Indeterminates and Universal Quantification

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1 Introduction

The main question: What the term ‘quantification’ may mean in ‘indeterminate-based quantification’ in (Old) Hungarian (and possibly in other Uralic languages as well).\textsuperscript{1}

Indeterminate: a pronoun that receives universal, existential or universal quantification depending on its syntactic context (Kuroda (1965)). In the Japanese examples (1) and (2) below, this is \textit{dare} ‘which’. Syntactic context, in this case: long-distance or local association with a particle. \textit{Mo} $\rightarrow$ universal reading, -\textit{ka} $\rightarrow$ existential reading, -\textit{no} $\rightarrow$ interrogative reading.

(1) a. [[Dono hon-o yonda] kodomo]-\textit{mo} yoku nemutta
[[which book-ACC read] child]-\textit{mo} well slept
‘For every book \(x\) the child who read \(x\) slept well’

b. Taro-wa [[dare-ga katta] mochi] -\textit{o} tabemasita \textit{ka}?
Taro-TOP who-NOM bought rice.cake -ACC ate Q
‘Who is the \(x\) such that Taro ate rice cakes that \(x\) bought?’

\textsuperscript{1}I-B Q: term by George Tsoulas et al.
(Kratzer and Shimoyama (2002))

(2) a. Dare-ga ringo-o tabeta no?
   who-NOM apple-ACC ate Q
   ‘Who ate an apple?’
b. Dare-mo-ga ringo-o tabeta.
   who-MO-NOM apple-ACC ate
   ‘Everyone ate an apple.’
c. Dare-mo ringo-o tabe-nak-atta.
   who-MO apple-ACC eat-NEG-PAST
   ‘No one ate an apple.’
d. Dare-ka-ga ringo-o tabeta.
   who-KA-NOM apple-ACC ate
   ‘Someone ate an apple.’

(Watanabe (2004))

1.1 Quantifiers, quantificational readings

1. D(eterminer) quantification vs A-quantification (adverbs, adjuncts, affixes, argument structure adjusters; Partee (1995)):


   (3) a. Every man is mortal (Logic textbook, D-quantification)
   b. . . . quartuur-tuaanna-ngajap-p-a-a
   . . . break-always-almost-ind-+tr-3s1.3s2
   Full ex.: ‘When a boy gets a balloon, he almost always breaks it within ten minutes’

2. Indefinites are NOT quantifiers. (Proper analysis: a matter of choice. Predicates, choice functions, . . .)

3. Indeterminate-based quantificational readings: orthogonal to A/D quantification.

   Free relatives, correlates: unique/maximal readings. Not (textbook) quantification (Dayal (1995) and all the papers it has inspired).

   (4) vala-ki  iste(n)ne nec zolgal orzagl vgy mint oroizlan
   VALA-who god-DAT serves reigns so like lion
   Qui seruit deo regnat vt leo (Latin original in the codex)
   ‘He who serves God reigns like a lion’ (Guary C. 11)

1.2 Indeterminate-based “quantification” in Uralic languages

   Indeterminates, —appearing to be— on their own

   Tundra Nenets:
In adverbial clauses, if the verb is in the present tense: ambiguity between interrogative and declarative (existential) reading:

(5) Maša xib’a-h ti-m xada-qma-xødº toº
Masha who-GEN reindeer-ACC kill-PERF.AN-ABL come
‘Masha came after who killed the reindeer?’, or
‘Masha came after someone killed the reindeer’

(Nikolaeva (2014), ex. (70a): 312.)

Existential reading possible in alternative questions:

(6) a. Maša wæsako-nta xon’ah xæ-qmn’-xødº mœ ncºraº
Masha husband-GEN.3SG where.to go-PERF.PART.ABL work-MOD
pæ-sa-qº
begin-PAST.REFL.3SG
‘Masha started working after her husband left where?’, or
‘Did Masha start working after her husband went somewhere?’

b. Maša Wera-h ñamke-m xada-qa-xødº to-sa
Masha Wera-GEN what-ACC kill-PERF.AN-ABL come-INTER
‘Masha came after Wera killed what?’, or
‘Did Masha come after Wera killed something?’

(Nikolaeva (2014): p. 312, (71 a–b))

Old Hungarian:

(Positive) existential:

(7) Kèt Ċaz penz arra keñërëc në ëlegëc ëzecnº hog eg
two hundred money price-to bread-PL not enough-PL this-PL-DAT that one
mëðën keñësêt mit vëgë bënne
every little-ACC what-ACC take-SUBJ.3SG from-it
Ducentorum denariae panes non sufficiunt eis, ut unusquisque modicum
quad accipiat
‘Two hundred pieces’ worth of bread would not suffice to provide everyone
with a little food’ (Munich C. 89vb, John 6:7)

Partitive–existential use:

(8) këy kezeëyt këy edes zemyët.
who hand-POSS.PL.3SG-ACC who sweet eye-POSS.PL.3SG-ACC
zaỳaat orcaỳaat apolgattëyak vala nagë
mouth-POSS.PL.3SG-ACC cheek-POSS.PL.3SG-ACC kiss-PST-3PL PAST great
syrassal.
crying-INSTR
‘Some were kissing his hands, some were kissing his sweet eyes, mouth and
cheeks amidst great sobbing’ (Érdy C. 248 a)

Under clausalmate negation:
(9) Es tehat latèk tezw langott menbelewł leỳtewtt . . . de
And so saw-1SG fire flame-ACC heaven-from descend-PART-ACC . . . but
az egýebekrewł nem tudok mýtt
the other-PL-about not know-1SG what-ACC
‘I saw a flame descended from Heaven . . . but I know nothing about the rest’
(Jókai C. 45)

Minimising/Polarity context; negated existential or ‘donkey’ construal (universal
reading due to covert conditional):

(10) Az ýo lelkew embernek kedeeg nagýob erdemót zerez vele
The good soul-ADJ.SFX man-DAT and greater merit-ACC gain with.it
chak ký neký ne engheggyen
only who to.it not yield-IMPER.3SG
‘(Temptations) increase the merits of good souls; only, no-one should yield
to them/if someone doesn’t yield to them’ (Érdy C. 82b)

(11) a. Nagýob zerelmétsseege senkýnek nýnchen mýnt hogý ký
greater charitableness-POSS.3SG no-one-DAT not.is than that who
az ew eedes lelkeet vesse halarra ew
the he sweet soul-POSS.3SG-ACC cast-SUBJ.3SG death-onto he
baratýeert friend-POSS.3SG-for
‘Nothing is more charitable than sacrificing one’s soul for one’s friend’
(Érdy 99a)
b. maiorem charitatem nemo habet quam vt animam suam ponat quis pro
amicis et scilicet inimicis suis (John 15:13)
‘Greater love hath no man than this, that a man lay down his life for his
friends.’ (King James)
c. éttol nagob žerètètè sènkinc nǐchen hanèhog valaki
this-than greater love-POSS.3SG no-one-DAT not.is but-that someone
vèsse g lèlket g barat’t’aert
cast-SUBJ.3SG he soul-POSS.3SG he friend-POSS.3SG-for
— as above — (Munich C. 102ra)

Opaque context; about the Three Wise Men

(12) gýorssak valanak ez Iambor wrрак ha hol es mýkoron Ballam
fast-PL were the pious lords if where and when Balaam
proffeta mondasa zèrent az nagý zyletót kýralt
prophet saying-POSS.3SG according-to the great born king-ACC
megtalalhatnaak:
PRT-find-POSS.COND-OPT-3PL
‘These pious lords were eager to find somewhere, at some time, the great king
born to this world, as predicted by the prophet Balaam’ (Érdy C. 65a)
Covert universal quantifier, tailor-made: In OH the Superlative = (minden ‘every’ + Comparative), or (mi+sfx + Comparative). (Or, equivalently: (Negation + S-word + Comparative) = Superlative. If there is no-one stronger than Samson, then Samson is the strongest. Cf. (11-a).)

⇒ Where are the operators?

- Default existential closure.
- Universal readings\textsubscript{1}: under conditionals. These follow from predicate logic. (‘Donkey equivalence’)
- Universal readings\textsubscript{2}: OH superlative readings with indeterminates. Could be coerced by comparative morphology.
- Universal readings\textsubscript{3}: Free relatives, correlatives — briefly in the following sub-subsection.
What we have seen so far does not conform to the Japanese pattern. No apparent tailor-made operators to bind indeterminates. The indeterminate undergoes existential closure by default; in conditionals, its universal construal follows from the laws of logic.

Superlative readings with indeterminates ((15)): even if a covert existential quantifier is assumed for this construction, I am not certain (at this stage) that one can extrapolate from it.

**Indeterminate–particle complexes**

Modern Hungarian:

(17) a. Vala-ki égye hagyta a villanyt
   VALA-who burn-PART left the current-ACC
   Someone has left the lights on (Existential)

b. Minden-ki aludt.
   every-who slept
   ‘Everyone was asleep’ (Universal)

c. Sen-ki nem álmodott
   SEM-who not dreamed
   ‘No-one was dreaming’ (Negation)

d. Akár-ki lehetett a tettes
   AKÁR-ki be-POSSESS-PAST.3SG the perpetrator
   ‘Anyone could have done it’ (Free Choice)

Oh correlatives:

(18) vala-ki iste(n)ec zolgal orzagl vgy mint orozlan
   VALA-who god-DAT serves reigns so like lion
   Qui servuit deo regnat vt leo (Latin original in the codex)
   ‘He who serves God reigns like a lion’ (Guaré C. 11)

(19) (frater Rufen) Valamýchoron valakytewl hýwatattýkuala
    (brother Rufen) VALA-what-when VALA-who-ABL call-PASS.3SG-PAST
    . . . zauanak  kesedelmeuel  ewtet hýuonak
    . . . word-POSSESS.3SG-DAT delay-POSSESS.3SG-ACC he-ACC caller-DAT
    feleuala
    answer-PAST
    ‘(brother Rufen) whenever, whoever would address him, he would reply him haltingly’ (Jókai C. 59–60)

Why *vala*- cannot be taken as an overt relative operator (at least not when the codices were written): *vala*-expressions also served as indefinites.

(20) az naptwl fogwa ew zwweben kezde gerýedzný
    that day-from she heart-POSSESS.3SG-INE began arise-INF some
    valamelý zerzetnek rwhaýanak kewásaga Es
    order-DAT habit-POSSESS.3SG-DAT wish-POSSESS.3SG And namely
Ever since that day, she (St Catherine of Siena) began to yearn in her heart for the habit of some order, namely, for the habit of our father Saint Dominic’ (Érsekújvár C. 197vb)

FC/FR readings in Tundra Nenets:

(21)  xon'ar'ina  yil'e-xo-d'm,  s'ita  t'en'e-d'm
  where.LIM  live-HORT-1SG  he.ACC  remember-1SG
  ‘Wherever I live, I remember him’ (Hortative)

  (Nikolaeva (2014): page 87, (17))

(22)  xib'a  xorwa°,  t'ikid°  tod°-ya
  who  want  this  come-JUS
  ‘Whoever wants to, let them come’ (Jussive)

  (Nikolaeva (2014): page 88, (19c))

Two problems:

1. In Uralic languages, universal quantifiers are usually not expressed with an indeterminate+particle complex. Why? What is exceptional about universal quantification? Is there a principled reason why this should be so?

2. In this light, Hungarian minden ‘every (Det), ‘everything’ (DP) — becomes the odd man out.

2 Quantifiers without Indeterminates

2.1 ‘Dependent’ operators

Tundra Nenets, distributivity operator on numerals:

(23)  xusuwey°  xon°-h  n'in'a  s'id-lod°-h  yamt°
  each  sled-GEN  on  two-DIST  sit
  ‘Two people sit on each sled’ (Nikolaeva, ex. (40a))

OH: numeral reduplication

(24)  zerez”  ennekem  heo altarokath,  es  zerez
  get-IMPER.2SG  I-DAT-1SG  seven  altar-PL-ACC,  and  get-IMPER.2SG
  myndenykre  egy  egy  twlkot,
  each-onto  one  one  ox
  ‘Build me seven altars, and before each of them bring a bullock’ (Jordánszky C. 168)
2.2 Suffixes

-kéd in OH: distributivity. Egyenként: one by one, one after the other.

(25) Heten vadnak, Mel’eket, az ő At’ok az őrdög seven-ADV are, which-PL-ACC the she father-POSS-3PL the devil
mynd egéneké t kazdagon el hazasyta,
all one ADV-DIST richly away marries
‘They (the daughters of cupidity) are seven in number, all of whom their father the devil marries off generously, one by one’ (Székelyudvarhely C. 95r–v)

OH: naponkékéd (‘every day’) was a full temporal quantifier; it interacted with other logical material in the sentence.

(26) hogy ký naponked eshetel wgyan azon korsagban that who day-ly fall-POSS-2SG same the illness-ACC
‘Every day it is possible for you to come down with the same illness’ (Érsekújvár C. 211vb)

(wgyn azon korsag ‘the same malady’ is anaphoric to an explicitly mentioned disease name)

Sentence (26) doesn’t have the reading ‘It is possible that you get ill (and recover) daily’, whereas a comparable MdH sentence would mean just that.

In the context of the codex, (26) could be paraphrased as follows: ‘Someone has fallen ill with a certain disease, and every day, any day, you too might contact the same disease.’

OH koronkékéd is comparable to a typical adverbial universal quantifier (always) in all relevant respects. Md Hungarian időn-ként, with the same morphological make-up, means from time to time. (And MdH koron-ként, korszakon-ként means from one age/era to another.)

(27): with state descriptions koronkékéd meant ‘without interruptions’.

(27) De koronkeed dagalyosok voltatok mywltha foghwa ysmertelek
But age-DIST swollen-PL be-PST-2PL since beginning know-PST-1SG

‘But you’ve always been full of yourselves, ever since I’ve known you’ (Jordánszky C. 220)

Koronkékéd had a Restrictor and Nuclear Scope; the R–NS division could be recovered with the aid of context, information structure...

(28) koronkeed bykath aldozyeek hþ byneyerth es kosth
age-DIST bull-ACC sacrifice-IMP-3SG he sin-3sg.pl-for and ram-ACC
ystennek dyczeeretyre
god-DAT praise-POSS.3SG-FOR
‘He (Aaron) should always sacrifice a bull for his sins, and a ram to praise God’ (Jordánszky 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.’

A-quantification, SOV-style:

(29) AdvP
    NP       Op

D-quantification, not SOV-style:

(30) Det NP
     every  time

2.3 Wholes


Hungarian

Old Hungarian mind ‘all’ has been a textbook case of a (variable-operator) combination; nevertheless, it could mean almost all the things that reanalysed open-class expressions could. Haspelmath-style reanalysis of content words came later.

Modern Hungarian: az összes. Összeg means ‘sum’, összművészet is ‘Gesamtkunst’.

(As a quantifier not attested in O.H.)

The stem ösz- is Uralic; cognates according to Benkő (1993):

(31) a. H. ösz-
    b. Komi vac’ ‘gänzlich’
    c. Udmurt voć
    d. Mord.(E) veşe

In Old Hungarian: adverb, quasi-postposition, verbal prefix (meaning together).

(32) a. mene az helyre holot vala frater Bernald: hogy
go-PAST-3SG the place-to where was brother Bernard that
zolnanak ewzue ystenű mőuelkedettrewl
speak-COND-3PL together divine deed-about
‘(St Francis) was going to the place where brother Bernard was staying,
so that together they discuss divine deeds’ (Jókai C. 9)

b. konkolt saggatvan w velek wssw kw nýwitek az buzath
weed-ACC tear-PART he COM-3LP together out squash-3PL the wheat
too
to ‘if you tear the weeds you’ll destroy the wheat as well’ (Székelyudvarhely
Codex 362)
c. bele veznek vala. merth le— zalnak vala mỳnd az into perish-PL3 PAST because down— go-3PL PAST all the terehel wzue az vỳznek melsegebe. burden-INST together the water-POSS.3SG depth-poss.3g-ine ‘they perished (in the river), because they sank into the depths, together with all their burdens’ (Virginia Codex 109-110)

First occurrence AS A DETERMINER/D-QUANTIFIER: in 1793(!!!). In Transylvanian documents:

(33) Ki számitása A’ Czegei öszves Robot napszámnak Out calculation-POSS.3SG the Czege-from total serfs’work daily-wage ‘Calculating all the daily wages for serfs’ work’ (1847, WassLt, archives of the Wass family)

Hungarian, Eastern dialects: egész ‘whole’, ‘entire’ being reanalysed, to mean ‘all’; even attested as a determiner comparable to ‘every’. (Possibly facilitated by the presence of Romanian tot ‘all’, ‘entire’.)

(34) a. Az egész-e-n ott voltunk The whole-PRED.NMRL there be-PST.1PL ‘All of us were there’ (Transylvania, Romania)
   b. Az egész politikus szereti a pénzt The whole politician likes the money-ACC ‘Every politician likes money’ (Csángó reg. variant, Moldavia, Romania)

(35) a. Cu toţii am fost acolo With all-DEF.MASC.PL PERF.1PL there ‘All of us were there’
   b. La toţi politicienii / Tuturor At all-MASC.PL politician-DEF.MASC.PL / All-DAT.PL politicienilor le plac banii politician-PL.DAT DAT.3PL like money-DEF.MASC.PL ‘All politicians like money’

Other Wholes

(36) a. Nganasan: bānsa ‘whole’, ‘all’ (Helimski (1998a))
   c. Tundra Nenets: mal’h ‘all’, ‘whole’ (often w. mass Ns; Nikolaeva (2014))

(37) s’a-ta mal’h pad’r-cawey’o face-3SG all stripe-PROPR ‘his whole face was covered with tattoos’ (Text1 in Nikolaeva (2014), p. 443)
2.4 Free Choice Items

Haskelmath (1995): (another) crosslinguistic tendency: Free Choice items can evolve into universal quantifiers. Romanian fiecare ‘each’ used to be, for instance, a Free Choice item (A. Cornilescu, p.c.).

(38) Romanian fie-care (be-SUBJ.3SG which) : whoever, whichever \( \rightarrow \) each.

OH

In OH, FC items could not evolve into universal quantifiers, simply because these were not ‘consolidated’ at the time (\( \text{akár}\)-expressions typically occurred in an operator position in their own clause, and expressed so-called supplementary \( \text{ang}\); for a more complete presentation cf. Bende-Farkas (2015)). Instead, minden could (and did) act as a FC item.

(39) minden k\( \acute{\text{y}} \) ka\( \grave{\text{yn}} \)th megh olendy. heethzer \( \acute{\text{yn}}k\)ab everyone who Cain-ACC prt kill-FUT-3SG seven-times more b\( \acute{\text{yn}}\)tet\( \acute{\text{yk}}\).
    punish-PASS-3SG
    ‘Anyone who kills Cain will be punished seven times more severely’ (Jordánszky C. IIIa)

Khanty?

Question:

(40) mosa a:mp a:tul
    what dog -ever

3 Interlude: Indefinites

Observation:

(41) In Uralic languages, indeterminates and expressions built with them are typically indefinites: plain indefinites, specific indefinites, \( n\)-words or Free Choice items. Indefinites are not quantifiers.

‘Particles’ used to build indefinites from indeterminates: not operators; rather: concord markers. (Kratzer (2005).)

Relative pronouns in free relatives (correlatives) may appear to contribute to universal/maximal readings. This is due to (I think) a covert maximality operator in the structure. (Main empirical argument here: the versatility of Old Hungarian \( \text{vala}\)-expressions.)

Free Choice effect: maximality w.r.t. the domain of choice, not w.r.t. the element chosen. (With stably indefinite FC items.)
4 The Case of Minden

The catch: mind ‘all’ and minden ‘every’ are themselves built up from an indeterminate (mi ‘what’) and a cluster of suffixes. [TESz]

(42) te veled mendun ige
    you INTR-2SG every word
    ‘Every Word (of God) is with you’ (Königsberg Fragment and Ribbons)

Hypothesis: mind ‘all’, minden ‘every’ older than other particle + pronoun complexes.
Reasons:

1. Morphosyntax:

(43) a. AdvP
    NP          Op
    mi         -nd

b.

AdvP          Op
    mind     -n

NP          Op
    mi      -n-d

(44) DP
     . . .
     Particle  NP
     vala-   -ki

2. Minden could combine with other indeterminates, although more sparingly than in Mdh:

(45) a. minden-hol ‘everywhere’
    b. minden-ha lit. ‘every-when’

A short-lived experiment: ki mind lit. ‘who all’:

(46) Egy éyel latanak mýnd ketten almath ký mýnd
    One night see-PAST-3PL all two-PREDNOM dream-ACC who all
    ennen feýere
    own head-POS.3SG-onto
'One night they both had a dream; each dreamed about himself' (The butler and the baker in Joseph’s tale)

What *minden* can do, could do, and ‘particles’ cannot (and presumably could not):

- Could combine with derivational suffixes: *minden-ütt* ‘everywhere’ (vs *vala-ett*);
- could be compounded: *minden-ható* ‘omnipotent’; (*ható*: have an effect);
- could express the right kind of meaning on its own; a particle like *vala-* on its own had nothing to do with indefiniteness, existential quantification, or free relatives.

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**Primary Sources**

- **Érdy Codex** 1524–1527. Unpublished transcription of the original text, received from the *Sermones* project, [http://sermones.elte.hu/erdy/](http://sermones.elte.hu/erdy/).


References


Lipták, A. (ed.): 2009b, *Correlatives Crosslinguistically*, Language Faculty and Beyond, John Benjamins, Amsterdam/Philadelphia.


