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REANALYSIS IN HUNGARIAN COMPARATIVE SUBCLAUSES

0. The problem

Modern Hungarian: comparative subclauses are introduced by *mint* 'than', which can be followed by an overt comparative operator (e.g. *ahányszor* 'x-many times')

Old Hungarian: comparative subclauses were initially and typically introduced by *hogy* 'that', and the comparative operator was covert

→ the development of the complementiser and of the operator are interrelated processes

  reanalysis of the complementiser

  change in the deletion of the operator
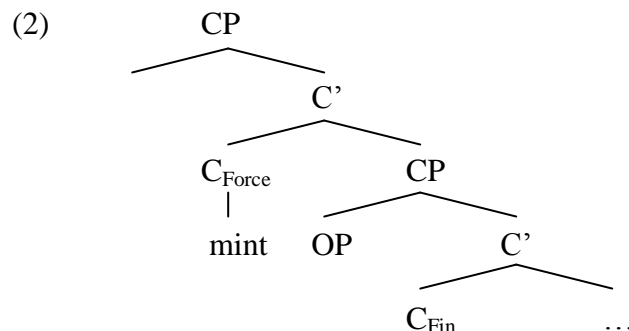
1. The structure of comparatives

(1) Anna ma   többször   telefonált   Moszkvába,   mint ahányszor   Miki szokott.
    Ann today more.times phoned-3.Sg. Moscow-Illat. than x-many times Mike does.
    'Ann phoned to Moscow more times today than Mike usually does.'

reference value of comparison: QP in the matrix clause

standard value of comparison: subclause

comparative subclause: CP, in Modern Hungarian introduced by the complementiser *mint* 'than' (cf. Kenesei 1992), representing comparative Force (see Rizzi 1999)

  below the *mint*-CP there is another CP, to the specifier of which the comparative operator moves via operator movement (Chomsky 1977; Kennedy and Merchant 2000):

(2)

```
                CP
                |
                C'
              /    \
        C_Force      CP
           |        /   \
         mint     OP      C'
                         /   \
                    C_Fin      …
```

Rizzi's analysis of the Left Periphery (Rizzi 1997: 297):

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

Modern Hungarian: *mint* is base-generated in the higher C head, and the operator moves to the lower [Spec; CP] – see Kántor (2008a); the operator can be overt:

(4) Marinak   több macskája   van, mint **ahány   macskája**   Péternek van.
    Mary-Dat. more cat-Poss.3.Sg. is   than **x-many cat-Poss.3.Sg.** Peter-Dat. is
    'Mary has more cats than Peter.'

2. Parametric variation in the subclause

deletion phenomena – Comparative Deletion (CD)

> an operation responsible for eliminating the QP from the comparative subclause, if it is logically identical with the one in the matrix clause (Bácskai-Atkári 2010: 10)

English: [+CD] language

(5a) *Ann is more enthusiastic than Peter is enthusiastic.

(5b) Ann is more enthusiastic than Peter is ___ .

when the QP is contained within a DP, the entire DP has to be moved (← DP island constraint, see Izvorski 1995: 217; Kántor 2008b: 148–149; on the constraint, see Kayne 1983; Ross 1986; Bošković 2005; Grebenyova 2004)

(6a) *Susan has bigger cats than Peter has cats.

(6b) Susan has bigger cats than Peter has ___ .

as opposed to English, Modern Hungarian is a [–CD] language:

(7a) Anna   lelkesebb,   mint **amilyen lelkes**   Miki.
    Ann   more.enthusiastic   than **x-much enthusiastic** Mike
    'Ann is more enthusiastic than Mike.'

(7b) Zsuzsának nagyobb macskái vannak, mint **amilyen nagy macskái** Péternek   vannak.
    Susan-Dat. bigger   cats   are   than **x-much big cats**   Peter Dat. are
    'Susan has bigger cats than Peter has.'

3. Diachronic change in Hungarian – an overview

in Old Hungarian, the subclause was initially introduced by *hogy* 'that', and the subclause also contained the negative element *nem* 'not' (Haader 2003a: 515):

(8a) Mert   iob   hog megfog'doſuā algukmĕg'   vſat   **hog nĕ** mĕghal'l'ōc
     because better that caught-Past.Part. bless-3.Pl.Subj. Lord-Acc. that not die-3.Pl.Subj.
     'because it is better that we should bless the Lord caught than die'
                                                                     (BécsiK. 25)

(8b) mert   emberi elme, mindenkoron kezzebb az gonozra, **hog' nem** az iora
     because human mind always   readier the evil-Subl. that not the good
     'because the human mind is always readier for evil than for good'
                                                                     (BodK. 2r)

later, *mint* 'than' could appear as well in typical sequences such as *hogy nem mint* 'that not than' – characteristic of Middle Hungarian (Haader 2003a: 515, 2003b: 681):

(9a) maſtan kozelben vagyon a'my Idweſſeegwnk   **honnem mynt** eleeb hyttok
     now   nearer   is   the.our salvation-3.Pl.Poss. that.not than before thought-3.Pl.
     'our salvation is nearer now than we thought before'
                                         (ÉrdyK. 3; ex. from Haader 2003a: 515)

(9b) az mentól alsobÿkban is   tob   angÿal uagon **honnem mÿnth** az napnak feneben
     the more down-Ine. also more angel is   that.not than   the sun-Dat. light-Poss.
     'there are more angels in the basest one of them than in the sun's light'
                                                                     (SándK. 1v)

the heads *hogy*, *nem* (also *sem* 'nor') and *mint* could fuse (see Haader 2003a: 515; Kenesei 1992: 43)

the element *nem* later could be left out, giving the sequence *hogy mint* (Haader 2003a: 515):

(15) edesseget   erze   nagÿoban **hogÿmint** annak elotte
     sweetness-Acc. felt-3.Sg. bigger   that.than that-Dat. before-Poss.
     'he felt sweetness more than before'
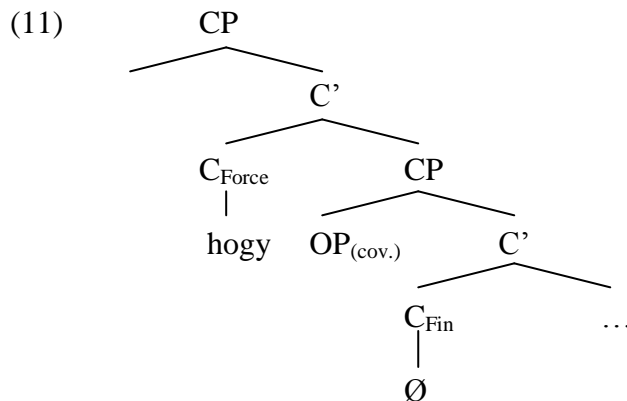   (LázK. 140; ex. from Haader 2003a: 515)

some data from the Old Hungarian corpus:

Codex	Date	*hogy nem*	*hogy nem mint*	*mint*
Jókai	btw. 1372 and 1448	3	4	4
Müncheni	1466	3		
Bécsi	btw. 1416 and 1450	18		1
Birk	1474	2	2	
Weszprémi	around 1512		7	
Gömöry	1516		1	
Sándor	around 1518	3	2	1
Pozsonyi	1520	3	1	
Bod	after 1520	4		2
Székelyudvarhelyi	1526–1528		3	

4. Reanalysis and parametric change

The initial setup: ● the subclause is introduced by the C_{Force} head *hogy* 'that'
● the comparative operator is obligatorily deleted – [+CD] parameter
● the subclause contains the element a *nem* 'not' (← comparative Force)

(11)

```
            CP
           /  \
             C'
            /    \
      C_Force     CP
        |        /  \
      hogy   OP(cov.)  C'
                      /  \
                  C_Fin    …
                    |
                    Ø
```

hogy: C head (Haader 2003a: 515, 2003c: 263; Juhász 1991: 479 historically derive it from a pronoun meaning 'how', cf. Modern Hungarian *hogy* 'how')

fusion with other heads (see above)

introduces other finite clauses in the period – *that*-clauses, relative clauses (Haader 2003a, 1991; Galambos 1907)

similar behaviour in other languages as well: Italian *che* or French *que* introduce comparative subclauses and also finite declarative clauses; these are C heads (see Rizzi 1997; Rowlett 2007: 147–148)

(12) Maria mangia più **che** Paolo.   (*Italian*)
Mary eats   more that Paul
'Mary eats more than Paul.'

(13) Anne est plus fatiguée **que** Marie.   (*French*)
Ann is more tired   that Mary
'Ann is more tired than Mary.'

The relation of *hogy* and *hogy nem*

the presence of the negative element can be observed in other languages as well (see Salvi–
Vanelli 2004: 283–285):

(14) Maria mangia più   che **non** Paolo.   (*Italian*)
Mary eats   more that not   Paul
'Mary eats more than Paul.'

(15) L'example touche plus que **ne** fait la   menace.   (*French*)
the.example touches more that not does the-Fem. threat
'Examples touch more than threat does.' (Corneille)

fusion: *hogy* and *nem* could also fuse: *hogynem* complex complementiser (Juhász 1991: 489,
494)

possibly also phonological change: *honnem*
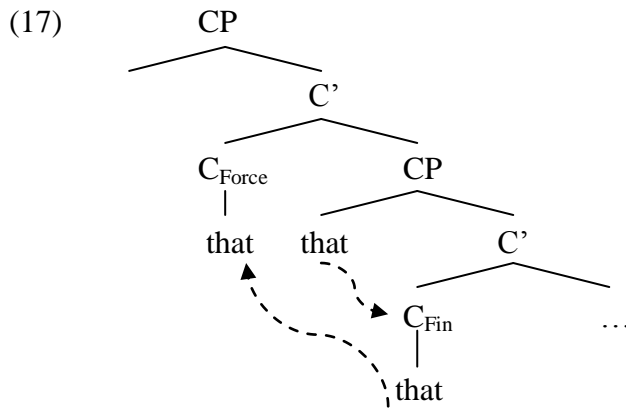
(16) ez vilagÿakrol   kÿnneb embornek eerteekoznÿe **honnem** az menÿeÿekrol
this mundane-Pl.Del. easier   man-Dat.   dissert-Inf.   that.not   the heavenly-Pl.Del.
'it is easier for man to dissert on mundane than on heavenly matters'

(SándK. 1r)

→ two C heads: *hogy* and *hogynem*

The relative cycle as a grammaticalization process

relative cycle: determiner → relative pronoun → C head (Roberts–Roussou 2003: 119, van
Gelderen 2009)

English *that* – the pronoun moving to [Spec; CP] is reinterpreted as part of that CP, i.e. as
a C head – van Gelderen (2009: 107): first in C$_{Fin}$, later in C$_{Force}$ position

(17)

```
              CP
               |
               C'
        ┌──────┴──────┐
      C_Force          CP
        |         ┌─────┴─────┐
      that      that          C'
                           ┌──┴──┐
                         C_Fin    …
                           |
                         that
```

The appearance of *mint*

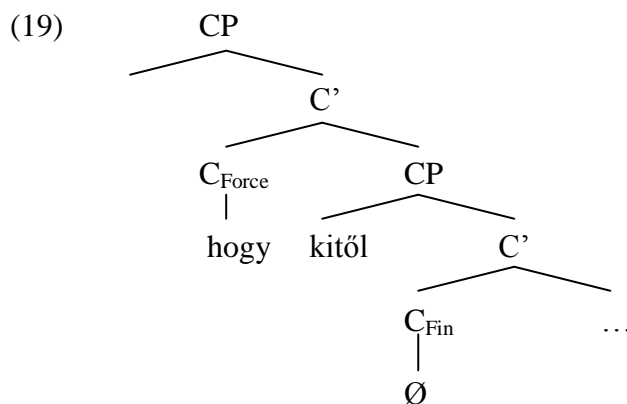analogous structure with ordinary relatives

    in Old Hungarian, and especially in Middle Hungarian, the sequence *hogy* + relative
      pronoun was frequent (see Galambos 1907: 14–18; see also Haader 1995, Dömötör 1995)
        it could also become a complex complementiser (Juhász 1992: 792; Haader 1995)

(18) olÿaat   tezok   raÿtad   hog kÿtol   felz
      such-Acc. do-1.Sg. you-Sup. that what-Abl. fear-2.Sg.
      'I will do such to you that from which you will fear'

                                                        (SándK. 14v)

no phonological difference between the relative and the interrogative pronoun (i.e. present-
    day *ki* 'who-Int.' and *aki* 'who-Rel.'), the process starting only in the late Old Hungarian
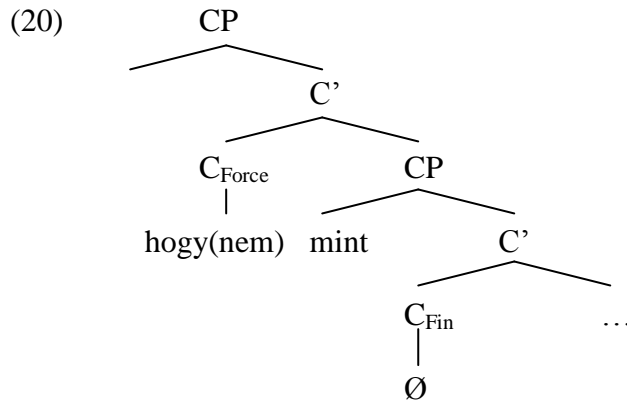   period – Sipos (1991: 398), G. Varga (1992: 524–525), Juhász (1992: 791), Haader (1995)

structure:

(19)

```
              CP
               |
               C'
        ┌──────┴──────┐
      C_Force          CP
        |         ┌─────┴─────┐
      hogy      kitől          C'
                           ┌───┴───┐
                         C_Fin      …
                           |
                           Ø
```

the hypothesis of Galambos (1907: 15): the relative pronoun was closer to its original
      pronominal function – later *hogy* becoming completely redundant

    → first step of the relative cycle: becoming relative pronoun

in comparatives: similarly to relative pronouns, the comparative operator appears in the lower [Spec; CP]: *mint* (relative pronoun, see Juhász 1991: 480–481; no phonological distinction ~ other relative pronouns, e.g. *ki* 'who-Int.' vs. *ki* 'who-Rel.)

(20)

```
              CP
              |
              C'
            /    \
       C_Force    CP
         |       /   \
     hogy(nem) mint   C'
                     /    \
                  C_Fin    …
                    |
                    Ø
```

the appearance of *mint*: possible because no other operator – similar phenomenon in other [+CD] languages:

(21a) % John is taller **than what** Mary is.   (Chomsky 1977: 87, ex. 51a)

(21b) % Die   Welt   ist mehr, **als   was** wir sehen.   (*German*)
      the-Fem. world is more   than what we see-1.Pl.
      'The world is more than what we see.'

(21c) % Er   ist besser **als   wie** du.   (*German*)
      he is better than how you
      'He is better than you.'

no sensitivity to the subtype of comparative (↔ Modern Hungarian)

    proform: the pronoun stands for the entire QP, DP – does not contain a lexical AP or NP

    G. Varga (1992: 525): the late Old Hungarian relative pronoun system still lacked the elements *milyen* 'how', *amilyen* 'how-Rel.'; *mekkora* 'how big, *amekkora* 'how big-Rel.'
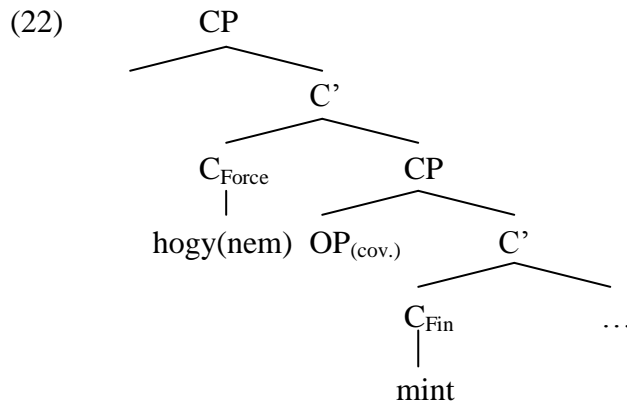
Old Hungarian is [+CD] before the appearance of *mint*; later [–CD]

The reanalysis of *mint*

second step of the relative cycle: operator → C head

→ *mint* is generated in C$_{Fin}$; C$_{Force}$ still contains *hogy(nem)*

mint: remained insensitive to the choice of the matrix pronominal element (i.e.
annyiszor 'many times', *akkora* 'much big', *olyan* 'how', cf. Juhász 1992:
799), did not develop into a proper operator morphologically
↔ other relative pronouns (e.g. *ki* 'who-Int.' and *aki* 'who-Rel.)

(22)

```
           CP
          /  \
             C'
            /  \
     C_Force    CP
        |      /  \
   hogy(nem) OP_(cov.)  C'
                      /  \
                  C_Fin    …
                    |
                  mint
```

operator: empty (← Doubly Filled Complementiser Filter)

Reanalysis in terms of the two C heads

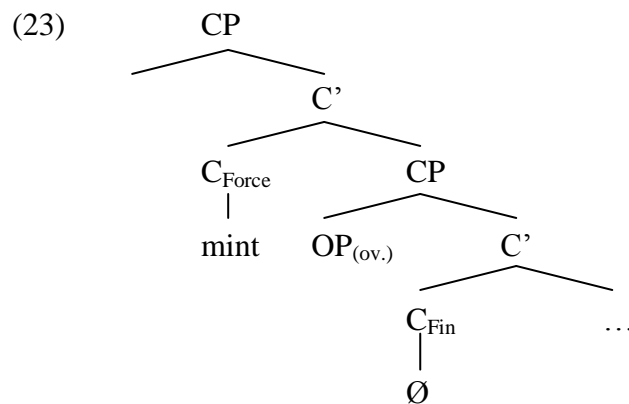instead of C$_{Fin}$, *mint* is generated in C$_{Force}$ – in parallel with the disappearance of *hogy*

mint is interpreted as a head responsible for Force → structural change

disappearance of *hogy* makes it possible for *mint* to appear in the higher C head

in the specifier of the lower CP, the operator can appear again (~first step of the relative cycle)

relative pronouns (*amennyi* 'x-many', *ahányszor* 'x-many times', *amilyen* 'how-Rel.' etc.)
→ analogy (relative clauses)

Galambos (1907): purists (e.g. Zsigmond Simonyi) thought it to be unnecessary
↔ in fact, it is a repetition of a diachronic change

(23)

```
            CP
           /  \
               C'
              /  \
         C_Force   CP
           |      /  \
         mint  OP_(ov.)  C'
                       /   \
                    C_Fin    …
                      |
                      Ø
```

Conclusion

→ the development of the complementiser and of the operator are strongly interrelated

relative cycle – reanalysis

analogy – the appearance of the operator

change in the deletion of the operator (whether it is obligatory)

References

Bácskai-Atkári, Júlia (2010) Parametric Variation and Comparative Deletion. *The Even Yearbook* 9. 1–21.

Bošković, Željko (2005) On the Locality of Left Branch Extraction and the Structure of NP. *Studia Linguistica 59* (1). 1–45.

Chomsky, Noam (1977) On WH-movement. In Culicover, Peter W. et al. (eds.), *Formal Syntax*. New York: Academic Press. 71–132.

Dömötör, Adrienne (1991) Az alárendelő mondatok: A jelzői mellékmondatok. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana I.: A korai ómagyar kor és előzményei*. Budapest: Akadémiai Kiadó. 742–745.

Dömötör, Adrienne (1995) Az alárendelő mondatok: A jelzői mellékmondatok. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana II/2.: A kései ómagyar kor: Mondattan. Szöveggrammatika.* Budapest: Akadémiai Kiadó. 666–693.

Galambos, Dezső (1907) *Tanulmányok a magyar relatívum mondattanáról*. Budapest: Athenaeum.

Grebenyova, Lydia (2004) Sluicing and Left-Branch Extraction out of Islands. In: Vineeta Chand et al. (eds.) *WCCFL 23: The Proceedings of the 23rd West Coast Conference on Formal Linguistics*. Somerville, Mass.: Cascadilla Press. 164–172.

G. Varga, Györgyi (1992) A névmások. In: Benk,ő Loránd (ed.), *A magyar nyelv történeti nyelvtana II/1.: A kései ómagyar kor: Morfematika*. Budapest: Akadémiai Kiadó. 455–569.

Haader, Lea (1991) Az alárendelő mondatok: Az alanyi, állítmányi, tárgyi és határozói mellékmondatok. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana I.: A korai ómagyar kor és előzményei*. Budapest: Akadémiai Kiadó. 728–741.

Haader, Lea (1995) Az alárendelő mondatok: Az alanyi, állítmányi, tárgyi és határozói mellékmondatok. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana II/2.: A kései ómagyar kor: Mondattan. Szöveggrammatika*. Budapest: Akadémiai Kiadó. 506–665.

Haader, Lea (2003a) Az ómagyar kor: Mondattörténet: Az összetett mondat. In: Kiss, Jenő and Ference Pusztai (eds.), *Magyar nyelvtörténet*. Budapest: Osiris Kiadó. 500–560.

Haader, Lea (2003b) A középmagyar kor: Mondattörténet: Az összetett mondat. In: Kiss, Jenő and Ferenc Pusztai (eds.), *Magyar nyelvtörténet*. Budapest: Osiris Kiadó. 677–690.

Haader, Lea (2003c) Az ősmagyar kor: Mondattörténet: Az összetett mondat. In: Kiss, Jenő and Ferenc Pusztai (eds.), *Magyar nyelvtörténet*. Budapest: Osiris Kiadó. 260–267.

Izvorski, Roumyana (1995). A Solution to the Subcomparative Paradox. In: Jose Camacho et al. (eds.), *WCCFL 14: The Proceedings of the 14th West Coast Conference on Formal Linguistics*, Stanford: CSLI Publications. 203-219.

Juhász, Dezső (1991) A kötőszók. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana I.: A korai ómagyar kor és előzményei*. Budapest: Akadémiai Kiadó. 476–500.

Juhász, Dezső (1992) A kötőszók. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana II/1.: A kései ómagyar kor: Morfematika*. Budapest: Akadémiai Kiadó. 772–814.

Kántor, Gergely (2008a) On Hungarian Relative Operators. *The Even Yearbook* 8. 1–12.

Kántor, Gergely (2008b) Komparatív korrelatív szerkezetek a magyarban. *Nyelvtudományi Közlemények* 105: 134–163.

Kayne, Richard (1983) Connectedness. *Linguistic Inquiry* 14. 223–250.

Kenesei, István (1992) On Hungarian Complementizers. In: Kenesei, István and Csaba Pléh (eds.), *Approaches to Hungarian 4*. Szeged: JATE. 37–50.

Kennedy, Christopher and Jason Merchant (2000) Attributive Comparative Deletion. *Natural Language & Linguistic Theory* 18. 89–146.

Rizzi, Luigi (1997) The Fine Structure of the Left Periphery. In Haegeman, Liliane (ed.) *Elements of Grammar*. Dordrecht: Kluwer. 281–337.

Rizzi, Luigi (1999) *On the Position "Int(errogative)" in the Left Periphery of the Clause*. Retrieved March 31 2008, from http://www.ciscl.unisi.it/persone/rizzi.htm.

Roberts, Ian and Anna Roussou (2003) *Syntactic Change: A Minimalist Approach to Grammaticalization*. Cambridge: Cambridge University Press.

Ross, John Robert (1986) *Infinite syntax*. Norwood: Ablex Publishing.

Rowlett, Paul (2007) *The Syntax of French*. Cambridge: Cambridge University Press.

Salvi, Giampaolo and Laura Vanelli (2004) *Nuova grammatica italiana*. Bologna: il Mulino.

Sipos, Pál (1991) A névmások. In: Benkő, Loránd (ed.), *A magyar nyelv történeti nyelvtana I.: A korai ómagyar kor és előzményei*. Budapest: Akadémiai Kiadó. 353–400.

van Gelderen, Elly (2009) Renewal in the Left Periphery: Economy and the Complementiser Layer. *Transactions of the Philological Society* 107:2. 131–195.