

Parenthesis and Comparative Operator Deletion^{*}

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Abstract

The aim of this article is to provide a theoretical approach towards the syntax of parenthetical constructions in Hungarian introduced by *mint* ‘as’. I will examine their relation to true comparative subclauses (expressing either equality or inequality) introduced by *mint* ‘as/than’. The main focus will be on the deletion of the comparative operator, which will be shown to be optional in comparatives but – if *mint* is not eliminated – impossible in parenthetical clauses. I will show that this is in connection with the presence of a null operator in parenthetical clauses corresponding to the implied subject or the missing object, which rules out the co-occurrence of another operator.

Keywords: comparatives, comparative operator, comparative parenthetical clause, complementiser, CP-layer, degree expression, economy, null operator, operator movement, overtness requirement

1. Introduction

One type of parenthetical constructions (*as*-parentheticals) in Hungarian is introduced by *mint* ‘than/as’, in examples such as (1) below:

- (1) A teknősök, *mint* tudjuk, szeretik a rákot.
the turtles as know.PRS.1PL like.PRS.3PL the shrimp.ACC
‘Turtles, as we know, like shrimp.’

As for *mint*, it introduces ordinary comparative subclauses too, such as comparative subclauses expressing equality¹:

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- (2) *Peti olyan magas, mint az apja.*
Peter so tall as the father.3SG.POSS
'Peter is as tall as his father.'

Also, *mint* is responsible for introducing comparative subclauses expressing inequality:

- (3) *Peti magasabb, mint az apja.*
Peter taller than the father.3SG.POSS
'Peter is taller than his father.'

In addition to *mint*, a comparative operator (e.g. *amilyen* 'how') may also appear overtly in the subclause: this is optionally present in ordinary comparative subclauses (following *mint*) but it cannot co-occur with *mint* in parenthetical clauses. The question arises why this should be so, that is, where the difference comes from. In what follows I am going to propose that the sequence of *mint* + an overt comparative operator is ruled out in parentheticals due to the presence of a null operator (standing for the missing object).

Finally, I would also like to briefly address the question of how languages without overt comparative operators (e.g. German) behave: as I will show, in these cases there is no interaction between the comparative and the null parenthetical operator in the way it is attested in Hungarian. However, since degree elements may be present in the parenthetical clause outside the comparative subclause, there is an important theoretical conclusion to be drawn here: the size of a comparative parenthetical subclause is not necessarily identical to the comparative subclause itself but may be larger, that is, a matrix clausal degree expression that takes a comparative subclause as one of its arguments.

2. Operators in comparative subclauses

Following Rizzi (1997, 1999, 2004), I assume that the left periphery of a subordinate clause contains two CP projections – there may of course be other (intermediate) projections

¹ Note that although *mint* in (2) is followed by a single DP, the complement of *mint* is still clausal but the rest of the clause is elided as it is recoverable from the matrix clause; the same applies to the construction given in (3). I will partially return to this issue later on as far as the full clausal structure is concerned but I will not venture to discuss the ellipsis processes in comparative subclauses, since that would be far beyond the scope of the present investigation; but see for instance Bacskai-Atkari and Kántor (2012). What is crucial for us here is that the comparative subclause is clausal, and it contains an operator (the comparative operator) that moves to a left-peripheral – [Spec,CP] – position (see Kennedy 2002; Kennedy and Merchant 2000).

too but these will not be important for the present discussion.² Consider the following representation:

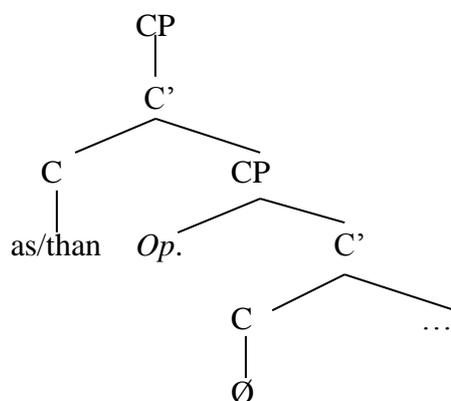


Figure 1: The left periphery of the comparative subclause

As can be seen, the higher CP in a comparative subclause is headed by the comparative complementiser (*as* or *than* in English) and the lower CP hosts an operator in its specifier position. The operator moves there via ordinary operator movement (cf. Chomsky 1977; Kennedy and Merchant 2000) as the comparative operator is in fact a relative operator.

There are reasons to believe that there is indeed operator movement in the comparative subclause, even if the operator itself is not always visible. One reason is that comparatives obey islands (cf. Kennedy 2002: 557–558, based on Ross 1967; Huddleston 1967; Chomsky 1977; Postal 1998), such as *wh*-islands in (4) below:

- (4) a. **Frank killed more dragons than OP_x Margaret wondered [whether to kiss t_x].*
 b. *Frank killed more dragons than OP_x Margaret wanted to kiss t_x .*

The sentence in (4a) is not grammatical because the bracketed clause *whether to kiss* is a *wh*-island: it is not allowed to extract the comparative operator (*OP*) out of it. By contrast, (4b) is grammatical as there is no island violation there. Similar constraints can be observed regarding complex NP islands:

² In the system outlined by Rizzi (1997, 1999, 2004) the two CP projections have distinct functions: the higher one is responsible for Force, while the lower one for Finiteness. I do not wish to examine the question of whether such a stance should be maintained or not; on the other hand, I will not refer to the individual layers as ForceP or FinP for the very reason that I do not think this distinction is necessary at all. What is important for us here is that Force is associated with the higher CP node rather than the lower one, from which it follows that elements responsible for clause-typing are preferably located in the higher CP.

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

Again (5a) is not grammatical because it involves extraction out of an island, the complex NP (DP) *a plan to kill*; by contrast, (5b) is grammatical as there is no island there.

In addition to island violations, overt operators also present evidence for *wh*-movement taking place in the comparative subclause; such operators are realised in the lower [Spec,CP] position. Overt operators are rare in English but in some dialects they are possible, in examples such as (6) below (Chomsky 1977, 87, ex. 51a):

- (6) % *John is taller **than what** Mary is.*

As can be seen, *what* immediately follows *than* in the comparative subclause and is hence located in the lower [Spec,CP] position.³

3. Comparative subclauses in Hungarian

In Hungarian, the comparative complementiser is *mint* ‘as/than’ (cf. Kenesei 1992). In addition, overt operators can also appear optionally, as in (7):

- (7) a. *Peti olyan magas, mint (amilyen) az apja.*
 Peter so tall as how the father.3SG.POSS
 ‘Peter is as tall as his father.’
 b. *Peti magasabb, mint (amilyen) az apja.*
 Peter taller than how the father.3SG.POSS
 ‘Peter is taller than his father.’

³ The acceptability of *what* as a degree operator shows dialectal and idiolectal variation. Interestingly, English also has the operator *how*, which is clearly a degree operator in interrogatives. On the other hand, *how* is acceptable as a comparative operator only to a limited extent; that is, it is again subject to dialectal and idiolectal variation. Unlike with *what*, however, *how* appears together with a lexical AP in the lower [Spec,CP] position:

- (i) ^{OK/*} *John is taller **than how tall** Mary is.*
 (ii) ^{OK/*} *The table is longer **than how wide** the office is.*

In this case, the operator position is filled not by a single operator but by an operator taking a lexical AP. Though such structures are not widespread in English, they will be shown to be fully grammatical in Hungarian.

As can be seen, the operator *amilyen* ‘how’ can appear after *mint* both in comparatives expressing equality, as in (7a), and in comparatives expressing inequality, as in (7b).⁴

Furthermore, *amilyen* may also be combined with a lexical AP, contrary to *what* in English:⁵

- (8) a. *Peti olyan magas, mint amilyen (magas) az apja.*
 Peter so tall as how tall the father.3SG.POSS
 ‘Peter is as tall as his father.’
- b. *Peti magasabb, mint amilyen (magas) az apja.*
 Peter taller than how tall the father.3SG.POSS
 ‘Peter is taller than his father.’

The presence of an overt AP in cases like (8) is optional, but if the AP in the subclause is not e-GIVEN (cf. Merchant 2001), it cannot be eliminated:

- (9) a. *A kutya olyan kövér, mint amilyen *(széles) a kutyaház.*
 the dog as fat as how wide the doghouse
 ‘The dog is as fat as the doghouse is wide.’
- b. *A kutya kövérebb, mint amilyen *(széles) a kutyaház.*
 the dog fatter than how wide the doghouse
 ‘The dog is fatter than the doghouse is wide.’

⁴ It is worth mentioning that the absence of an overt verb in (7) – as well as in (8) – is not the result of deletion but is merely due to the fact that the 3rd person singular copula in the present tense is zero in Hungarian predicative clauses. However, the verb appears overtly if for instance the subclause is in the past tense:

- (i) *Peti olyan magas, mint amilyen az apja volt.*
 Peter so tall as how the father.3SG.POSS was.3SG
 ‘Peter is as tall as his father.’

This explicitly shows that such clauses are indeed full clauses.

⁵ Note that the same does not apply for *how* as a comparative operator in English, which in fact must take an AP together with it (see the discussion before). On the other hand, there are also other languages that allow similar constructions. Consider the following examples from Dutch:

- (i) ^{OK/*} *Maria is groter dan hoe groot Jan is.*
 Mary is taller than how tall John is
 ‘Mary is taller than John.’
- (ii) ^{OK/*} *De tafel is langer dan hoe breed het kantoor is.*
 the table is longer than how wide the.NEUT office is
 ‘The table is longer than the office is wide.’

As can be seen, the operator *hoe* ‘how’ takes a lexical AP together with it in the [Spec,CP] position. Note that, as indicated, the acceptability of *hoe* in comparatives varies among dialects and speakers, similarly to what was attested for *how* in English. As part of my dissertation project, I conducted a short online survey in August–September 2013 with 70 native participants (many thanks go to Laura Bos and Marlies Kluck for their help in distributing the survey), in which informants were asked to rate sentences on a scale from 1 (bad) to 5 (good). The sentence given in (i) here was accepted as fully grammatical (5) by 16% of the participants, while the sentence given in (ii) by 27%. This shows that even if *hoe* as a comparative operator is not acceptable for all speakers, its acceptability is still significant. Since my aim here is not to investigate comparatives in Dutch, I will not venture to analyse and describe the results of the online survey here (for some more details, see Bacsikai-Atkari 2014).

This means that the quantified expression may remain overt in the [Spec,CP] position in Hungarian irrespectively of whether it is e-GIVEN or not. In (8), the QP *amilyen magas* is e-GIVEN as far it has its logically identical antecedent QP⁶ in the matrix clause (cf. Bacskai-Atkari 2010); the same is not true for the QP *amilyen széles* in the subclause is not e-GIVEN.⁷ However, if the AP is e-GIVEN, then the operator is also optional in Hungarian. Note that the presence of an overt AP requires the presence of an overt operator but if the AP is not overt, then the operator is also allowed to be absent. This is essentially an overtness requirement on material appearing in an operator position: if there is overt material realised in an operator position, then it should be introduced by an overt operator.

4. Parenthetical clauses and operators

Let us now turn to the investigation of Hungarian comparative parenthetical clauses introduced by the complementiser *mint* ‘as’. On the basis of what has been said about comparative operators, the expectation is that the operator should be optional in parenthetical clauses since there is no matrix clausal antecedent in the form of a QP and there is generally no lexical AP taken by the operator either. This seems to be the case for the element *ahogy* ‘how’, which is normally a VP-modifying adverbial operator and it takes no AP. Consider the following examples:

- (10) a. *A teknősök, mint (ahogy) tudjuk, szeretik a*
the turtles as how know.PRS.1PL like.PRS.3PL the
rákot.
shrimp.ACC
‘Turtles, as we know, like shrimp.’

⁶ The structure of the QP in the matrix clause is the following: [_{QP} [_{DegP} AP Deg [_{CP} *as/than*...]]]; hence the lexical AP and the comparative subclause are arguments of the Deg head (cf. Lechner 1999, 2004) and there is a QP layer generated above the DegP (cf. Corver 1997; Lechner 1999, 2004).

⁷ Note that the same is true for comparatives with *how* in English and ones with *hoe* ‘how’ in Dutch. The pattern is different in Standard English, which does not have overt comparative operators and the higher copy of the degree expression is never realised overtly. In turn, the lower copy is realised only if it is contrastive:

- (i) *Peter is taller than his father is* (**tall*).
(ii) *The desk is longer than the office is wide*.

Since it is not my concern to examine the English construction in detail here, I will not venture to go into the details of why this should be so (but cf. Bacskai-Atkari 2010, 2012b). The point is that a lexical AP is licensed to appear overtly in an operator position – that is, in [Spec,CP] – if there is also an overt operator there; languages that do not have this option have to resort to realising lower copies, which has certain restrictions such that only contrastive lower copies are allowed to remain overt, escaping regular deletion of lower copies of a movement chain. The same restriction does not apply to APs that are introduced by an overt operator since then the highest copy of the movement chain is realised, irrespectively of its information structural status.

- b. *Az igazgató, mint (ahogy) elmondta, maga is meglepődött a jó eredményeken.*
 the headmaster as how said.3SG himself too surprised.3SG the good results.SUPERESSIVE

‘The headmaster, as he said, was surprised by the good results himself.’

As can be seen, the element *ahogy* is indeed optional in comparative parenthetical clauses.⁸ However, there is another type of comparative parenthetical clauses, which contains the comparative operator *amilyen* ‘how’,⁹ which takes a lexical AP and which cannot co-occur with *mint*, as demonstrated by the examples in (11):

- (11) a. *Peti, (*mint) amilyen magas, be fogja verni a fejét.*
 Peter as how tall PARTICLE AUX.3SG hit.INF the head.3SG.POSS.ACC

‘Peter, tall as he is, will hit his head.’

⁸ This means that both versions of (10a) and (10b) are fully grammatical. Some speakers noted though, especially in connection with (10b), that they prefer the version without *ahogy*: the reason for this is that *ahogy* is redundant since it expresses the same meaning that *mint* does anyway. Nevertheless, its presence was judged to be fully grammatical. Note that since my main concern in the present article is to investigate the internal structure of the comparative parenthetical clause, I am not dealing with the position of the parenthetical clause with respect to the host clause and the examples included in the paper represent the most typical – that is, a clause-internal – position. I also tested examples where the same parenthetical clause either preceded or followed the entire host clause and though these configurations are generally less preferred than the clause-internal ones given in (10), the acceptability of *ahogy* did not show any differences except for the configuration in (10b) with the parenthetical clause fronted. The fronting variants of (10) are shown below:

- (i) *Mint (ahogy) tudjuk, a teknősök, szeretik a rákot.*
 as how know.PRS.1PL the turtles like.PRS.3PL the shrimp.ACC
 ‘As we know, turtles like shrimp.’
- (ii) *Mint ^{???}(ahogy) elmondta, az igazgató, maga is meglepődött a jó eredményeken.*
 as how said.3SG the headmaster himself too surprised.3SG the good results.SUPERESSIVE

‘The headmaster, as he said, was surprised by the good results himself.’

While in (i) the presence/absence of *ahogy* makes no significant difference, in (ii), the presence of *ahogy* (in addition to *mint*) is actually preferred. I will not venture to examine the reasons for why this should be so but there seems to be a general requirement on the overtiness of otherwise optional complementisers in fronted positions and this phenomenon is not restricted to Hungarian but can be observed in English for *that* -clauses; cf. for instance Poletto (1995) for Italian.

⁹ This type is clearly closer to ordinary comparatives than the one containing *ahogy*: as will be shown later on, this also lies in the status of *ahogy*, which will be claimed to be a C head, and *amilyen*, which is a comparative operator essentially in the same way as it appears in ordinary comparatives. However, the two types of parenthetical comparatives are quite similar to each other in several respects, especially as far as the behaviour of the entire parenthetical is concerned: both tend to appear within the host clause in the phonological structure, and the host clause does not contain a matrix pronominal element in either of them.

- b. *Peti, (*mint) amilyen magas ember, be fogja verni a fejét.*
 Peter as how tall person PARTICLE AUX.3SG hit.INF
 the head.3SG.POSS.ACC
 ‘Peter, tall as he is, will hit his head.’

As should be clear, the lexical AP *magas* (either on its own or modifying a nominal expression) in (11) cannot be deleted, unlike in comparatives, deletion would affect non-recoverable material. It follows that the operator also has to remain overt, given that an overt AP is located in the [Spec,CP] position, which is an operator position and the presence of an overt operator is required for (other) material to be realised overtly in this position. This explains why *amilyen* is obligatory, unlike *ahogy*, which does not take a lexical AP.

However, the question still remains why *mint* has to be eliminated in structures like (11) since the same phenomenon is not found in comparatives and in parentheticals with *ahogy*: in both cases *mint* is licensed to co-occur with an operator-like element, as shown by the examples in (7)–(10).¹⁰

5. Null operators in parenthetical clauses

In order to provide an answer to this question, let us first briefly review some basic properties of reduced parenthetical clauses (cf. Schneider 2007; De Vries 2007; Ackema and Neeleman 2004; Hoffmann 1998). As is known, in reduced parenthetical clauses (see Reis 1995, Steinbach 2007, Schneider 2007, Griffiths 2013), the verb lacks one of its arguments required by its valency; there is no overt syntactic link to the host they are attached to; the host clause is visible to parenthetical clause but not vice versa; and finally, one valency requirement of the parenthetical verb satisfied by the host clause itself. In addition, there are empty operators in parentheticals (Schneider 2007; Heringa 2011), establishing the one-way connection to the host clause. What is important for us here is that in *as*-parentheticals, there

¹⁰ Note that the phenomenon is independent from the relative position of the parenthetical clause; fronting of the parenthetical clause in e.g. (11a) still does not license the overt presence of *mint*:

- (i) *(*Mint) amilyen magas, Peti, be fogja verni a fejét.*
 as how tall Peter PARTICLE AUX.3SG hit.INF the head.3SG.POSS.ACC
 ‘Peter, tall as he is, will hit his head.’

The importance of this is that while fronting may make an otherwise less preferred (but grammatical) option preferable, as is the case with examples containing *ahogy*, an ungrammatical construction does not converge under fronting either.

is a null operator moving to a [Spec,CP] position and this roughly corresponds to a missing object (Potts 2002: 62). Consider the following example:

(12) *Cuckoos don't build nests, as Op₁ everybody knows t₁.*

In this case, there is an operator corresponding to the object argument of the verb and it moves to a left-peripheral position; furthermore, it gets its reference from the entire host clause (*cuckoos don't build nests*).

The presence of this null operator can be well observed in Hungarian parentheticals, where the verb is in the objective paradigm. Consider the following examples:

- (13) a. *A teknősök, mint tudjuk, szeretik a rákot.*
 the turtles as know.1PL.OBJECTIVE like.3PL the shrimp.ACC
 'Turtles, as we know, like shrimp.'
- b. **A teknősök, mint tudunk, szeretik a rákot.*
 the turtles as know.1PL.SUBJECTIVE like.3PL the shrimp.ACC
 'Turtles, as we know, like shrimp.'

The only difference between (13a) and (13b) is in the verb. In (13a), it is in the objective paradigm (*tudjuk*); in (13b), it is in the subjective paradigm (*tudunk*). The fact that the verb must be in the objective paradigm means that there is an object in the clause. Note that some (overt) objects stand with a verb in the subjective paradigms (mostly indefinite nominal expressions), hence the presence of an object does not always require the verb to be in the objective paradigm. However, the entailment is valid vice versa, that is, the objective paradigm occurs only if there is an object. Hence in parenthetical such as (13a) there must be an object that the verb agrees with.

This object is a zero relative pronoun: there is no overt object relative pronoun in Hungarian parentheticals:

- (14) a. **A teknősök, mint amit tudjuk, szeretik a rákot.*
 the turtles as what.ACC know.1PL.OBJECTIVE like.3PL the
 shrimp.ACC
 'Turtles, as we know, like shrimp.'

- b. **A teknősök, mint amit tudunk, szeretik a rákot.*
 the turtles as what.ACC know.1PL.SUBJECTIVE like.3PL the
 shrimp.ACC
 ‘Turtles, as we know, like shrimp.’

As can be seen, parentheticals containing an overt object relative pronoun (*amit*) are not grammatical, irrespectively of whether the verb is in the subjective or the objective paradigm. This consideration is important also because overt relative pronouns otherwise trigger the subjective paradigm, as shown in (15):

- (15) a. *Ez az, amit tudunk.*
 this that what.ACC know.1PL.SUBJECTIVE
 ‘This is what we know.’
 b. **Ez az, amit tudjuk.*
 this that what.ACC know.1PL.OBJECTIVE
 ‘This is what we know.’

The relative clauses in (15) contain the object relative pronoun *amit* and the grammatical construction is the one in (15a), where the verb is in the subjective paradigm. This shows that overt relative pronouns behave like indefinite nominal expressions and trigger the subjective paradigm. Even though the behaviour of the null parenthetical operator thus may seem to be exceptional, it must be noted that an object can be left unpronounced only if the verb is in the objective paradigm. If not, the referent of the object is not recoverable, while a verb in the objective paradigm associates the unpronounced object with a contextually given antecedent.

The fact that there is no overt object relative pronoun does not exclude the possibility of object resumptive pronouns, which are licensed by the null operator:

- (16) *A teknősök, mint azt tudjuk, szeretik a rákot.*
 the turtles as that.ACC know.1PL.OBJECTIVE like.3PL the shrimp.ACC
 ‘Turtles, as we know, like shrimp.’

As can be seen, the pronoun (*azt*) can be present in the parenthetical clause. However, this is not a relative pronoun but a demonstrative and hence is not located in the [Spec,CP]

position – accordingly, it does not trigger the subjective paradigm either, as relative operators would.

What is important for us here is that the null operator targets the lower [Spec,CP] position and hence it cannot co-occur with elements that are moving there.

6. Multiple operators

Let us now turn to the structure of comparative parenthetical clauses. Recall that comparative operators may appear in parentheticals:

- (17) *Peti, (*mint) amilyen magas, be fogja verni a fejét.*
 Peter as how tall PARTICLE AUX.3SG hit.INF the
 head.3SG.POSS.ACC
 ‘Peter, tall as he is, will hit his head.’

As can be seen, an overt comparative operator (*amilyen* ‘how’) can appear in the parenthetical clause. However, it is not allowed to co-occur with the complementiser *mint* ‘as’.

On the other hand, *mint* is a higher C head that can co-occur with the null parenthetical operator located in the lower [Spec,CP] position, in constructions like (13). The left periphery of a parenthetical clause like the one in (13a) is as follows:

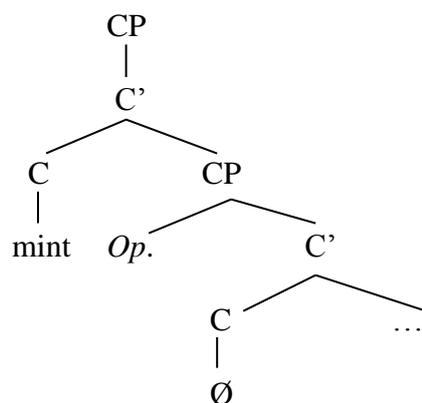


Figure 2: The left periphery of parenthetical clauses containing *mint*

In these cases *mint* is the head of the higher C head and the specifier of the lower CP hosts the zero operator. The representation is parallel to the one for comparative subclauses, as given in (4), where *than* is a higher C head and the comparative operator is located in the lower [Spec,CP] position. Since in Hungarian comparative subclauses *mint* occupies the same higher C head position and an operator such as *amilyen* is in the lower [Spec,CP], the question arises whether the comparative operator *amilyen* and the null operator are competing for the same position in parenthetical clauses.

Though this may at first seem to be the case, such a claim would be problematic for several reasons. First, *amilyen* may co-occur with the null operator, as shown by (17): it is not the presence of *amilyen* but that of *mint* that is ruled out. Second, *mint* can co-occur with the null operator but not with the comparative operator in parenthetical clauses, as shown by the ungrammaticality of *mint* in (17).

The solution to this paradox lies in the fact that there are two [Spec,CP] positions hence in constructions like (17) there are multiple operators that can be located in the structure in the following way:

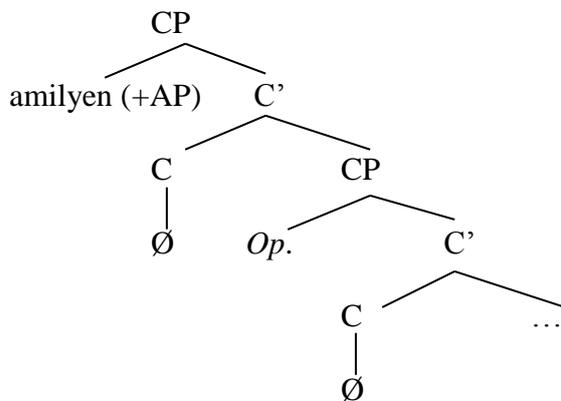


Figure 3: The left periphery of parenthetical clauses containing two operators

As can be seen, the higher [Spec,CP] position is filled by the comparative operator *amilyen* (and the lexical AP is also taken there) and the lower [Spec,CP] hosts the null parenthetical operator (standing for the missing object). In this configuration, *mint* is ruled out by economy: the co-presence of an overt head and an overt element in its specifier with

similar functions goes against economy. Essentially, *mint* and *amilyen* are both [+compr], and hence they have largely overlapping functions.¹¹

The question arises why *amilyen* moves up to the higher [Spec,CP] position if it is located in the lower [Spec,CP] in comparatives. The reason behind this is that *amilyen* is equipped with a [+rel] feature that instructs it to move to a [Spec,CP] position and since the lower one is already filled by the null operator, it has to move up to the higher CP node. Note that Hungarian does not allow relative operators to remain in situ (see Bacsikai-Atkari 2014); hence movement has to take place overtly before spellout. Moreover, there is also an overtness requirement that holds in the comparative subclause: there has to be an overt element marking [+compr] at the left edge and this overt marker is preferably located at the topmost level, i.e. the higher CP. This overt marker is either the head itself (*mint*) or it can also be an operator (*amilyen*). However, the co-occurrence of *mint* and *amilyen* in parenthetical clauses is ruled out by the economy principles described above.

7. Multiple complementisers

The previous section showed that the co-occurrence of *mint* ‘as’ and *amilyen* ‘how’ in a comparative parenthetical clause is ruled out by economy principles. The question arises why *ahogy* ‘how’ may co-occur with *mint* in structure like (10a), repeated here as (18):

- (18) A *teknősök*, *mint* (*ahogy*) *tudjuk*, *szeretik* a *rákot*.
 the turtles as how know.PRS.1PL like.PRS.3PL the shrimp.ACC
 ‘Turtles, as we know, like shrimp.’

Unlike *amilyen*, *ahogy* cannot be in the higher [Spec,CP] position since it follows *mint*, which is the higher C head. On the other hand, *ahogy* cannot be in the lower [Spec,CP] either since the null operator is there.

¹¹ This economy principle is traditionally referred to as the Doubly Filled COMP Filter in the CP-domain, even though it can be observed in other projections as well. It has to be mentioned that this should not be viewed as a specific universal rule operating in the same way in all languages: it should rather be understood as a principle that operates in the direction of reducing redundancy, and as such it interacts with the opposing principle of reinforcement, which favours (multiple) overt marking. On the two principles, see van Gelderen (2004, 2009). As far as Hungarian is concerned, the economy principle mentioned above seems to be strong. For instance, the (suffixal) plural marker and the numeral are mutually exclusive in a similar way, as described by É. Kiss (2002: 152–153). The plural marker (-*k* ‘-s’) is assumed to be the head of a NumP (Numeral Phrase), which dominates the NP; by contrast, the numeral (e.g., *két* ‘two’, *néhány* ‘some’) appears in [Spec; NumP]. Both of these elements are marked with the feature [+plural] but only one of them may be present in the structure at a time, hence Hungarian has configurations such as *lányok* ‘girls’ and *két lány* ‘two girl’ but not **két lányok* ‘two girls’.

Instead, I propose that *ahogy* is a grammaticalised (lower) C head and hence the structure is as follows:

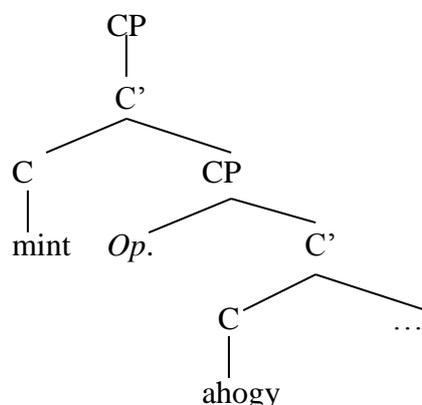


Figure 4: The left periphery of parenthetical clauses with two complementisers

As can be seen, in this case both C heads are filled overtly, the higher one by *mint* and the lower one by *ahogy*; the null operator is regularly located in the lower [Spec,CP] position. Let us now turn to the reasons why this should be so.

First, there is no reason to believe that *ahogy* would be an operator: unlike *amilyen*, *ahogy* cannot combine with a lexical AP hence there is no evidence for *ahogy* being phrase-sized. Note that evidence for the phrase-sized nature of a given element implies that the element cannot be a C head, but this is not true vice versa: a phrase can consist of a single head. However, due to reasons of economy, it is preferable for an element to be base-generated as a head instead of undergoing movement (see van Gelderen 2004; on the general preference of Merge over Move, see Chomsky 1995). Based on this, *ahogy* should rather be treated as a C head.

Second, it can be observed that the absence of *mint* results in degraded acceptability, as shown in (19):

- (19) ??? A teknősök, **ahogy** tudjuk, szeretik a rákot.
 the turtles how know.PRS.1PL like.PRS.3PL the shrimp.ACC
 ‘Turtles, as we know, like shrimp.’

If *ahogy* were an operator, then it would be expected to be able to move up to the higher [Spec,CP] position in the same way *amilyen* does and hence the higher CP would have an overt marker of the [+compr] nature of the clause. However, this is not so since *ahogy* as a

head does not normally move up to the Force-marking higher C head. This leaves two options, both of which result in degraded acceptability: *ahogy* as a lower C head moves up to the higher C in order to satisfy the overt requirement, which then includes an additional movement step, or *ahogy* stays in the lower C position and hence the higher CP node lacks an overt marker.

Third, the properties of *ahogy* make it possible for it to be a C head since it does not have features that would be incompatible with a C head in Hungarian: this is an instance of grammaticalisation of an original operator into a complementiser, which is, as has already been mentioned, more economical than movement. This kind of grammaticalisation is in fact a standard one and can be observed in earlier stages of the Hungarian language as well, that is, for other complementisers that grammaticalised during Old and Middle Hungarian (cf. Bacskai-Atkari 2012a). The process by and large corresponds to the relative cycle, as described by van Gelderen (2004, 2009) and Roberts and Roussou (2003), among others.

Hence it can be concluded that in parenthetical clauses containing *mint* and *ahogy* there are two overt complementisers.

8. German comparatives

Let us now turn to the investigation of German comparative parenthetical clauses, with the aim of showing that languages without overt comparative operators do not show the same interaction effects that Hungarian does. First of all, let us briefly discuss the basic fact about German comparative structures.

In (Standard) German, just like in English, there are two comparative complementisers. One is *wie* ‘as’, which appears in comparatives expressing equality, selected for by the degree element *so* ‘so’ in the matrix clause:

- (20) *Peter ist so groß wie Paul.*
Peter is as tall as Paul
‘Peter is as tall as Paul.’

The other complementiser is *als* ‘than’, which introduces comparative subclauses expressing inequality and is selected for by the comparative degree morpheme (*-er*) in the matrix clause:

- (21) *Peter ist größer als Paul.*
 Peter is taller than Paul
 ‘Peter is taller than Paul.’

Furthermore, German has no overt comparative operators; historically, *wie* ‘how’ was an operator but it has been reanalysed as a C head and this is so even if it co-occurs with *als* (cf. Jäger 2012) in constructions such as (22):

- (22) % *Peter ist größer als wie Paul.*
 Peter is taller than how Paul
 ‘Peter is taller than Paul.’

As indicated, the acceptability of structures like (22) varies, depending on the dialect and the speaker;¹² nevertheless, in such cases there are two overt C heads and there is no overt comparative operator.

That *wie* is a complementiser and not an operator in structures like (22) becomes evident when considering cases where there is an overt AP in the subordinate clause. Consider the following examples:

- (23) a. % *Der Tisch ist länger, als wie das Büro breit war.*
 the.MASC table is longer than how the.NEUT office wide was.3SG
 ‘The table is longer than the office was wide.’
 b. **Der Tisch ist länger, als wie breit das Büro war.*
 the.MASC table is longer than how wide the.NEUT office was.3SG
 ‘The table is longer than the office was wide.’

As can be seen, the sentence in (23a) is acceptable in the same way as (22), that is, speakers who accept (22) also accept (23a) and to the same extent. In this case, the AP *breit* ‘wide’ is in its base position. By contrast, in (23b) *breit* is in a left-peripheral position and the sentence is ungrammatical.¹³ If *wie* were an operator then (23b) should be grammatical since if the operator licenses an AP, then it should be able to move together with it. Note that cross-linguistically there are operators that allow the stranding of the AP. However, these also allow

¹² This kind of variation is not restricted to present-day German but is well documented for 19th-century language users as well, see Elspaß (2002: 54–61).

¹³ Note that while the comparative subclauses in (23) indeed show the full structure, (22) lacks not only the overt adjective but also the copula. Unlike in English, where the overt copula is allowed even in elliptical clauses (e.g. *Ralph is taller than Michael is*), German does not allow the presence of an overt copula after an ellipsis gap (hence the ungrammaticality of **Ralf ist größer als Michael ist*). However, this is true for German in general and is not related to any special property of comparatives; therefore I do not wish to elaborate on this issue any further, since it has no bearing on the analysis presented here.

the movement of the AP together with the operator – hence (23a) cannot be the result of *wie* moving out without the lexical AP. On the other hand, *wie* is obviously not an operator like *what* either since then (23a) should again not be grammatical: operators that do not take an overt lexical AP at all do not allow the presence of an AP in any position. All this points to the conclusion that *wie* is indeed a (lower) C head and hence the comparative operator itself is zero – consequently, the higher copy of the degree expression is not allowed to be realised overtly.

What this means for comparative parenthetical clauses is that no interaction is expected between complementisers and (comparative) operators, at least not in the way Hungarian has it.

9. German parentheticals

In German *as*-parentheticals are introduced by *wie* ‘as’. Consider (24):

- (24) *Schildkröten mögen, wie man weiß, Shrimps.*
 turtles like.3PL as PRONOUN knows shrimps
 ‘Turtles, as we know, like shrimps.’

The structure of the left periphery of the parenthetical clause in (24) should be identical to the one given in Figure 2 for Hungarian *mint*-parentheticals, thus as in figure 5:

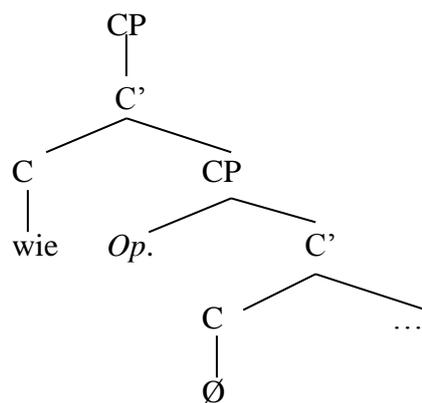


Figure 5: The left periphery of parenthetical clauses containing *wie*

As shown, *wie* is a higher C head and the null parenthetical operator is located in the lower [Spec,CP] position. The absence of overt comparative operators rules out the presence of overt APs in the [Spec,CP] position.

However, it is possible to have parenthetical clauses introduced by degree items: *soviel* ‘as much’ or *soweit* ‘as far’ can occur in parentheticals, in examples such as (25):

- (25) a. *Schildkröten mögen, soviel man weiß, Schrimps.*
 turtles like.3PL as.much PRONOUN knows shrimps
 ‘Turtles, as far as we know, like shrimps.’
- b. *Schildkröten mögen, soweit man weiß, Schrimps.*
 turtles like.3PL as.far PRONOUN knows shrimps
 ‘Turtles, as far as we know, like shrimps.’

The C head *wie* cannot co-occur with the elements *soviel* and *soweit* in comparative parentheticals

- (26) a. **Schildkröten mögen, soviel wie man weiß, Schrimps.*
 turtles like.3PL as.much how PRONOUN knows shrimps
 ‘Turtles, as far as we know, like shrimps.’
- b. **Schildkröten mögen, soweit wie man weiß, Schrimps.*
 turtles like.3PL as.far how PRONOUN knows shrimps
 ‘Turtles, as far as we know, like shrimps.’

However, the reason why *soviel* and *soweit* cannot co-occur with *wie* is not the same reason for which *amilyen* ‘how’ cannot co-occur with *mint* ‘as’ in Hungarian and this is so because *soviel* and *soweit* are not located on the left periphery of comparative subclauses.

Firstly, *so* ‘as’ in comparatives is a degree element in the matrix clause.¹⁴

- (27) a. *Hans hat so viel Geld [wie Peter].*
 Hans has as much money as Peter
 ‘Hans has as much money as Peter.’
- b. *Hans ist so fleißig [wie Peter].*
 Hans is as diligent as Peter
 ‘Hans is as diligent as Peter.’

¹⁴ The analysis here follows general assumptions about the syntactic structure of equatives, see for instance Lechner (1999, 2004), Kennedy (2002), and also Bresnan (1973); for a recent analysis, see Bacskai-Atkari (2014). Again, since this paper is not devoted to the structure of degree expressions in particular, nor do I wish to elaborate on the semantics of structures involving *so*, I will not go into further details concerning these issues.

In these cases *so* is a degree expression in a matrix clause that takes the comparative subclause (*wie Peter*) as one of its arguments (note that the comparative subclause is regularly dislocated to the right). Similarly, the elements *soviel* and *soweit* are not in the comparative subclause itself but they are nevertheless part of the parenthetical clause, which is hence bigger than a CP. The same can be observed in English:

(28) *Turtles, as far [as we know], like shrimps.*

In the English example in (28) the first *as* is a degree head in the matrix clause and its clausal complement is the subordinate clause introduced by the C head *as*.

As should be obvious, there are differences in selectional restrictions: in English, *as* selects a CP headed by *as* both in comparatives and in comparative parentheticals; in German, *so* selects a CP headed by *wie* in comparatives while *soviel* and *soweit* select a CP headed by a zero C head in comparative parentheticals.¹⁵

One important conclusion to be drawn is that a comparative parenthetical clause is not necessarily only a comparative subclause (CP) but it can also be a comparative QP (quantifier phrase) taking a CP complement:

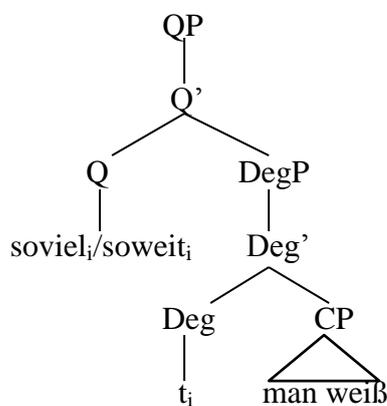


Figure 6: The structure of parenthetical clauses containing *soviel/soweit*

In (28), the QP is actually more complex than just the degree element since it contains *far* as well. The same can be observed in German in constructions like (29), where a lexical AP can also be present:

¹⁵ Note that selectional restrictions hold between the Deg head and the comparative subclause anyway: in English, the Deg head *as* selects for an *as*-CP while a comparative Deg head (*-er*) selects for a *than*-clause, cf. Bhatt and Pancheva (2004: 3), Bresnan (1973).

- (29) *Peter, (so) groß wie er ist, wird sich den Kopf anschlagen.*
 Peter as tall as he is will.3SG himself the.MASC.ACC head
 hit.INF
 ‘Peter, tall as he is, will hit his head.’

As can be seen, the quantifier expression in the matrix clause may contain both the degree element *so* and the lexical AP (*groß*) though the presence of the degree element in these cases is slightly marked. Nevertheless, the AP is clearly not in the subordinate clause. The same applies to the English counterpart of (29), given in (30):

- (30) *Peter, tall as he is, will hit his head.*

Again, since *tall* in (30) preceded the C head *as*, it cannot be located in the comparative subclause but is nevertheless part of the parenthetical clause:

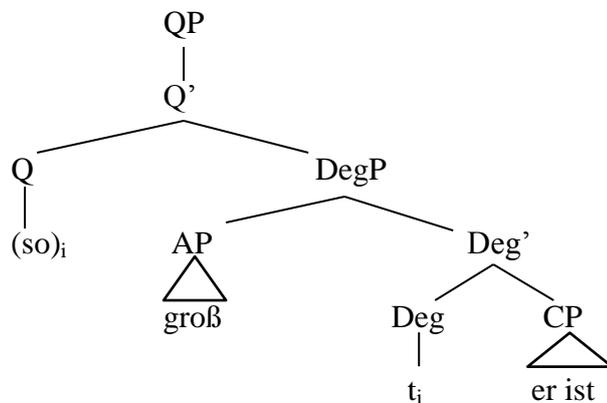


Figure 7: The structure of German parenthetical clauses containing a lexical AP

This shows that the degree elements in German (and English) comparative parenthetical clauses are not in the CP-domain, unlike in Hungarian. The reasons behind this are that these degree elements are not operators and that the AP is licensed without an overt degree operator, which would not be possible in a [Spec,CP] position.

Conclusion

The aim of the present article was to investigate the internal structure of comparative parenthetical clauses in Hungarian, with particular attention to the left periphery of the clause and to examine how the presence/absence of overt degree elements and lexical APs relate to similar structures found in other languages, such as German or English. It was shown that comparative parenthetical clauses in Hungarian contain two operators, the comparative operator and the null (parenthetical) operator and that these can co-occur in two distinct [Spec,CP] positions.

There are hence three possible configurations as far as the left periphery of Hungarian comparative parenthetical clauses is concerned. First, a comparative parenthetical clause may contain two operators: an overt comparative operator and the null operator. Second, it is possible to have the overt complementiser *mint* ‘as’ in the structure alongside the null operator. Third, there can be two overt C heads (*mint* and *ahogy* ‘how’) in addition to the null operator. All other configurations are ruled out by economy principles; hence their impossibility follows from general mechanism and do not have to be treated as exceptional.

Another important conclusion is that a comparative parenthetical clause is not necessarily only a CP but it can also be a QP taking a CP, as in German or English. In these cases the degree element is located outside of the comparative subclause but still within the parenthetical clause; furthermore, an overt functional degree head in itself suffices as the overt marker of the [+compr] nature of the parenthetical clause and hence no overt [+compr] C head or operator is needed.

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