Deletion in Hungarian, Finnish and Estonian Comparatives[*]

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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 Hungarian, Finnish, and Estonian. 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.

Keywords: *Comparative Verb Gapping, ellipsis, sluicing, comparative operator, finite verb*

This paper aims at presenting a new elliptical phenomenon in comparatives, Comparative Verb Gapping (CVG), that has not been attested earlier in the literature. We will not tackle the exact mechanisms behind Comparative Deletion (CD), as it has been presented and described by a number of researchers.

The first section will briefly outline the general structure of comparatives, with special attention paid to the subclause. In section 2, we will describe CD and CVG, as found in Indo-European languages, followed by a brief summary in section 3 on the universal constraints on deletion. Sections 4, 5 and 6 will deal with the deletion phenomena in Hungarian, Finnish and Estonian respectively, with the aim of describing how CD and CVG appear in these languages and whether there is any correlation between them. Finally, section 7 will summarise the theoretical implications of our findings and our proposal to analyse CVG.

1   The structure of comparatives

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

(1)   Mary is more intelligent [than Peter is *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*) expresses the standard value, cf. Lechner (2004); Bresnan (1973). The structure of the string *more intelligent than Peter is* is shown in Figure 1[1]:

List of abbreviations: ACC = accusative; ADE = adessive; CD = Comparative Deletion; CE = Comparative Ellipsis; COND = conditional; DAT = dative; Deg = Degree; DegP = Degree Phrase; FOC = focus; GEN = genitive; IMP = imperative; INS = instrumental; NOM = nominative; SING = singular; OP = operator; PL = plural; Q = Quantifier; QP = Quantifier Phrase; VM = verb modifier

[1]   Based on Izvorski (1995), White (1998), Lechner (1999, 2004), Kántor (2008a).

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        QP   x = a certain absolute degree in the construction; realized as Ø
       /  \
           Q′
          /  \
        Q      DegP
        |     /    \
      much  AP       Deg′
            /\      /    \
      intelligent Deg      CP
                   |      /    \
                  -er   than Peter is [QP x-much intelligent]
```
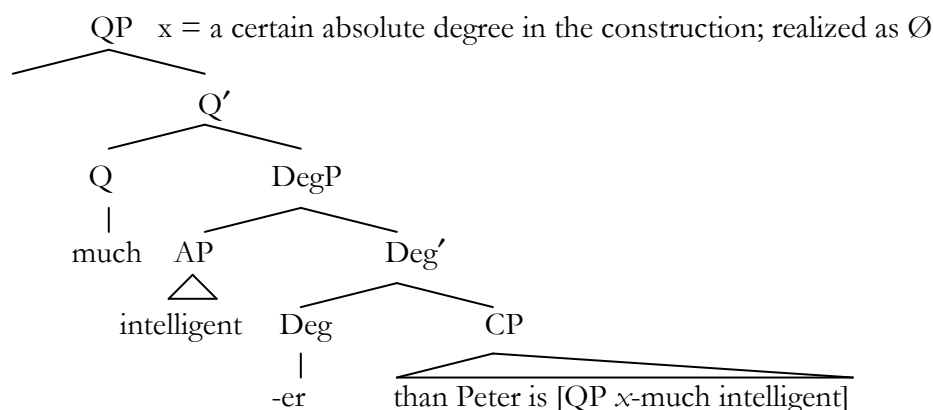
Figure 1: *The structure of the matrix QP*

The reference value is expressed in the matrix clause by a DegP, headed by the Deg head *-er* in English and *-bb* in Hungarian, which – being a bound morpheme – morphologically merges with the adjective/adverb in the specifier in morphological comparatives (e.g. *taller*; see also Abney 1987, 189–204; Corver 1990, 34) or moves up to the Q head in periphrastic comparatives (e.g. *more intelligent*; see Kántor 2008a: 100)[2]. The specifier of the DegP hosts an AdjP/AdvP, which gives the semantic dimension of comparison (Kántor 2008a: 97; see also Lechner 1999, 25); the complement of the Deg head expresses the standard value and is realized by the *than*-clause (see Bhatt & Pancheva 2004, 2–6), which is generally taken to be a CP in English (see Kántor 2008a: 101). The subclause also contains a QP, within which the comparative operator (here: *x-much*) is to be found.

The term 'comparative operator' refers to a subset of operators behaving quite similarly to ordinary relative operators but are found in comparative subclauses and may exhibit certain characteristics that are not shared by all operators, as will be shown in section 5. 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.

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[2] The existence of the QP layer is obviously necessary, as shown by periphrastic comparatives, where the element *-er* (the original Deg head) ultimately precedes the AP (see Kántor 2008a: 99–101). In order to render the provenance of the ideas transparent, in the original DegP-hypothesis, there was only one functional layer: a Deg^0 selected an AP (Abney 1987, Corver 1990). The motivation for the QP layer can be found in Corver's (1997) article introducing determiner- and quantifier-like degree items, in which he places a QP between the DegP and the AP, and generates determiner-like degree items in [Spec; DegP], and quantifier-like degree items in Q^0. The two approaches are illustrated by the representations below:

(i) $[DegP\ Deg^0\ [AP\ A^0]$ (Abney 1987, Corver 1990)
(ii) $[DegP\ Deg^0\ [QP\ Q^0\ [AP\ A^0]]]$ (Corver 1997)

The proposed representation in Kántor (2010), as adopted in Figure 1, differs from these to some extent. For example, Corver (1997, 123) takes "the comparative forms not to be transformationally derived but to be base-generated as such in syntax", whereas the structure presented in Figure 1 shows that the comparative degree morpheme *–er* can be base-generated in Deg^0 and via head movement and merge with *much* in Q^0 periphrastic comparatives can be derived syntactically. For further information, see Kántor (2010, 43ff).

In connection with the representation above, three questions might arise: why there is a QP layer above DegP; why the comparative subclause is a complement; and why the AP is located in [Spec; DegP].

As for the QP, this layer is obviously necessary in periphrastic comparatives (e.g. *more intelligent*), but since morphological comparatives behave in exactly the same way syntactically, it seems reasonable to claim that all comparatives involve a QP, not just a DegP layer.[3]

The comparative subclause is a complement for two main reasons. First, from the perspective of the semantic computation, an element expressing the standard value is obligatory (cf. von Stechow 1984; see also Kennedy 1997, 56)[4], which is a property of arguments, and not of adjuncts. Second, there are certain selectional restrictions (Bhatt & Pancheva 2004, 3; Bresnan 1973):

(2)   a. Mary is *more* intelligent *than/*as* Peter (is).
       b. Mary is *as* intelligent *as/*than* Peter (is).

As can be seen, the Deg° imposes restrictions on the head of its complement: if it is *–er*, (as in *more* above), the subclause has to be introduced by *than*, whereas if the Deg° is *as*, the subclause must be headed by *as*.

There are two reasons for locating the AP in the [Spec; DegP] position, as described by Kántor (2008b: 85). On the one hand, it accounts for the formation of comparative APs both in morphological (e.g. *taller*) and in periphrastic (e.g. *more intelligent*) comparatives: in the first case, the specifier and the head are morphologically merged, whereas in the latter the *-er* moves from Deg° to Q° and will thus come before the AP. On the other hand, the AP located in [Spec; DegP] also accounts for the "*enough*-inversion" (e.g. *big enough*): there is actually no inversion at all, since the fact that the AP appears before the Deg° is in correlation with the underlying structure and thus no additional rightward movement has to be introduced.

Let us now turn to the structure of the subclause. The comparative subclause is a CP, which is introduced by the complementiser *than* (cf. Kenesei 1992a) representing comparative Force (see Rizzi 1999). 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:

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[3] It must be highlighted that this is claimed only from a strictly syntactic point of view. As Embick (2007, 10) has also pointed out, "there is a single syntactic structure underlying all comparatives and superlatives."

[4] Note that the presence of arguments may remain implicit. Consider (i), where the standard value (*than it was before*) is not expressed explicitly:

(i) My admiration for him is greater since I met him in person (than it was before).

This phenomenon is not restricted to comparatives; e.g., a transitive verb may appear without an explicit object:

(ii) Ann is eating.

CP
  C′
C_Force   CP
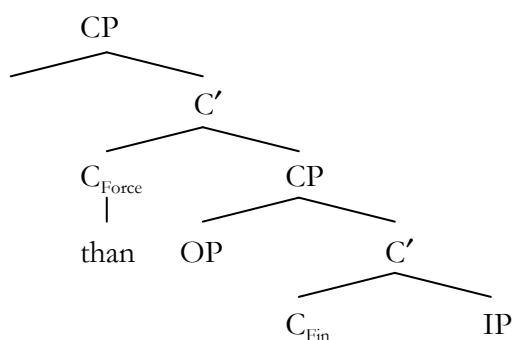 | OP   C′
 than   C_Fin   IP

Figure 2: *The structure of the Left Periphery in comparatives*

This 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 one 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 operator movement in the subclause: the comparative operator is base-generated within the QP in the comparative subclause[5] and moves up to the [Spec; CP] position, as shown in Figure 2. Even when there is no operator, however, there are further reasons for operator movement as comparatives obey islands. The examples below show that they obey *wh*-islands:

(7)   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:

(8)   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 (9a), where the QP is in a predicate position, and attribute comparatives, as in (9b), where the QP is a modifier within a DP:

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[5]   Note that in Hungarian and Bulgarian, the comparative operator is overt and can easily be detected, as will be seen later. On its exact base position, see Kántor (2010, 115ff.).

(9)   a.   The tiger is faster than the cat.   *predicative*

       b.   I have bigger tigers than Peter has.   *attributive*

Both of these types have their subcomparative counterparts, which means that in the case of predicative comparatives, the QP is different in the subclause 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:

(10)   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 & Merchant (2000, 131, ex. 77)

2   Parametric variation in the comparative subclause (IE languages)

There are three deletion operations that can be associated with comparative subclauses: Comparative Deletion (CD), Comparative Ellipsis (CE), and Comparative Verb Gapping (CVG). The first two have been well-known from the 1970s in the literature, whereas CVG is a phenomenon that, to our knowledge, has not been described so far.[6]

With respect to the appearance of Comparative Deletion and Comparative Verb Gapping, languages seem to either have one of them, meaning that the operation responsible for either surface phenomenon is obligatory in the given language, or they can be non-CD or non-CVG languages, meaning that the grammar of the language lacks the given phenomenon. Note that (i) this is only a working hypothesis and will be reformulated later, and (ii) these terms are descriptive only (in this respect similar to SVO, SOV or the [±V2] parameter): they describe only what can be seen in the surface structure but do not refer to the syntactic causes why this should be so. The explanation of CVG will be given later.

Let us begin with Comparative Deletion (CD). This deletes the AP in predicative comparatives and the DP in attributive comparatives, if it is identical to its antecedent in the matrix clause (cf. Kennedy & Merchant 2000; Bresnan 1973). If the grammar of a language involves CD, it means that the deletion of these constituents is obligatory. On the other hand, if the grammar of a language lacks CD, it means that CD cannot delete these constituents and they may optionally be deleted by other deletion mechanisms.

Comparative Deletion is illustrated below:

(11)   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 obligatory CD, and if it does not apply, the result is ungrammatical:

(12)   a.   *Mary is taller than Peter is tall.

       b.   *Susan has bigger cats than Peter has big cats.

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[6]   As the main focus of our investigation is the phenomenon of CVG, we will not venture to investigate the exact mechanisms behind CD (or CE). For such analyses, cf. e.g. Lechner (2004), Bácskai-Atkári (2010).

By contrast, CD in Bulgarian is much less strict than in English:

(13) a.   *Marija   beše   po-visoka   ot-**kolkoto**(?**visok**)   Petăr   beše.*
            Mary   was   taller   than+**x-much**   **tall**   Peter   was
            'Mary was taller than Peter.'
      b.   *Žuža   viďa   po-goľama   kotka   ot-**kolkoto**   (?**goľama   kotka**)*
            Susan   saw   bigger   cat   than+**x-much**   **big   cat**
            Petăr   kăpeše.
            Peter   bathed
            'Susan has a saw a bigger cat than Peter bathed.'

Note that in Bulgarian (and in Hungarian), the comparative operator is visible in the form of a relative operator; that is, it has phonological representation. In other words, the Bulgarian (and Hungarian) equivalent of *x-much* in the degree expression *x-much tall* or *x-much big* is overt. As can be seen in (13), the visible comparative operator *kolkoto* and the related AP or DP can indeed remain overt and the sentences are still grammatical, unlike in English.

In fact, there might be optional deletion mechanisms in language with CD: these are usually covered by the umbrella term Comparative Ellipsis.[7] Since these are indeed optional, they are not treated as diagnostic of language differences. As can be seen, the verbs are optionally deleted in the examples in the comparative subclauses in (11):

(14) a.   Mary is taller than Peter ___CE ___CD.
            (___CD = x-much tall; ___CE = is)
      b.   Susan has bigger cats than Peter ___CE ___CD.
            (___CD = x-much big cats; ___CE = has)

Last but not least, let us discuss a peculiar phenomenon here referred to as Comparative Verb Gapping (CVG). 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 show CVG effects. The examples in (15) show the phenomenon in predicative comparatives:

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[7]   It must be highlighted that in this article the focus is on elliptical comparatives; that is, comparatives involving ellipsis. According to Lechner (2004, 93), all phrasal comparatives without explicit standard values can be derived from a clausal source. Nevertheless, this cannot be maintained with respect to Hungarian or Russian, since in these languages the DP representing the standard value is assigned an inherent case, Adessive in Hungarian and Genitive in Russian (Kántor 2010, 34):

(i) *János   magasabb   Péternél.*   (*genuine phrasal comparative*)
     John   taller   Peter.ADE.
     'John is taller than Peter.'
(ii) *János   magasabb,   mint   Péter.*   (*reduced clause comparative*)
     John   taller   than   Peter.NOM.
     'John is taller than Peter.'

I.e., genuine phrasal comparatives involving inherently case-marked DPs – such as (i) – are treated as phrasal comparatives in the sense of Heim (1985); however, if there is a DP with structural case – such as (ii) – we will follow Lechner (2004), inasmuch as these will be treated as reduced clause comparatives.

(15) a.   *Marija   beše   po-visoka   ot-**kolkoto**   Petăr   **beše.***
           Mary   was   taller   than+**x-much**   Peter   **was**
           'Mary was taller than Peter was.'

      b.   **Marija   beše   po-visoka   ot   Petăr   **beše**.*
           Mary   was   taller   than   Peter   **was**
           'Mary was taller than Peter was.'

      c.   *Marija   beše   po-visoka   ot   Petăr.* [8]
           Mary   was   taller   than   Peter
           'Mary was taller than Peter.'

In (15a), the comparative subclause contains the visible comparative operator *kolkoto* 'x-much', and the finite verb *beše* 'was'; the sentence is grammatical. However, if the degree expression containing both the operator and the AP is deleted but everything else remains, as in (15b), the result is ungrammatical. If the finite verb is also elided, as in (15c), the sentence is again grammatical. It is not obligatory Comparative Deletion that elides this degree expression, since Comparative Deletion would be obligatory if it were present in this language; however, (15a) clearly shows that this is not the case.

The same phenomenon can be observed in attributive comparatives:

(16) a.   *Žuža   viďa   po-goľama   kotka   ot-**kolkoto**   Petăr   **kăpeše.***
           Susan saw   bigger   cat   than-**x-much**   Peter   **bathed**
           'Susan saw a bigger cat than Peter bathed.'

      b.   **Žuža   viďa   po-goľama   kotka   ot   Petăr   **kăpeše**.*
           Susan   saw   bigger   cat   than   Peter   **bathed**
           'Susan saw a bigger cat than Peter bathed.'

      c.   *Žuža   viďa   po-goľama   kotka   ot   Petăr.*
           Susan saw   bigger   cat   than   Peter
           'Susan saw a bigger cat than Peter.'

In (16a), the comparative subclause contains *kolkoto* 'x-much' and the finite verb *kăpeše* 'bathed'; the sentence grammatical. If only the DP containing the degree expression (along with the operator) is deleted, as in (16b), the result is ungrammatical. The finite verb must also be elided form a grammatical sentence, as in (16c), with natural changes in the meaning, of course.

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

(17) a.   *Săštata   kniga   četă   kato   **kojato**   Petăr   **čete.***
           that.same   book   read   as   **what**   Peter   **reads**
           'I read the same book that Peter read.'

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[8]   In this article – following Lechner (2004, 93) – we take the stance that wherever possible, the comparative complement is underlyingly clausal. Pancheva (2006) also states that structures similar to (15c) – see her example (20a) and the analysis provided there – are ambiguous, as they can be analysed both as reduced clause and direct/phrasal comparatives. As far as the Bulgarian glosses are concerned, since от may be followed by колкото in our examples (see, e.g., (16) above), we take these as underlyingly clausal and we follow Kennedy & Merchant (2000) in that от is glossed as *than*.

b.	*Săštata	kniga	četă	kato	Petăr	**čete**.
	that.same	book	read	as	Peter	**reads**

'I read the same book that Peter read.'

c.	*Săštata*	*kniga*	*četă*	*kato*	*Petăr*.
	that.same	book	read	as	Peter

'I read the same book that Peter read.'

It is a property of Bulgarian that it can include *kato* 'as' in ordinary relatives in addition to the relative operator, in this case *kojato* 'what'. The interdependency between *kojato* and the verb *čete* 'read' can be observed: if *kojato* is deleted, *čete* has to be deleted as well.

CVG is not a universal phenomenon: English for instance clearly lacks CVG, as demonstrated by the examples in (18), where the finite verb is present but there is no overt operator:[9]

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

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

3   Deletion, new, given

Ellipsis must be constrained, so that the information structure remains intact and the elided constituents can be recovered, meaning that elided elements must be *given* in the context. Thus, a constraint separating *new information* and *given 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.

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:

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[9] 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.

(19)   "[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
not to be adequate in the case of deletion constructions. Let's consider the following
examples:

(20)   John kissed Mary and   Peter$_F$ ~~kissed~~ Susan$_F$. $\exists$-*type*
       (kiss(j,m))   ENTAILS $\exists x\exists y(kiss(x,y))$ *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:

(21)   *John punched Bill   and   Carl$_F$ ~~hurt~~ Fred$_F$.
       (punch(j,m))   ENTAILS $\exists x\exists y(hurt(x,y))$
       $\exists x\exists y(punch(x,y))$ 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:

(22)   **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.[10]

4   Hungarian

In this section we will show that Hungarian has CVG and lacks CD.
       First of all, let us have a look at the summary of Hungarian clause structure:

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[10] 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.).

(23) $[C_{Force}P \; [TopP^* \; [C_{Fin}P \; [TopP^* \; [DistP^* \; [FocP/PredP \; [VP \; … \;]]]]]]]]$

     Following É. Kiss (2002, 2006), the core of Hungarian predicates is a VP, in which the verb and its arguments are base-generated; on the top of VP either (i) an AspP (Aspectual Phrase) can be found, the specifier of which hosts verb modifiers, or (ii) there is a Focus Phrase (FocP), into the specifier of which focussed elements can move (see also Brody 1990a, 1990b, 1995); we accept É. Kiss' (2002, 85) proposal that AspP and FocP are alternative to each other. Above AspP/FocP, there may be iterable Distributive Phrases, the specifier of which can host monotone increasing 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):

(24) a. $[_{DP} \; [_{CP}$ Elemért $[_{CP}$ aki   látja]]],   szóljon   neki.
                                 Elmer.ACC   who   sees   notify.IMP.3SG   him.DAT
                              'Whoever sees Elmer, please notify him.'
      b.   Jelentkezzen $[_{DP} \; [_{CP}$ Edével $[_{CP}$ aki   beszélt]]]
              Come.forward.IMP.3SG   Ede.INS   who   talk.3SG
              'Whoever saw 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 *(24a)* and *Edével* in *(24b)*. 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 1; for further discussion, see Kántor 2008c, 2008d).

     Let us consider the following examples in terms of Comparative Deletion (CD) in Hungarian:

(25) a.   *Péter   sokkal   kövérebb,   mint   Jancsi.*
              Peter   much   fatter   than   Johnny
              'Peter is much fatter than Johnny'.
      b.   *Péter   sokkal   kövérebb,   mint (amilyen kövér) Jancsi   valaha is*
              Peter   much   fatter   than   OP   fat   Johnny   ever
              lesz.
              will.be
              'Peter is much fatter than Johnny will ever be.'
      c.   *Péter   sokkal   gyorsabb   autót   vett,   mint   Jancsi.*
              Péter   much   faster   car.ACC bought   than   Johnny
              'Peter bought a much faster car than Johnny'.
      d.   *Péter   sokkal   gyorsabb   autót   vett,   mint amilyen   gyors*
              Peter   much   faster   car.ACC bought   than   OP   fast
              autót   Jancsi   vásárolt.
               car.ACC   Johnny   purchased
              'Peter bought a much faster car than the one that Johnny purchased.'

The sentences in (25a) and (25c) would be the most naturally used versions for native speakers; however, as demonstrated by the possibility of (25b) and (25d), the full clauses can be recovered both for predicative and for attributive comparatives, containing also the operator (i.e. *amilyen kövér* and *amilyen gyors autót*). This shows that Hungarian must be a non-CD language, which means that the AP in predicative comparatives and the DP in attributive comparatives do not have to be deleted even if they are identical to their antecedents in the matrix clause. As has been mentioned in section 2, this means that Hungarian totally lacks CD and it does not have the application of CD even as an option. If there is ellipsis reminiscent of the kind of deletion attested in English that obligatorily eliminates these constituents, it is the side effect of CVG phenomena, as will be demonstrated in the forthcoming paragraphs.

When it comes to Comparative Verb Gapping (CVG), the following pattern can be observed in predicative comparatives:

(26) 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*
          Péter   much   fatter   was   than OP   fat   Johnny
          volt.
          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 (26b), 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 (26c), the result is ungrammatical. Note that no deletion can be regarded as the result of CD in (26c), since CD would involve the obligatory deletion of the AP in (26b) too, which is clearly not the case. Also, in a [+CD] language, Comparative Deletion *per definitionem* obligatorily deletes APs (or DPs, in attributive comparatives); therefore, that the verb *volt* – which is discontinuous from the operator and the AP – should also be deleted for the construction to converge in (26c) shows that it is not CD that is operational here.

Also, the question is whether (26a) can be regarded as the product of optional Comparative Ellipsis. By merely looking at (26a), it could also be purported that this is the case. Nevertheless, it must be taken into consideration that two constituents are missing: the operator + AP sequence, constituting the degree expression, and the verb. Since the ellipsis of the verb is obligatory in the absence of the operator + AP sequence, Comparative Ellipsis cannot be responsible for this, since it is optional. Later it will be shown what deletion operation is responsible for eliding the degree expression.[11]

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[11] As has been mentioned in footnote 7, in Hungarian, only genuine phrasal comparatives involving inherently case-marked DPs are considered phrasal comparatives in the sense of, for example, Pancheva (2006) or Bhatt & Takahashi (2007), since the Nominative case of *Jancsi* ('Johnny') must be licensed clausally. Following Lechner (2004), we take the stance that examples like (24a) are reduced clause comparatives.

The phenomenon that we would like to focus on is that the construction can be saved by deleting the verb too, as in (26a). The same can be observed in attributive comparatives:

(27) 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*
           Peter   much   faster   car.ACC   bought   than OP   fast
           autót   Jancsi   vett.
           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 clearly has CVG phenomena. 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. Consider:

(28) a.   *Péter   sokkal   kövérebb,   mint (amilyen/amilyen   kövér)   Jancsi*
           Peter   much   fatter   than OP/OP   fat   Johnny
           (valaha is)   lesz.
           ever   will.be
           'Peter is much fatter than Johnny will ever be.'
      b.   *Péter   kövérebb,   mint ?(amilyen)   Jancsi   lenne,   ha*
           Peter   fatter   than OP   Johnny   be.COND.3SG   if
           élne.
           live.COND.3SG
           'Peter is fatter than Johnny would be, if he were alive.'
      c.   *?Több   almát   vettem,   mint Péter   hámozott.*
           More   apple.ACC bought.1SG   than Peter   peeled
           'The number of pears I bought is higher than that of those that Peter peeled.'
      d.   *Nagyobb   macskát   láttam,   mint ?(amekkora   macskát)   etetett*
           Bigger   cat-ACC   saw.1SG   than OP   cat.ACC   fed
           Péter.
           Peter
           'I saw a bigger than the one that Peter fed.'
      e.   *Péter   gyorsabb   autót   vett,   mint ?(amilyen   gyors*
           Peter   faster   car.ACC   bought.3SG   than OP   fast
           autót)   mi   vettünk.
           car.ACC   we   bought.1PL
           'Peter bought a faster car than we did.'

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 (26) and (27).

As for (28e), it could be asked whether the agreement difference between the verb forms warrants the retention of the verb. The only reason why (28e) is not totally ungrammatical without the operator, only marked (similarly to (30b), (30c) and (30d)), is that the agreement morphology on *vettünk* is different from that on its antecedent in the first clause (*vett*), and in this respect it contains new information. An anonymous reviewer remarked that the agreement on *vettünk* should not be new information, since agreement morphology on the verb is governed by the subject. On the contrary, GIVENness in ellipsis domains, as defined in (22), requires a salient antecedent of the same type for the utterance to be deleted, and it is straightforward that a pronoun in the same clause cannot be a salient antecedent for a finite verb here. Another argument in favour of this is that mainly anaphoric relations involve antecedents in the same clause, whereas the antecedents of elliptical constructions tend to be located in preceding clauses.

In sum, it can still be maintained that Hungarian displays CVG phenomena. Yet, some problems do emerge in connection with CVG-effects, which must be addressed.

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; on the other hand, a constituent can be deleted iff it is 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 (26b):

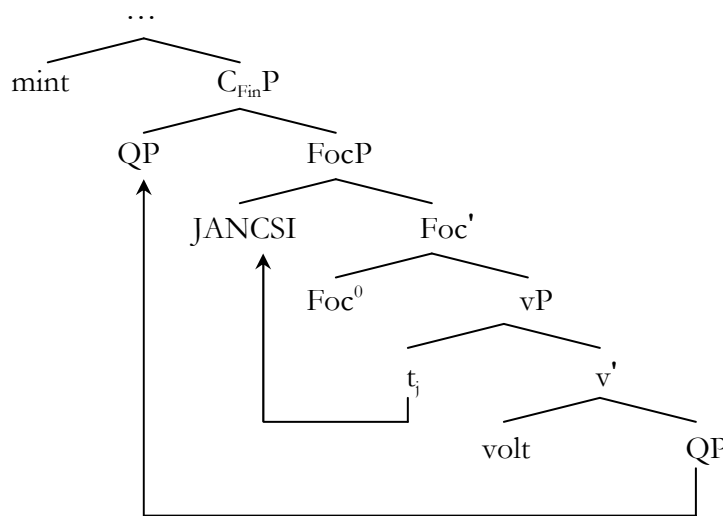(26b) *Péter sokkal kövérebb volt, [mint [QP amilyen kövér] JANCSI volt].*

Figure 3: *The structure of (26b)*

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:

(29)   a. Max is taller than Felix is.
       b. $\exists d[\neg(d(tall(felix))) \, \& \, (d(tall(max)))]$
       cf. Klein (1980) and Larson (1988)

Whenever there is focussing in Hungarian, the focussed element is followed by a reverse Verb–Verb Modifier order;[12] [13]this is what happens in comparatives, too:

(30)   *Aztán*   *meg-pillantottam*   *egy*   *sokkal*   *nagyobb*   *macskát,*   *mint*
       then   VM-noticed.1SG   a   much   bigger   cat-ACC   than
       amilyet   *PÉTER* *pillantott*   *meg.*
       OP   Peter   noticed   VM
       'Then I noticed a much bigger cat than Peter did.'

Returning now to the problem in connection with Figure 3, which does not involve CVG, it can be seen that the operator has to move up to the [Spec; CP] position to have its [+wh] feature checked. This is shown below:
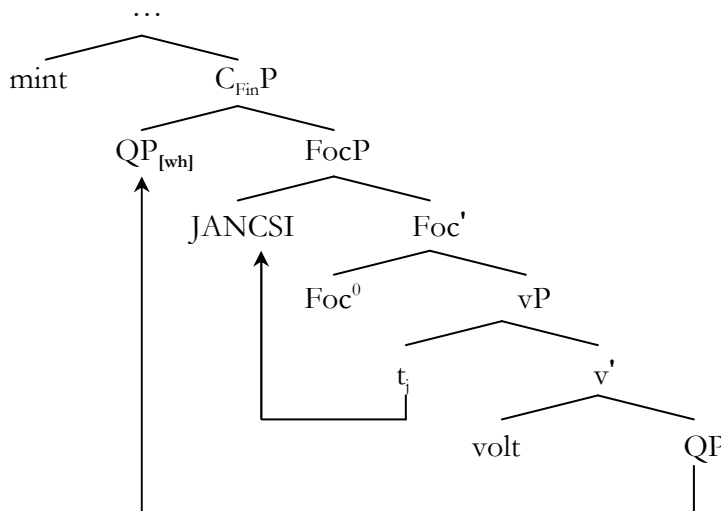

Figure 4: *Feature checking*

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.

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[12]   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.

[13]   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.

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 Figure 5:
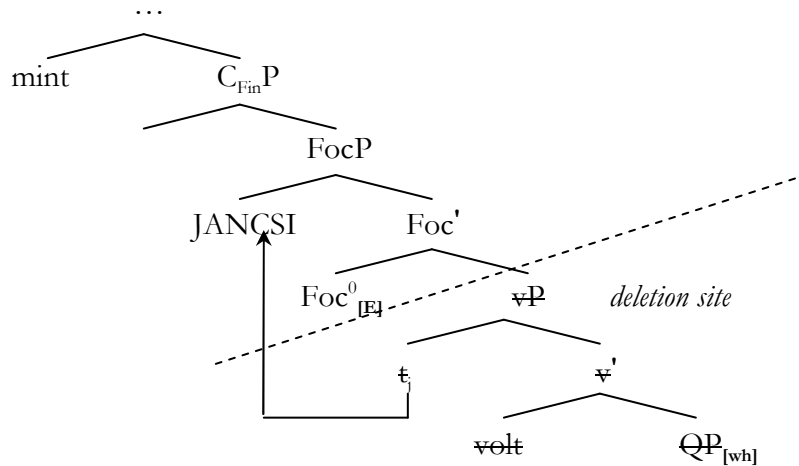

Figure 5: *The deletion of vP*

On the basis of Craenenbroeck & Lipták (2006), the deletion operation in Figure 5 is sluicing.[14] 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 Figure 5. On the other hand, if the finite verb is visible, as in (26c) and (27c), this indicates that sluicing has not taken place and the uninterpretable feature 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*.[15]

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

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[14]   As has been pointed out by an anonymous reviewer, if 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).

[15]   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.

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 (35) 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:

(31) *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:

(32) a.   *Ugyanazt   a   könyvet   olvasom,   mint*   **amit**   *Péter*
           that.same.ACC   the   book.ACC   read.1SG   as   **what.ACC**   Peter
           olvas.
           reads
           'I read the same book that Peter read.'
      b.   *Ugyanazt   a   könyvet   olvasom,   mint*   **amit**   *Péter.*
           that.same.ACC   the   book.ACC   read.1SG   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   read.1SG   as   Peter
           'I read the same book that Peter read.'

As can be seen, (32a) contains a full relative clause, whereas (32b) contains a visible relative operator but lacks an overt verb; (32c) is ungrammatical because of the overt verb while the operator is missing, but if both of them are deleted, as in (32d), the structure converges again.

5   Finnish

Let us now turn to the examination of Finnish data; it will be shown that Finnish is basically a language that has CD and that lacks CVG. As for Comparative Deletion (CD), consider (33):

(33) a.   *Joni   on   pidempi   kuin   Mari   (*on)/(*on   pitkä).*
           John   is   taller   than   Mary   is.   is   tall
           'John is taller than Mary.'

    b.   *Joni   on   pidempi   kuin (?mitä/*mitä pitkä)   Mari (*on).*
          John is   taller   than OP   OP   tall   Mary is.
          'John is taller than Mary'.

The examples above show that in Finnish it is ungrammatical to have an AP in the subclause that is identical with the one in the matrix clause; it is marginally acceptable to have a single operator *mitä* 'what' after *kuin* 'that' but the adjective cannot be repeated.

The picture is even more complex when it comes to attributive comparatives:

(34)   a.   *??Ostin   nopeamman   auton   kuin   miten   nopean   auton*
            bought.1SG faster   car   than OP   fast   car
            Petri   osti.
            Peter   bought.
            'The car I bought is faster than the one that Peter bought'.
      b.   *Ostin   nopeamman   auton   kuin Petrin   ostama*
            bought.1SG faster   car   than Peter.GEN buy.PARTICIPLE
            auto.
            car
            'I bought a car faster than the one that Peter bought.'
      c.   *??Ostin   nopeamman   auton   kuin   miten   nopea   Petrin*
            bought.1SG faster   car   than OP   fast   Peter.GEN
            ostama   auto oli.
            buy.PARTICIPLE   car was
            'I bought a car faster than the one that Peter bought.'

If the subclause contains a DP that is logically identical with the one in the matrix clause, as in (34a) and (34c), the sentence is only marginally acceptable. The only truly grammatical possibility is the one in (34b), where the subclause contains the relevant pieces of information within a kind of possessive construction. Still, even this kind of construction is only marginally acceptable if it contains the repeated adjective, as shown by (34c). Still, we can say that in Finnish, typically narrow reading attributive comparatives are available (on the distinction, see Lerner & Pinkal 1995). Consider the following examples from English:

(35)   a.   George owns a faster car than this BMW.   *NRA*
      b.   George owns a faster car than Bill (does).   *WRA*

In the narrow reading example in (35a), the QP is to be found in a predicative position, whereas in the wide reading example in (35b) it is an attribute within a DP.

This means that the comparative subclause tends to be fundamentally predicative in Finnish, and its subject the contrast necessary for comparison. The following examples show wide reading comparatives in Finnish with entire DPs missing from the subclause:

(36)   a.   *Ostin   nopeamman   auton   tänään   kuin Petri osti*
            bought.1SG faster   car   today   than Peter bought
            eilen.
            yesterday
            'I bought a faster car today than Peter bought yesterday.'

b. *Ostin   nopeamman   auton   tänään   kuin miten   nopean
    bought.1SG faster   car   today   than OP   fast
    auton   Petri   osti   eilen.
    car   Peter   bought yesterday.
    'I bought a faster car today than Peter bought yesterday.'

c. *Söin   enemmän   omenoita   kuin Joni   (söi)/ (*söi   omenoita).*
    ate.1SG   more   apples   than John   ate   ate   apples
    'I ate more apples than John ate.'

This all points to the possibility that Finnish has obligatory CD, like English; but unlike English, where CD targets the AP in predicative comparatives and the DP in attributive comparatives, in Finnish it targets the maximal projection containing the finite verb (I'/vP) in predicative comparatives, as can be seen in (33), and the DP in attributive comparatives.

Naturally, deletion can only target given material and therefore there are subcomparatives to be found in Finnish:

(37) a. *Olen   viisampi   kuin sinä olet sukkela.*
         am   wiser   than you   are   witty
         'I am wiser than you are witty.'

     b. *?Olen   viisampi   kuin mitä sinä olet sukkela.*
         am   wiser   than OP   you   are   witty
         'I am wiser than you are witty.'

     c. *Huoneeni   on   suorakaiteen   muotoinen, hieman   pidempi   kuin*
         my.room   is   rectangular   shaped   slightly longer   than
         mitä   se   on   leveä.
         OP   it   is   wide
         'My room is rectangular, it is slightly longer than it is wide.'

     d. *Huoneeni   on   suorakaiteen   muotoinen, ˀhieman   pidempi   kuin*
         my.room   is   rectangular   shaped   slightly longer   than
         se   on   leveä.
         it   is   wide
         'My room is rectangular, it is slightly longer than it is wide.'

     e. *Huoneeni   on   suorakaiteen   muotoinen, hieman   pidempi   kuin*
         my.room   is   rectangular   shaped   slightly longer   than
         leveä.
         wide
         'My room is rectangular, it is slightly longer than it is wide.'

On the other hand, as far as Comparative Verb Gapping is concerned, there are no CVG-effects, as can be seen in the sentences given in this section; for example, (37c) contains an overt verb without the operator present.

Hence it can be concluded that Finnish is a language with CD and without CVG.

6   Estonian

Last but not least, let us turn to the characterisation of Estonian; Estonian is basically like Finnish in fundamentally having CD and clearly lacking CVG.

The default view of the Estonian clause is as follows (cf. Ehala 2006):

(38)   [CP [IP [vP [VP]]]]

In Estonian, there exists an overt form of the comparative operator: *kuivõrd* ('*to the extent that*'). For some speakers, *kuivõrd* is ungrammatical in any construction. Grammaticality judgments are indicated for both *kuivõrd*-sensitive and *kuivõrd*-resistant speakers in this order when they differ.

Let us then begin with Comparative Deletion (CD). Consider the following examples:

(39)   a.   *Jaan on pikem kui Mari (?on).*
            John is taller than Mary is
            'John is taller than Mary.'
       b.   **Jaan on pikem kui Mari on pikk.*
            John is taller than Mary is tall
            'John is taller than Mary.'
       c.   *??/?Jaan on pikem kui kuivõrd pikk Mari on.*
            John is taller than OP tall Mary is
            'John is taller than Mary.'

As can be seen in (39b), the repetition of the adjective in the subclause is not grammatical in itself, and marginal acceptability can be achieved by adding *kuivõrd*. The situation does not seem to be different for other persons:

(40)   a.   *Olen targem kui teie.*
            am wiser than you.PL
            'I am wiser than you.'
       b.   **/? Olen targem kui kuivõrd teie olete targad.*
            am wiser than OP you are wise
            'I am wiser than you.'

All in all, it seems that in Estonian predicative comparatives there is CD involved. This is so in attributive comparatives as well:

(41)   a.   *Ostsin kiirema auto kui Peeter.*
            bought.1SG faster car than Peter
            'I bought a faster car than Peter.'
       b.   **/?Ostsin kiirema auto kui kuivõrd kiire auto Peeter ostis.*
            bought.1SG faster car than OP fast car Peter bought
            'I bought a faster car than Peter.'
       c.   *Ostsin kiirema auto täna kui Peeter eile.*
            bought.1SG faster car today than Peter yesterday
            'I bought a faster car today than Peter did yesterday.'
       d.   *Ostsin kiirema auto kui Peeter ostis.*
            bought.1SG faster car than Peter bought
            'I bought a faster car than Peter bought.'

Especially for *kuivõrd*-sensitive speakers, the presence of the DP containing the operator is not acceptable. See also:

(42) a.   *Ma   sõin   rohkem   õunu   kui   Jaan   (?sõi).*
            I   ate.1SG   more   apples than   John   ate
            'I ate more apples than John did.'
      b.   **Ma   sõin   rohkem   õunu   kui   mitu   õuna   Jaan   (sõi).*
            I   ate.1SG   more   apples than   OP   apples John   ate
            'I ate more apples than John did.'

Thus it seems that Estonian has obligatory Comparative Deletion for *kuivõrd*-sensitive speakers, whereas *kuivõrd*-resistant speakers are a little more permissive with this requirement. CD targets the I' in predicative comparatives, as can be seen in (39), and the DP in attributive comparatives in Estonian, just like in Finnish.

It has to be mentioned that if the constituent is not given, there is no difference between *kuivõrd*-sensitive and *kuivõrd*-resistant speakers:

(43) ?   *Ma   sõin   rohkem   õunu   kui   mitu   pirni   Jaan   sõi.*
          I   ate   more   apples than   OP   pears   John   ate
          'I ate more apples than John ate pears.'

In Estonian, there is no Comparative Verb Gapping to be observed, as shown below:

(44) a.   *Ostsin   kiirema   auto   kui   Peeter   (ostis).*
            bought.1SG faster   car   than   Peter   bought
            'I bought a faster car than Peter bought.'
      b.   Ma   sõin   rohkem   õunu   kui   Jaan   (sõi).
            I   ate   more   apples than   John   ate
            'I ate more apples than John ate'.

In sum, we can say that Estonian fundamentally has CD, and straightforwardly lacks CVG.

7   Theoretical implications

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. What our analysis of CVG adds to the work on elliptical comparatives is that sluicing, which was not utilised in Lechner (2004) for this purpose at all, also accounts for a certain type of deletion in comparatives, thus it further strengthens the hypothesis that comparative complements are all underlyingly clausal, and various deletion mechanisms can account for the missing constituents in them (cf. Lechner 1999, 100, 2004,6).

Our future research will be directed to the question of what typological correlations can be detected with respect to CVG-effects and the use of sluicing. Evidently, CVG-effects can only be detected in languages with overt comparative operators. Also, van Craenenbroeck & Lipták's (2006, 259) typology of sluicing must be taken into consideration, according to which the sluicing domains can be the constituents selected by C^0 or Foc^0 (depending on where *wh*-operators move in a given language; e.g., [Spec; CP] in English, Dutch and German; [Spec; FocP] in Hungarian, Basque, Hebrew), or there is no sluicing in languages that lack overt operator movements (e.g., Korean, Japanese, Chinese). In the future, we will try to investigate whether there is a connection between van Craenenbroeck & Lipták's (2006) *wh*-sluicing correlation and the emergence of CVG-effects in certain languages.

The reason why Finnish and Estonian were also taken into consideration in the research was that these languages can also marginally have overt comparative operators, and we wanted to examine whether the overt/covert status of this operator can be linked to the typology of languages, whether they show CVG or obligatory CD phenomena. However, it turned out that Finnish and Estonian have obligatory CD patterns, in spite of the optional and occasional presence of an overt comparative operator. What we found in connection with Finnish and Estonian is that Comparative Deletion targets the maximal projection containing the verb in predicative, and the DP in attributive comparatives, thus it is not CVG but CD that is operational here.

8   Conclusion

In this article, we wanted to provide a survey of what elliptical comparatives look like in Finnish, Hungarian and Estonian. The main aim was to show what kind of deletion phenomena can be found in these languages and to provide an analysis of any new data previously unexplained.

The phenomena in question describe the general appearance of elliptical comparative constructions. First, the presence/absence of CD shows whether the AP in predicative comparatives or the DP in attributive comparative must obligatorily be deleted in the comparative subclause if it is identical to its matrix counterpart. Second, in languages showing CVG effects, if the comparative operator is missing from the comparative subclause, the finite verb must also be deleted, unless it carries new information, as was presented in connection with Hungarian. To our knowledge, this phenomenon has not been explained in the literature; we ventured an analysis in connection with the Hungarian data presented in section 4, which was based on sluicing and its capability to eliminate otherwise fatal unchecked features, thus it could account for the deletion of both the comparative operator and the verb at the same time.

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