

ELLIPTICAL COMPARATIVES REVISITED

GERGELY KÁNTOR

JULIA BACSKAI-ATKARI

Research Institute for Linguistics, Hungarian Academy of Sciences

1 Introduction

Our paper focuses on a new elliptical phenomenon in comparatives – Comparative Verb Gapping (CVG) – that has not been attested earlier in the literature. We will examine its relation to Comparative Deletion (CD), as described by a number of previous studies, both in Indo-European languages and then in Hungarian. Besides providing a formal description of how CD and CVG are related, the paper will also provide a theoretical approach to CVG, reducing it to more general ellipsis processes.

1.1 The Structure of Comparative Subclauses

For the general structure of comparatives, let us consider the following example:

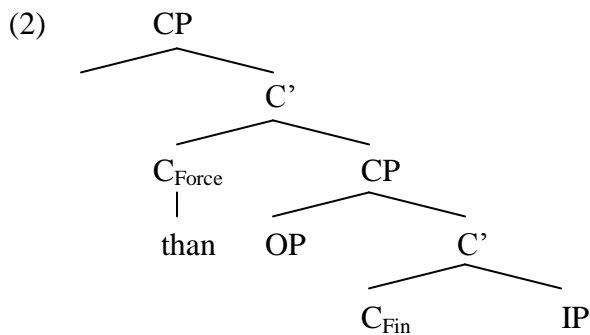
- (1) Mary is more intelligent [_{than-CP} than Peter is [_{QP} *x-much intelligent*]].

The structure of comparatives consists of two major parts: in the matrix clause (*Mary is more intelligent*), the reference value of comparison is expressed in the form of a degree expression, within which the comparative subclause itself (*than Peter is x-much intelligent*) expresses the standard value.

Within the subclause, the QP (representing the functionally extended degree expression) contains the comparative operator (here: *x-much*). Comparative operators behave quite similarly to ordinary relative operators, but they appear in comparative subclauses and may exhibit certain characteristics that are not shared by all relative operators, as will be shown in section 2.1. This operator is generally taken to be null in English, see Kennedy–Merchant (1997: 5); we will indicate it as *x-much* (or *x-many*) throughout the paper, using the conventions of the relevant

literature; still, it has to be stressed that since this is a null operator, *x-much* does not refer to any phonological content to be deleted.

Let us now turn to the structure of the subclause. We adopt the following assumptions: (i) the comparative subclause is a CP, which is introduced by the complementiser *than* (cf. Kenesei 1992a) representing comparative Force (see Rizzi 1999); (ii) this subcategorises for another CP, to the specifier of which the comparative operator moves via operator movement (Chomsky 1977; Kennedy–Merchant 2000). The structure is schematically represented below:



Our representation follows Rizzi's analysis of the Left Periphery, who claims that there are two CP projections, the upper one being responsible for Force and the lower for Finiteness, and in between the two optional Topic and Focus phrases can be found, if any (Rizzi 1997: 297):

(3) [CP [TopP* [FocP [TopP* [CP]]]]]

In English, the comparative operator is normally covert; however, there are some dialectal differences – (4) is grammatical in New England English:

(4) John is taller than what Mary is. (Chomsky 1977: 87, ex. 51a)

This shows explicitly that there is an operator in the subclause. The comparative operator is base-generated in [Spec; QP] in the comparative subclause (Kántor 2008c) and moves up to the [Spec; CP] position, as shown in (5). Even when there is no overt operator, however, there are further reasons to believe that there is operator movement here as comparatives obey islands. The examples below show that they obey *wh*-islands:

- (5) a. *John killed more dragons than OP_x Mary wondered **whether** to kiss [t_x ~~dragons~~]
 b. John killed more dragons than OP_x Mary wanted to kiss [t_x ~~dragons~~]

Likewise, the operator cannot be extracted out of a complex NP island:

- (6) a. *John killed more dragons than OP_x he had outlined **a plan** to kill [t_x ~~dragons~~]
 b. John killed more dragons than OP_x he planned to kill [t_x ~~dragons~~]

Having established all this, let us briefly look at the classification of comparatives, before turning to deletion phenomena. There are two basic types of comparatives: predicative

comparatives, as in (7a), where the QP is in a predicate position, and attribute comparatives, as in (7b), where the QP is a modifier within a DP:

- (7) a. The tiger is faster than the cat. *predicative comparative*
 b. I have bigger tigers than Peter has. *attributive comparative*

Both of these types have their subcomparative counterparts, which means that in the case of predicative comparatives, the adjective (within QP) in the subclause is different from the one in the matrix clause, and in the case of attributive comparatives, the noun modified by the QP is different in the two clauses. This is shown below:

- (8) a. The desk is longer than the rug is wide. *predicative subcomparative*
 b. Pico wrote a more interesting novel than he did a play. *attributive subcomparative*
 Kennedy and Merchant (2000:131, ex. 77)

1.2 Parametric Variation in Modern Indo-European Comparative Subclauses

There are two deletion operations to be discussed here that can be associated with comparative subclauses: Comparative Deletion (CD) and Comparative Verb Gapping (CVG). The first has been well-known from the 1970s in the literature,¹ whereas CVG is a phenomenon that, to our knowledge, has not been described so far. It must be mentioned that there may be other, optional processes that apply in comparatives (e.g. VP-deletion) but these are not our concern here.

Tentatively, we suggest that the applications of these deletion processes define the parametric setting, according to which languages can be [\pm CD] and [\pm CVG], [+] meaning that the operation is obligatory in the given language. Note that these terms are merely descriptive parameters (in this respect similar to SVO, SOV etc.): they describe only what can be seen in the surface structure but do not refer to the syntactic causes why these should be so.

Let us begin with Comparative Deletion (CD). This deletes the QP in predicative comparatives and the DP (containing the QP) in attributive comparatives, if it is identical to its antecedent in the matrix clause (cf. Kennedy–Merchant 2000). This is illustrated below:

- (9) a. Mary is taller than Peter is _____{CD}. (_{CD} = x-much tall)
 b. Susan has bigger cats than Peter has _____{CD}. (_{CD} = x-much big cats)

English has a [+CD] parameter: CD is obligatory, and if it does not apply, the result is ungrammatical:

- (10) a. *Mary is taller than Peter is tall.
 b. *Susan has bigger cats than Peter has big cats.

By contrast, Bulgarian is a [–CD] language:

¹ See, eg., Bresnan 1973, 1975; Lechner 1999, 2004; Kennedy and Merchant 2000; Kennedy 2002; Büring 2007.

- (11) a. Мери по-висока беше от **колкото висок** Питър беше.
 Mary taller was than **x-much tall** Peter was
 ‘Mary was taller than Peter.’
- b. Жужа по-голяма котка видя, от **колкото голяма котка** Питър къпеше.
 Susan bigger cat saw than **x-much big cat** Peter bathed
 ‘Susan has a saw a bigger cat than Peter bathed.’

As can be seen, the elements *колкото висок* ‘x-much tall’ and *колкото голяма котка* ‘x-much big cat’ can remain overtly and the sentences are still grammatical, unlike in English.

Let us now discuss a peculiar phenomenon referred to as Comparative Verb Gapping (CVG) here. CVG means that if the operator is deleted, the finite verb must also be deleted.

To illustrate our point, consider the following data from Bulgarian, which is a [+CVG] language. The examples in (12)–(14) show the phenomenon in predicative comparatives:

- (12) Мери по-висока беше от **колкото висок** Питър **беше**.
 Mary taller was than **x-much tall** Peter **was**
- (13) *Мери по-висока беше от Питър **беше**.
 Mary taller was than Peter **was**
 ‘Mary was taller than Peter was.’
- (14) Мери по-висока беше от Питър.
 Mary taller was than Peter
 ‘Mary was taller than Peter.’

In (12), the comparative subclause contains *колкото висок* ‘x-much tall’ and the finite verb *беше* ‘was’; the sentence is, as expected, grammatical. However, if the operator is deleted but everything else remains, as in (13), the result is ungrammatical. If the finite verb is also elided, as in (14), the sentence is again grammatical.

The same phenomenon can be observed in attributive comparatives:

- (15) Жужа по-голяма котка видя, от **колкото голяма котка** Питър къпеше.
 Susan bigger cat saw than **x-much big cat** Peter **bathed**
- (16) *Жужа по-голяма котка видя, от Питър къпеше.
 Susan bigger cat saw than Peter **bathed**
 ‘Susan saw a bigger cat than Peter bathed.’
- (17) Жужа по-голяма котка видя, от Питър.
 Susan bigger cat saw than Peter
 ‘Susan saw a bigger cat than Peter.’

In (15), the comparative subclause contains *колкото голяма котка* ‘x-much big cat’ and the finite verb *къпеше* ‘bathed’; the sentence grammatical. If only the operator is deleted, as in (16), the result is ungrammatical. The finite verb must also be elided form a grammatical sentence, as in (17), with natural changes in the meaning, of course.

At the first sight this seems to be a comparative-specific issue but the phenomenon can actually be observed in other relative clauses as well. Consider:

- (18) Същата книга чета, като **която** Питър **чете.**
 that.same book read as **what** Peter **reads**
- (19) *Същата книга чета, като Питър **чете.**
 that.same book read as Peter **reads**
- (20) Същата книга чета, като Питър.
 that.same book read as Peter
 ‘I read the same book that Peter read.’

It is a property of Bulgarian that it can include като ‘as’ in other relatives in addition to the relative operator, in this case която ‘what’. The interdependency between която and the verb чете ‘read’ can be observed: if която is deleted, чете has to be deleted as well.

CVG is not a universal phenomenon: English for instance clearly has a [–CVG] parameter, as demonstrated by the examples in (21), where the finite verb is present but there is no overt operator:²

- (21) a. Mary is taller than Peter is.
 b. Susan saw a bigger cat than Peter bathed.

In English, as has been seen in (5) and (6), there is operator movement, even if the operator is covert (cf. Chomsky 1977). That is, English comparative subclauses containing overt verbs without overt comparative operators are grammatical.

It can be concluded that both CD and CVG are present in languages on a +/- basis. Before turning to the question of how Hungarian behaves in this respect, let us first overview the universal constraints on ellipsis.

1.3 Deletion, New, Given

Ellipsis must be constrained, so that the information structure remains intact and the elided constituents can be recovered; i.e., elided elements must be *given* (or at least be inferred anew) in the context. Thus, a constraint separating *new information* and *not new information* is necessary.

Taglicht (1982: 222) asserted that novelty in the sentence is associated with prominence. Such prominence involves F-marking (cf. Selkirk 1996). I.e., utterances containing new information are always F-marked and are also intonationally prominent. Naturally, F-marked elements cannot be deleted. Note that certain given constituents can also bear prominence (e.g., focussed elements) – these are F-marked and cannot be deleted either.

² Pseudo-gapping can save certain subcomparative constructions in English (Kennedy & Merchant 2000):


- (i) *Pico wrote a more interesting novel than Brio wrote a play.
 (ii) Pico wrote a more interesting novel than he did a play.
 (Kennedy & Merchant 2000, ex. 7a and 77)

However, this is only slightly reminiscent of CVG as described in connection with the Bulgarian examples above, since this involves a remnant DP and the dummy auxiliary must also remain overt. What is more, the comparative operator is generally covert in Standard English, thus its presence or absence cannot influence the well-formedness of either (i) or (ii) above.

Schwarzschild (1999) suggested that a constituent or a sequence of constituents may be regarded as given in the clause if and only if it is entailed by prior discourse:

- (22) “[a]n utterance U counts as given iff it has a salient antecedent A and, modulo \exists -type shifting, A entails the \exists -F-closure of U [+GIVEN]” (**GIVENNESS**)
(Schwarzschild 1999, example 25).

In other words, if there is an utterance in the discourse, it is regarded to be given if and only if there is an antecedent in the discourse, which is naturally present earlier than the utterance, and this antecedent must include the information represented by a not F-marked set of subconstituents of the utterance. However, this working definition proved to be inadequate in the case of deletion constructions. Let’s consider the following examples:

- (23) John kissed Mary and Peter_F ~~kissed~~ Susan_F. \exists -type
(kiss(j,m)) ENTAILS $\exists x \exists y (\text{kiss}(x,y))$  *shifting*

Peter and Susan encode new information in the second clause: they are F-marked. Still, the verb *kiss* has appeared in the preceding discourse, thus its second use counts as given. This is indeed justified by the fact that the first clause does entail the \exists -F-closure of the second one.

However, in the light of Merchant (2001), there should also be mutual satisfaction of the givenness requirement between the antecedent and the utterance:

- (24) *John punched Bill and Carl_F hurt Fred_F.
(punch(j,m)) ENTAILS $\exists x \exists y (\text{hurt}(x,y))$
 $\exists x \exists y (\text{punch}(x,y))$ IS NOT ENTAILED BY (hurt(c,f))

As can be seen, it is not enough for the antecedent clause to entail the \exists -F-closure of the utterance; the utterance should also entail the \exists -F-closure of the antecedent (ibid.). The working definition of givenness in its modified version can be seen below:

- (25) **GIVENNESS in ellipsis domains (e-GIVEN)**: An utterance U counts as e-GIVEN iff it has a salient antecedent A and, modulo \exists -type shifting, A entails the \exists -F-closure of U, and U entails the \exists -F-closure of A.
(on the basis of Merchant 2001)

In this paper, we will rely on Merchant’s condition on ellipsis, which can be summarised as follows: a constituent α can be deleted iff α is e-given (Merchant 2001: 38). This will be important, when it has to be determined what is and what is not an appropriate antecedent.³

2 Comparative Verb Gapping in Hungarian

In this section we will show that Hungarian is a language with a [–CD] and [+CVG] setting.

First of all, let us have a look at the summary of Hungarian clause structure:

³ Based on Schwarzschild (1999) and Merchant (2001), as well as on (19) and (22), it is obvious that the utterance to be deleted and its antecedent must be of the same semantic type (see also Schwabe 2003: 305ff.).

(26) [C_{Force}P [TopP* [C_{Fin}P [TopP* [DistP* [FocP [PredP [VP ...]]]]]]]]]

On the basis of É. Kiss (2002, 2006), the core constituent of Hungarian predicates is a VP, in which the arguments of the verb are base-generated; on the top of VP a PredP (Predicate Phrase) can be found, the specifier of which hosts verb modifiers; on the top of the PredP, there is a Focus Phrase (FocP), into the specifier of which a constituent exhaustively identified can be moved, while the verb can be moved into Foc^o (see also Brody 1990a, 1990b, 1995); above FocP, there may be iterable Distributive Phrases, the specifier of which can host distributive quantifiers, such as universal quantifiers, quantified phrases involving *sok* ‘many’, or *is* ‘also’ phrases; topicalized constituents move to the specifiers of iterable Topic Phrases (TopP) above DistPs; the topmost maximal projection is a CP.

As for the split Left Periphery of Hungarian CPs, consider the following examples (see also Kántor 2008a, 2008b):

- (27) a. [DP [CP Elemért [CP aki látja]]], szóljon neki.
 Elmer-ACC who sees notify-IMP-3RD/SING him-DAT
 ‘Whoever sees Elmer, please notify him.’
- b. Jelentkezzen [DP [CP Edével [CP aki beszélt]]]
 Come.forward-3RD/SING-IMP Ede-INS who talked
 ‘Whoever talked to Ede, please come forward.’
 Kenesei (1992b: 588)

As can be seen, the relative operator *aki* ‘who’ in the examples can be preceded by another phrase, namely *Elemért* in (27a) and *Edével* in (27b). This is only possible if there is another layer (a TopP) generated above the CP containing the operator in its specifier position – in that case, the split CP analysis of Rizzi should be adopted (see section 2.1; for further discussion, see Kántor 2008c, 2008d).⁴

2.1 Deletion in Hungarian Comparative Subclauses – The Data

Let us consider the following examples in terms of Comparative Deletion (CD) and Comparative Verb Gapping (CVG) in Hungarian. As will be shown, Hungarian is – just like Bulgarian – a language with [–CD] and [+CVG] setting: this means that it is not obligatory to delete the QP in the subclause if it is identical to its antecedent in the main clause [–CD], but the verb must be deleted along with the comparative, if the latter has been elided [+CVG]. Consider:

- (28) a. Péter sokkal kövérebb, mint Jancsi.
 Peter much fatter than Johnny
 ‘Peter is much fatter than Johnny.’

⁴ In Late Old Hungarian (cca. 1370-1526), it was also possible to have both Complementiser positions filled by complementisers simultaneously, in the same clause. For further discussion, see Bacskai-Atkari (2011, 2012a, 2012b).

- b. Péter sokkal kövérebb, mint amilyen kövér Jancsi valaha is lesz.
 Peter much fatter than OP fat Johnny ever will.be
 ‘Peter is much fatter than Johnny will ever be.’

- (29) a. Péter sokkal gyorsabb autót vett, mint Jancsi.
 Péter much faster car-ACC bought than Johnny
 ‘Peter bought a much faster car than Johnny.’

- b. Péter sokkal gyorsabb autót vett, mint amilyen gyors autót Jancsi vásárolt.
 Peter much faster car-ACC bought than OP fast car-ACC Johnny purchased
 ‘Peter bought a much faster car than the one that Johnny purchased.’

(28a) and (29a) would be the most naturally used versions for native speakers; however, as demonstrated by (28b) and (29b), the full clauses can be recovered both for predicative and for attributive comparatives, the structures containing also the operator (i.e. *amilyen kövér* and *amilyen gyors autót*). This shows that Hungarian must be a language with [–CD] setting.

When it comes to CVG, the following pattern can be observed in predicative comparatives:

- (30) a. Péter sokkal kövérebb volt, mint Jancsi.
 Peter much fatter was than Johnny
 ‘Johnny was much fatter than Johnny.’

- b. Péter sokkal kövérebb volt, mint amilyen kövér Jancsi volt.
 Péter much fatter was than OP fat Johnny was
 ‘Peter was much fatter than Johnny was.’

- c. *Péter sokkal kövérebb volt, mint Jancsi volt.
 Péter much fatter was than Johnny was
 ‘Peter was much fatter than Johnny was.’

The full subclause is shown in (30b), which is perfectly grammatical, containing both the operator *amilyen* and the finite verb *volt*. However, if the operator is deleted but the verb is not, as in (30c), the result is ungrammatical. The construction can be saved by deleting the verb too, as in (30a). The same can be observed in attributive comparatives:

- (31) a. Péter sokkal gyorsabb autót vett, mint Jancsi.
 Peter much faster car-ACC bought than Johnny
 ‘Peter bought a much faster car than Johnny.’

- b. Péter sokkal gyorsabb autót vett, mint amilyen gyors autót Jancsi vett.
 Peter much faster car-ACC bought than OP fast car-ACC Johnny bought
 ‘Peter bought a much faster car than Johnny.’

- c. *Péter sokkal gyorsabb autót vett, mint Jancsi vett.
 Peter much faster car-ACC bought than Johnny bought
 ‘Peter bought a much faster car than Johnny.’

Hungarian seems to behave exactly in the same way as Bulgarian, and thus it is clearly a [+CVG] language. It must be mentioned, though, that the requirement that the finite verb should be deleted if the operator has been deleted is also dependent on whether the verb contains NEW or GIVEN information. Because of this, the following examples seem to be exceptions from the perspective of the general CVG requirement:

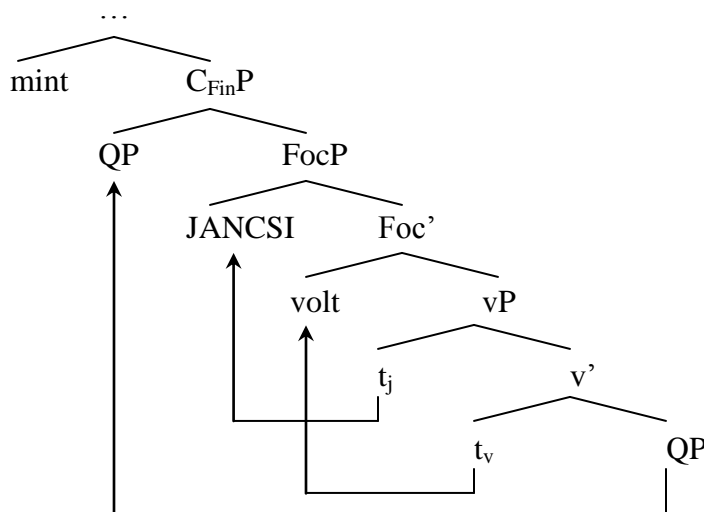
- (32) a. Péter sokkal kövérebb, mint (amilyen/amilyen kövér) Jancsi (valaha.is) **lesz**.
 Peter much fatter than OP OP fat Johnny ever will.be
 ‘Peter is much fatter than Johnny will ever be.’
- b. Péter kövérebb, mint [?](amilyen) Jancsi **lenne**, ha élne.
 Peter fatter than OP Johnny be-3RD/SING-COND if live-3RD/SING-COND
 ‘Peter is fatter than Johnny would be, if he were alive.’
- c. Kövérebb vagyok, mint **voltam**.
 fatter am than I.was
 ‘I am fatter than I was.’
- d. [?]Több almát vettem, mint Péter **hámozott**.
 More apple-ACC I.bought than Peter peeled
 ‘The number of pears I bought is higher than that of those that Peter peeled.’
- e. Nagyobb macskát láttam, mint [?](amekkora macskát) **etetett Péter**.
 Bigger cat-ACC I.saw than OP cat-ACC fed Peter
 ‘I saw a bigger than the one that Peter fed.’

In all the above cases, the finite verb can remain in the subclause, despite the fact that there is no operator. However, the deletion of the verb in these cases would violate the requirement that only GIVEN elements can be deleted, hence the difference from the examples in (30) and (31). In sum, it still can be maintained that Hungarian has [+CVG].

2.2 A Solution to Comparative Verb Gapping

In fact, there are some problems that emerge in connection with CVG-effects. First, it is true that comparative operators are optionally present in the subclause. However, if they are absent, the deletion of the verb is obligatory, assuming that it counts as GIVEN (e-GIVEN). Our explanation of CVG effects will partly be based on the characteristics of Hungarian focussing (cf. É. Kiss 2002: 85ff). First, let us examine the diagram below, which shows the structure of (30b):

(33) Péter sokkal kövérebb volt, [mint [QP amilyen kövér] Jancsi volt].



The reason for *Jancsi* to be located in [Spec; FocP] is that it is focussed: it bears main sentence stress and it expresses exhaustive identification (cf. É. Kiss 2002). This is in line with the fact that comparatives also tend to inherently encode contrast – this is formalised below:

- (34) a. Max is taller than Felix is.
 b. $\exists d[\neg(d(\text{tall}(\text{felix}))) \ \& \ (d(\text{tall}(\text{max})))]$
 cf. Klein (1980) and Larson (1988)

Whenever there is focussing in Hungarian, the focussed element is followed by a reverse Verb–Verb Modifier order;⁵ this is what happens in comparatives, too:

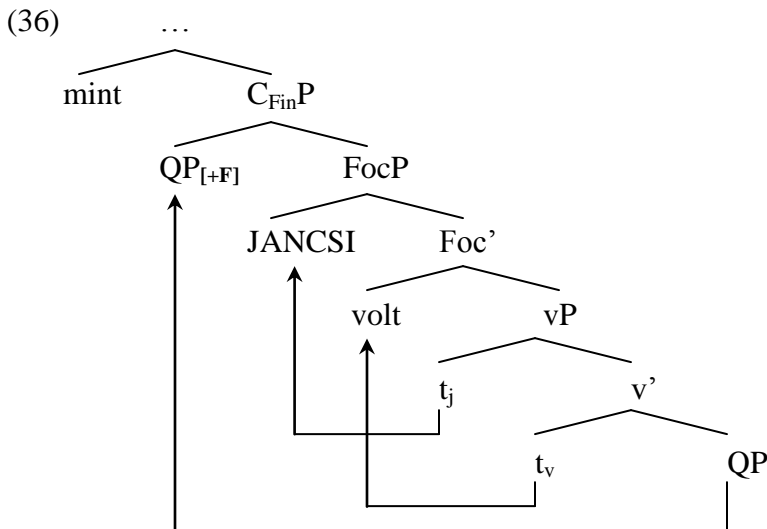
- (35) Aztán megpillantottam egy sokkal nagyobb macskát,
 then VM.noticed-1ST/SING a much bigger cat-ACC
 mint amilyet PÉTER pillantott meg.
 than OP Peter noticed VM
 ‘Then I noticed a much bigger cat than Peter did.’

The order must be that of verb (*pillantott*) and VM (*meg*), otherwise the construction would be ungrammatical.

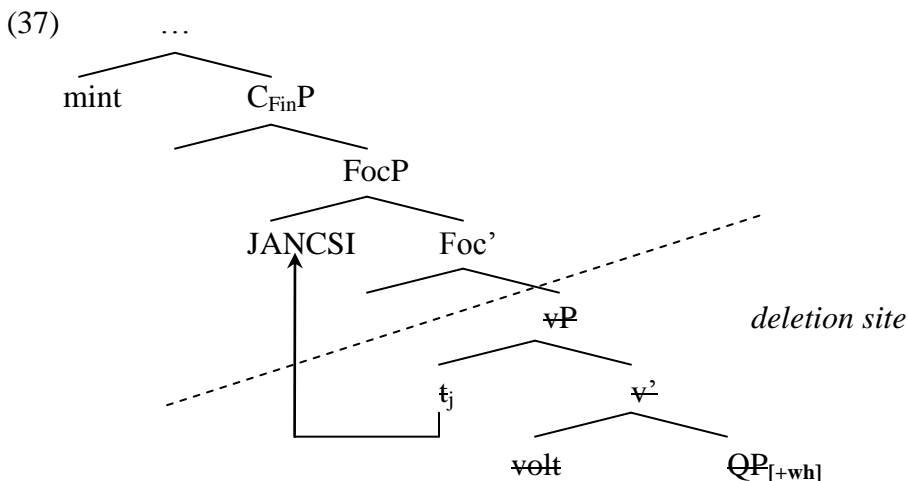
Returning now to the problem in connection with (33), which does not involve CVG, it can be seen that the operator has to move up to the [Spec; CP] position to have its strong [+wh] feature checked. This is shown below:

⁵ As É. Kiss (2002: 55) points out, “[v]erbs very often have a particle-like adverbial complement [...], which is not only categorially selected, but is also lexically identified.” These elements are here referred to as Verb Modifiers.

⁶ It is widely known that in Hungarian examples that involve focussing, the focussed element – *Jancsi* in Figure 3 – and the verb must strictly be adjacent (cf. É. Kiss 2002: 83ff.). Certainly, focus–verb adjacency does not imply that the verb is focussed. Still, instead of the neutral Verb Modifier–Verb order, the verb must precede the Verb Modifier so that it could immediately follow the focussed element. In this paper, as has been mentioned, we adopt É. Kiss’ (2002: 85) approach, inasmuch as AspPs and FocPs are alternative to each other, and since Verb Modifiers could move to specAspP, the absence of such a projection renders it to remain *in situ*, in the VP. Thus, head-initial projections ensure the focus–verb adjacency.



Now let us turn to another version of this construction, which involves CVG. If the operator for some reason fails to move up, feature checking cannot happen, which causes PF-uninterpretability as the comparative operator’s feature is PF-uninterpretable. PF solves this via deletion, which is known to effectively eliminate the otherwise fatal strong [+wh] feature inside the VP (Kennedy & Merchant 2000: 131). This is illustrated in (37):



On the basis of Craenenbroeck & Lipták (2006), the deletion operation in (37) is sluicing.⁷ In Hungarian, sluicing always targets the constituent selected by Foc^0 (*ibid.*); Foc^0 is here equipped with the feature responsible for deletion ([E], following Merchant 2001). This feature [E] makes sure that everything will be deleted under Foc^0 , including the finite verb *volt*. As can be seen, the uninterpretable [+wh] feature of the comparative operator (QP) is located in the vP, thus it has been elided along with the finite verb in (37). On the other hand, if the finite verb is visible, as in (30c) and (31c), this indicates that sluicing has not taken place and the uninterpretable feature

⁷ As CVG is traced back to sluicing, sluiced Hungarian comparatives are expected to pattern along with other, standard examples of sluicing inasmuch as they are not sensitive to islands. This is indeed the case; for the discussion, see Kántor (2010: 121–132, especially ex. 75).

has not been elided. The ellipsis domain of sluicing is thus not the verb itself as such, since sluicing in these cases saves the structure from being ungrammatical by also deleting the operator with its uninterpretable feature *in situ*.⁸

In other words, the absence of the overt comparative operator and the AP is indicative of the fact that these have been elided by sluicing along with the verb; certainly, for sluicing to effectively eliminate the operator with the unchecked strong feature *in situ*, the operator must fail to move to the left periphery prior to deletion.

Without this explanation based on sluicing, the data may have created the illusion that the absence of the comparative operator and the AP triggered the deletion of the verb. If it had been purported that Hungarian had a separate operation equivalent to CD in English, the data could also be described in a way that CD typologically correlates with main verb gapping. Nevertheless, as has been explained, this is not the case, since sluicing elides everything under *Foc*⁰ in Hungarian (see the deletion site in (37) above), which includes both the verb and the operator *in situ*, thus the deletion of these two elements occurs at the same time, by the same ellipsis mechanism.

Furthermore, the question is whether there is a reverse side of this illusory relation, whether the absence of the verb results in the deletion of the degree expression involving the comparative operator. This is clearly not the case, because sluicing may also occur after the operator movement has taken the degree expression involving the operator to the left periphery of the comparative subclause. Consider:

- (38) Péter sokkal gyorsabb autót vett, mint amilyet Jancsi.
 Peter much faster car-ACC bought than OP-ACC Johnny
 ‘Peter bought a much faster car than Johnny’.

As can be seen, the comparative operator is clearly visible while the verb is elided. In fact, verb ellipsis in Hungarian exhibits the same behaviour outside gradable constructions as well, as can be seen below:

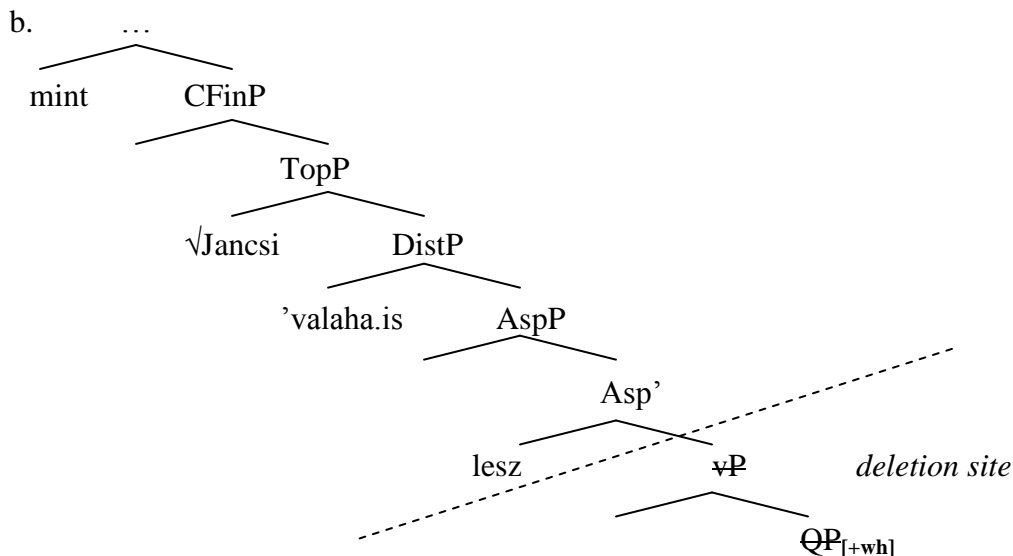
- (39) a. Ugyanazt a könyvet olvasom, mint amit Péter olvas
 that.same-ACC the book-ACC I.read as what-ACC Peter reads
 ‘I read the same book that Peter read’.
 b. Ugyanazt a könyvet olvasom, mint amit Péter.
 that.same-ACC the book-ACC I.read as what-ACC Peter
 ‘I read the same book that Peter read’.
 c. *Ugyanazt a könyvet olvasom, mint Péter olvas.
 that.same-ACC the book-ACC I.read as Peter reads
 ‘I read the same book that Peter read’.
 d. Ugyanazt a könyvet olvasom, mint Péter.
 that.same-ACC the book-ACC I.read as Peter
 ‘I read the same book that Peter read’.

⁸ The relation between CVG and ellipsis in general can be captured in that CVG phenomena are manifested by sluicing, a kind of ellipsis. This is a way of reducing CVG to another known instance of ellipsis. I.e., there is no operation such as CVG in the grammar, and its effects are merely epiphenomenal that occur in parallel to the possible use of sluicing.

As can be seen, (39a) contains a full relative clause, whereas (39b) contains a visible relative operator but lacks an overt verb; (39c) is ungrammatical because of the overt verb while the operator is missing, but if both of them are deleted, as in (39d), the structure converges again.

The last puzzle to solve is why it is not always Foc' in Hungarian elliptical comparatives that is deleted. Let us have a look at the following diagram:

- (40) a. Péter sokkal kövérebb, [mint √Jancsi 'valaha.is lesz].
 Peter much fatter than Johnny ever will.be
 'Peter is much fatter than Johnny will ever be.'



It is clear that only given information can be deleted; however, the verb in (40a) encodes new information as well, inasmuch as its tense differs from that of its matrix counterpart. That is, the maximal given constituent possible is vP in this example, thus vP is deleted, which also includes the QP with its [+wh] feature. Assuming that this is so, one may wonder why it is not enough to delete the vP in all elliptical comparatives. The answer to this question is based on the fact that sluicing always targets the maximal given constituent possible (cf. Craenenbroeck and Lipták 2006: 254; see also Merchant 2008 for further discussion); this is also exemplified by (41):

- (41) They studied a Balkan language,
 a. but I don't know which [e].
 b. *but I don't know which they did [e].
 (Craenenbroeck and Lipták 2006, ex. 17)

In sum, the optional trigger of relative movement can explain the phenomenon of Comparative Verb Gapping, and if comparative operator movement is not triggered, the degree expression inside the comparative complement clause is deleted by sluicing.

3 Conclusion

The primary importance of our findings at present lies in the recognition of Comparative Verb Gapping phenomena, which has not been discussed so far in the literature, and in the fact that CVG can be explained in terms of sluicing. In other words, a seemingly peculiar phenomenon may be traced back to a more general deletion operation, hence providing a sound and parsimonious theoretical background to the actual description of CVG.

Our aim was to provide an economical explanation to the data we found, and since the analysis of CVG is based on sluicing, an already well-attested and explained deletion mechanism, our explanation does not provide any extra burden for the syntactic computation. The relation between CVG and ellipsis in general can be captured in that CVG phenomena are manifested by sluicing, a kind of ellipsis. This is a way of reducing CVG to another known instance of ellipsis. I.e., there is no operation such as CVG in the grammar, and its effects are merely epiphenomenal that occur in parallel to the possible use of sluicing.

The parameters in question describe the general appearance of elliptical comparative constructions. First, [\pm CD] shows whether the QP in predicative comparatives or the DP (containing the QP) in attributive comparatives must obligatorily be deleted in the comparative subclause if it is identical to its matrix counterpart; it was shown in the article that Hungarian is [$-$ CD]. Second, in [$+$ CVG] languages. if the comparative operator is missing from the comparative subclause, the finite verb must also be deleted, unless it carries new information (i.e., if it counts as *given* as described by Merchant 2001); it was shown that Hungarian conforms to this generalisation.

References

- Bacskai-Atkari, Julia. 2011. A komparatív operátor esete a mondatbevezetővel: Szintaktikai változások a magyar hasonlító mellékmondatokban In: É. Kiss, Katalin & Attila Hegedűs (eds.) *Nyelvelmélet és diakrónia*. Budapest–Piliscsaba: Szent István Társulat. 103–119.
- Bacskai-Atkari, Julia. 2012a. A magyar összetett kötőszók történetéhez. In: Parapatics, Andrea (ed.) *FÉLÚTON 7: A 7. Félúton konferencia (2011) kiadványa*. Budapest: ELTE Nyelvtudományi Doktori Iskola. 1–14.
- Bacskai-Atkari, Julia. 2012b. English Comparatives and Parameters. In: Gósy, Mária & Attila Péteri (eds.) *Tanulmányok: Nyelvtudományi Doktori Iskola*. Budapest: Eötvös Loránd University. 23–37.
- Bresnan, Joan. 1973. The Syntax of the Comparative Clause Construction in English. *Linguistic Inquiry* 4.3. 275–343.
- Bresnan, Joan. 1975. Comparative Deletion and the Constraints on Transformations. *Linguistic Analysis* 1.1. 25–74.
- Brody, Michael. 1990a. Remarks on the order of elements in the Hungarian focus field. In: Kenesei, István (ed.) *Approaches to Hungarian* 3: 95–122.
- Brody, Michael. 1990b. Some remarks on the focus field in Hungarian. *UCL Working Papers in Linguistics* 2: 201–225.
- Brody, Michael. 1995. Focus and checking theory. In: István Kenesei, (ed.) *Approaches to Hungarian* 5: 29–44.

- Büring, Daniel. 2007. Cross-Polar Nomalies. *Proceedings of SALT 17*. University of Connecticut.
- Chomsky, Noam. 1977. On WH-movement. In: Peter W. Culicover, et al. (eds.) *Formal Syntax*. New York: Academic Press.
- van Craenenbroeck, Jeroen and Anikó Lipták. 2006. The Crosslinguistic Syntax of Sluicing: Evidence from Hungarian Relatives. *Syntax* 9.3: 248–274.
- É. Kiss, Katalin. 2002. *The Syntax of Hungarian*. Cambridge University Press, Cambridge.
- É. Kiss, Katalin. 2006. Jól megoldottuk? Rosszul oldottuk meg? Az összefoglaló és a kirekesztő kifejezést tartalmazó mondatok szórendjének magyarázata. *Magyar Nyelv* 102.4: 442–459.
- Kántor, Gergely. 2008a. Edge-effektus és komparatív extrapozíció. *LINGDOK* 7. 95–121.
- Kántor, Gergely. 2008b. A Phase-based Approach to Rightward Movement in Comparatives. *Newcastle Working Paper in Linguistics* 14: 81–99.
- Kántor, Gergely. 2008c. Komparatív korrelatív szerkezetek a magyarban. *Nyelvtudományi Közlemények* 105:134-162.
- Kántor, Gergely. 2008d. On Hungarian Relative Operators. *The Even Yearbook* 8.
- Kántor, Gergely. 2010. Syntactic Processes and Interface Phenomena in Comparatives. PhD dissertation. Budapest: ELTE.
- Kenesei, István. 1992a. On Hungarian Complementizers. In István Kenesei and Csaba Pléh (eds.) *Approaches to Hungarian* 4. Szeged: JATE. 37–50.
- Kenesei, István. 1992b. Az alárendelt mondatok szerkezete. In: Ferenc Kiefer (ed.) *Strukturális magyar nyelvtan I. Mondattan*. 529-713.
- Kennedy, Christopher. 2002. Comparative Deletion and Optimality in Syntax. *Natural Language & Linguistic Theory* 20: 553–621.
- Kennedy, Christopher and Jason Merchant. 1997. Attributive Comparatives and Bound Ellipsis. Linguistics Research Center Report LRC-97-03, University of California, Santa Cruz. Retrieved 26 October 2009, from <http://home.uchicago.edu/~ck0/docs/km-lcr.pdf>.
- Kennedy, Christopher and Jason Merchant. 2000. Attributive Comparative Deletion. *Natural Language & Linguistic Theory* 18: 89–146.
- Klein, Ewan. 1980. A Semantics for Positive and Comparative Adjectives. *Linguistics and Philosophy* 4: 1–45.
- Larson, Richard K. 1988. Scope and Comparatives. *Linguistics and Philosophy* 11: 1-26.
- Lechner, Winfried. 1999. *Comparatives and DP-structure*. PhD dissertation. Amherst, MA: University of Massachusetts Amherst.
- Lechner, Winfried. 2004. *Ellipsis in Comparatives*. Berlin–New York: Mouton de Gruyter.
- Merchant, Jason. 2001. *The Syntax of Silence: Sluicing, Islands and the Theory of Ellipsis*. Oxford: Oxford University Press.
- Merchant, Jason. 2008. Variable Island Repair under Ellipsis. In: Kyle Johnson (ed.) *Topics in Ellipsis*. Cambridge, UK: Cambridge University Press. 132–153.
- Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In Liliane Haegeman (ed.) *Elements of Grammar*. Dordrecht: Kluwer. 281–337.
- Rizzi, Luigi. 1999. *On the Position “Int(errogative)” in the Left Periphery of the Clause*. Retrieved from <http://www.ciscl.unisi.it/persona/rizzi.htm>
- Schwabe, Kerstin. 2003. F-Marking and Specificity in Sluicing Constructions. In: Kerstin Schwabe & Susanne Winkler (eds.) *The Interfaces: Deriving and Interpreting Omitted Structures*. 301–320. Amsterdam: John Benjamins.

- Schwarzschild, Roger. 1999. Givenness, AvoidF and Other Constraints on the Placement of Accent. *Natural Language Semantics* 7: 141–177.
- Selkirk, Elisabeth O. 1996. Sentence Prosody: Intonation, Stress and Phrasing. In John A. Goldsmith (ed.) *The Handbook of Phonological Theory*. 550–569. London: Blackwell.
- Taglicht, Joseph. 1982. Intonation and Assessment of Information. *Journal of Linguistics* 18: 213–230.