Cyclic changes in Hungarian relative clauses

Julia Bacskaï-Atkari\textsuperscript{1} and Éva Dékány\textsuperscript{2}
\textsuperscript{1}University of Potsdam, \textsuperscript{2}Institute for Linguistics (HAS)

julia.bacskaï-atkari@uni-potsdam.de, dekány.eva@nytud.mta.hu

1. Introduction

Old Hungarian (OH): early 9\textsuperscript{th}-16\textsuperscript{th} century; first coherent text: Funeral Sermon and Prayer from 1192–1195, first codex: Jókai Codex from after 1370 (surviving copy from 1448).

RCs in OH: relative operator formally identical to interrogative operator

\begin{enumerate}
\item \textit{de qui legen neký atia ogt nem tudinc} but who.INT be.SBJV.3SG he.DAT father-POSS that-ACC not know-1PL ‘but we do not know who his father is’ (Königsberg Fragment)
\item \textit{szűz leannac [qui vleben tart chudalatu] fiot} virgin girl-DAT who.REL lap-POSS.INE holds wonderful son-ACC ‘of a virgin girl, who is holding a wonderful son in her lap’ (Königsberg Fragment)
\end{enumerate}

Modern Hungarian: interrogative operator unchanged, relative operator has an \textit{a}-prefix

\begin{enumerate}
\item \textit{de nem tudjuk, ki lehet az atyja} but not know-1PL who.INT be.POSSIB.3SG the father-POSS ‘but we do not know who his father is’
\item \textit{szűz leáwnak, aki öleben tart csodálatos fiut} virgin girl-DAT who.REL lap-POSS.INE holds wonderful son-ACC ‘of a virgin girl, who is holding a wonderful son in her lap’
\end{enumerate}

origins of relative pronouns cross-linguistically:

\textit{wh}-pronouns $\rightarrow$ \textit{wh}-REL
\textit{demonstrative} pronouns $\rightarrow$ \textit{dem}-REL

the relative cycle (see van Gelderen 2004; 2009):

\begin{itemize}
\item the reanalysis of demonstrative/interrogative pronouns into relative pronouns
\item the reanalysis of relative pronouns into C heads
\item the grammaticalization of original operators into C heads allows new relative pronouns to appear in the CP-domain
\end{itemize}
English (van Gelderen 2004; 2009):

(I) reanalysis of *that* in OE: demonstrative → relative operator → C head

(II) reanalysis of *wh*-pronouns in ME: interrogative operator → relative operator

(I) precedes (II) → output of (I) provides an environment for (II)

(5) a. CP
    se/bat C TP
   be

b. CP
    Ø C
    that

(5) c. CP
    wh C
    that

English historically has both dem-REL and wh-REL in relative clauses

- dem-RELs are standard in Germanic relatives (Brandner and Bräuning 2013)
- the dem-REL *that* has been grammaticalized, other dem-RELs obsolete in English relatives
- co-occurrence of wh-RELs with *that*: doubly filled COMP

Main claim: Hungarian displays reanalysis processes similar to (I) and (II), but:

- (II) precedes (I)
- the output of (II) gives only relative operators, not C heads
- hence (I) can produce relative pronouns only if dem-RELs fuse with already existing wh-RELs → complex dem-wh-RELs

Roadmap:

- relative clauses in Old Hungarian
- the appearance of complex relative pronouns in late Old Hungarian
- relative clauses in Modern Hungarian

2. The earliest stage

2.1. The empirical picture

Relative clauses appear in the first coherent Hungarian texts.

- introduced by relative operators
- operators are formally identical to interrogative operators (wh-operators)

(6) a. uimaggac [zent peter urot] [kinec odut hotolm]
   pray-SBJV.1PL Saint Peter lord-ACC who-DAT given power
   ‘let us pray to the lord Saint Peter, to whom power has been given’
   (Funeral Sermon and Prayer)
b. es ana tartia uleben [qui scuilt dychev segut]
and mother holds lap-poss.ine who bore glory-acc
‘and the mother, who has given birth to glory, is holding him in her lap’
(Königsberg Fragment)

c. eggedum ullen maragun uro dum
only.one-poss.1sg live-sbjv.3sg stay-sbjv.3sg lord-dim.poss.1sg
[kyth wylag felley]
who.acc world fear-sbjv.3sg
‘let my only one live and stay, so that the world shall fear him’
(Old Hungarian Lamentations of Mary)

Arguments that these are operators, not complementizers:

- can take plural marking and case marking

(7) egyebeknek zerzamaual [ky-k-nek myatta ysten myuellkedyk
others-dat tool-poss.instr who-pl-dat because.of God cultivates
eznek byzon gywmeleczet]
this-dat sure fruit-poss.acc
‘with other tools, with which God cultivates its assured fruit’ (Jókai C. 113)

- can take postpositions

(8) ez levn vy ignec chudaia [qui mia vrducuc
this became.3sg new case-dat miracle-poss who because.of devils
scurnevlenec]
worried-3pl
‘this was the miracle of the new event, due to which the devils were surprised’
(Königsberg Fragment)

2.2. Analysis

Left periphery of clauses based on Rizzi (1997; 2011):

(9) FORCE (TOP*) INT (TOP*) FOC (TOP*) FIN IP

Adopted here as:

(10) CP(1) (TOP*) INT (TOP*) FOC (TOP*) CP(2) IP

NB: topics in Hungarian are generally lower than CP2.

Proposal: OH relative operators are in spec, CP2 because

- they can be preceded by high topics

(11) a. olý zerelmeth, [zyrnýw halaal kyth nem gyoöozoth]
such love-acc terrible death who-acc not defeated.3sg
‘such love that was not defeated by death’ (Czech C. 62)
b. yvta Angenek nag hegeyre, [Cilicianak balya felol reached Ange-DAT great mountains-SUB Cilicia-DAT left-POSS from melyek vadnak] which-PL are.3PL
\[he came to the great mountains of Ange, which are on the left of Cilicia\] (Szekelyudvarhely C. 4)
c. \[fent Adőryaf Nappyahoz kezelb ky vafar Nap ezık az Saint Adrian day-POSS.ALL closer who Sunday falls that lezen Advent vafarnapya will.be advent Sunday-POSS \[‘that will be Advent’s Sunday, the Sunday which is closer to Saint Adrian’s day’ (unnamed codex fragment)\]

- they can be preceded by the C1 complementizers hogy and ha (see also Kenesei 1992, though this is less frequent than C-less sentences)

(12) tyzen keth themen angyalth [hogy kyk engem megh twelve legion angel-ACC that who-PL.LACC PRT oltalmaznanak] protect-COND.3PL
\[‘twelve legions of angels, who would protect me’ (Apor C. 209)\]

(13) a. [ha kyket erewsb en zerettem] azoktol hamaraban meg if who-PL.LACC stronger 1SG those-ABL sooner PRT vtaltattam
\[‘those whom I loved more started to hate me sooner’ (Jókaí C. 154)\]

b. [ha mit kerőndetec at’atol en nêwemße] agt if what-ACC ask-2PL father-ABL 1I name-POSS.ILL that-ACC tégém
do-1SG
\[‘I will do what you ask from the Father in my name’ (Munich C. 101ra)\]
2.3. Against an alternative analysis

Dömötör’s (2014) observation: only one example where something intervenes between hogy ‘that’ and ki/mi ‘who/what’ (though several examples where something intervenes between ha ‘if’ and ki/mi ‘who/what’).

Her alternative analysis: RCs beginning with hogy ki ‘that who’ and hogy mi ‘that what’ feature a monomorphemic complementizer hogyki and hogymi.

(14)

\[
\text{CP} \quad \text{C} \quad \text{IP} \\
\text{hogyki/hogymi} \quad \text{that.who/that.what}
\]

NB: Dömötör is a descriptive grammarian, (14) is a translation of her analysis into the generative framework.

Rebuttal 1:

- RCs with overt Cs are much less frequent than those with covert Cs
- topicalization in Hungarian typically targets a position below the CP-domain
- high topicalization into the CP-domain in RCs with overt Cs is rare

Rebuttal 2:

- the operators ki ‘who’ and mi ‘what’ may bear plural marking and case marking even after hogy

(15) a. tyzen keth themen angyalth [hogy ky-k engem megh
twelve legion angel-ACC that who-PL I.ACC PRT
oltamnznanak]
protect-COND.3PL
‘twelve legions of angels, who would protect me’ (Apor C. 209)
b. olýaat tezok raytad [hog ky-tôl felz]
such-ACC do-1SG you.SUP that who-ABL fear-2SG
‘I will do such a thing to you that you are afraid of’ (Sándor C. 14v)

- these examples definitely feature a C hogy and an operator ki/mi ‘who/what’

3. The rise of the morphologically complex operator

3.1. Stage 1: the starting point

The demonstrative in the main clause and the RC can be string-adjacent. At the starting point the demonstrative is still in the main clause and receives case from the main clause (the operator receives case from the embedded clause)
The reanalysis starts in a subset of the above cases: where the demonstrative is morphologically unmarked.

(17) a. Ez az [ky] cristust kerestfan tarsolkodtatt] Ez az [ky] this DEM who Christ-ACC cross-SUP conversed.3SG this DEM who cristusual coporsoba el reýetetýk] Christ-INSTR coffin-ILL off is.hidden

‘this is the one who talked to Christ on the Cross; this is the one who is put into the coffin with Christ’ (Jókai C. 133)

b. ű az [ki] en vtannam ňugëldö] he DEM who I after.me is.to.come

‘he is the one who comes after me’ (Munich C. 85 va)

3.2. Stage 2: syntactic change

The demonstrative is reanalyzed as part of the RC. It now receives case from the RC.

(18) matrix case: ACC, RC case: NOM

a. vegel [az mi thyed] take-IMP.2SG DEM what yours

‘take what is yours’ (GL, around 1456)

b. es laang meg egethe [az kyk býnesek valanak] and flame PRT burned.3SG DEM who-PL guilty-PL were-3PL

‘and those who were guilty were burned by flame’ (Kulcsár C. 261)

NB: demonstratives used in nominal positions bear appropriate number and case marking, adnominal demonstratives are bare.

(19) az-ok-ot agyjad zegenekev
DEM-PL-ACC give-IMP.2SG poor-PL,DAT

give those to the poor’ (Jókai C. 98) demonstrative in a nominal position

(20) az bewn-ek-rewl kyket tewtem
DEM sin-PL-ALL who-PL,ACC did-1SG

‘about the sins that I did’ (Jókai C. 25) adnominal demonstrative
Demonstratives reanalyzed into the RC are bare:

(21) es laang meg egethe [az kyk bỳnesek valanak]
    and flame PRT burned.3SG DEM who-PL guilty-PL were-3PL
    ‘and those who were guilty were burned by flame’ (Kulcsár C. 261)

→ the reanalyzed demonstrative forms a constituent with the wh-REL operator
Where is the az+relative operator complex? It can be preceded by higher C complementizer → in the spec of the lower CP

(22) egi nehani Caput peczetelnæk be [hog az kibol ki hotanak]
    a few gate-ACC seal-3PL in that DEM who-ELA out come-3PL
    ‘they seal a few gates from which they would come out’

NB: (22) is a unique example in the linguistic records, see below why

the demonstrative is renewed in the main clause (possibly has different case from the az+relative operator constituent):

(23) a. kellemetès nekem Ferencz az [amit mondaz]
    pleasant for.me Francis that DEM-what-ACC say-2SG
    ‘it is pleasant for me, Francis, what you are saying’ (Virginia C. 84)

b. myre zeressem ezt azt [azky keserev vegezetewt
    what-SUB love-SBJV-1SG I that-ACC DEM-who bitter end-ACC
    promise.3SG
    ‘why should I love that who promises a bitter end?’ (Book of Proverbs 74)
Why did this change happen? Why does the $az$+wh-REL operator complex not co-occur with a higher C more frequently?

- wh-REL operator was no longer enough to mark the embedded character of the clause
- speakers wanted to reinforce the embeddedness of the RC
- two competing strategies:
  - reinforcing the wh-REL operator with $az$, or
  - overtly filling the higher C position
- one of these strategies was enough, economy prevents the use of both
- over time, the strategy of overtly realizing the higher C lost ground; in Modern Hungarian the $az$-reinforcement strategy prevails

### 3.3. Stage 3: morphophonological change

*Az* undergoes morphological cliticization onto the wh-REL operator:

- intervocalic gemination

\[(24) \quad [ah \ hol \ en \ vagyok], \ ty \ oda \ n\^e \ yehetek?\]

DEM where I am you there not come-can-2PL

‘you cannot come to where I am’ (Jordánszky C. 650)

- intervocalic gemination + loss of space in orthography

\[(25) \quad a\mm\enere\ \az\ \zeretekbe\ \az\ \zerelm\not\vola\ \vagon\]

DEM-much that love-3PL-INE the love-DAT being is

‘as much as love is in their liking’ (Nagyszombat C. 5)
loss of the consonant

(26) ažt [a mel’ alab valo]  
that-ACC DEM which pityful  
‘that which is more pityful’ (Munich C. 86rb)

loss of the consonant + loss of space in orthography

(27) Mert [aki ezic], vrnc ezic, Es [aki nem  
because DEM-who eat-3SG Lord-DAT eat-3SG and DEM-who not  
ezic], vrnc nem ezic  
eat-3SG Lord-DAT not eat-3SG  
‘because those who eat eat for the Lord, and those who do not eat do not eat for the Lord’ (Vitkovics C. 54)

These strategies co-existed for a long time; in Modern Hungarian only the last one survives.

4. Modern Hungarian

4.1. Standard Modern Hungarian

Due to structural economy, the higher CP layer is not generated for marking subordination (dem-wh-RELs are unambiguously associated with embedded clauses)

Within the lower CP, the Doubly Filled Comp Filter is operative → hogy ‘that’ is unavailable both in the higher and in the lower C in RCs

(28) az a könyv, (*hogy) amit Péter olvas  
that the book that DEM-what-ACC Peter reads  
‘the book that Peter is reading’

\[
\text{CP} \\
\text{amit} \\
\text{DEM-what-ACC} \\
\text{C} \\
\text{IP} \\
\text{Péter olvas} \\
\text{Peter reads}
\]

the complementizer mint ‘as’ is available for marking equation/comparison:

(29) Mari azt a könyvet olvassa, [mint amelyiket Péter is].  
Mary that-ACC the book-ACC read-3SG as DEM-which-ACC Peter too  
‘Mary is reading the book that Peter does.’
4.2. Some 20th century dialectal variation

occasionally in the early 20th century, perhaps only dialectally

(30) annak vóna egy ámafája, [hogy akijen három esztendeje
that-DAT have an apple-tree-3SG that DEM-who-SUP three year.since
áma nincsen]
apple not.be
‘that [man] has an apple tree that has borne no apples for three years’ (Batta
1908: 48, dialect of Gyergyószentmiklós)

early 20th century, in spoken (perhaps substandard) Hungarian: the operator is in the
higher CP layer, the Doubly Filled Comp Filter is not operative

(31) a. Adott az Isten nekem annyt, [akiből hogy meglek]
give-PST.3SG the God me that-much DEM-who-ELA that get.by-1SG
‘God gave me enough to get by on’ (Galambos 1907: 18)
b. látom nincs, [aki hogy tegye]
see-1SG not-be DEM-who that do-SBJV.3SG
‘I can see that there is nobody to do it’ (Galambos 1907: 18)
5. Conclusions

relative cycle in the history of Hungarian relative clauses is attested
general steps of the relative cycle (van Gelderen 2004; 2009):

- Step 1: demonstrative/interrogative pronouns → relative pronouns
- Step 2: relative pronouns (dem-REL, wh-REL) → C heads
- Step 3: appearance of new relative operators in the place of original ones (new cycle)

English demonstrates one complete cycle and an incomplete one:

- (I) reanalysis of that in OE: Steps 1&2 completed → Step 3 possible
- (II) reanalysis of wh-pronouns in ME: Step 1 completed
- (I) precedes (II) → output of (I) provides an environment for (II)
- results: relatives with wh-RELs OR with dem-C (that); substandard: wh-REL + C

Hungarian demonstrates two incomplete cycles:

- (II) reanalysis of wh-pronouns: Step 1 completed only → Step 3 defective
- (I) reanalysis of az ‘that.DEM’: Step 1 completed only, with fusion
- (II) precedes (I) → output of (II) provides a partial environment for (I) only
- results: relatives with dem-wh-RELs

References


