section 25.1 clearly show that the absence or presence of a main verb should not be seen as a telling sign of VP-ellipsis having or not having taken place. Moreover, one could argue that the same holds for the presence of an auxiliary. Suppose there were a language without generalized V-to-I-movement (like English) and without a requirement to lexically fill T in the case of VP-ellipsis (unlike English, but see also Tomioka's 2003 analysis of pro-drop). In such a scenario, the example in (2) would be a textbook case of VP-ellipsis and would thus straightforwardly represent the Hungarian counterpart of the English translation of this example.

The most neutral and uncontroversial characteristic of VP-ellipsis—especially when comparing it to sluicing—concerns the size of the elided constituent. In particular, while VP-ellipsis deletes a verb-related projection (be it VP, *v*P, or VoiceP, see Merchant 2007b; Baltin 2012; Aelbrecht 2009 for discussion) sluicing leaves out a clausal projection (IP or a low CP-layer, see Merchant 2001; Baltin 2006; Van Craenenbroeck 2012). It is on this very basic difference that we will base our reasoning in this section. We present evidence suggesting that Hungarian relative clause deletion leaves out a larger part of the structure than would be expected if it were a subtype of VP-ellipsis. Consider first the data in (5) and (6).

- (5) Kornél AZT A LÁNYT szokta meghívni, akit ZOLTÁN.
 Kornél that-ACC the girl-A HABIT PV-invite INF REL-who-ACC Zoltán
 'Kornél usually invites the same girl that Zoltán does'

- (6) Kornél AZT A LÁNYT szokta meghívni, akit
 Kornél that-ACC the girl-ACC HABIT PV-invite-INF REL-who-ACC
 ZOLTÁN szokott.
 Zoltán HABIT
 ‘Kornél usually invites the same girl that Zoltán does’

The sentence in (5) is an example of Hungarian relative clause deletion in which the antecedent clause contains a periphrastic tense (cf. the habitual auxiliary *szokta*).² The remnants of the ellipsis process are once again the relative pronoun *akit* ‘REL-who’ and the subject *Zoltán* ‘Zoltán’. The example in (6) differs from (5) only in that the habitual auxiliary now also shows up in the ellipsis-containing clause, making this sentence look exactly like a case of VP-ellipsis. Note that (5) and (6) have the same interpretation (albeit that the presence of a non-contrasting auxiliary in (6) makes the second clause sound somewhat redundant or prolix). There are at least two ways of analysing this pair. One would be to claim that both (5) and (6) represent instances of VP-ellipsis, the only difference being that (5) has also undergone an optional process of auxiliary drop. The second option—and this is the one we will pursue—is to say that (5) and (6) constitute two separate ellipsis processes, that differ in the amount of structure that is deleted: a projection including the position of the auxiliary in (5) and a lower, VP-like projection in (6). This analysis is supported not only by the data discussed in the following paragraphs, but also by the fact that the mechanism of auxiliary drop purportedly operative in (5) is completely disallowed in non-elliptical contexts in Hungarian:

- (7) Kornél AZT A LÁNYT szokta meghívni, akit
 Kornél that-ACC the girl-ACC HABIT PV-invite-INF REL-who-ACC
 Zoltán *(szokott) hívni.
 Zoltán HABIT invite-INF
 ‘Kornél usually invites the same girl that Zoltán invites’

Given that there is no independent evidence for auxiliary deletion in Hungarian—quite the contrary, as (7) shows—it seems highly unlikely that such a mechanism is responsible for the absence of the auxiliary in (5). What the contrast between (5) and (6) shows, then, is that Hungarian relative clause deletion elides a larger portion of the clausal structure than VP-ellipsis does. As a result, the two should not be unified.³

² The exact same argument can be made on the basis of the future auxiliary *fog*.

³ Note that relative deletion is also possible in combination with the negative marker *nem* ‘not’:

- (i) Kornél AZT A LÁNYT hívta vmeg, akit Zoltán nem.
 Kornél that-A the girl-A invited PV REL-who-ACC Zoltán not
 ‘The girl who Kornél invited was the one who Zoltán didn’t invite’

In this case *nem* occupies specFocP (cf. Surányi 2003) and the remnant *Zoltán* occupies specTopP. As such, this example cannot be used to distinguish between VP-ellipsis and clausal ellipsis. Thanks to an anonymous reviewer for asking us to clarify this.

A second indication that this conclusion is probably correct concerns adverbial modification. It is fairly uncontroversial to assume that the unmarked, base-generated position of certain adverbs is in the (extended) VP-domain. If Hungarian relative clause deletion elides the entire clause, then such adverbs should not surface. If on the other hand it involves VP-ellipsis, we might expect them to show up (cf. also the fact that VP-adverbs are compatible with VP-ellipsis in English). In this respect, the contrast between (8) and (9) suggests that our earlier analysis of (5) and (6) was probably correct.

- (8) Kornél AZT A LÁNYT szokta felhívni, akit
 Kornél that-ACC the girl-ACC HABIT PV-invite-INF REL-who-ACC
 Zoltán is <?? naponta >.
 Zoltán also daily
 'Kornél usually invites the girl whom Zoltán also invites daily'
- (9) Kornél AZT A LÁNYT szokta felhívni, akit
 Kornél that-ACC the girl-ACC HABIT PV-invite-INF REL-who-ACC
 Zoltán is <naponta> fel szokott <naponta>.
 Zoltán also daily PV HABIT daily
 'Kornél usually invites the girl whom Zoltán also invites daily'

These examples once again differ in the presence (in (9)) or absence (in (8)) of the habitual auxiliary *szokott* (in this case accompanied by the preverbal particle *fel*).⁴ As the judgements show, however, this difference correlates with the possibility of adverbial modification. When *szokott* is present, the elided clause can be modified by *naponta* 'daily' (regardless of whether it precedes or follows the auxiliary), while in the absence of the habitual auxiliary, adverbial modification is clearly marked. We take this to be a second clear indication that the distinction between such examples is not one of auxiliary drop having or not having applied, but rather is indicative of the size of the elided constituent: VP (or a related projection) when the auxiliary is present, and TP (or another clause-level projection) in the case of Hungarian relative clause deletion.

Our third and final argument is arguably more indirect, but it is suggestive nonetheless. As pointed out by Merchant (2001: 8–9, n2), another difference between VP-ellipsis and sluicing is that while the former allows sloppy readings relatively freely, the latter does not, or in Merchant's phrasing 'speakers are quite uniform in finding sloppy readings under sluicing to be highly inaccessible' (Merchant 2001: 8).

⁴ The particle *is* 'also' to the right of *Zoltán* signals the presence of a specific left-peripheral projection where, just like in FocP, an operator-variable dependency is established. On the role of this particle in licensing ellipsis, see Van Craenenbroeck and Lipták 2006: 265–7.

As illustrated by the data in (10) and (11), a similar contrast can be replicated in Hungarian with respect to the presence or absence of an auxiliary.

- (10) JÁNOS ARRÓL A LÁNYRÓL szokott mesélni az anyjának,
 János that-about the girl-about HABIT tell-INF the mother-DAT
 akiről Béla is szokott.
 REL-who-about Béla also HABIT
 ‘János usually tells his mother about the girl, whom Béla also tells about to János’ mother’
 ‘János usually tells his mother about the girl, whom Béla also tells about to Béla’s mother’
- (11) JÁNOS ARRÓL A LÁNYRÓL szokott mesélni az anyjának,
 János that-about the girl-about HABIT tell-INF the mother-DAT
 akiről Béla is.
 rel-who-about Béla also
 ‘János usually tells his mother about the girl, whom Béla also tells about to János’ mother’
 *‘János usually tells his mother about the girl, whom Béla also tells about to Béla’s mother’

Once again, these examples differ only in that the habitual auxiliary *szokott* is present in (10) but absent in (11). Both examples are well-formed under the strict reading, but only (10) allows for the sloppy reading. Admittedly it is not a priori clear why there should be a correlation between the size of the deleted constituent and the availability of a sloppy reading, but given the highly similar data contrast in English, we take these facts to support our general hypothesis that relative clause deletion in Hungarian is more akin to sluicing than it is to VP-ellipsis.

Summing up, in this section we have argued that Hungarian relative deletion should not be reduced to VP-ellipsis. The amount of structure that is missing seems to be a proper superset of any VP-related projection. As such, relative deletion is more akin to sluicing than to VP-ellipsis. This is the hypothesis we pursue in the next section.

25.4 Hungarian relative clause deletion involves sluicing

In the previous section we have argued that Hungarian relative clause deletion should not be analysed as a subtype of VP-ellipsis. In a nutshell, closer inspection revealed that apart from relative clause deletion Hungarian also features a bona fide instantiation of VP-ellipsis and that the two phenomena differ too substantially for a unified account to be plausible. In particular, while VP-ellipsis deletes a verb-related projection, in relative clause deletion an entire clause is missing. If we still want to

reduce relative clause deletion to a known elliptical construction—and from the discussion in Section 25.1 it should be clear that we consider this to be a desirable course of action—the next possible suspect that comes to mind is sluicing. However, this hypothesis immediately seems to be rendered toothless in light of the generalization found in Lobeck (1995: 54–62) and Merchant (2001: 54–61) that sluicing never occurs in relative clauses. Instead, it only deletes the IP-complement of an interrogative *wh*-complementizer, that is to say, sluicing is restricted to *wh*-questions. One of the examples Merchant gives to substantiate this claim is (12) (Merchant 2001: 59).

(12) *Somebody stole the car, but they couldn't find the person who.

Given that Hungarian relative clause deletion by definition targets relative clauses, identifying it with sluicing seems to be a lost cause. This, however, is where the main theme of this chapter comes in. We will argue that the restriction to *wh*-questions is not a reliable diagnostic of sluicing. The generalization Lobeck and Merchant have uncovered is a by-product of the syntax of *wh*-movement in the languages they consider. Given that the syntax of Hungarian *wh*-movement differs from its English counterpart, the distribution of sluicing in the two languages will differ as well. This will lead not only to an analysis of Hungarian relative deletion as sluicing, but also (in the next section) more generally to a cross-linguistically more refined theory of sluicing.

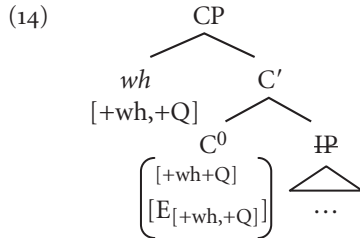
In order to appreciate what is behind the Lobeck/Merchant-generalization, it is worth taking a look at Merchant's (2001, 2004) technical implementation of sluicing. He argues that sluiced clauses differ from their non-elliptical counterparts in the presence of a formal feature (called [E]), which bundles the syntactic, semantic, and phonological properties that characterize ellipsis. The full specification of [E] is given in (13).⁵

- (13) a. the syntax of [E]: $E_{[uwh^*, uQ^*]}$
 b. the phonology of [E]: $\varphi_{IP} \rightarrow \emptyset / E \text{ ______}$
 c. the semantics of [E]: $[[E]] = \lambda p : e\text{-GIVEN } (p) [p]$

The line that is of interest to us here is (13a) (for discussion of the other two, see Merchant 2001: 60–1). It represents the syntactic licensing requirements of sluicing, that is, the fact that sluicing is restricted to *wh*-questions. Merchant implements this by assuming that [E] is itself endowed with syntactic features. In particular, [E] has an uninterpretable [*wh*]-feature and an uninterpretable [Q(uestion)]-feature that it

⁵ While the [E]-feature might at first sight appear exotic from the point of view of known feature inventories, it is important to stress that it is more than a convenient, technical *deus ex machina* which is invented to make analyses of elliptical constructions more in line with present-day machinery. Merchant's implementation allows him to directly link the licensing and identification requirements on ellipsis with the phonological effect of non-pronunciation.

needs to check in a local (head–head) configuration (indicated here by the asterisk), not via (potentially non-local) Agree. Given that these are exactly the same features a *wh*-phrase checks in a *wh*-question, the restricted distribution of sluicing now follows. Consider the schematic representation in (14).



This tree structure represents the left periphery of a sluiced *wh*-question. A *wh*-phrase endowed with a [+ *wh*, +Q]-feature specification has moved into the left periphery to check those features against the matching counterparts of the C⁰-head.⁶ Also adjoined to that head is the [E]-feature, which has the syntactic feature specification outlined in (13a). Just like the *wh*-phrase, the [E]-feature can undergo feature checking, as a result of which it can license sluicing in this (and only this) environment.

The thing to note about (14) is that the feature specification of [E] matches that of the *wh*-phrase. This is how Merchant ensures that sluicing will only take place in *wh*-questions. From a cross-linguistic point of view, however, the analysis raises the question of whether this identity in feature specification is accidental. Specifically, it is the case that the syntactic specification of the [E]-feature found in sluicing is always [+ *wh*, +Q] (which in a language like English happens to coincide with that of *wh*-phrases), or does it simply track the feature specification of *wh*-phrases (in which case different languages might have different specifications for [E])? Hungarian provides an ideal testing ground for resolving this issue, as it is well-established that *wh*-movement in this language targets a much lower position than in English (a position typically identified as specFocP, see É. Kiss 1987). If the syntactic feature specification of [E] were fixed and sluicing could only delete the complement of the C⁰ found in constituent questions, then English-style sluicing would be predicted not to occur in Hungarian (either because the appropriate licensing context is never found, or because the *wh*-phrase would not raise high enough and hence would be contained in the ellipsis site). As the example in (15) shows, this is a false prediction.

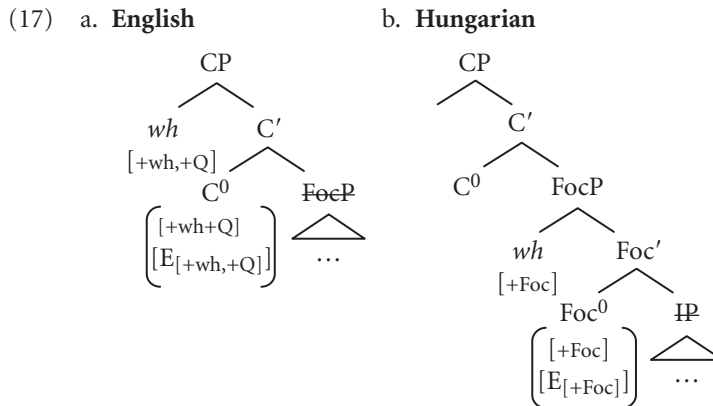
- (15) János meghívott egy lányt, de nem tudom kit.
 John invited a girl-ACC but not know-1SG who-ACC
 ‘John invited a girl, but I don’t know who’

⁶ We leave open the question which of these features are (un)interpretable/(un)valued, as this is orthogonal to our analysis.

This leaves the second option: the syntactic feature specification of $[\mathbb{E}]$ always tracks that of *wh*-phrases. This implies that differences in *wh*-movement between languages lead to differences in sluicing between those languages. In order to make this proposal more concrete, let us assume that alongside the syntactic specification of the $[\mathbb{E}]$ -feature found in English in (16a), that of its Hungarian counterpart is as in (16b).

- (16) a. the syntax of $[\mathbb{E}]$ in English: $E_{[uwh^*, uQ^*]}$
 b. the syntax of $[\mathbb{E}]$ in Hungarian: $E_{[uFoc^*]}$

Wh-phrases in Hungarian move to specFocP to check a $[\text{Foc}]$ -feature (see Lipták 2001). The representation in (16b) states that this is also the feature that will be checked by $[\mathbb{E}]$ in Hungarian. Given that the distribution of sluicing is determined by the feature(s) $[\mathbb{E}]$ has to check, this means that while English sluicing deletes the complement of (the highest) C^0 , Hungarian sluicing deletes the complement of Foc^0 . This is illustrated in (17).⁷



We are now in a position to return to relative clause deletion in Hungarian. Consider what the implications of (16) are for the question of whether sluicing can take place in relative clauses. For English, the answer is clearly 'no', as relative clauses cannot contain *wh*-questions.⁸ For Hungarian on the other hand, the situation is different. What (16b) states is that $[\mathbb{E}]$ is licensed (and hence will trigger ellipsis) in any context

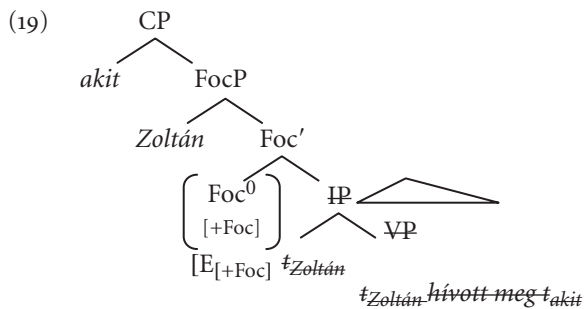
⁷ Note that the structures presented here are simplified for ease of exposition. In particular, the projection termed 'CP' should be seen as a shorthand for a more articulated left periphery. As the precise decomposition of this projection is orthogonal to our concerns here, we have left it out. For evidence that CP should be split up even in English, see Den Dikken (2003) and references mentioned there.

⁸ Implied here is '*wh*-questions at the highest structural level of the relative clause'. Clearly, *wh*-questions can be embedded inside relative clauses, and in that case, sluicing is definitely possible:

- (i) I told them that Caesar had conquered Rome, but there was not a single student who could tell me in what year.

in which a focus feature is being checked. While such contexts include *wh*-questions, they are certainly not limited to them. For example, Hungarian relative clauses also allow for non-*wh* focus movement.⁹ Given that a non-*wh* focus also checks a [+Foc]-feature, [E] can be licensed in such a context and trigger ellipsis. This means that the basic example of relative clause deletion (repeated below as (18)) can now be analysed as an instance of sluicing triggered by the focus movement of the subject *Zoltán* ‘Zoltán’.¹⁰ This analysis is represented in (19).

- (18) Kornél AZT A LÁNYT hívta meg, akit ZOLTÁN.
 Kornél that-ACC the girl-A invited PV REL-who-ACC Zoltán
 ‘The girl who Kornél invited was the one who Zoltán did’



In this relative clause (which is derived by movement of the relative operator *akit* ‘REL-who-ACC’ to what we take to be the CP), the DP *Zoltán* undergoes focus movement to specFocP. In so doing it checks a [+Foc]-feature against the head of FocP. Adjoined to that head is the (sluicing-)[E]-feature. Given that it too has a focus feature to check, it can be fully syntactically licensed and as a result can trigger ellipsis of the complement of Foc⁰ (indicated here by means of strikethrough). What remains outside of the ellipsis site is the relative pronoun *akit* ‘who’ and the focused subject-DP *Zoltán*. In other words, we have successfully analysed Hungarian relative clause deletion as an instance of sluicing.

The analysis just sketched makes a number of additional predictions. We discuss three of them here. First of all, note that the structure in (19) by no means requires that it be the subject that focus-moves out of the IP. As long as there is focus movement, a [+Foc]-feature is being checked and [E] can be licensed. Put differently, the remnant showing up to the right of the relative pronoun in Hungarian relative clause deletion should not necessarily be the subject. This prediction is borne

⁹ Note that the preceding discussion suggests that Hungarian relative clauses should allow for *wh*-movement as well. As discussed by Lipták and Zimmermann 2007, this prediction is borne out. However, given that such *wh*-movement is only allowed if the head of the relative clause is also a *wh*-phrase, we were unable to construct a sluicing variant of such *wh*-questions.

¹⁰ For argumentation that *Zoltán* is indeed focused, see Van Craenenbroeck and Lipták 2006: 262–5.

out in (20)–(22), where the remnant is the direct object, the indirect object, and a prepositional complement respectively.

- (20) Az A FIŰ hívta meg Esztert, aki KATIT.
 that the boy invited PV Eszter-ACC REL-who Kati-A
 'The boy who invited Eszter was the one who invited Kati'
- (21) Péternek AZT A FOTOT mutattam meg, amit ANNÁNAK.
 Péter-DAT that-ACC the photo-ACC showed-1SG PV what-ACC Anna-DAT
 'The photo I showed to Péter was the one that I showed to Anna'
- (22) AZT A FIŰT hívtam meg, aki Marival lakik,
 that-ACC the boy-ACC invited1SG PV REL-who Mari-WITH lives,
 s nem AZT, aki OLGÁVAL.
 and not that-ACC REL-who Olga-WITH
 'It was the boy who lives with Mari that I invited and not the one who lives with Olga'

Secondly, if Hungarian sluicing does not delete the complement of the highest C^0 -head, other left-peripheral material (e.g. complementizers or topics) should be able to occur in between the matrix verb and the sluiced *wh*-phrase. As shown in (23) and (24), this prediction is borne out.

- (23) János meghívott egy lányt, de nem tudom hogy kit.
 János invited a girl-ACC but not know-1SG that who-ACC
 'János invited a girl, but I don't know who'
- (24) ?Tudom, hogy a diákok és a tanárok is meghívtak
 know-1SG that the students and the teachers also invited
 valakit, de nem tudom, hogy a diákok kit.
 someone-ACC, but not know-1SG that the students who-ACC
 'I know that the students and the teachers each invited someone, but I don't know who the students invited'

In (23) and (24) the *wh*-phrase *kit* 'who' is situated in specFocP, the [E]-feature is adjoined to Foc^0 , and it triggers deletion of the (IP-)complement of Foc^0 . This means that the CP-layer(s) dominating FocP is (are) not contained in the ellipsis site and should be able to host overt material in these sluicing examples (see the representation in (17b)). This is confirmed by the presence of the complementizer *hogy* 'that' in both examples and the topicalized DP *a diákok* 'the students' in (24). Moreover, the fact that the English counterparts of these examples are sharply ungrammatical is a further indication that the structural difference between (17a) and (17b) is probably correct.

A third prediction raised by the analysis presented in (19) concerns the fact that Hungarian relative clause deletion should not be restricted to relative clauses. In

particular, note that the relative pronoun in (19) plays no role whatsoever in the analysis. The only crucial ingredient is that there be focus movement, but unsurprisingly, focus movement also occurs in non-relative clauses. If all it takes for [E] to be licensed is that a focus feature is being checked, sluicing should also occur in such clauses. This is corroborated by (25).

- (25) János kirugott valakit, és azt hiszem hogy BÉLÁT.
 János fired someone-ACC and that think-1SG that Béla-ACC
 'János fired someone and I think it was Béla'

In this example, the DP *Bélat* undergoes focus fronting to specFocP. The [E]-feature is adjoined to Foc⁰ and triggers deletion of its complement. The only difference with (18) is that here sluicing takes place in a complement clause rather than a relative clause. This also shows that the term 'Hungarian relative clause deletion' has become obsolete. We will henceforth use the term 'focus sluicing' to refer to examples such as (18) or (25). This term is meant to indicate that while such data are instantiations of sluicing, they differ from more traditional specimens in having a non-*wh*-phrase as remnant.

Before moving on to our cross-linguistic typology of sluicing in the next section, there is one more point we would like to make based on examples such as (25). It turns out that we can create an additional argument against a VP-ellipsis analysis of these data (cf. Section 25.2). As discussed in detail by Fox and Lasnik (2003) and Merchant (2008a), sluicing differs from VP-ellipsis in that it can rescue island violations (see also Ross 1969). Moreover, both papers explicitly attribute the difference between the two elliptical constructions to the fact that the former deletes more structure than the latter. As this ties in nicely with the discussion of Section 25.2, it is worth exploring if the presence or absence of an auxiliary correlates with island sensitivity. Consider first the baseline data in (26) and (27).

- (26) János minden nap úszik valahol, azt hiszem az USZODÁBAN.
 János every day swims somewhere that think-1SG the swimming.pool-in
 'János swims every day in some place, I think in the swimming pool'
- (27) János minden nap úszik valahol, azt hiszem az USZODÁBAN
 János every day swims somewhere that think-1SG the swimming.pool-in
 szokott.
 HABIT
 'János swims every day in some place, I think in the swimming pool'

These data are completely parallel to the ones in (5) and (6), the only difference being that (26) and (27) involve complement clauses rather than relative clauses. This means that they pose the same question as (5) and (6): are these instantiations of different elliptical constructions or do they both represent VP-ellipsis (in (26)

accompanied by auxiliary drop)? The difference in island sensitivity between sluicing and VP-ellipsis suggests the former hypothesis is probably correct. Consider what happens when we embed the sluicing correlate inside an island:

- (28) Felvettük a férfit, aki minden nap úszik valahol,
 hired-1SG the man-ACC REL-who every day swims somewhere
 azt hiszem az USZODÁBAN.
 that think-1SG the swimming.pool-in
 'We hired the man who swims every day in some place, I think in the
 swimming pool'
- (29) * Felvettük a férfit, aki minden nap úszik valahol,
 hired-1PL the man-ACC REL-who every day swims somewhere
 azt hiszem az USZODÁBAN szokott.
 that think-1SG the swimming.pool-in HABIT
 INTENDED: 'We hired the man who swims every day in some place, I think
 in the swimming pool'

Just as would be predicted by the theories proposed in Fox and Lasnik (2003) and Merchant (2008a), the version with the auxiliary displays an island violation, while the one without the auxiliary is island-insensitive. This further confirms our analysis, in which (27) is an instance of VP-ellipsis and (26) represents sluicing.

In this section we have presented our analysis of relative clause deletion in Hungarian. We have shown that in spite of first appearances these data fall under the header of sluicing (and we have accordingly started referring to them as focus sluicing). A crucial ingredient of that analysis was the idea that sluicing cross-linguistically tracks the syntax of *wh*-movement. In the next section we further elaborate on that idea.

25.5 Towards a cross-linguistic typology of sluicing

While our chapter so far has been mainly about Hungarian (in comparison to English), it is clear that the analysis we proposed in the previous section has much wider implications. In particular, the syntax of sluicing should track that of *wh*-movement in all languages. The way we want to formalize this is as in (30).

- (30) **The *wh*/sluicing-correlation**
 The syntactic features that the [E]-feature has to check in a language *L* are identical to the strong features a *wh*-phrase has to check in a regular constituent question in *L*.

Note that (30) specifies that only the *strong* features of the *wh*-phrase are relevant for the feature specification of [E]. Put differently, it is the surface position of the *wh*-phrase that serves as input for the syntax of sluicing. For example, one could

argue that while *wh*-phrases in Hungarian overtly only move to specFocP, in covert syntax they raise to specCP, for example to check a [+Q]-feature there (though see Surányi 2005b for arguments against such an analysis). If the [E]-feature were sensitive to this second movement step, it would only be able to license sluicing in *wh*-questions (like in English) and the focus sluicing data discussed in the previous sections would remain unaccounted for. This is why the *wh*/sluicing-correlation only takes into account the overt part of the derivation.

With this much as background, we can now determine how many and which language types are predicted to occur by (30). Under the assumption that *wh*-phrases cross-linguistically display three types of behaviour—that is movement to specCP, movement to specFocP, or *wh*-in-situ, cf. Cheng (1997)¹¹—we arrive at the three main types of sluicing languages mentioned in the table in (31).

(31) **Typology of *wh*-movement and sluicing constructions**

Type of <i>wh</i> -movement	Type of [E]-feature	Sluicing with a <i>wh</i> -remnant (<i>wh</i> -sluicing)	Sluicing with a focus remnant (focus sluicing)	Sample language
Movement to specCP	$E_{[u_{wh}^*, uQ^*]}$	✓	*	English
Movement to specFocP	$E_{[uFoc^]}$	✓	✓	Hungarian
<i>wh</i> -in-situ	/	*	*	Japanese

The first two rows in (31) have played a central role in the chapter so far. Consider first English-type sluicing. In this type of language, a *wh*-phrase moves all the way up to the highest specCP, and in so doing checks both a [+*wh*]- and a [+Q]-feature. Given that this movement is overt, [E] has the same double feature specification. This in turn restricts the types of sluicing we find in these languages: ‘regular’ *wh*-sluicing is fine (cf. (32)), but focus sluicing is disallowed (cf. (33)).¹²

(32) Someone read that book, but I don’t know who.

(33) *John fired someone and I think that Bill.

In Hungarian-type languages on the other hand, *wh*-phrases overtly only move up to specFocP. As a result, they only check a strong [+Foc]-feature, and hence, so does [E]. The fact that the syntactic representation of [E] is less specific leads to a

¹¹ A possible fourth type could be *wh*-scrambling. We hope to look into this phenomenon in future research.

¹² One might object—as one reviewer does—that English does not have focus movement in the first place, and that this might suffice to explain the absence of focus sluicing in this language. See Merchant (2004), however, for an analysis of English fragment answers as involving focus movement, and see Van Craenenbroeck and Lipták 2006: 270–2 for a way to incorporate Merchant’s data into the analysis outlined here. See also Den Dikken (2003) and references mentioned there for supporting evidence that English has overt movement to specFocP.

wider distribution for sluicing. In particular, languages with overt *wh*-movement to specFocP display sluicing not only in *wh*-questions, but also in clauses containing a non-*wh*-focus:

- (34) Valaki olvasta azt a könyvet, de nem tudom ki.
 someone read that the book-ACC but not know-1SG who
 'Someone read that book, but I don't know who'
- (35) János kirugott valakit, és azt hiszem hogy Bélát.
 János fired someone-ACC and that think1SG that Béla-ACC
 'János fired someone and I think it was Béla'

The third type deserves a bit more attention. It is well-known that there are languages in which *wh*-phrases do not undergo any overt movement, a phenomenon commonly referred to as *wh*-in-situ. From the point of view of (30) this means that no strong features are being checked by *wh*-phrases in constituent questions. Given that [E] tracks what *wh*-phrases do in overt syntax, the prediction seems to be that [E] should be inert in this type of language. In other words, both *wh*-sluicing and focus sluicing should be ill-formed. At first glance, the Japanese data in (36) and (37) seem to falsify this prediction.

- (36) Dareka-ga sono hon-o yon-da ga, watashi-wa dare ka wakaranai.
 someone-NOM that book-ACC read-PAST but I-TOP who Q know.not
 'Someone read that book, but I don't know who'
- (37) John-ga dareka-o kubinisita rasi kedo, boku-wa Bill to omou.
 John-NOM someone-ACC fired seem but I-TOP Bill that_{C0} think
 'It seems John fired someone and I think it was Bill'

The problem is only apparent, however. As pointed out by Merchant (1998: 110) 'Japanese ``sluicing" data...instantiate elliptical clefts and not sluicing of the English variety' (cf. also Fukaya and Hoji 1999; Nakao 2005; Takita 2009 and references mentioned there). The thing to note here is that Japanese is a language that has (a) pro-drop, and (b) auxiliary drop in embedded clauses. When applied to an embedded copular clause or short cleft of the type (*I don't know*) *who it was*, the combination of these two processes can create the appearance of a sluiced clause: (*I don't know*) *who # is*. Given that no clausal ellipsis has taken place, however, it would be terminologically inappropriate to refer to these examples as involving sluicing—which is why Merchant (1998) proposes the term 'pseudosluicing'. Applied to the example in (36), the above reasoning implies that it should not be analysed as in (38)—which would be problematic for our approach—but rather as in (39)—which is orthogonal to and hence compatible with our analysis. That this analysis is on the right track is further suggested by the fact that in Japanese pseudosluicing, the copular verb *be* is allowed to surface (which is exactly what one would expect given

that auxiliary drop is optional). The fact that this is categorically excluded in ‘genuine’ instances of sluicing such as those in English or Hungarian strongly suggests that there is a substantial structural difference between (32)–(35) on the one hand and (36) and (37) on the other.

- (38) ... [CP dare_i [~~IP~~_{t_i} ~~sono~~ ~~hon-o~~ ~~yon-da~~] ka]
 who that book-ACC read-PAST Q
 ‘... who read that book’

- (39) ... [CP [IP *pro* dare ~~da/de-aru~~] ka]
 who be-PRES Q
 ‘... who it is’

A further indication that the *wh*/sluicing-correlation in (30) is on the right track—which at the same time will serve as a transition to the second half of this chapter—comes from languages with multiple *wh*-movement. In particular, a common analysis of this type of languages assumes that only one *wh*-phrase moves to the highest specCP—say, to type the clause as a question—while the others move into the lower left periphery to check a focus feature (see Bošković 2002; Stjepanović 2003). From the point of view of the *wh*-/sluicing-correlation, this predicts that multiple *wh*-movement languages should be prime examples of Hungarian-type languages, in allowing focus sluicing. As the data in (40)–(44) show, this prediction is borne out. All these languages display multiple *wh*-movement, and all of them also allow focus sluicing.¹³

Romanian (Hoyt and Theodorescu 2012)

- (40) Am aflat că cineva a plecat, dar nu știu dacă Ion.
 past.1SG learned that someone PAST.3SG left but no know.1SG if Ion
 ‘I found out that someone left, but I don’t know if it was Ion’

Russian (Grebenyova 2007)

- (41) A: Ty skazala čto on budet uvažat’ Mašu?
 you said that he will respect Maša-ACC
 ‘Did you say that he will respect Maša?’
 B: Net. Ja skazala čto IVANA.
 no I said that Ivan-A
 ‘No. I said that (he will respect) IVAN’

¹³ Note that Bulgarian, also a multiple *wh*-movement language, is missing from this list. We return to focus sluicing in Bulgarian in detail in Section 25.7.

Polish (K. Migdalski p.c.)

- (42) Wiedziałem, że Janek kogoś zaprosił ale nie wiedziałem że Billa.
 know-M.SG that Janek someone invited but not know-M.SG that B-ACC
 'I knew Janek invited someone, but I didn't know that it was Bill'

Czech (R. Šimík p.c.)

- (43) Věděl jsem, že Honza někoho pozval, ale
 knew AUX.1SG that Honza someone-ACC invited but
 nevěděl jsem, že Martina.
 not.knew aux-1SG that M-ACC
 'I knew Honza invited someone, but I didn't know it was Martin'

Serbo-Croatian (B. Arsenijević p.c., Tanja Milicev p.c., M. Marelj p.c.)

- (44) Jovan je pozvao nekog. Mislim da je Billa.
 Jovan AUX invited someone think-1SG that AUX B-ACC
 'Jovan invited someone. I think that it was Bill'

This concludes the first half of this chapter. The central question in this and the preceding sections has been how to diagnose sluicing from a cross-linguistic point of view. This has led to the typologically explicit theory of sluicing outlined in this section. It establishes a novel correlation that links the availability of sluicing not to the availability of overt *wh*-movement in itself, but to the availability of any movement operation that checks features identical to the strong features a *wh*-phrase checks in a language.

In the remainder of the chapter, we use this refined theory to probe into the syntactic mechanism of *wh*- and focus movement. In the sections that follow, we shed new light on various syntactic aspects of question formation and focusing, using as a diagnostic the generalization in (30). More specifically, in Section 25.6 we reconsider single *wh*-movement and the claims made about the distribution of *wh*-elements with respect to focus in Italian and Venetian. We show that contrary to previous accounts (e.g. Rizzi 1997), the *wh*-phrase in constituent questions occupies a position distinct from that of contrastive focus. In Section 25.7 we turn to multiple *wh*-fronting languages and zoom in on the question of what motivates the movement of the *wh*-phrases in such languages: are they triggered by a C head with a [*wh*]-feature that can be multiply checked, or is the [*wh*]-feature on C checked only once, with the other *wh*-phrases undergoing movement to a lower functional projection? Focusing on one multiple fronting language, Bulgarian and its dialects, we argue that both strategies are available in natural language. In Section 25.8 we use our theory of sluicing to diagnose the syntactic mechanism of multiple focus fronting in various languages. The facts uncovered in this domain

will necessitate a broader discussion about the extent to which non-elliptical structures can serve as reliable diagnostics for elliptical ones. We consider a case where the parallel between ellipsis and non-ellipsis breaks down due to an elliptical repair effect.

25.6 Sluicing as a probe into the syntax of single *wh*-movement

We begin the discussion of the diagnostic potential of our theory of sluicing by diagnosing properties of single *wh*-movement. To recap, the gist of the new theory put forward in Section 25.5 was that the link between *wh*-movement and the availability of sluicing is only indirect: any element that undergoes overt displacement akin to *wh*-movement can surface as the remnant in a sluicing construction. Prime examples of phrases that move to the same position as *wh*-phrases, triggered by the same attracting features, are focus constituents. As the discussion of Hungarian has shown, there are languages that move both *wh*- and focus constituents to the same position: the Focus phrase (FocP). Our prediction about the availability of focus sluicing in languages like Hungarian is thus straightforward: in a language where *wh*-phrases and focus phrases target the same overt position, focus sluicing should be allowed. The availability of focus sluicing can then in turn be used as a diagnostic to establish identical overt placement of *wh*- and focus phrases in the left periphery.

In the present section, we apply this diagnostic to a language that, similarly to Hungarian, has featured extensively in the literature on the parallelism between overt *wh*- and focus movement: Italian. The most influential account of the Italian left periphery, Rizzi (1997), argues that *wh*- and focus elements in this language both target specFocP, based on the standard argument that *wh*-phrases and foci are in complementary distribution in main clauses. This is evidenced by the following facts (see also Stoyanova 2008 for a similar claim):

- (45) **Che cosa, A GIANNI hai detto?*
 what thing to Gianni have.2SG told
 INTENDED: ‘What did you tell Gianni?’
- (46) **A GIANNI che cosa hai detto?*
 to Gianni what thing have.2SG told
 INTENDED: ‘What did you tell Gianni?’

Other facts, however, call into question whether complementarity in this case is an unambiguous diagnostic for identical placement. The observed complementarity seems less strong in embedded clauses, where *wh*-phrases are marginally compatible with a focus phrase, suggesting that the two do not occupy the same position (Rizzi 1997, fn. 18). Another, more robust piece of evidence comes from the distribution of

complementizers, which differs with respect to *wh*-phrase and focus. To see this, consider the following examples from a Northern Italian dialect, Venetian, whose left periphery is very similar to standard Italian, but which, unlike standard Italian, allows for doubly-filled COMP filter violations (C. Poletto p.c.):

- (47) Credo <che> NANE <*che> i gabia visto, no Piero.
 think-1SG that Nane that they have seen not Piero
 'I think they have seen Nane, not Piero'
- (48) Me domando <*che> chi <che> Nane ga visto al marcà.
 me ask-1SG that who that Nane has seen at.the market
 'I wonder who Nane saw at the market'

These examples show that focus always occurs to the right of the complementizer *che* in this dialect, while a *wh*-phrase always surfaces to its left. Similar kinds of evidence from the realm of *wh*-phrase placement with respect to clitic left dislocated items in Venetian have led van Craenenbroeck (2006) to the conclusion that *wh*-phrase and focus do not front into the same position in the left periphery after all. Rather, *wh*-movement targets a higher position, specCP, while foci occupy a low left periphery position (specFocP).

After this introduction to *wh*-placement in Italian, let us return to the evidence of sluicing as a diagnostic for *wh*-movement. The predictions raised by the above two accounts with respect to focus sluicing in Italian and its dialects are now clear: if the dialects allow for focus sluicing, *wh*- and focus items both occur in FocP in overt syntax, and check the same strong feature there. If focus sluicing is unavailable, their position is distinct. As it turns out, the latter is the case: Venetian (cf. (49)), just like standard Italian (cf. (50)), does not allow for focus sluicing:

- (49) *Savevo che Nane gaveva invidà qualcheduni ma no so Piero.
 knew-1SG that Nane had invited someone but not know-1SG Piero
 INTENDED: 'I knew that Nane had invited someone, but I didn't know it was Piero'
- (50) *Sapevo che Gianni aveva invitato qualcunom non so Piero.
 knew-1SG that Gianni had invited someone but not know-1SG Piero.
 INTENDED: 'I knew that Nane had invited someone, but I didn't know it was Piero'

This is in contrast with *wh*-sluicing, which is fine in both dialects:

- (51) Savevo che Nane gaveva invidà qualcheduni ma no so chi.
 knew-1SG that Nane had invited someone but not know-1SG who-ACC
 'I knew that Nane had invited someone, but I didn't know who'

- (52) Sapevo che Gianni aveva invitato qualcuno ma non so chi.
 knew-1SG that Gianni had invited someone but not know-1SG who-ACC
 ‘I knew that Nane had invited someone, but I didn’t know who’

The unavailability of focus sluicing in Italian and Venetian strongly suggests that *wh*-movement does not occupy a focus position in overt syntax, *pace* Rizzi (1997) and Stoyanova (2008).

Note that the predictions made by the absence of the focus sluicing rule out identical placement of *wh*- and focus phrases only with respect to the position they occupy in *surface* syntax. The facts do not rule out a scenario in which the *wh*-phrase moves *through* specFocP on its way to specCP (allowing for an account of the observed complementarity between *wh*- and focus items, in (45) and (46)). Consider *why*. In this scenario, the *wh*-phrase checks a [+Foc] feature in FocP and a [+wh] feature in CP. According to the correlation in (30), this entails that the feature content of [E] is $[E_{[uwh^*, uFoc^*]}]$, which in turn means that the [E]-feature needs to check both a focus feature and a *wh*-feature in overt syntax, that is, it must undergo movement from Foc to C in overt syntax. As a result, [E] can trigger ellipsis only on C, causing the elision of the complement of C, which implies that no element residing in specFocP can survive the ellipsis, that is, focus sluicing is ruled out.

In this section we have shown that the lack of focus sluicing in Italian constitutes a challenge for a Rizzian-style analysis that assumes identical positions for *wh*-phrases and foci in all contexts. Instead, a more traditional view on Italian *wh*-movement, according to which *wh*-phrases occupy a position distinct from foci, is perfectly compatible with the sluicing data.

25.7 Sluicing as a probe into the syntax of multiple *wh*-movement

As we will show in this section, the availability of focus sluicing can also be fruitfully used to diagnose the fine-grained syntax of multiple *wh*-movement in languages that allow multiple *wh*-fronting (MWF). Many languages, including all Slavic languages, front all *wh*-constituents to the left periphery, as has been known since Rudin (1988). Although the basic facts are well-known, there is little agreement about the triggers of *wh*-fronting in these languages: opinions differ about what features *wh*-phrases check when fronted and which functional head these features are located on.

25.7.1 [*wh*]-feature checking: the central issue in the analysis of MWF languages

The core of the debate centres around the question whether a [*wh*]-feature on the attracting C-head can be checked more than once, and, as a consequence of this, whether all the fronted *wh*-phrases check a [+*wh*] feature in the fronting process. Following the spirit of Rudin’s seminal proposal, Pesetsky (2000) argues that the

[*wh*]-feature on C can undergo multiple checking, and it does so when it attracts more than one *wh*-phrase in MWF languages. Bošković (1998a,b, 2002) on the other hand puts forward a theory that rules out multiple checking of the [*wh*]-feature on C. This feature is claimed to be checked at most once, in all languages. As for the non-initial *wh*-phrases in MWF languages, Bošković follows Stjepanović (2003) in claiming that these undergo focus movement—or, in some cases, scrambling—an operation that differs from *wh*-movement in that the triggers are not found on an attracting head, but rather on the moving items themselves.

Our theory of sluicing introduced in Section 25.5 has an interesting bearing on the debate sketched here and can serve as a diagnostic for distinguishing between the two theories. As a consequence of the *wh*/sluicing correlation in (30), our account makes the prediction that focus sluicing is only found in languages in which at least one of the fronted *wh*-phrases undergoes overt focus movement, as opposed to *wh*-movement, in other words, if Bošković's analysis is the correct one. As the data at the end of Section 25.5 have shown, many MWF languages, including Romanian, Russian, Polish, Czech, and Serbo-Croatian allow for focus sluicing, and thus conform to Bošković's theory of *wh*-movement.¹⁴

One MWF language, however, Bulgarian, presents us with data that suggest that Bošković's theory is not applicable across the entire domain of Slavic languages, and thus that there are fronting processes that can multiply check—or re-check—a [*wh*]-feature on C. To see why, we need to turn to a detailed discussion of Bulgarian.

25.7.2 *A case study of Bulgarian*

Starting from Rudin (1988), Bulgarian has always been placed centrestage in the discussion on multiple *wh*-movement, due to the fact that this language manifests properties that classify it as one of the two major types of MWF languages: a so-called 'multiply-filled specCP' language (+MFS), in Rudin's terminology. Rudin's basic insight was that multiple *wh*-fronting languages of this type front all *wh*-phrases to one initial specCP-projection. The other type of MWF languages (including, e.g., Serbo-Croatian) do not allow multiple filling of specCP (they are –MFS), and accommodate only one *wh*-phrase in specCP, adjoining the rest of the clause-initial *wh*-phrases to IP. This kind of parametrization about a multiply filled specCP allowed Rudin to explain several differences between +MFS and –MFS languages, including, among others, the order of *wh*-phrases among each other, clustering effects between *wh*-phrases and extraction possibilities out of *wh*-islands.

¹⁴ Hungarian is also a MWF language of this sort, which is in line with the analysis of multiple *wh*-fronting put forward in É. Kiss (1993). She argues that the linearly last *wh*-phrase always occupies specFocP.

Translating the nature of +MFS languages into a feature-based account, such as that of Pesetsky (2000), we can say that in such languages all *wh*-phrases move to specCP to check a [*wh*]-feature:

$$(53) \quad [_{CP} \text{wh}_{<+wh>} \text{wh}_{<+wh>} \text{wh}_{<+wh>} C^0_{<+wh>} [IP \dots]]$$

In accounts like that of Bošković, where multiple feature checking on C is not allowed, the situation is slightly different: while all *wh*-phrases move to specCP, only the first one checks a [*wh*]-feature, the rest check a [focus] feature, with movement being triggered by the *wh*-phrases themselves:

$$(54) \quad [_{CP} \text{wh}_{<+wh>} \text{wh}_{<+Foc>} \text{wh}_{<+Foc>} C^0_{<+wh,+Foc>} [IP \dots]]$$

As mentioned above, our *wh*/sluicing generalization can be used as a testing ground to differentiate between the two accounts: the prediction being that only in languages where at least one *wh*-phrase checks a [focus] feature (i.e. in a configuration like (54), but not in (53)) should focus sluicing be allowed. Before we can present the results of testing this prediction, however, we need to introduce one more complication about Bulgarian. As pointed out by Lambova (2001)—and as was also confirmed by our Bulgarian informants—the empirical lay of the land is in fact slightly different from that assumed in the Rudin–Bošković accounts: the original classification of Bulgarian as a +MWF-language only partially covers the variation present among dialects of Bulgarian. Lambova shows that Bulgarian has at least two distinct dialects, which differ in the penetrability of the cluster of fronted *wh*-phrases: one dialect—which we will refer to as dialect A, following Lambova—does not allow the *wh*-cluster to be split up by parentheticals, while another dialect (dialect B) does. The patterns are illustrated in the following examples.

(55) *Koj, kazvash, kakvo koga e kupil? (Bulgarian, *dialect A*)
 who say-2SG what when AUX bought
 INTENDED: ‘Who bought what when, you say?’

(56) Koj, kazvash, kakvo koga e kupil? (Bulgarian, *dialect B*)¹⁵
 who say-2SG what when AUX bought
 ‘Who bought what when, you say?’

¹⁵ There are various restrictions on splitting in dialect B. For example, splitting is only allowed between the first and the second *wh*-phrases, but never further down in the cluster. Second, splitting is not allowed if the *wh*-cluster is preceded by a topic. It is important to note that the difference between (55) and (56) is not due to a distinct interpretation of the *wh*-phrases in the two cases, such that one order is compatible with D-linked *wh*-phrases only and the other with non-D-linked ones. This point is relevant because Cinque and Krapova (2008) has recently shown that D-linked *wh*-items target a different position from non D-linked *wh*-items in Bulgarian. We have controlled for this possibility by providing our informants with exactly the same contextual setup. Their judgements therefore cannot reflect a contextual difference of interpretation.

According to Lambova (2001), dialects A and B differ in the placement of their *wh*-phrases. Adhering to the single [*wh*]-feature checking theory of Bošković, Lambova proposes that in dialect A, all *wh*-phrases move to specCP, with the first one checking a [*wh*]-feature and the rest a [focus]-feature (cf. (57)a). In dialect B, on the other hand, only one *wh*-phrase moves to specCP to check a [*wh*]-feature, while the others move to specFocP to check a [focus]-feature (cf. (57)b).

- (57) a. dialect A: $[_{CP} \text{wh}_{<+wh>} \text{wh}_{<+Foc>} \text{wh}_{<+Foc>} C^0_{<+wh,Foc>} [_{IP} \dots]]$
 b. dialect B: $[_{CP} \text{wh}_{<+wh>} C^0_{<+wh>} [_{FocP} \text{wh}_{<+Foc>} \text{wh}_{<+Foc>} \text{Foc}^0_{<+Foc>} \dots [_{IP} \dots]]]$

Due to this dialectal split, the question of which features are checked in Bulgarian multiple *wh*-fronting needs to be handled separately for the two dialects. What are the predictions of our *wh*/sluicing correlation for the two dialects and the three distinct accounts that have been put forth for them in the literature? If Rudin's account (cf. (53)) is accurate, Bulgarian should uniformly disallow focus sluicing, since in this case, the feature content of [E] is $[E_{[u_{wh}]}]$, in other words, sluicing is allowed only in *wh*-questions. If Bošković's proposal (cf. (54)) is accurate, Bulgarian uniformly should allow focus sluicing, the prediction being that there are two types of [E]-feature: one with an $[E_{[u_{wh},(u_{Foc})]}]$ -specification and one with an $[E_{[u_{Foc}]}]$ -specification. The second type of [E] feature, $[E_{[u_{Foc}]}]$, allows for sluicing with focus remnants. The same prediction is made by the third account, that of Lambova. Since both dialects of Bulgarian have *wh*-phrases that check a [focus] feature only, both dialects possess an $[E_{[u_{Foc}]}]$ (next to the other one, which is $[E_{[u_{wh},(u_{Foc})]}]$). This feature allows for sluicing with focal remnants in both dialects.

Our findings with respect to Bulgarian show that there is a difference in the availability of focus sluicing in the two dialects. The dialect that does not allow for splitting the *wh*-cluster (dialect A) does not allow for focus sluicing either. Dialect B, however, does. The following example is thus judged differently in the two dialects:

- (58) *in dialect A / ✓ in dialect B
 Znaeh che Ivan e pokanil njakoj, no ne znaeh, che Boris.
 knew that Ivan has invited someone but not knew that Boris
 INTENDED: 'I knew that Ivan has invited someone, but I didn't know that it was Boris'

This piece of data shows that the two dialects differ in the type of features checked by their *wh*-phrases: only dialect B has *wh*-phrases that overtly check a focus feature; in dialect A, the *wh*-phrases are confined to checking only [*wh*]-features. The latter dialect thus evidences that there are languages where [*wh*]-features can be multiply checked on C (along the lines of Rudin 1988 and Pesetsky 2000).

The data in (58) can furthermore be used as diagnostics for the proper analysis of the two dialectal patterns of Bulgarian *wh*-movement. The non-availability of focus

sluicing in dialect A indicates that in this dialect, there is no *wh*-phrase that checks a focus feature, in other words, the proper account for this dialect is that of Rudin (cf. (53), as opposed to (57a)). The splitting dialect (dialect B) on the other hand, where focus sluicing is allowed has to have either the structure in (54), as argued by Bošković, or that in (57)b, as argued by Lambova. Given that Lambova's but not Bošković's account also gives a straightforward explanation for the possibility of splitting, we take Lambova's analysis to be on the right track for this dialect.

To summarize, our case study of Bulgarian shows that the *wh*/sluicing generalization can be productively used to test the fine details of *wh*-movement in multiple *wh*-movement languages, in particular concerning the type of features checked by *wh*-phrases. Our discussion of Bulgarian dialects has revealed that multiple [*wh*]-feature checking is an available option, supporting proposals like that of Pesetsky (2000), contra those that do not allow for this option (such as Bošković 1998a,b, 2002).

25.8 The broader picture: non-ellipsis as a diagnostic for ellipsis

In the remainder of this chapter we continue our investigations of multiple *wh*-movement languages, and turn our attention to the general issue of how to diagnose ellipsis. More specifically, we will be interested in the question to what extent non-elliptical sentences can be used to predict properties of elliptical ones. This question is of some theoretical importance because recent studies have shown that there are various contexts in which a so-called elliptical repair effect enables the occurrence of structures that are otherwise disallowed (for some of these, see Merchant 2008a). We will add to the inventory of such effects by identifying the repair of a PF-illicit representation found in the domain of adjacency effects.

25.8.1 *Where ellipsis and non-ellipsis run parallel: the case of multiple wh-slucing in multiple wh-movement languages*

To start the discussion with a context in which elliptical and non-elliptical sentences have properties in common, consider the case of multiple *wh*-sluicing. A quick look at the data tells us that all languages with multiple *wh*-movement in non-elliptical syntax allow for multiple *wh*-sluicing as well. We demonstrate this for six MWF-languages.

Bulgarian

- (59) Njakoj e razljal ne što, no ne znam koj kakvo.
 someone AUX spilled something but not know who what
 'Someone spilled something, but I don't know who what'

Romanian (Hoyt and Theodorescu 2012)

- (60) Ion a dat cuiva ceva, si vreau sa stiu cui ce.
 Ion AUX given someone something and want-1SGSUBJ know who-DAT what
 'Ion has given something to someone, and I want to know what to whom'

Hungarian

- (61) Tudom, hogy János adott mindenkinek valamit,
 know-1SG that János gave everyone-DAT something-ACC
 de nem tudom, kinek mit.
 but not know-1SG who-DAT what-ACC
 'I know that Ion has given something to everyone, and I want to know
 what to whom'

Serbo-Croatian (Stjepanović 2003)

- (62) Neko je vidio nekog, ali ne znam ko koga.
 somebody AUX seen somebody but not know who whom
 'Somebody saw someone, but I don't know who whom'

Polish (Szczegielniak 2008)

- (63) Jan napisał jakiś list do jakiegoś ucznia ale nie wiem który do którego
 Jan wrote some letter to some student but not know which to which
 'Jan wrote some letter to some student but I do know which to which student'

Russian (Grebenyova 2007)

- (64) Každýj priglasil kogo-to na tanec, no ja ne pomnju kto kogo.
 everyone invited someone to dance but I not remember who whom
 'Everyone invited someone to a dance but I don't remember who invited
 whom'

Moreover, the parallel between the elliptical and the non-elliptical constructions extends beyond the mere availability of multiple *wh*-fronting. It characterizes the available *interpretations* of multiple *wh*-movement as well. As Grebenyova (2007) argues, multiple *wh*-sluicing only allows for interpretations that are also available for multiple *wh*-movement without ellipsis in any given language. Russian, a language where multiple *wh*-movement is only compatible with a pair-list reading, only allows for multiple sluicing with a pair-list reading (cf. (64)). If the antecedent clause imposes a single-pair interpretation on the sluiced clause, the result is degraded, due to the fact that multiple *wh*-movement in Russian cannot have a single pair interpretation. This is shown in (65).

- (65) ??Kto-to priglasil kogo-to na tanec, no ja ne pomnju kto kogo.
 someone invited someone to dance but I not remember who whom
 ‘Someone invited someone to a dance but I don’t remember who invited whom’

Hungarian shows the exact same phenomenon. In this language, too, there is a strict parallel between the readings multiple *wh*-fronting allows in non-elliptical sentences and in sluicing contexts. Multiple *wh*-fronting in Hungarian can only have a multiple pair reading (É. Kiss 1993). The following question can only be used in a context like (66)a, not in (66)b:

- (66) Ki kinek hagyott egy üzenetet?
 who who-DAT left a message-ACC
 ‘Who left a message for whom?’
 a. ✓ Everyone left a message for someone. I wonder who each person left a message for.
 b. * A single person left a message for someone. I wonder who the person was and for whom he left a message.

Correspondingly, multiple sluicing is only compatible with a multiple pair scenario:

- (67) *Valaki hagyott egy üzenetet valakinek. Nem tudom, hogy
 someone left a message- someone-DAT not know-1SG that
 ki kinek.
 who who-DAT
 ‘Someone left a message for someone. I don’t know who for whom’
 (68) Mindenki hagyott egy üzenetet valakinek. Nem tudom,
 everyone left a message-ACC someone-DAT not know-1SG
 hogy ki kinek.
 that who who-DAT
 ‘Everyone left a message for someone. I don’t know which person for which person’

Languages like Serbo-Croatian on the other hand, which do allow for a single pair reading for multiple *wh*-fronting (Stjepanović 2003), allow for such readings in sluicing as well, as (62) above has shown.

The comparison between Russian, Hungarian, and Serbo-Croatian must lead to the conclusion that the possibility of having multiple sluicing in a language is determined by its having multiple *wh*-fronting. Only languages that front multiple *wh*-phrases in non-elliptical sentences allow for multiple *wh*-sluicing as well, and

with properties identical to that of non-elliptical constructions.¹⁶ In the case of multiple *wh*-movement then, it can be established that non-elliptical structures can be used as diagnostics for elliptical constructions,¹⁷ a default assumption that characterizes the kind of structural approaches to ellipsis that posit essentially ordinary syntax behind elliptical constructions.

25.8.2 *Where ellipsis and non-ellipsis do not run parallel: the case of multiple focus sluicing in focus-movement languages*

In the present section we examine if the conclusion reached in the previous section can be upheld when it comes to multiple focus fronting. As Section 25.5 has shown, focus sluicing is available in many multiple *wh*-movement languages as a consequence of the fact that these languages front focus constituents to FocP, the position that also hosts (at least some) *wh*-phrases. Some of the languages that front foci allow for multiple focus fronting as well, for example Serbo-Croatian, Polish, Bulgarian, and Russian. It should come as no surprise then that in these languages multiple focus sluicing is also attested. Consider the following examples from Serbo-Croatian and Polish:

Serbo-Croatian (B. Arsenijević p.c., T. Milicev p.c., M. Marelj p.c.)

(69) Tu knjigu Mariji je Jovan dao.
that book Marija-DAT AUX Jovan given
'Jovan gave that book to Marija'

(70) Jovan je dao nesto nekome, i mislim da je knjigu
Jovan AUX given something someone and think-1SG that AUX book
Mariji
Marija-DAT
'Jovan has given something to someone and I think that he gave a book to Marija'

¹⁶ A property of *wh*-movement that seems to be an apparent exception to this generalization at first sight is superiority effects. In this domain, mismatches between elliptical and non-elliptical constructions can be found. Serbo-Croatian does not show superiority in matrix questions, but it does in matrix sluicing; Russian shows no superiority in either matrix or embedded questions, but it does in both matrix and embedded sluicing. These mismatches, however, follow from independent properties of sluicing, such as the necessary presence of a CP projection in matrix sluicing or a parallelism effect with the antecedent clause. See Stjepanović (2003) and Grebenyova (2007) for arguments to this effect.

¹⁷ For an apparent exception to this generalization, see Lasnik (2006). English does allow for multiple *wh*-sluicing (cf. i) although multiple *wh*-fronting is ill-formed (cf. ii):

- (i) ?One of the students spoke to one of the professors, but I don't know which to which.
(ii) *One of the students spoke to one of the professors, but I don't know which to which spoke.

As Lasnik shows, however, the second *wh*-phrase in cases like (i) does not undergo ordinary *wh*-fronting (to CP), but rather rightward movement similar to focusing. English therefore does not provide counter-evidence to our generalization.

Polish (B. Citko, G. Korbecka p.c.)

- (71) Tamtą książkę Marii Jan dał.
that book-ACC Maria-DAT Jan gave
'Jan gave that book to Maria'
- (72) Jan dał coś komuś i myślę, że książkę Marii.
Jan gave something someone and think-1SG that book Maria-DAT
'Jan has given something to someone and I think that he has given a book to Maria'

On the basis of the conclusions drawn in the previous section, where it was shown that properties of multiple *wh*-movement in elliptical contexts are determined by the properties of multiple *wh*-movement in non-elliptical contexts, it would be natural to interpret the facts in (69) and (70) in the same light: the availability of multiple focus in elliptical contexts is determined by multiple focus fronting in non-elliptical contexts. The validity of this generalization, however, seems less clear when we consider the behaviour of Hungarian and Romanian in this respect. In these languages, we do not witness the expected parallel: multiple focus sluicing is allowed notwithstanding the fact that multiple focus fronting in non-elliptical contexts is not.¹⁸

Hungarian

- (73) *EGY KÖNYVET MARINAK adott János.
a book Mari-DAT gave János
INTENDED: 'János gave a book to Mari'
- (74) János adott valamit valakinek, és azt hiszem,
János gave something someone-DAT and that think-1SG
hogy EGY KÖNYVET MARINAK.
that a book Mari-DAT
'János gave something to someone and I think he gave a book to Mari'

Romanian (C. Constantinescu, A. Fălăuș, D. Rațiu p.c.)

- (75) Q: Deci Petre a văzut-o pe Ilona?
so Petre has seen-CL A Ilona
'Did Peter see Ilona?'
- A: ?*Nu, ION PE MARIA a văzut -o!
no Ion ACC Maria has seen-CL
INTENDED: 'No, Ion saw Maria'

¹⁸ Examples (73) and (75) should be read with focal intonation on both fronted constituents. The examples are grammatical with a topic intonation on the first phrases (*egy könyvet* and *Ion*) and a focus intonation on the second (*Marinak* and *pe Maria*). This topic-focus sequence is not what we are after here, however, since this is not the intonation we get in the grammatical sluices in (74) and (76), either, and neither is the meaning of the sluiced remnants compatible with a topic interpretation of the first phrase.

- (76) Nu sunt sigură cine de ciné s-a îndrăgostit, dar bănuiesc
 not am sure who of whom REFL-has enamored but suspect-1SG
 că ION DE MARIA.
 that Ion of Maria
 'I am not sure who fell in love with whom, but I think that Ion fell in love
 with with Maria'

At first sight, these facts could lead one to conclude that in Hungarian and Romanian ellipsis does *not* track properties of non-ellipsis, suggesting that the generalization in the previous section must be discarded. This is, however, not the line we would like to take. We believe that the generalization is valid for Hungarian and Romanian focus movement as well, but that full syntactic parallelism between ellipsis and non-ellipsis breaks down in these languages as a result of an ellipsis-induced *repair effect*.

Ellipsis-induced repair effects have been identified in many elliptical constructions, starting from the absence of island effects in most sluicing contexts (first mentioned in Ross 1969) to many otherwise grammatically deviant structures that seem to underlie grammatical ellipses (see Merchant 2008 for an overview of some of these). Current thinking about elliptical repair effects (Lasnik 2001; Merchant 2008a) ties them to properties of the syntax–phonology interface, capitalizing on the fact that ellipsis involves PF-deletion. In a nutshell, the PF-theory of elliptical repair takes island violations to be due to properties of pronounced structures. The defective elements that cause a PF-crash are PF-uninterpretable features of intermediate copies (or traces) of moving phrases above a given island node. When something moves out of an island, it leaves behind PF-uninterpretable copies along its movement path. The presence of such uninterpretable copies would cause a crash at PF, unless ellipsis applies to the PF-object that contains these defective copies. When PF-deletion eliminates material that is deviant for the PF-interface, ellipsis repair shows up, and a structure that would otherwise result in a PF-crash results in a PF-interpretable object.

We propose that it is ellipsis repair of this sort what applies in (74) and (76). To see what kind of repair we are dealing with, let us begin by observing that the two languages that show deviant behaviour, namely Hungarian and Romanian, are different from those languages that show parallel behaviour (Serbo-Croatian, Polish, Bulgarian, and Russian), in that focus fronting requires adjacency between the fronted focus item and the verbal predicate:

Hungarian

- (77) *Azt hiszem, hogy PÉTERT Mari hívta meg / meghívta}.
 it-ACC think-1SG that P-ACC Mari invited PV / PV.invited
 INTENDED: 'I think that Mari invited Péter'

Polish

- (78) *Myszę, że PIOTRA Maria zaprosiła.*
 think-1SG that Piotr-ACC Maria invited
 'I think that Maria invited Piotr'

In other words, there seems to be a correlation between the absence of multiple focus fronting and the adjacency requirement between a fronted focus and a verb. It is illustrated in the table in (79).

(79)	multiple focus		obligatory focus-verb adjacency
	fronting	sluicing	
Hungarian	*	✓	yes
Romanian	*	✓	yes
Serbo-Croatian	✓	✓	no
Polish	✓	✓	no
Bulgarian	✓	✓	no
Russian	✓	✓	no

The reason why multiple focus is not allowed in languages with a focus-verb adjacency restriction is because more than one focus constituent cannot satisfy the adjacency requirement of being next to a verb. In cases of multiple focus fronting, the rightmost focus intervenes between the verb and the leftward focus, forcing the latter to violate adjacency.

Taking the correlation in (79) seriously in the explanation of ellipsis repair, we would like to propose that the focus-verb adjacency observed in Hungarian and Romanian is a phonological requirement: nothing is allowed to intervene between a fronted focus and the finite verb at PF. Although multiple focus movement does take place in narrow syntax in Hungarian and Romanian (just as in the other languages in the table in (79)), these languages cannot spell-out the result of multiple focus movements at PF.¹⁹ The phonological restriction on adjacency with the verb forces one of the movement chains to be spelled out at the foot, that is, the PF-adjacency motivates the pronunciation of the lower copy (similarly to mechanisms proposed in, for example, Stjepanović 1999; Bošković 2002; Bošković and Nunes 2007).²⁰

¹⁹ We restrict our claim about the PF-adjacency restriction to the languages discussed in this section, Hungarian and Romanian. We do not make the stronger claim that all types of verbal adjacency should receive a similar analysis, in other constructions and in other languages as well. We believe that it is possible that other types of adjacency facts should receive a syntactic and not a phonological account. See the ongoing debates about the phonological or syntactic analysis of V2 or head movement in general (Chomsky 1995b; Zwart 2001).

²⁰ Since it is not particularly relevant for us, we leave the implementation of this PF-requirement for future research. One implementation proposed for the type of adjacency phenomena that we are discussing here views the focus feature on lexical focus to be a verbal PF-affix which needs to be adjacent

The ungrammaticality of (73), repeated here as (80), follows from the fact that both foci cannot be spelled out in the preverbal FocP at PF (cf. (81)). What happens, then, is that at PF, the higher copy of the second focus gets deleted and the focus shows up in the postverbal position, at the foot of the chain (cf. (82)). This yields the grammatical multiple focus construction in (83) with one preverbal and one postverbal focus.

- (80) *EGY KÖNYVET MARINAK adott János.
 a book-ACC Mari-DAT gave János
 INTENDED: 'János gave a book to Mari'

- (81) [_{FocP} EGY KÖNYVET [_{FocP} MARINAK [_{TP} adott János EGY KÖNYVET MARINAK]]]
-

- (82) [_{FocP} EGY KÖNYVET [_{FocP} ~~MARINAK~~ [_{TP} adott János EGY KÖNYVET MARINAK]]]

- (83) EGY KÖNYVET adott János MARINAK.
 a book-ACC gave János Mari-DAT
 'János gave a book to Mari'

The effect of ellipsis on the pronunciation of higher copies becomes immediately clear if we consider the common view that ellipsis is a PF-phenomenon (see for example Lasnik 1999a; Merchant 2001, and articles in this volume). Due to this, when sluicing applies to a multiple focus fronting construction, ellipsis elides the finite verb, and the phonological restriction on adjacency is trivially satisfied for both focus items. As a result, the narrow syntactic movements can be spelled out in the left periphery, and the left peripheral part of the structure in (81) can itself surface in a scenario in which sluicing applies at the PF interface. In this case, the TP-complement of FocP gets elided, taking with it the verb and all lower copies of the focus constituents. As a consequence, the adjacency requirement between the fronted foci and the finite verb is trivially met, and both focus constituents are spelled out in the preverbal focus position resulting in a sentence like (74), partially repeated here as (85).

- (84) [_{FocP} EGY KÖNYVET [_{FocP} MARINAK [_{TP} ~~adott János egy könyvet marinak~~]]]

- (85) (... és azt hiszem hogy) EGY KÖNYVET MARINAK.
 and it-ACC think-1SG that a book Mari-DAT
 '... and I think that he gave a book to Mari.'

to its verbal host (Bošković 2001; Reglero 2003). As it is, such an implementation in terms of a PF-affix cannot explain our dataset: while it can account for the focus-verb adjacency with one focus, it does not take care of the PF-affix on the second focus item. Since this affix remains stranded when the focus appears in a postverbal position as well, we do not predict the availability of postverbal focus. To allow this possibility, we need to locate the adjacency requirement as a property of the verb. If it is the verb that contains a PF-affix that needs to be adjacent to a focus item, we can rule out movements of multiple focus and allow for the possibility that secondary focus stays in situ.

If our proposal is correct, and the observed pattern is due to a PF-elliptical repair effect, we can successfully account for the availability of multiple focus sluicing in languages where multiple focus fronting is not allowed in non-elliptical contexts.

Our analysis of multiple focus fronting as presented above receives some independent empirical support from Hungarian. As has been observed by others, secondary focus of the type occurring in our examples represents the same type of A-bar movement as primary *wh*- or focus-movement (É. Kiss 1998a; Surányi 2003). As such, it results in equal scope taking strategies for both primary and secondary focus, and predicts parallel behaviour when it comes to availability in island configurations, in that both primary and secondary focus is ruled out in strong islands (see Surányi 2003 for specific data).

Another piece of empirical support comes from the possible readings associated with secondary focus material in sluicing contexts. Recall that our account capitalizes on the assumption that multiple focus sluicing involves movement of both focal items into the preverbal focus position (cf. (81)). A restriction we have not mentioned up to this point is that the two focus phrases in multiple focus sluicing in Hungarian necessarily represent a so-called *complex focus construction* (Krifka 1991), that is a case of multiple focus in which the two focus constituents make up a pair of items that are related to a single semantic focus operator. This kind of multiple focus can be distinguished from ‘true’ *multiple focus* constructions, in which the two foci appear unrelated in the semantic representation. The latter type can be found in examples like the non-elliptical sentence in (86), where the presence of an *only*-operator accompanying each focus phrase indicates the true multiple focus reading.

- (86) Csak az elsősök vizsgáznak csak egy tárgyból.
 only the first.year.students take.exam only one subject-from
 ‘Only the first year students take an exam in only one subject’

Interestingly, such true multiple focus constructions are unavailable in multiple focus sluicing.

- (87) Nem emlékszem pontosan, melyik évfolyam hány
 not remember-1SG exactly which students how.many
 tárgyból vizsgázik.
 subject-from take.exam
 *De úgy emlékszem, hogycsak az elsősök csak egy tárgyból.
 but so remember-1SG that only the first.year.students only one subject-from
 ‘I don’t recall exactly which students take an exam in how many subjects.
 But I do remember that only the first year students take an exam in only one subject’

Now, the lack of true multiple focus constructions in sluicing can be explained by the multiple fronting process proposed in (81) in which both foci end up in the preverbal FocP. As Surányi (2003) has argued, the crucial difference between complex focus and true multiple focus is that only complex focus constructions involve movement of both foci to the preverbal FocP. True multiple focus exhibits postverbal scope for the second focus expression, ruling out a representation in which both focus items are fronted.²¹ These data thus provide support for our proposal that accounts for the availability of multiple focus sluicing in Hungarian as an effect of an elliptical repair mechanism.

25.9 Conclusions

This article has proposed a new, cross-linguistically refined theory of sluicing and has examined the predictive force of this new theory in various domains of *wh*- and focus syntax. We have started out by showing that the restriction of sluicing to *wh*-questions is not a reliable test for diagnosing sluicing cross-linguistically. Instead, we have put a new generalization in place, which informally states that the types of sluicing in any given language tracks the overt syntax of *wh*-movement in that language. This allows for any kind of sluicing remnant that undergoes checking of features identical to the *wh*-phrase in overt syntax. Prime examples of such constituents are focus phrases in languages like Hungarian.

This new generalization was put to work in the second part of the article, where we have shown that the availability of focus sluicing can provide new evidence for or against syntactic accounts positing that *wh*-movement and focusing target the same left peripheral position. In a case study of Italian and Venetian, we have argued that the lack of focus sluicing argues against positing identical placement for *wh*- and focus items in those languages. In another case study of Bulgarian, we have concentrated on the analysis of multiple *wh*-movement and have shown that one dialect of Bulgarian employs multiple *wh*-feature checking, while another does not. In the last section, we have used the diagnostics of non-elliptical structures to identify properties of elliptical ones and have shown that discrepancies between non-elliptical and elliptical syntax are due to the fact that ellipsis can repair certain PF-deficient configurations. In this domain, we have identified a new type of elliptical repair effect, one that allows for elliptical constructions that violate PF-adjacency restrictions in non-elliptical contexts.

²¹ Note that the details of Surányi's account of complex focus are slightly different from ours. For him, the secondary focus moves to FocP at LF, rather than in overt syntax. This difference, however, does not affect the point made here: what is relevant is that in both approaches, the secondary focus is only allowed to reach the preverbal FocP in complex focus constructions.

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