

Operators in Comparative and Parenthetical Clauses*

0. Introduction

parenthetical constructions in Hungarian introduced by *mint* ‘than/as’:

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

mint introduces ordinary comparative subclauses too:

- comparatives expressing equality:

- (2) Peti olyan magas, **mint** az apja.
Peter so tall as the father-Poss.3.Sg.
‘Peter is as tall as his father.’

- comparatives expressing inequality:

- (3) Peti magasabb, **mint** az apja.
Peter taller than the father-Poss.3.Sg.
‘Peter is taller than his father.’

comparative operator – e.g. *amilyen* ‘how’ in the subclause

- optionally present in ordinary comparative subclauses (following *mint*)
- cannot co-occur with *mint* in parenthetical clauses

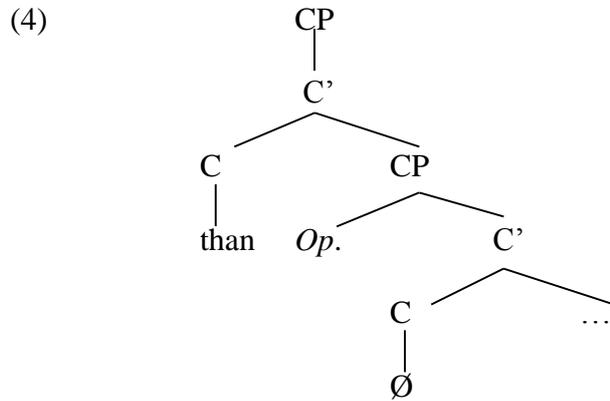
→ proposal: *mint* + comparative operator ruled out in parentheticals due to the presence of a null operator (standing for the missing object)

→ further question: languages without overt comparative operators (e.g. German)

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1. Operators in comparative subclauses

left periphery (cf. Rizzi 1997, 1999, 2004):



operator movement (cf. Chomsky 1977, Kennedy and Merchant 2000)

targets the lower [Spec; CP] position

comparative operator: relative operator

reasons for movement: comparatives obey islands

• *wh*-island:

(5) 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 .

• complex NP islands:

(6) 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 .

overt operators also realised in the lower [Spec; CP] position

overt operators in English:

(7) % John is taller **than what** Mary is. (Chomsky 1977, 87, ex. 51a)

2. Comparative subclauses in Hungarian

comparative complementiser: *mint* ‘as/than’

- optional overt operators (cf. Bacskai-Atkari 2013):

(8) a. Peti olyan magas, **mint (amilyen)** az apja.
Peter so tall as how the father-Poss.3.Sg.
‘Peter is as tall as his father.’

b. Peti magasabb, **mint (amilyen)** az apja.
Peter taller than how the father-Poss.3.Sg.
‘Peter is taller than his father.’

- *amilyen* ‘how’ may be combined with a lexical AP (\leftrightarrow *what* in English):

(9) a. Peti olyan magas, **mint amilyen (magas)** az apja.
Peter so tall as how tall the father-Poss.3.Sg.
‘Peter is as tall as his father.’

b. Peti magasabb, **mint amilyen (magas)** az apja.
Peter taller than how tall the father-Poss.3.Sg.
‘Peter is taller than his father.’

- if the AP in the subclause is not e-GIVEN (cf. Merchant 2001), then it cannot be eliminated:

(10) 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.’

→ quantified expression may remain overt irrespectively of whether it is e-GIVEN or not

e-GIVEN QP: logically identical QP in the matrix clause (cf. Bacskai-Atkari 2010)

but: if the AP is e-GIVEN, then the operator is also optional in Hungarian

AP requires the presence of the operator otherwise

3. Parenthetical clauses and operators

parenthetical clauses introduced by *mint* ‘as’

expectation: operator should be optional

no matrix clausal antecedent in the form of a QP

→ no lexical AP taken by the operator

element *ahogy* ‘how’ – normally a VP-modifying adverbial operator

- (11) a. A teknősök, **mint (ahogy)** tudjuk, szeretik a rákot.
 the turtles as how know-1.Pl. like-3.Pl. the shrimp-Acc.
 ‘Turtles, as we know, like shrimp.’
- b. Az igazgató, **mint (ahogy)** elmondta, maga is meglepődött a
 the headmaster as how PART-said-3.Sg. himself too surprised-3.Sg. the
 jó eredményeken.
 good results
 ‘The headmaster, as he said, was surprised by the good results himself.’

↔ *amilyen* ‘how’: cannot co-occur with *mint*:

- (12) a. Peti, (***mint**) **amilyen** magas, be fogja verni a
 Peter as how tall PART Aux.Fut.3.Sg. hit the
 fejét.
 head-Poss.3.Sg.Acc.
 ‘Peter, tall as he is, will hit his head.’
- b. Peti, (***mint**) **amilyen** magas ember, be fogja verni a
 Peter as how tall person PART Aux.Fut.3.Sg. hit the
 fejét.
 head-Poss.3.Sg.Acc.
 ‘Peter, tall as he is, will hit his head.’

lexical AP (and/or NP) in (12) cannot be deleted ↔ comparatives

→ operator has to remain overt if the AP moves to the [Spec, CP] position

question: why *mint* has to be eliminated

↔ comparatives

↔ parentheticals with *ahogy*

4. Null operators in parenthetical clauses

some properties of reduced parenthetical clauses

(cf. Schneider 2007, De Vries 2007, Ackema and Neeleman 2004, Hoffmann 1998)

- the verb lacks one of its arguments required by its valency
- no overt syntactic link to the host they are attached to
- host clause visible to parenthetical clause but not vice versa
- one valency requirement of the parenthetical verb satisfied by the host clause itself

empty operators in parentheticals (Schneider 2007; Heringa 2011)

as-parentheticals: null operator moving to [Spec; CP] ~ missing object (Potts 2002: 62)

(13) Cuckoos don't build nests, as *Op*₁ everybody knows *t*₁.

Hungarian parentheticals: verb in the objective paradigm

- (14) a. A teknősök, mint **tudjuk**, szeretik a rákot.
 the turtles as know-1.Pl.Objective like-3.Pl. the shrimp-Acc.
 'Turtles, as we know, like shrimp.'
- b. *A teknősök, mint **tudunk**, szeretik a rákot.
 the turtles as know-1.Pl.Subjective like-3.Pl. the shrimp-Acc.
 'Turtles, as we know, like shrimp.'

→ there must be an object that the verb agrees with

no overt object relative pronoun in Hungarian parentheticals:

- (15) a. *A teknősök, mint **amit** tudjuk, szeretik a rákot.
 the turtles as what-Acc. know-1.Pl.Objective like-3.Pl. the shrimp-Acc.
 ‘Turtles, as we know, like shrimp.’
- b. *A teknősök, mint **amit** tudunk, szeretik a rákot.
 the turtles as what-Acc. know-1.Pl.Subjective like-3.Pl. the shrimp-Acc.
 ‘Turtles, as we know, like shrimp.’

overt relative pronouns would trigger the subjective paradigm:

- (16) a. Ez az, amit **tudunk**.
 this that what-Acc. know-1.Pl.Subjective
 ‘This is what we know.’
- b. *Ez az, amit **tudjuk**.
 this that what-Acc. know-1.Pl.Objective
 ‘This is what we know.’

null operator licenses a resumptive pronoun:

- (17) A teknősök, mint **azt** tudjuk, szeretik a rákot.
 the turtles as that-Acc. know-1.Pl.Objective like-3.Pl. the shrimp-Acc.
 ‘Turtles, as we know, like shrimp.’

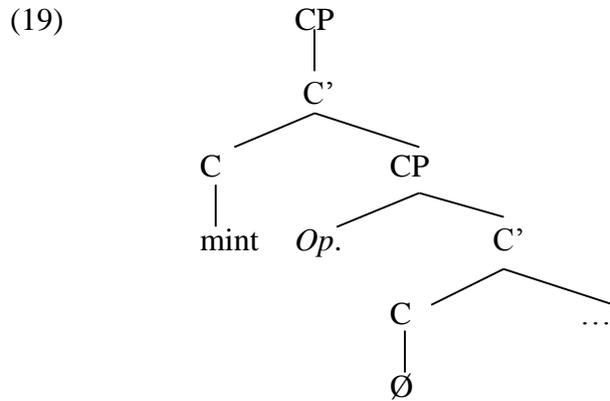
null operator targets the lower [Spec; CP] → cannot co-occur with elements that moving there

5. Multiple operators

recall: comparative operators may appear in parentheticals:

- (18) Peti, (***mint**) **amilyen** magas, be fogja verni a
 Peter as how tall PART Aux.Fut.3.Sg. hit the
 fejét.
 head-Poss.3.Sg.Acc.
 ‘Peter, tall as he is, will hit his head.’

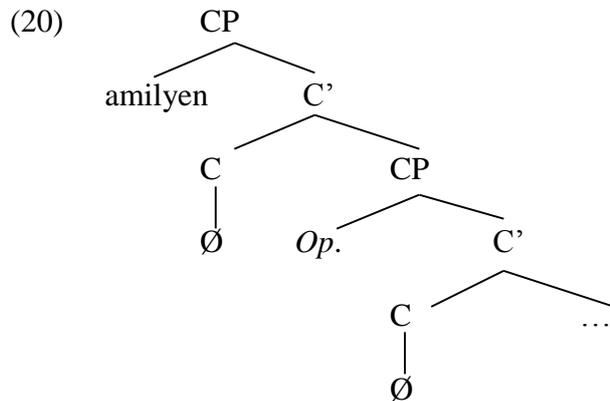
but: *mint* 'as' a higher C head and null operator in the lower [Spec; CP] – e.g. (14):



→ comparative operator *amilyen* 'how' and null operator competing for the same position?

- *amilyen* may co-occur with the null operator – (18)
- *mint* can co-occur with the null operator but not with the comparative operator – (18)
- there are two [Spec; CP] positions

→ multiple operators in (18):



- *mint* ruled out because of the Doubly Filled COMP Filter
- *amilyen* has to move up to a [Spec; CP] position – [EDGE] feature
- overttness requirement: there has to be an overt element marking [+compr] at the left edge

6. Multiple complementisers

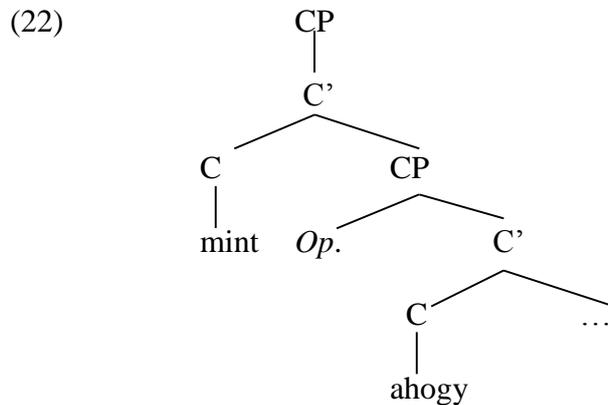
ahogy ‘how’ may co-occur with *mint* ‘as’:

- (21) A teknősök, **mint** (**ahogy**) tudjuk, szeretik a rákot.
 the turtles as how know-1.Pl. like-3.Pl. the shrimp-Acc.
 ‘Turtles, as we know, like shrimp.’

→ *ahogy* cannot be in the higher [Spec; CP] – it follows *mint*

→ *ahogy* cannot be in the lower [Spec; CP] – there is the null operator

proposal: *ahogy* is a grammaticalised (lower) C head:



- *ahogy* cannot combine with lexical APs (↔ *amilyen* ‘how’)
- the absence of *mint* results in degraded acceptability

- (23) ??? A teknősök, **ahogy** tudjuk, szeretik a rákot.
 the turtles how know-1.Pl. like-3.Pl. the shrimp-Acc.
 ‘Turtles, as we know, like shrimp.’

→ Force-marking higher C head filled only if lower C head moves up – markedness

overt marking of [+compr] – preferably in the higher CP node

ahogy normally not moving there ↔ *amilyen* as an operator

- possible because it does not have features a C head could not have – grammaticalisation

~ other complementisers in Old and Middle Hungarian (cf. Bacskai-Atkari 2012)

relative cycle (cf. van Gelderen 2004, 2009; Roberts and Roussou 2003)

7. German comparatives

two comparative complementisers:

- *wie* ‘as’ – comparatives expressing equality:

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

- *als* ‘than’ – comparatives expressing inequality:

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

no overt comparative operator

historically, *wie* ‘how’ was an operator but has been reanalysed as a C head – even if it co-occurs with *als* (cf. Jäger 2012)

→ two overt C heads possible (depending on the speaker/dialect):

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

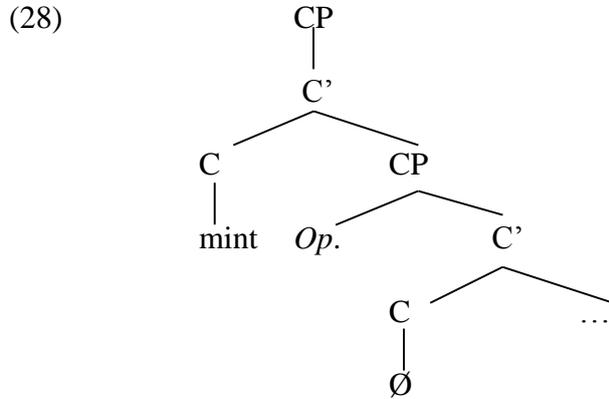
→ no interaction expected between complementisers and (comparative) operators

8. German parentheticals

German *as*-parentheticals: introduced by *wie* ‘as’:

(27) Schildkröten mögen, **wie** man weiß, Schrimps.
 turtles like-3.Pl. as Pronoun. knows shrimps
 ‘Turtles, as we know, like shrimps.’

→ structure in (19): *wie* a higher C head and null parenthetical operator in lower [Spec; CP]



but: *soviel* ‘as much’ or *soweit* ‘as far’ can occur:

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

soviel/soweit cannot co-occur with *wie* ≠ *amilyen* cannot co-occur with *mint* in Hungarian

← *soviel, soweit* not operators

so ‘as’ in comparatives: degree element in the matrix clause

- (30) 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.’

similarly in English:

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

differences in selectional restrictions:

- English: *as* selects a CP headed by *as*
- German: *so* selects a CP headed by *wie* ↔ *soviel*, *soweit* select a CP headed by \emptyset

→ parenthetical clause not necessarily only a comparative subclause (CP) but can also be a comparative QP (quantifier phrase) taking a CP complement

evidence: lexical AP can also be present:

- (32) Peter, (?so) **groß** wie er ist, wird sich den Kopf anschlagen.
 Peter as tall as he is will himself the-Masc.Acc. head hit
 ‘Peter, tall as he is, will hit his head.’

English:

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

→ degree elements in German (and English) not in the CP-domain ↔ Hungarian

- degree elements are not operators
- AP licensed without an overt degree operator

Conclusion

comparative parenthetical clauses contain two operators

comparative operator and null operator

they can co-occur in two distinct [Spec; CP] positions

→ three possible configurations:

- two operators
- overt *mint/wie* + null operator
- two overt C heads + null operator

all other configurations ruled out by economy principles

comparative parenthetical clause: not necessarily only a CP – can be a QP taking a CP

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