1 Introduction

Main focus:

• Range of readings of (nouns marked with) the suffix -nkéd in Old Hungarian. From universal quantifier to pluractional adverbial.

• Range of ‘quantifying’ expressions from independent quantifiers to dependent operators (crosslx-ly). Analyses of such expressions.

NB, the main concern is not the inventory + analysis of distributive/pluractional expressions in OH or MH.

1.1 Interlude: Modern Hungarian

MH -nként is officially a distributive case marker. -nta/-nte: distributive-temporal.

(1) a. Mari időnként elkésik/beteg
Mary time-DIST is-late/ill
‘From time to time, Mary is late/ill’ – (plural) temporal existential

b. Ebben a faluban családonként van három ló
This-INE the village-INE family-DIST is three horse
‘In this village there are three horses per family’
Every family has three horses.
c. A beteghez csak egyenként léphettek be a The sick elephant only one-DIST step-POSS-PAST-3PL into the látogatók visitor-PL
‘Visitors could only enter the patient’s room one by one/one after the other’
d. Mari szállánként festette be a haját Mary one.hair-DIST dyed into the hair-POSS.3SG-ACC
‘Mary dyed her hair one (piece of) hair at a time’

Rate phrases (Csirmaz–Szabolcsi, Keenan–Paperno):

(2) a. Ez a lap kéthentente / kéthetnenként jelenik meg
This the journal two-week-TEMP.DIST / two-week-DIST appears MEG
‘This journal appears twice a month’
b. Vegyen be naponta / naponként három aszpirint
Take-IMP.2SG into day-TEMP.DIST / day-DIST three aspirin-ACC
‘Take three aspirin a day’

(3) a. Naponta történik valami
day-TEMP.DIST happens something
‘Every day there is something new/something new occurs’
b. Minden nap / ?Naponta történhet valami
Every day / ?day-TEMP.DIST happen-POSS something
‘Every day, any day, something (unexpected) may occur’

(4) a. Mari egyenként / ?fejenként elbúcsúzott a Mary one-DIST / ?head-DIST away-said.goodbye-PAST the diákjaiktól student-POSS.3SG.PL-ABL
‘Mary said goodbye to her students, one after the other’
b. A katonák kapták fejenként / ?egyenként egy
The soldiers received head-DIST / ?one-DIST one
lakktáskát és három csomag biztosítótút patent.leather-case-ACC and three pack safety-pin-ACC
‘Each soldier was given a patent leather case and three packets of safety pins.’

Pluractional adverbials:

(5) Ezt a tudást nemzedékről nemzedékre / ??nemzedkékenként adták át
This ACC the knowledge-ACC generation-DEL generation-SUBL / generation-
DIST give-PAST-3PL through
‘This knowledge was passed from generation to generation’

(6) Károli versől verse / ?verseként fordította a
Károli verse-DEL verse-SUBL / ?verse-DIST translated the
Bibliát
Bible-ACC
‘Károli translated the Bible verse after verse’

A little more about (plural) existentials:

(7) a. Mari időnként kosaraszik
Mary time-DIST basket-VBSFX-3SG
‘Mary sometimes plays basketball’
b. A divat koronként változik
The fashion age-DIST change
‘Fashion changes from one age to another’
c. Mari nyaranta a Pirenesokban túrázik
Mary summer-TEMP.DIST the Pyrenees-INE trek-3SG
‘In the summer Mary (usually/sometimes) goes trekking in the
Pyrenees’
(Weaker than habitual -?–)

2 –Nkéd in OH

2.1 Quantifiers

• Koronkéd ≡ Always:

With state descriptions: one uninterrupted state. (This is the preferred
reading; the ‘interrupted state’ reading is also available. The point: the
existence of the ‘uninterrupted’ reading.)

(8) De koronkeed dagalyosok voltatok mywlth fa fghwa
But age-DIST swollen-PL be-PST-2PL since beginning
ysvertelek
know-PST-1SG
‘But you’ve always been full of yourselves, ever since I’ve known you’
(Jordánszky C. 220)

(9) az wtolso kyrthnek zozattya koronkeed
the last trumpet-DAT cry-POSS.3SG always
‘the blasts of the last (Judgment Day) trumpet are incessantly resonating in my ears’ (Érdy C. 10a)

(10) De te kerdened azt tartozik e ember mindoncoron az imadsagra i gékozi auág nem ...ez el’eten imadsagra nem zügseg koronked a rea ualo i gékozef ‘You might ask whether one should always be eager to pray ...such prayers do not require that you always be eager and ready (to utter them)’ (Guary C. 121)

(11) Soha az en ziyem el ne alogýek de koronked hozad vijfazon ‘May my heart never fall asleep (slacken), may it always be alert for / attuned to you’ (Lobkowitz C. 1)

(12) Lassatok hógh ne vtallyatok meg egyet ez kysdedek kezzel; mert vgy mondok tynéktek, hogy hw óryzo angalya menyrozagban koronked neezyk en atyamnak zynet, ky menyben vagyon ‘Beware lest you should repudiate but one of these children; for, I tell you, their guardian angels in heaven do at all times behold my heavenly father’ (Jordánzsky C. 471; Mark 6)

Restrictor–NS division (and context):

(13) koronkeed bykath aldozyek hw byneyerth es age-dist bull-acc sacrifice-imp-3sg he sin-3sg.pl-cslfnl and kostoost ystennekv dyczeeretryre ram-dat god-dat praise-poss.3sg-cslfnl ‘He (Aaron) should always sacrifice a bull for his sins, and a ram to praise God’ (Jordánzsky C. 99)

‘Whenever Aaron sacrifices something for his sins it should be a bull, and whenever he sacrifices something in praise of God, it should be a ram.’

(14) valamy zyletendyk hym nemzeth, azth koronkeed something be-born-fut.3sg male issue that-acc age-dist wr ystennekv aldozzad lord god-dat sacrifice-imp.2sg ‘whatever male issue is born, that should always be sacrificed to God’ (Jordánzsky C. 233)

In (14), the Restrictor is the correlative clause (‘whatever male animal is born (first)’), the NS is the (remnant of the) main clause (‘that should be
sacrificed to God’). Succinctly: ‘All firstborn animals are to be sacrificed to God’.

Analysis: your favourite analysis of always. Universal quantifier over times/eventualities (Rooth, von Fintel, de Swart, ...). Restrictor–NS division: Focus, presupposition, ellipsis... BFA’s secret favourite:

(15) \( \forall \varepsilon . [C(\varepsilon) \rightarrow \exists \varepsilon'. [R(\varepsilon, \varepsilon') \land \varphi(\varepsilon')]] \)

• A somewhat fishy case: Naponkéd (lit. ‘day-dist’)

(16) Es lakozýk wala naponkeed nagý gýenýerewseggel
    And dwell past day-N-LY great pleasure-INS
    ‘And he dwelt (there) with great pleasure every day’ (Érsekújvár C. 5r)

    naponkeed presumably combines with the manner adverb: ‘And he
dwelt there, and each day he felt great pleasure’

Scope interaction between -ked and modal: \( \forall > \circ \) rather than \( \circ > \forall \).

(17) hogý ký naponked eshetel wgañan azon korsagban
    that who day-ly fall-poss-2sg same that illness-acc
    ‘Every day it is possible for you to come down with the same illness’
    (Érsekújvár C. 211vb)

Paraphrase: ‘Someone has fallen ill, and every day, any day, you too may come down with the same disease’.

(18) kiro l naponked tartozunk mi halaadassal
    (Mary) ‘to whom every day we owe gratitude and thanksgiving’ (Tihany C. 62v)
    Scope problem (temporal / modal)

(19) a. kinek naponked harom ezőr uitezok alnakuala uduart
    (Euphemianus) ‘whose courtiers each day numbered three thou-
sand knights’ (Tihany C. 10r)

    b. Naponked az g hazaba harom aztal zegetok etetnek uala
    ‘Every day at his house the poor were fed at three tables’ (Tihany C. 10r)
    lit. ‘three tablefuls of poor people’

(20) amí alamínat adnak vala neký isten zeretéyrt czak annyt
tag vala maganak kőuel naponked meg erý
    ‘(St Alexa) whatever alms he was given for the love of God, he only
kept for himself what he needed day after day’ (Lobkowitz C. 225–
az istennek vtan az ´v zent eletében kezde naponked iobrol iobra
neuködnie
(St Anne) ‘on the path to God she became better and better, day
after day’ (Kazinczy C. 23v)

the naponked az en ikmönk týžtölletőt tez ego gertýaual
(Christ to young man) ‘you pay your respects to my grandmother
by lighting a candle, day after day’ (Kazinczy C. 27v)

(‘dependent’ candle)

2.2 Distributivity operators

zollywnk arrol ky mynden naponkeed
speak-SBJV.1PL that-DEL which every day-SUP-DIST
zemewnk elót forog
eye-POSS.1PL before revolve-3SG
‘Let us speak about that which is before our eyes every day’ (Érdy
C. 20a)
(Lit.: every daily)

A baratoc eggenkent kíkí nag síruan kí me gén vala
The monks one-DIST whowho great cry-PART out go PAST
az ayton es čak onnag marada a feýedelm
the-door-SUPRSSV and only he-self remained the prince
‘The monks left through the door one after the other, amidst great
sobs (each of them sobbing), and only the abbot himself remained’
(Nagyszombat C 401)

ennek vtanna minden fel allenak egenked egyýmas vtan es míndenkík
vyýan predikallía vala mint Bodoz zent ferench
‘after this they (the bishops) all stood up, one by one, one after
the other, and every one of them preached just like the Blessed Saint
Francis’ (Lobkowitz C. 22)

Igon meltosagossok: merth istennek mynd feýenkeed leaný es fýaý
‘They are venerable, since each and every one of them is the son
or daughter of God’ (Sándor C. 1v)

Heten vadnak, Me’eket az 9 At’ok az őrdög mind egenkét kazdagon
el hazásýta
(the daughters of cupidity) ‘They are seven in number, all married off
richly by their father the devil, one after the other’ (Székelyudvarhely
Dormition, Kazinczy C.:

(28) a. tehat kezdek az apastalok egenked azzonunkat dicernie:
    ‘so the apostles began the praise of our lady, one after the other’
    (8r)

b. Ennek vtanna vtolok feyenked bucut von
    ‘After this she(Mary) said farewell to them, one after the other’
    (9r)

c. azzonunkat seregonked kornol allak:
    (the inhabitants of Heaven) ‘surrounded our lady, each in his
    cohort’ (9v)
    (angels with angels, martyrs with martyrs a.s.o.)

(29) a. kiket peldaznak touaba ez madarnak fiai: feienked minketh
    ‘What do the children of this bird stand for? They stand for
    each and every one of us’ (Tihany C. 8v)

b. Mikepen azert az madarnak fiait az aspis kego megh olj:
    Ezonkepen
    mies feienked az elso zilenknek uetkoknek miattok mnd(sic!)
    megh hotunk uala
    ‘Just as the fledglings were killed by the serpent, each and ev-
    ery one of us has died on account of the original sin of our first
    parents’ (Tihany C. 9r)

c. mel eredet bin zalla feienked mi reank:
    ‘which original sin was inherited by each and every one of us’
    (Tihany C. 33v)

2.3 Pluractional adverbials

‘Pluractionality’: a plurality of events (described by the verb). Pluractional
vb morphology (cf. Henderson, diss). Pluractional readings due to bare
plurals:

(30) John found fleas on his dog for a week (Dowty)

Pluractional adverbials: one by one, dog after dog, . . .

(31) ha valami konuert lath vala ottan oda futh vala es a tob germokok
    mogiara igen hannia uala leuelonkent
    ‘When he (St Thomas) saw a book he ran to it and, like the other
    children, he tossed page after page (in the book)’ (Debrecen C. 204)
(32) Ezek nynynek heaba, mert űgénkétk wrvnk Crystvs mondasỹ ’these are not empty words, since they are the sayings of our lord Christ, word after word’ (Székelyudvarhely C. 116v)

(33) Akarta volna az vr isten hogỹ en voltam volna az jdevben ez velagon. es meteltettem volna jzenkent foltonkent az en vram iesesnak(sic!) zerelmert ’How I wish God had wanted me to live then (among early Christians and martyrs) and be chopped up bit by bit for the greater love of my Lord Jesus’ (St Margaret (of Hungary)’s Legend 10v)

(34) Mith tez zegen frater? ha zomeidnek welagat el weztendod: zikseg nekd aitonked koldunod: ’What are you to do, poor friar? If you lose your eyesight you’ll have to go begging from door to door’ (Tihany C. 55r)

(35) walamynemw twodomanỹws belcz embernek meg hatnỹa hogỹ az egihazỹ zentseghes zolosmat zerewel zerzene orankeed ydeỹen ko-ran mondanỹ (the emperor asked the pope) ‘to appoint a wise scholar to devise a system / an order of holy chants to be sung hour after hour (the Chants of the Office)’ (Érsekújvár C. 158va)

Distributivity op. or pluractional? Bracketing?

(36) ennek wthana az epỹstolakat ewangelyomokat mỹnd eztendewnked enekelwen ‘after this the epistles and gospels were all sung yearly / year after year’ (Érsekújvár C. 158va)

3 (Some) Analyses

3.1 Zwarts

Joos Zwarts (L&P 2013): plural reading of N to/after/by N built up compositionally, from computing ‘sums’ of singularities.

3.2 Beck–von Stechow

Background: static semantics for plurals by Beck (à la Link, Sternefeld).

(37) Dog after dog came in

1. Two plural entities: D (dogs), E (events).
2. Partition D and E (cells are atoms/singletons).
3. Order the cells of E (e.g. \( e_1 \prec e_2 \prec e_3 \)). \( \prec \) is immediate precedence.
4. See if there is a bijection btw the cells from D and the cells from E.
5. Ignore the first dog.

### 3.3 Henderson, Henderson–Brasoveanu & followers

Dynamic plural logic (Van den Berg, Nouwen, Brasoveanu). Evaluation w.r.t. sets of assignments.

- Individuals: ± atomic. → two sources for plural readings:
  - The individuals themselves (if not atomic) — domain plurality
  - the sets of assignments: if \( H \) is a set of assignments and \( x \) a variable one can obtain the set of values assigned to \( x \) by members of \( H \) \( (\{d_i | d_i = h_i(x), h_i \in H\}) \). — Evaluation plurality (if such a set is not a singleton).

Main ex (Brasoveanu–Henderson SALT 19):

(38) a. The boys each recited a poem
    b. The boys recited a poem one by one

Main test: ‘internal’ vs ‘external’ different.

(39) a. The boys each recited a different poem.
    (Internal reading OK: poems vary with boys)
    b. The boys recited a different poem one by one.
    (Only external reading: different anaphoric)

→ B&H: the expression responsible for storing pluractional dependencies is not accessible.

‘Storing’ dependencies:

- Each: ‘Decomposition’ yields a relation over individuals: \( \{(g_i(x), g_i(y)) | g_i \in G\} \). Side note: universal quantification in this framework:

(40) \( \langle \text{Max}(R), \Delta(\text{NS}) \rangle \)

NL: Maximise Restrictor and distribute over Nuclear Scope.
(41) \[ G \quad x(\text{boys}) \quad y(\text{poems}) \ldots \]

\[ g_1 \quad \text{boy}_1 = g_1(x) \quad \text{poem}_1 = g_1(y) \ldots \]

\[ g_2 \quad \text{boy}_2 = g_2(x) \quad \text{poem}_2 = g_2(y) \ldots \]

\[ \ldots \quad \ldots \quad \ldots \quad \ldots \]

- **One after the other**: a relation over individuals and functions (viz. boys and fns matching boys with poems). ‘Encapsulation’.

(42) \[ x(\text{boys}) \quad f \ (\text{boys–poems}) \]

\[ g \quad \text{the.boys} = g(x) \quad g(f) \quad \{ \langle b_i, p_i \rangle | \ldots \} \]

Given \( g \in G \): \( g(x) = \text{the.boys} \), and \( g(f) \) is a correspondence btw members of \( g(x) \) (individual boys) and poems.

**One by one**: a functional dependency btw individuals and events (!). Individual(s) denoted by an overt constituent from the same clause. B& H: the functional dependency is in fact a \( \theta \)-role.

NL paraphrase of B& H’s proposal:

(43) Given event predicate \( E \) and event \( e \), collect (linearly ordered) atomic subevents \( e' \) of \( e \), s.t. the image set of \( \theta \) is not a singleton, and atomic \( e' \)'s are assigned atomic values (by \( \theta \)).

Dependency btw boys and poems mediated by the Davidsonian argument.

### 3.3.1 Panaitescu

Panaitescu (SuB 2012): redefining ‘traditional’ distinctions in terms of B&H:

(44) a. ‘Event-external’ pluractionals \( \approx \) distribution. (Panaitescu: Romanian \( \text{tot} \) (reading: again and again).)

b. ‘Event-internal’ pluractionals \( \approx \) encapsulation. (Panaitescu: Spanish frequentative \( \text{andar} \).)

(45) a. ?El zorro **anduvo** matando una gallina

   The fox walk.SP killing a hen

   ‘The fox has been killing a hen’ (repeatedly?) (Spanish)
b. Vulpea tot ucidea o găină
   Fox-the all kill-IMPF one hen
   ‘The fox kept killing a hen’ (repeatedly?) (Romanian)

(46) a. Juan ha andado llamando por teléfono a cada uno de sus amigos
   ‘John has been phoning every one of his friends’ (one after the other, one call per friend)

b. Ion a tot sunat toți prietenii
   ‘John has been incessantly calling all his friends’ (several calls per friend)

‘Decomposition’ (acc. to Panaitescu) characterises quantifiers, distributive operators, event-external pluractionals. ‘Encapsulation’ (Panaitescu): event-internal pluractionals and (if and when necessary) each (B&H).

3.4 Observations concerning OH -nked

(47) \[ \lambda P. \lambda S\text{thing}. [\text{Max}(x, P), \text{Op}(S\text{thing}(x))] \]

P: the \( N \)-k\(éd \) attaches to. \( S\text{thing} \): the translation of the constituent \( N\)-k\(éd \) is adjoined to. Missing: correspondences and dependencies.

First (tentative) hypothesis: \( \text{-k\(éd \) } \) could have originally been a (totally underspecified) distributivity operator. Reason: emergence of ‘purely’ quantificational and ‘purely’ pluractional interpretation easier to conceive.

1. Capable of decomposition and encapsulation. (Btw, in B&H’s framework each can also be analysed as decomposing or encapsulating).

2. Does not need clausemate ‘antecedent’.

3. Dependency need not rely on thematic roles. E.g. \( \text{ajt\(ónk\(éd \) } \) from door to door’: a correspondence between subevents and stages of spatial path (marked by doors).

(48) azzonunkat seregonked kørnöl allak:
   (the inhabitants of Heaven) ‘surrounded our lady, each in his cohort’ (9v)
   (angels with angels, martyrs with martyrs a.s.o.)

Readings: (i) surrounding is a process, its stages marked by cohorts from heaven; (ii) ‘surround’ describes a state; heavenly cohorts correspond to spatial regions.
4. Point 1 → (event-internal) pluractional reading not basic for \textit{nkéed}.

More observations:

1. \textit{-nkeed} introduced a plurality;

2. \textit{-kneed} expressed a dependency between two variables; one of these bound the individual argument of the \textit{N} it combined with.

Interlude: if Panaitescu is right, what distinguishes a quantifier from an event-external pluractional? (Some points: R–NS division, absence of functional dependencies, the need to impose a certain kind of structure on events. . . )

Main OH cases:

\begin{itemize}
  \item (Propositional) quantifier: \textit{koronkeed}.
  \begin{enumerate}
    \item \textbf{(49) koronkeed} bykath aldozyeek h\text{\`u} byneyerth es age-DIST bull-ACC sacrifice-IMP-3SG he sin-3sg.pl-cslfnl and kosth ystennek dyczeeeretyre ram-ACC god-DAT praise-POSS.3SG-cslfnl
      \begin{quote}
        ‘He (Aaron) should always sacrifice a bull for his sins, and a ram to praise God’ (Jordánszky C. 99)
      \end{quote}
      ‘Whenever Aaron sacrifices something for his sins it should be a bull, and whenever he sacrifices something in praise of God, it should be a ram.’
    \item R – NS division. Dependency: relation between two eventualities. With state descriptions: quantification over times. (Reconsider \textit{always} as quantifying over times?)
    \item Distribution over ‘own’ variable.
  \end{enumerate}
  \begin{itemize}
    \item Vacillating between quantificational and event-external pluractional interpretation: \textit{naponkeed}. Quantifier status: scope relations. Pluractional reading: dependencies.
  \end{itemize}
  \begin{enumerate}
    \item \textbf{(50) hogý k\text{\`y} naponkeed} eshetel wg\text{\`y}an azon korsagban that who day-ly fall-POSS-2SG same that illness-ACC
      \begin{quote}
        ‘Every day it is possible for you to come down with the same illness’ (Érsekújvár C. 211vb)
      \end{quote}
  \end{enumerate}
\end{itemize}
az istennek vtan az ő zent eletében kezdte naponked iobrol iobra
neueködnie
(St Anne) ‘on the path to God she became better and better, day
after day’ (Kazinczy C. 23v)

Needed: correspondence btw a succession of days and a succession of degrees.
(The degree of day\textsubscript{n} has to be greater than the degree of day\textsubscript{n-1}.)

• Distributivity operators: should be easy. Correspondence between indi-

guals and eventualities, without imposing a linear order on subevents.
(Cf. Each and every one of us died.)

• Event-internal pluractional readings:

ha valami kőnet lath vala ottan oda futh vala es a tőb germőkők
mögía igen hannía uala leuelonkent
‘When he (St Thomas) saw a book he ran to it and, like the other
children, he tossed page after page (in the book)’ (Debrecen C. 204)

Relationships:

• The book and its collection of pages.

• A linearly ordered sequence of events matching a sequence of pages.

Diachronic speculations:
⊕ The case of fejenként: distributivity marker → rate phrase. Possibly:
functional dependency introduced/reinterpreted as dependency via \( \theta \)-roles.
(53-b) involves a relation between soldiers (Beneficiaries) and what they re-
ceived (Themes).

a. ???A katonák fejenként jőttek
Int.: ‘Soldiers were coming, one after the other’

b. A katonák kaptak fejenként / ?egyenként egy
The soldiers received head-DIST / ?one-DIST one
lakhtable ő és három csomag biztosítótüt
patent.leather-case-ACC and three pack safety-pin-ACC
‘Each soldier was given a patent leather case and three packets
of safety pins.’

⊕ egyenként ‘one by one’: in OH it marked distribution over atoms (+
pluractional dependencies). Missing: distribution over groups of cardinality
\( n \) in general.
De mert meglen keuessen valanak az baratok nem boczathattyu uala ewket ketten ketten: mendenykkyt kewlewn boczattya uala Castellomokba es falukba
‘But, since there were still few monks (in the Franciscan order) he (St Francis) could not send them off in twos: he sent them individually to castles and villages’ (Jókai C. 82)

⊕ Loss of strict distributivity. MH időnként ‘from time to time’.

(55) Mind az egész Bibliát versenként fordítottuk
‘We have translated the entire Bible verse after verse’ (Károli, p. 44)

(56) Noha pedig volt darabonként az Bibliának valami része megfordítva, de (teljes bibliafordítás eddig nem létezett)
‘Although there have been partial translations of the Bible, piece-KÉNT’ (there has been no complete translation so far) (Károli, p. 44)

Valami rész (some part) — darabonként (in pieces, a piece here and a piece there)

Katalin É.Kiss (p.c.) in the Debrecen dialect x darabban van (‘be in piece’) means ‘x is incomplete, not full’ (e.g. the wine in the barrel).

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Primary Sources


For information on OH codices please consult
http://omagyarkorpusz.nytud.hu/hu-codices.html or
http://nyelvemlekek.oszk.hu/tud/szoevegiadasok