The Landscape of Universal Quantification in Old Hungarian

Ágnes Bende-Farkas
Research Institute for Linguistics
Hungarian Academy of Sciences
E-mail: agnesbf@gmail.com
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1 Introduction

1.1 Aims, Main Focus

The primary aim of this piece is to determine the ‘locus’ of universal D-quantification in Old Hungarian within the inventory of linguistic expressions conveying universal or maximal readings. Such an inventory will be presented and discussed in Section 2. A subsidiary aim is to chart interactions between different modes of quantification in Old Hungarian. Such interactions may involve a D-quantifier ‘decorated’ with a distributive suffix (an A-quantifier), or a correlative clause embedded under a D-quantifier.\(^1\)

Different linguistic means of expressing universality/maximality have different logical and grammatical properties (which will be outlined in 1.2). It is conjectured that D-quantification as found in the codices was a relatively late development in Old Hungarian; since its formal properties are radically different from those of other linguistic forms, its emergence in Old Hungarian can be said to have had far-reaching consequences, especially at the syntax–semantics interface.

Data from surviving Old Hungarian codices support, we claim, the following observations and hypotheses:

1. Hypothesis\(_1\): in early Old Hungarian so-called A-quantification was prevalent. Certain suffixes, such as the distributive suffix -keed (MH -ként is like English -ly), could be analysed as distributivity operators.

2. Hypothesis\(_2\): early OH had bare indeterminate pronouns that could be ‘bound’ long-distance by propositional quantifiers in the manner proposed in Shimoyama (2001) or Kratzer and Shimoyama (2002). Section 2 will present data that support this hypothesis, and sections 3 and 4 contain some discussion.

\(^1\)These modes, or strategies, have survived in Modern Hungarian, but they do they do not intermingle any more.
3. Hypothesis

D-quantification (quantification expressed by means of determiners, quantifying DPs) is a relatively late development in OH. Support comes from the morphosyntactic make-up from unusual cases presented in 3.4.

4. In addition, maximal/universal readings could be conveyed by means of correlatives (on correlatives in MH cf. among others Lipták (2009b)).

An overview of the data from OH codices shows that the inventory of quantification in Hungarian was rather varied. In addition, quantifiers from one class could interfere with quantifiers from other classes. Some of the discussion in later parts of this paper will attempt to disentangle some of these strands.

The main focus of this paper is D-quantification by means of minden ‘every’, and the textbook properties such a quantifier has been assumed to have. We will present data that appear to conflict with some of these ‘textbook’ properties; explanations will either rely on the assumption that OH minden did not in fact have the property in question, or they will evoke the interference of some other factor (usually some other mode of quantification).

A crucial type of interaction involves minden and indeterminate pronouns. What will be discussed is in fact the ‘afterlife’ of Hungarian indeterminate pronouns. In OH codices (and, after that, during every stage of Hungarian) we find particle + indeterminate compounds, such as vala-ki lit. VALA-who ‘somebody’, akár-hol AKAR-where ‘anywhere’, and so on; minden ‘every’ itself combined with certain pronouns: minden-ha ‘every-when’, minden-hol ‘everywhere’, etc.

At this stage of discussion the issue (taken up in Sections 3 and 4) is the following: According to Kratzer–Shimoyama, in European languages, with such particle + indeterminate combinations, all the particle contributes is an uninterpretable feature, which needs to be checked with a covert operator somewhere higher in the structure. Where Hungarian is concerned, our claim is that (i) Pending further research, Hungarian indefinite combinations can be assumed to behave as predicted by Kratzer and Shimoyama: the particle contributes an uninterpretable feature, which needs to be checked by, say, an interrogative operator, by a default existential quantifier, and so on. (ii) Nevertheless, we argue that minden in all its combinations had its own interpretable feature. That is to say, Hungarian minden appears to behave as proposed in the Agree-based model of the syntax–semantics interface in Biberauer and Roberts (2011), in that it carried its own interpretable (quantificational) feature. (See also Watanabe (2004) for a more fine-grained model of indeterminate–operator relations).

1.2 Ways and Means of Quantification

D-quantification vs A-quantification

Since the middle of the nineteen-eighties it has been known to the semantics community that the linguistic expression of quantification is not confined to quantifying NPs (or adverbial quantifiers like frequency adverbs). On the basis of morphosyntactic criteria two natural classes of quantifier expressions were distinguished by Barbara Partee, with the tacit assumption that the difference in linguistic expression may involve logical differences as well (Partee (1995)).

According to Barbara Partee, one needs to distinguish between
1. D-quantifiers: determiners, quantifying DPs, and


According to conventional wisdom, D-quantification is selective, local with respect to variable binding, and island-sensitive. In the case of quantifiers, sensitivity to islands means the absence of certain scope configurations. In island-free environments, scope relations can be flexible, due to covert quantifier movement.

Variable binding is local, viz. it is confined to the scope of a given quantifier. In dynamic parlance this entails that (‘genuine’) quantifiers are externally static (Groenendijk and Stokhof (1991), Genabith et al. (2007)):

(1) Every, cat is fond of its kittens. She caught a lot of mice.

Islands: in the following sentences the embedded quantifier cannot outscope the syntactic island in which it occurs (May (1989), May (1993)).

(2) a. Every professor heard the rumour [that every student of his had been summoned to the dean’s office].
   b. [If every friend of mine comes to the party] it will be a riot.

Scope flexibility:

(3) a. The ambassador of every country was invited to the reception
   b. There was a policeman at every corner.

The scope of D-quantifiers in Old Hungarian could also be flexible. (4) illustrates narrower-than-surface scope:

(4) Es sonha meg nem sert tyteket valamyben ha mynden and never PRT not hurt you.PL-ACC VALA-what-INÉ if every napon fogattok neky adnya eleg edeltd day-SUP promise-2PL DAT-3SG give-INF enough food-ACC
   ‘And he (the wolf) will never cause you any harm if you promise to give him enough food every day’ (Jókai C. 151)

The point of the example is that the scope of mynden nappon ‘every day’ is confined to the infinitival clause. (The reading is “You promise to give him enough food every day”, and NOT “Every day, you promise to give him enough food”.)

The following two sentences show wide scope over preceding material:

(5) a. Thowaba megh nem emlekezem soha mynden o Further PRT not remember never every he alnoksaghírol duplicity-POSS.PL-3SG-DEL
   ‘Furthermore, I shall never recall all his duplicity’ (Érsekújvár C. 77vb)
   b. akoron wolthak wolha Ierwsalambe sok Irasthwdok mýndé then were COND Jerusalem-INE many learned-men every nemzetekbol nation-PL-ELA
‘At the time there were in Jerusalem many learned men from every nation’ (Érsekújvár C. 80rb)

In the case of (5-b) the inversely linked reading is straightforward. With (5-a) on the other hand both scope options appear viable. What makes the inverse scope reading more plausible (we think) is the subject matter of the text: true forgiveness involves not recalling any duplicity, instead of not recalling some (possibly not all) instances of it.

Where A-quantifiers are concerned, it is hard to ascribe them one set of invariant logical properties. What is certain is that adverbial quantifiers are predicted to have frozen scope (since they are generated in situ). Adverbial quantifiers can also be unselective. (6) is a ‘natural’ example from Dorothy Parker’s work, quoted by Peters and Westerståhl.

(6) Men seldom make passes at girls who wear glasses. (Dorothy Parker)
Few 〈man, girl-with-glasses〉 pairs are such that the man makes a pass at the girl. (Peters and Westerståhl (2006))

The frozen scope of adverbial quantifiers is shown in (7): the embedded quantifier in (7-a) cannot take matrix scope, even though it occurs in a non-finite clause.

(7) a. JÁNOSF képes mindig győzni
   JOHNF capable-of always win-INF
   ‘It is John who is capable of always winning’

   b. Mindig JÁNOSF képes győzni
      Always JOHNF capable-of win-INF
      ‘It is always John who is capable of winning’

   There is a truth-conditional difference between (7-a) and (7-b): (7-a) can be true in a scenario where others can sometimes win, and John is the only person who always wins. (7-b) is false in such a situation.

**Indeterminate-based Quantification**

The expression of quantification in Japanese and several Asian languages does not quite fit the mould of D-quantification or A-quantification. In these languages so-called indeterminate pronouns (Kuroda (1965)) acquire existential, quantificational or interrogative force in the presence of certain particles (or by binding from covert operators, if the language in question lacks particles). (The term we will use, ‘indeterminate-based quantification’, comes from Gill et al. (2006).)

The key ingredient to this mode of quantification is provided by indeterminate pronouns, whose interpretation varies according to syntactic context. In some languages (as in Japanese or Benghali) existential, universal or interrogative readings are marked by specialised particles; other languages, such as Chinese, lack particles altogether (cf. among others Watanabe (2004) for a typology). Particle + pronoun combinations can be local (Benghali, Japanese) or non-local (Japanese). Concerning the contribution of the particles, some of them (in some languages) have been analysed as quantifiers, others have been analysed as concord markers, carriers of a feature to be checked with a covert
Japanese indeterminate pronouns and particles:

\[\begin{align*}
& (8) \quad \text{dare} \quad \text{nani} \quad \text{dono} \\
& \text{‘who’} \quad \text{‘what’} \quad \text{‘which’ (Det)} \\
& Q \quad \text{dare … ka} \quad \text{nani … ka} \quad \text{dono … ka} \\
& \exists \quad \text{dare … ka} \quad \text{nani … ka} \quad \text{dono … ka} \\
& \forall \quad \text{dare … mo} \quad \text{nani … mo} \quad \text{dono… mo}
\end{align*}\]

Perhaps the most influential analysis of indeterminate-based quantification has been proposed by Junko Shimoyama and Angelika Kratzer (Shimoyama (2001), Kratzer and Shimoyama (2002), Kratzer (2005), see also Ramchand (1997)). According to them, indeterminates correspond to sets of Hamblin alternatives that are used to build sets of ordinary meanings for the constituents containing them. Alternative meanings of larger constituents are computed compositionally, by pointwise function application.

When the particles \( \text{ka} \) and \( \text{mo} \) are not local to an indeterminate, they are analysed as propositional operators over sets of alternative propositions. They reduce alternative sets to singletons, similarly to the way \( \text{Only} \) reduces the Focus semantic value of its operand to a singleton in Rooth’s Alternative Semantics for Focus Rooth (1985). Quantifying particles thus ‘associate’ indirectly with indeterminates, again, similarly to indirect association with Focus in Alternative Semantics.

\[\text{(9) } \left[ \text{Dono hon-o yonda} \right] \text{ kodomo-mo yoku nemutta} \Rightarrow \text{‘For every book } x \text{, the child who read } x \text{ slept well’} \]

\[\text{In (9) } \text{mo operates on a set of alternative properties of the form } \text{child who read book } x\text{, yielding universal quantification over children.} \]

Similarly, in (10) the output is (equivalent to) universal quantification over teachers, even though the indeterminate pronoun \( \text{dono} \) combines with \( \text{gakusei-ga} \) (‘student-NOM’).

\[\text{(10) } \left[ \text{Dono gakusei-ga syootaisita} \right] \text{ sensei-mo odotta} \Rightarrow \text{‘Every teacher invited by some student (from among alternative students) danced’} \]

According to Kratzer and Shimoyama, long-distance Hamblin quantification over alternatives is characterised by the following properties:

1. It is non-local; what happens in fact is the reduction of the set of alternatives to a singleton; it is not binding in the logic textbook sense.
2. It is not sensitive to syntactic islands: an operator-particle can ‘associate’ with an indeterminate across syntactic islands;
3. It appears to be unselective: one operator ‘discharges’ all unreduced alternatives within its domain.
4. Scope is frozen; scope is determined by the locus of the operator.

5. Intervention effects or crossing dependencies are predicted to be excluded: an operator cannot access alternatives in the domain of another, more deeply embedded operator.

Local pronoun + particle combinations

Kratzer and Shimoyama have extended a Hamblin analysis of quantification to ‘local’ particle + pronoun combinations in European languages. Their main example is German irgendein ‘some P or other’, an epistemic determiner in the sense of Jayez and Tovena (2006): The identity of an irgendein-referrant is unknown or irrelevant. In certain contexts irgendein can have a Free Choice construal; this reading, as Kratzer convincingly argues, is an implicature. This construal aside, irgendein is an existential expression that lacks the quantificational variability exhibited by plain indefinites or bare plurals. Even though it doesn’t exhibit quantificational variability, Kratzer shows that irgendein is best analysed as an indefinite in the Heim–Kamp tradition (Heim (1982), Kamp (1981)), viz. as contributing a free variable that needs to be ‘bound’ by a covert existential operator (for instance, by the existential quantifier contained in the entry of muss).²

(11) a. Mary musste irgendeinen Arzt heiraten
    Mary had-to irgend-one-ACC doctor marry-INF
    Wide scope Muss: ‘Mary had to marry some doctor or other’
    (Any doctor was a permitted option)

b. (Muss + [∃] (Mary irgendeinen Arzt heiraten))

According to Kratzer, the particle irgend- can be regarded as a concord marker: It has no quantificational force of its own, it merely signals that a free variable is to be bound, or an active alternative needs to be discharged. In syntactic terms this translates into a particular feature geometry: irgend- is said to carry an uninterpretable feature that needs to be checked against the interpretable feature carried by an operator. (See also Biberauer and Roberts (2011) for a similar model of the syntax–semantics interface.)

Extrapolating from the case of irgend-, Kratzer proposes that particle + indeterminate combinations in European languages uniformly carry an uninterpretable feature, and that quantificational force resides in (possibly covert) operators distinct from the determiners/particles themselves.

Correlatives

Quantification can often be expressed indirectly, via grammatical constructions (cf. Partee (1995) among many other references). For the purposes of this paper one construction is relevant: correlatives. Very roughly, correlatives resemble free relatives, with some differences: they typically occur clause-initially, they can have several relative expressions, and at least one relative expression has a so-called correlate (typically, a demonstrative) in the matrix (in Hungarian the

²Kratzer’s analysis is cast in a Hamblin semantics, so indefinites in fact contribute sets of active, undischarged alternatives, and are not bound by quantifiers in the traditional sense of binding. When reporting work on indeterminates we will sometimes use the old, non-Hamblin terminology in contexts where — we hope — this will not create undue confusion.
correlate may be covert). (For details the reader is referred to Lipták (2009a); landmark semantic analyses are Srivastav (1991) or Dayal (1995).)

(12) (frater Rufen) Valamỳkoron valakytewl
(brother Rufen) VALA-what-when VALA-who-ABL
hỳwatattỳkuala ... zuanak kesedemuel
call-PASS.3SG-PAST ... word-POSS.3SG-DAT delay-POSS.3SG-INST
ewtet hỳuonak feleuala
he-ACC caller-DAT answer-PAST
‘(brother Rufen) whenever, whoever would address him, he would reply him haltingly’ (Jókai C. 59–60)

Sentence (12) is an example of an OH correlative: the correlative clause precedes the matrix, it contains two relative expressions and a definite correlate in the matrix (őket hívának — ‘the person calling on him’). (12) conveys universal quantification over times and persons who addressed brother Rufen, and the main assertion is that at all times, for all persons, brother Rufen was slow to reply.

Correlatives are relevant for the study of OH not only for expressing maximal (unique) or universal readings: from example (13) it can be concluded that in Old Hungarian correlatives ‘interfered’ with tripartite quantificational structures. (In addition, correlatives are highly relevant for the diachronic study of Hungarian indefinites.)

(13) menden,nek meg ada aztj akv.nek myj evuei vala
everyone,-DAT PRT gave that-ACCj whoj,DAT whatj hisi be-PST
‘She gave everyone his due’ (Cornides C. 178r)

In our work on OH quantification we rely on those analyses that take correlatives to correspond to conditionals (Andrews (1985), see also discussion in Lipták (2009b)), and where the maximality/unicity effect is derived from a covert maximality operator (as in Brașoveanu (2008)). In addition, in future work we would like to build on the dynamic analyses of Bittner (2001), Brașoveanu (2008), and Brașoveanu (2012) where the relation between the relative pronoun and its matrix correlate is a special case of discourse anaphora (see also Belyaev and Haug (2014) for a dynamic-diachronic analysis of correlatives).

2 The Expression of Universal/Maximal Readings in Old Hungarian

This section provides an inventory of expressions and syntactic structures conveying universal or maximal readings in Old Hungarian. Structural Focus and csak ‘only’ will have to be omitted from this inventory: at this stage of research little is known about their behaviour in OH.
2.1 An inventory

A-quantifiers: suffixes, reduplication, floating quantifiers

Keed: The Old Hungarian suffix -keed was an A-quantifier. Its Modern Hungarian descendant is the distributive suffix -ként. In Modern Hungarian -ként, -(n)ta/-(n)te are more like frequency markers. With temporal expressions they indicate the time span between two occurrences of the same type of event. With nominal expressions -ként yields the granularity of distributivity. (In (14) below naponta ‘daily’, kéthetente ‘biweekly’, időnként ‘from time to time’ are rate phrases in the terminology of Csirmaz and Szabolcsi (2012)).

(14) a. Vegyen be naponta három tabletát
    Take.imp.2sg in day-ly three tablet-acc
    ‘You should take three tablets a day’

b. Ez a lap kéthetente jelenik meg
    This the journal two-week-ly appears prt
    ‘This journal appears biweekly’

c. Péter időnként elkísik
    Peter time-DIST prt-is-late-3sg
    ‘From time to time, Peter is late’

(15) a. A katonák fejenként száz golyót kaptak.
    The soldiers head-DIST one-hundred bullet-ACC receive-PST.3PL
    ‘The soldiers were handed one hundred bullets each’

b. Ebben a faluban családonként van két tehén és
    This village-DIST one family-DIST is two cow and ten
    tiz juh
    ‘In this village there are two cows and ten sheep per family’

Old Hungarian -keed as an A-quantifier can be regarded as a vestige of the SOV, head-final period of Hungarian: an operator head (the suffix) is preceded by a ‘contentful’ morpheme (the nominal or numeral root).

In OH codices the contribution of -keed varied according to the denotation type of its nominal. When combined with individual-denoting nouns or numerals, -keed had the role of a frequency marker, as in Modern Hungarian.

In (16) egenkét ‘one by one’ combines with floating mind ‘all’. It may serve to stress that each of the devil’s daughters is married off richly, i.e. it is not the case that they receive a large dowry only as a group.

(16) Heten vadnak, Mel’eket, az 9 At’ok az ordog
    seven-ADV are, which-PL-ACC the she father-poss.3PL the devil
    mynd egenkét kazdagon el hazasyta,
    all oneADV-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)

With temporal expressions -keed could be a universal quantifier, and this is quite different from its present-day use as a frequency marker. A comparison of
present-day *időnként* ‘from time to time’ and Old Hungarian *koronkeed* ‘always’ can illustrate this difference. Although the two expressions are morphologically similar (*idő-nként* is ‘time-dist’ and *koron-keed* is ‘time-dist’ or ‘age-dist’), *időnként* is a plural existential, whereas subsequent examples will show that *koron-keed* is comparable to English *always*. *Naponkeed* ‘day-dist’ could also mean the generalised quantifier ‘every day’ (instead of the frequency marker ‘daily’).

In (17) *naponkeed* presumably combines with the manner adverb: ‘And he dwelt there, and each day he felt great pleasure’. This is a frequency reading for *naponkeed*. *Naponkeed* could also mean ‘incessantly’, if the manner adverb *nagyon* *gőnyerewseggel* ‘with great pleasure’ is construed as one state description whose time span includes the domain of *every day*. (This is similar to the ambiguity of the English sentence *John was ill every day last week.*)

(17)  
\[ \text{Es lakozýk wala naponkeed nagý gőnyerewseggel} \]  
\[ \text{And dwell PAST day-N-ly great pleasure-INSTR} \]  
‘And he dwelt (there) with great pleasure every day’ (Érsekújvár C. 5r)

Temporal expressions with *-keed* could enter scope interactions: in (18) the right scope order is \( \forall > \diamond \) rather than \( \diamond > \forall \).

(18)  
\[ \text{Bogý kő naponkeed eshetel wgían azon korsagban} \]  
\[ \text{that who day-dist fall-POS-2SG same that illness-INE} \]  
‘Every day it is possible for you to come down with the same illness’ (Érsekújvár C. 211vb)  
\[ (\text{wgían azon korsag ‘the same malady’ is anaphoric to an explicitly mentioned disease name}) \]

Sentence (18) doesn’t have the reading ‘It is possible for you to fall ill (and recover) daily’. In its original context, (18) could be paraphrased as follows: ‘Someone has fallen ill with a certain disease, and every day, any day, you too might contract that disease.’

In Modern Hungarian *koronként* means ‘from period to period’, ‘from one age/period to another’. In Old Hungarian *koronkeed* was an adverbial quantifier corresponding to English *always* or Modern Hungarian *mindig*. (*Kor* is a common noun meaning ‘age’, ‘period’, ‘era’, ‘time’, or a suffix paraphrasable as English temporal *at.*)

With state descriptions *koronkeed* meant ‘incessantly’ (similarly to English *always*), as seen in (19):

(19)  
\[ \text{De koronkeed dagalyosok voltatók mywltha foghwa} \]  
\[ \text{But age-DIST swollen-PL be-PST-2PL since beginning} \]  
\[ \text{ysmertelek know-PST-1SG-DEFO2} \]  
‘But you’ve always been self-important, ever since I’ve known you’ (Jordánszky C. 220)

The Restrictor of *koronkeed* was usually covert, and could (presumably) be recovered by pragmatic means (via association with Focus or association with presuppositions, or knowledge shared between discourse participants). This is
supported by examples like (20). In this case the parallel syntax of the two clauses aids the reconstruction of the Restrictor–Nuclear Scope division.

(20) koronkeed bykath aldozyeek hē byneyerth es age-DIST bull-ACC sacrifice-IMP-3SG he sin-3sg.pl-SUBL and kosth ystennek dyczeeretyre ram-ACC god-DAT praise-POSS.3SG-SUBL

‘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.’

Not at once: The pluractional expression szeruel, szerével ‘in good order’, ‘successively’, ‘not at once’ can also be regarded as an A-quantifier of sorts.

(21) zereuel mỳnd egỳmasvtan. mỳnden order-POSS.3SG-INSTR all each-other-after every gondolatyt meg monda thought-POSS.3SG.PL-ACC PHT said-IMPF

‘She related every thought of the (other) nun, all in good order, one after the other’ (St Margaret’s Legend, 59r)

In Modern Hungarian the closest parallel is szerre-rendre (‘successively’), which is chiefly used in Eastern dialects.

Pronominal reduplication: the reduplicated pronoun ki-ki lit. ‘who-who’ was (and still is) a distributivity marker. We propose that preverbal, reduplicated ki-ki is a vestige of a period in the history of Hungarian when unattached indeterminate pronouns were bound by long-distance operators.

In (22) kinek kynek ‘to each’ is a distributivity operator, and the complex DP az alkolmas allapotba meel . . . denotes a suitable state which takes into account the properties of each man to be resurrected.3

(22) mindonøk feel tamadnak az alkolmas allapata: meel kinek every-PL up surge-3PL the appropriate state-INE which who-DAT kynek nezy ñønnø termezëtit:

who-DAT regard-3SG own nature-POSS.3SG-ACC

‘Everyone will be resurrected in the appropriate state, which takes into account the nature of each’ (Kazinczy C. 96v–97r)

In MH ki-ki has to bind a variable in its scope (Farkas (1997)), and its domain is provided by context. Data from OH codices do not contradict these requirements.

In (22) the domain of ki-ki would be humanity as a whole. In fact, in this example the domain of ki-ki is dependent on that of the universal quantifier in the matrix. The attentive reader may have noted that (22) looks suspiciously like a case of requantification: given the universal quantifier in the matrix, ki-ki

3Discussion in the text concerns the body people will be resurrected in: whether it will be as tall as their first, mortal body, whether it will inherit the flaws or distinguishing marks of the first body, and so on.
may as well be redundant. Although cases like (22) raise relevant questions concerning the nature of binding or the inherent quantificational force of operators like ki-ki, they have to be set aside for the time being.

In addition to plain ki-ki ‘who-who’, the codices also contain the combination (reduplicated) pronoun + mind: ki mind, ki-ki mind. According to Vera Hegedüs (p.c.): ki(-ki) mind could have been a short-lived ‘experiment’ to express ‘everybody’, ‘each person’. (In Old Hungarian DP minden could mean everybody, in addition to everything. In Modern Hungarian everybody is conveyed with the compound minden-ki lit. ‘every-who’.)

(23) a. . . . ky mynd el temethween ew elsew zylótteet
who all away bury-PART he first born-POSS.3SG-ACC
‘Having all buried their firstborn’ (Jordánszky C. 188)
b. ky ky mind miwelkoyethe zerenth wegón:
who who all deed-POSS.3SG according.to take-8BJV.3SG
awagh lot: awagh gonozth:
or good-ACC or evil-ACC:
‘Each should partake according to his deeds, whether it be of good or evil’ (Kazinczy C. 89v)

Floating mind ‘all’:
The inventory of OH A-quantifiers included floating quantifiers. Old Hungarian floating mind ‘all’ has survived into Modern Hungarian, with some relatively recent sortal restrictions on its associate.4 In OH mind could combine with temporal or spatial expressions in a manner similar to English all the way. Neither minden ‘every’ nor egyminden ‘each and every one’ (to be discussed presently) had this property; in MH it is detectable in certain set phrases such as mind-addig (‘all the time until’) or mindhalálig (‘till death’).

(24) az ev kylattassok mynd menyorzagiglan fel hallyk
the she cry-POSS.3PL all heaven-TERM up hear-PASS.3SG
vala.
be-PAST
‘their cries could be heard all the way to Heaven’ (Margaret Legend 41v)

According to the Historical-Etymological Dictionary of Hungarian (HEDH, Benkő (1964–1987)), mind is composed of the pronoun mi ‘what’, a manner suffix -n (detectable in today’s mennyi ‘how much’), and a suffix -d, whose role is unclear. According to traditional diachronic analyses, mind was originally a so-called ‘generalised pronoun’ that originally meant ‘successively’, and later came to mean ‘all’. What is relevant for this paper is that mind is derived from an indeterminate pronoun, and that it is not a bleached and reanalysed (open class) lexical item. Instead, it appears to have been tailor-made as an operator.

The semantic properties of mind will receive some discussion in the following section, where they will be contrasted with those of minden ‘every’. (Bende-Farkas (2014b) contains a fairly detailed analysis of mind, along with a comparison with minden ‘every’). Here we reproduce an example from the earliest

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4In present-day Hungarian mind has a synonym, az összes-en. In addition, in Eastern dialects it competes with an expression currently undergoing grammaticalisation, az egész-en-lit. ‘the whole-N’.
extant Hungarian text, the Funeral Sermon and Prayer (FSP). The FSP contains several occurrences of mind, and by and large all of these behave similarly to Modern Hungarian mind, or English all.

\[(25)\] Num heon munganec. ge mend w foianec halalut not only self-DAT but all he kin-POSS.3SG-DAT death-ACC 
evEc. 
cat-PST ‘(In the forbidden fruit) he ate death, not only for himself but for all his kin’ (Funeral Sermon and Prayer, FSP)

Old Hungarian floating egyminden ‘each’:

In Modern Hungarian floating (universal) quantifiers are confined to mind ‘all’ and its synonyms: Modern Hungarian has no floating quantifier comparable to English each. Old Hungarian had a short-lived floating quantifier comparable to each: egyminden(-ik)

Egyminden was relatively frequent in the Vienna and Munich codices (15th century). It could be a floating quantifier, but, unlike floating mind ‘all’, it was inflected for case, and participated in scope interactions in a manner similar to the D-quantifier minden ‘every’, including configurations with the format \( \forall \prec \neg \) (cf. example (52-b) in part 3.3). Unlike mind, it did not co-occur with collective or reciprocal expressions, nor did it ‘associate’ with temporal or spatial expressions in the manner typical for mind (as seen in (24)). That is to say, the morphology and the scopal behaviour of egyminden appear to indicate that it may well have been a D-quantifier disguised as an A-quantifier.

\[(26)\] a. Es ad ŏnèkec eg mendennèc fiuèt a. mèzöben And gives them one every-DAT grass-ACC the meadow-INE ‘And he gave them, to each of them, grass in the meadow’ (Vienna C. 308)

\[(26)\] b. Imé en adoc èmberekèt egmendent o Lo I give-1SG man-PL-ACC one-every-ACC he félènc kizèbè brother-POSS.3SG-DAT hand-POSS.3SG-ILL ‘And lo, I hand over people, each and every one, into the hands of his brother’ (Vienna C. 310)

\[(26)\] c. a maradeki megmariac egmenden o the remainder-POSS.3SG.PL PRT-bite-3PL one-every he félènc huzat brother-POSS.3SG-DAT flesh-POSS.3SG-ACC ‘the remainder/the survivors will bite, every one of them, the flesh of their brethren’ (Vienna C. 311)

**Bare nominals**

Bare nouns in Old Hungarian could have universal/generic construals. In (27), for instance, the noun ember ‘man’ has a generic/kind level construal (cf. Egedi (2013)).
Correlatives

Old Hungarian (just like Modern Hungarian) had free relatives/correlatives. The most conspicuous difference between Old Hungarian and Modern Hungarian is that in Old Hungarian the combination vala+pronoun could be used as a relative pronoun (chiefly in free relatives/correlatives, occasionally also in ‘plain’ relative clauses).

Members of the vala-series in Modern Hungarian are positive polarity indefinites (with some exceptions). In Old Hungarian they were DPs, determiners or relative pronouns, with varying properties. As DPs/determiners they could scope under negation (as in example (4) on page 3), and could have Free Choice construals. As relative pronouns they typically occurred in correlatives expressing generalisations, and had universal or FC construals, as shown in (28) below. Episodic correlatives with a vala-pronoun such as (29) below are extremely rare.\(^5\)

(28) a. vala-my zyletendyk hym nemzeth, azth
   VALA-what be-born-FUT.3SG male issue that-ACC
   koronkeed wr ystennuk aldozzad
   age-DIST lord god-DAT sacrifice-IMP.2SG
   ‘whatever male issue is born, that should always be sacrificed to God’ (Jordányszky C. 233)

b. vala-ki iste(n)nec zolgal orzagl vgy mint orozlan
   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)

c. vala hol vagon az the keenczed, ott vagyón az
   VALA where is the you treasure-POSS.2SG there is the the
   the zýwed ees.
   you heart-POSS.2SG also
   ‘(The place) where you keep your treasure is also where your heart
   is.’ (Érdy C. 136a)

The sentences in (28) show correlative structures with vala- expressions as relative pronouns (MH would employ relative pronouns such as ami, aki ‘what’, ‘who’). (28-a) and (28-b) have a universal construal, saying that all male issue have to be sacrificed, or that everyone who serves God reigns like a lion. (28-c) has a Free Choice reading: there is a unique location where treasure is stored, and, wherever that place might be, the addressee’s heart can also be found there. These sentences lend themselves to a conditional analysis of correlatives:

\(^5\)It is highly likely that the existential/universal ambiguity of today’s valamennyi lit. ‘some amount of’ and valahányszor lit. ‘on a number of occasions’ can be traced back to OH maximal readings in correlative constructions. (On valamennyi cf. the brief discussion in Csirmaz and Szabolcsi (2012) or Haspelmath (1997) for a different hypothesis on the origins its ambiguity.)
(28-b) can be taken to be a donkey sentence in disguise, saying that if someone serves God, he or she will reign like a lion.

Sentence (29) is one of the very few instances of episodic *vala*-correlatives in OH codices. The speaker is Judas, and the unique person he is going to kiss is Jesus. Even such a sentence can be construed as a conditional: ‘If I kiss someone, he will be the one you are looking for, and you should detain him’.

(29) Valakit megapolandoc ő az fogiatoc gtét

VALA-who-ACC PRT-kiss-FUT.1SG he that detain-IMP.2SG he-ACC

‘The one I am going to kiss, he will be the one; detain him’ (Munich C. 33rb)

Correlatives are relevant for the current discussion for two reasons: (i) It is a puzzle how expressions from the VALA-series could be plain indefinites and could also occur in structures conveying maximality/Universality. (It was typical for the same codex to contain *vala*-expressions in both roles, cf. a sample of data and discussion in Bende-Farkas (2014a).) (ii) The nature of the relationship between the relative pronoun and its matrix correlate becomes relevant when correlatives are seen to interact with well-behaved, textbook quantifiers such as minden ‘every’. (A case in point is (13); a handful of similar cases will be discussed in part 3.4.)

### Indeterminate pronouns

Old Hungarian codices contain a handful of examples where bare pronouns (in non-interrogative, non-relative environments) are bound long-distance by an operator.

Bare pronouns could be bound under negation:

(30) Es tehát latek tewz langott menbelewL leŷtewtt

And so saw-SG1 fire flame-ACC heaven-ELA descend-PART-ACC

...de az egỳebekrewl nem tudok mỳtt

...but the other-PL-DEL not know-SG1 what-ACC

‘I saw a flame descending from Heaven ... but I know nothing about the rest’ (Jókai C. 45)

In (30) mỳtt ‘what’ is bound by negation. From syntactic context it is clear that its clause is not an embedded question (it means ‘I know nothing’ and not ‘I don’t know what – to say–’).

Bare pronouns could also occur in the antecedent of a conditional. In these cases they had a universal interpretation. So, a sentence like (31) was a donkey sentence. The universal construal of ky ‘who’ followed from the semantics of the conditional: If someone asks ϕ then ψ is logically equivalent to For every x it holds that if x asks ϕ then ψ.

6If ψ contains no free occurrence of x, the equivalence (i) holds in classical logic. In dynamic frameworks the equivalence holds even if ψ contains free occurrences of x (classic references are Kamp and Reyle (1993) or Groenendijk and Stokhof (1991)).

(i) \( (\exists x.\varphi) \rightarrow \psi \cong \forall x.(\varphi \rightarrow \psi) \)
(31) Ha ky kerdenee honnan volt az. Azonywnk
if who ask-COND.3SG where-from was that. lady-POSSESS.1PL
marianak hogy semy terheet nehessegeet nem zenwette
Mary-DAT that none burden-ACC difficulty-ACC not suffered
leygen Reea feleheek doctorok mondwan.
be-SBJV.3SG SUBJ-3SG reply-3PL doctors say-PART . . .
‘Should someone ask how come that Our Lady Mary had no difficulty
(in giving birth) learned men reply saying . . .’ (Érdy C. 44a)

(32) Ha kedeeeg my kewessee annal nagyobot zolt
if CONJ what little-TRANS that-ADV bigger-ACC speak-PST.3SG
volna, hyzóm hogy mind ez vylaag sem
be-COND believe-1SG that all this world neither
foghatta volna meg
catch-Possess-PERF.3SG be-COND PRT
‘And if he (St John) had spoken somewhat louder / any louder I believe
that not even the whole wide world could have grasped it’ (Érdy C. 54a)

Sentence (32) is arguably also a donkey sentence: the pronoun my ‘what’ ac-
quires a universal construal under ha ‘if’: ‘For every measure x larger than the
original loudness (of St John’s speaking out in Revelations) it holds that the
world could not have grasped John’s message’.

In examples like the above we propose that the indeterminate was bound by a
covert existential operator within its clause (and under negation). The universal
interpretation in (31) and (32) follows from the semantics of the conditional.

The presence of such indeterminate pronouns can be explained, we claim, if
we take them to be the remnants of an earlier period when free indeterminate
pronouns could be bound long-distance by propositional operators. The refur-
bished, reduplicated pronoun ki-ki ‘who-who’ can also be taken as a survivor
of that period. The case of ki-ki as the remainder of an earlier system of bare
indeterminates is made stronger by the fact that no other indeterminates are
used in such a manner: Pronoun reduplication yielding a distributive oper-
ator is confined to ki. (All other combinations are ungrammatical in MH, and are
unattested in OH records.)

Further (indirect) evidence for the presence bare indeterminates in OH comes
from sentence-initial bare pronouns in a marked construction involving discourse
parallelism. In such constructions they have an existential-partitive construal
comparable to stressed English some:

(33) Az előadás után ki hazament, ki pedig betért egy kocsmába.
The lecture after who home-went who and in-went a pub-INE
‘After the lecture some went home, and some went to a pub.’

(34) kỳ kezeeýt kỳ edes zemeýt.
who hand-POSSESS.PL.3SG-ACC who sweet eye-POSSESS.PL.3SG-ACC
zaýaat orcaýaat apolgattýaak vala
mouth-POSSESS.PL.3SG-ACC cheek-POSSESS.PL.3SG-ACC kiss-PST-3PL PAST
nagý sýrassal.
great crying-INSTR
‘Some were kissing his hands, some were kissing his sweet eyes, mouth
and cheeks amidst great sobbing’ (Érdy C. 248 a)
Another remainder of the indeterminate era could be the superlative construction *me-n-töl ...-bb*, where *-bb* is the suffix for comparatives, ablative *-tHol* corresponds to *than*, and *mi* is indeterminate ‘what’ (Katalin Gugán, p.c.), which can be taken to be bound by a covert universal quantifier. (That is, the superlative was a compositional combination of the comparative plus a universal quantifier: being the best meaning better than everything/anything. The universal quantifier could be overt, with only the indeterminate visible on the surface.)

(35) a. Ez ozlönac feie **mentol** iob arańbol

   *The column-DAT head-poss.3sg what-abl good-compr gold-ela*

   was

   ‘The capital of the column was made of gold of the best (purest) quality’ (Vienna C. 122)

b. Ez az ellő parácolat & **mentol** nagob

   *This the first commandment and what-abl great-compr*

   ‘This is the first commandment, and it is the most important one’

   (Munich C. 28rb)

D-quantifiers: *Minden and its ilk*

*Minden* is the first strong D-quantifier in OH records. It was first attested in the Königsberg Fragment and Ribbons (KFR, ca 1350), and in the Jókai Codex (the first surviving Hungarian book; between 1372 and 1448).

(36) menel sarwldel **mendedett** kyket

   *go-away and-sell-away everything-poss.2sg-acc who-pl-acc*

   vallaz es agáad zegenekne

   *own-2sg and give-imp.2sg poor-pl-dat*

   ‘go forth and sell everything you own and give it to the poor’ (Jókai C. 6)

The Jókai Codex also contains a number of derivatives to *minden*: *minden-ewt* (‘everywhere’, *-t* is a locative suffix), *minden-kor* (‘at all times’, *-kor* is a temporal suffix), *mindenestewl* ‘completely’. Later derivatives also employ indeterminates: *menden-hol* lit. ‘every-where’, and *minden-ha* lit. ‘every-when’. According to Benkő (1964–1987) *minden* is itself derived from *mind* ‘all’. The outermost suffix *-n* can be identified as the suffix that converts cardinality expressions and quantifiers into groups with that cardinality (or groups having the property of being maximal).

[insert simple example?]

Universal Free Choice items

To complete the inventory of Old Hungarian expressions conveying maximality, universal Free Choice items need to be mentioned. Free Choice readings were conveyed by the complexes *akár + pronoun, vala + pronoun*. *Akár + pronoun* expressions were mostly confined to a sentence-initial operator position, and usually corresponded to what has been termed as supplementary *any* in the sense
of Horn (2000).\(^7\) Sentence-internal, syntactically ‘integrated’ akár-expressions appear sporadically during the first part of the 16th century.


(37) a. Suddenly she hoped that someone, *anyone* — man or woman — would see her (Wambaugh)

b. I am standing here until a policeman, *any* policeman turns up.

Supplementary akár- in OH:

(38) a. *Sem egy embernek myatta meeg akar mely nagy zent embernek myatta sem vallathatyk saint man-DAT through-POSS.3G neither redeem-PASS-POSS-3SG vala meg PAST PRV ‘He cannot be redeemed on account of no man, however great and holy’ (Cornides C. 75v)

b. ha te minden te io myelkevetydet akar mely if you every you good deed-POSS.3SG.PL-ACC AKÁR which io myelkevetydet myndenkoron felemel tezed good deed-POSS.3SG.PL-ACC every-time-LOC fear-INSTR do-2SG . . . Ezek jegyez hog nulad vagyon az felemnek . . . these sign-POSS.3SG.PL that ADE-2SG is the fear-DAT ayandoka gift-POSS.3SG ‘If you perform every good deed, any good deed of yours with trepidation . . . these are the signs that you have the gift of fear’ (Cornides C. 76v)

*Minden* itself could convey a universal FC reading with the postposition nélkül ‘without’, as seen in (39). In addition, *vala-pronoun* combinations often conveyed FC construals, as seen in (40). *Vala-DPs* were in fact ordinary indefinites, and it has been argued in Bende-Farkas (2013a) and Bende-Farkas (2014a) that their FC reading was an implicature. The FC construal of relative pronouns with *vala* (seen in examples such (28-b) or (28-c) on page 13) was a consequence of the underlying correlative-conditional structure.

Free choice *minden* ‘every’:

(39) De zenth pether azonnal fel alwan mynden feledemelkyl But Saint Peter immediately up standing every fear-without Es retthegeesnlekyl nagy fel zowal monda. . . and trepidation-without great loud word-INSTR said ‘But Saint Peter was instantly on his feet and said loudly, without any fear or trepidation . . . ’ (Érsekújvár C. 80va)

Free choice *valami* ‘something’:

---

\(^7\) According to Horn, the term was originally used in Jennings (1994).
But Saint Francis had guessed in his mind his coming, his good thoughts and his strife, before he had told him anything' (Jókai C. 77)

In sum, Old Hungarian had one specialised Free Choice item, which at the time was confined mostly to supplementary any. ‘Regular’ free choice construals were conveyed by vala-expressions and occasionally by minden ‘every’.

### 2.2 Interim summary

The inventory presented in the preceding subsection shows a varied landscape of expressions conveying universal or maximal readings. For the purposes of this paper A-quantifiers, indeterminates and D-quantifiers are especially relevant.

Combining observations from the data and what is known about the history of OH and Proto-Hungarian, viz. the transition from an SOV, head-final language to a discourse configurational language with a rich left periphery (cf. É.Kiss (2014)), we can formulate the hypothesis that in the period(s) preceding written records A-quantifiers were predominant.

Generalising from the morphosyntactic makeup of expressions containing distributive suffixes like -keed, we can propose that generalised quantifiers comparable to koronkeed ‘always’) contained a word-final operator suffix, attached to a content word. (Pluractional szer-re ‘successively’ also follows this pattern, and so does örök-ké lit. ‘eternal-TRANSL ‘forever’.)

(41) koronkeed ‘always’

\[
\text{kor} \quad -n \quad -\text{keed}
\]

In fact, the internal composition of mind ‘all’ or minden ‘every’ also supports this conjecture, in that mind, minden consist in an indeterminate without quantificational force of its own, followed by a suffix cluster that could be analysed as conveying ‘logical’ content.

(42) mind ‘all’

\[
\text{mi} \quad -n \quad -d
\]
In addition, during earlier stages of Hungarian, quantificational effects could be achieved by long-distance binding of indeterminate pronouns. These hypotheses entail that D-quantification (at least in its present form, during its current cycle) was a relatively recent development at the time of the first extant written records. Determiners in OH records belong to the left periphery of the DP, so, clearly, the syntactic makeup of DPs containing them is head-first. Thus the transition from affixal quantification to D-quantification in Hungarian can be seen as a change from the preponderence of structures like (41) to left peripheric D-quantification schematised in (44).

Further evidence for the relative lateness of D-quantification will come from the properties exhibited by OH indefinite series of the form particle + indeterminate (part 3.1), and also from a handful of quirky data involving minden, to be presented in the part 3.4.

\[ (44) \]
\[ \begin{align*}
\text{a. } & \text{minden könyv} \quad \text{‘every book’} \\
\text{b. } & \text{DP} \\
& \text{NumP/QP} \quad \text{NP} \\
& \text{minden} \quad \text{könyv} \\
\end{align*} \]

3 Discussing minden

The main focus of this section is OH minden ‘every’. In part 3.1 we aim to show that it did not fit well in the paradigm of particle+indeterminate complexes of OH. In subsections 3.2 and 3.3 we present those properties of minden that lend it the appearance of a prototypical universal D-quantifier. In subsection 3.4 we present borderline cases from OH codices, which we take to indicate that (i) minden could have spent some time as a modifier meaning ‘full’, ‘complete’, (ii) and that variable binding in OH could interact with discourse anaphora (when correlatives appeared to be embedded under minden). To conclude this section we ‘conjoin’ findings from 3.1 and 3.2–3.3, in order to argue that (unlike indefinite particle + indeterminate complexes) OH minden was a quantifier in its own right, viz. it carried its own interpretable feature.

3.1 Prelude: minden and weak determiners

Minden was not the only D-quantifier in OH. Several weak DPs (including particle + indeterminate combinations) were attested as early as the Jókai Codex:
The reader may note that many OH weak DPs consist in particle + indeterminate combinations. *Minden* could occasionally be combined with indeterminate pronouns, but its paradigm was severely defective. The following table presents the main particle + indeterminate paradigms in Old Hungarian. *Né-* marked specificity (scopal or epistemic), *se-* *n*-words, *akár*- FC items, and *vala-* appeared with plain indefinites, which in OH tended to appear in syntactically or logically subordinate position.
Before zooming in on minden, a few remarks on OH particle + indeterminate combinations are in order: Relative pronouns (not shown here) were undergoing a change, from bare pronouns to several particle + pronoun combinations (cf. Bácskai-Atkári and Dékány (2014)). Towards the end of the OH period akár-expressions started to appear sentence-externally, instead of heading subordinate clauses introducing supplementary any. Vala-indefinites could range in meaning anywhere from specificity to NPI readings. In short, codices reflect a certain malleability, which can be taken as symptomatic for the stabilisation/reinforcement of the left periphery in DP structure.

There are several morphosyntactic properties that single out minden in the system outlined in Table . . . : Minden as a determiner could freely combine with NPs, whereas akár-, vala, etc. could not do so on their own. (Certain complexes such as Vala-ki, né-mi could also be determiners. Sentence (45-b) contains in fact the determiner né-mi ‘some’.) Members of the akár- and vala-series also served as relative pronouns; minden (or mind ‘all’) is not attested as a relative pronoun. Minden could combine with (case-marking) suffixes such as locative -tt. (Also, it could combine with temporal -kor without the mediation of the pronoun mi ‘what’.)

The particles that served to build indefinites were markedly different from minden, in the following respect: on their own they did not convey the requisite meaning (with the exception of se-, which goes back to sem ‘neither’, a ‘fusion’ of is ‘and’, ‘too’ and nem ‘not’, cf. Gugán (2012) or É.Kiss (2014)). Vala was originally a non-finite form of lenni ‘to be’, akár goes back to the verb akar ‘want’ (presumably via the disjunction akár ‘either’ or the minimaliser akár –csak– ‘at least’, ‘even’), whereas the specificity marker né goes back to an earlier and long since recycled form of negation (Gugán (2012)). To repeat, minden on its own was sufficient to convey universal quantification, whereas the particles combining with indeterminates (with the possible exception of negative se-) had no comparable contribution of their own, viz. they did not originate in operators having existential or FC meanings of their own.

In addition, minden already consisted of an indeterminate (mi ‘what’) and a cluster of suffixes. The question is to what extent speakers of OH recognised the indeterminate in minden or whether they took it as an unanalysed whole.
3.2 Expected properties

This subsection lists those properties of OH *minden* ‘every’ that are expected under the assumption / expectation that it was a well-behaved D-quantifier: it could bind variables locally, its scope was flexible within island boundaries, i.e. it could be raised covertly or overtly. It came with a tripartite structure, and it was not compatible with collective or reciprocal expressions (e.g. with collective verbs, or with *együtt* ‘together’).

**Binding:** *minden* could bind variables in its Nuclear Scope.

(47) *menden* test ne gyczewlkewgyek *ew* lelkeben
    every body not glorify(-REFL-)SBJV.3SG he soul-POS.3SG-INE
    ‘Nobody should glorify his soul’ (Jókai C. 128)
    ‘For everybody it holds that he is not to praise his own soul’

In (47) the *menden*-DP is at the left periphery of the sentence; we take this word order fact to indicate that *menden*-DPs could be raised from their postverbal base position.

The scope of *minden* was flexible. In addition to (5) from 3, sentence (48) presents a fresh example, where *menden* h`elen ‘everywhere’ outscopes the subject quantifier *sokan* ‘many’.

(48) *Sokan* halnac meg *menden* h`elen
    Many-GR die-3PL PRT every place-SUP
    ‘Many are dying/die everywhere’ (Vienna C. 228)
    ‘Everywhere many are dying/die’

**Mind, mind, and collectivity:** as regards compatibility with collective or reciprocal meanings, *minden* and *mind* have been found to parallel English *every* and *all*, respectively.

Incompatibility with collective or reciprocal expressions: No examples have been found of *minden* in sentences with collective verbs (Hungarian counterparts of ‘gather’, ‘meet’, ‘surround’). Likewise, no examples have been attested with collectivity markers or reciprocals in the Nuclear Scope of *minden*. Several examples have been found with *mind* ‘all’, however. This, we think is telling: OH *mind* was positively compatible with such expressions, and, from the absence of data we can tentatively deduce that OH *minden* was not.

(49) a. Tehat *mind* az zentok *egyetombe* mondanak: Ez az zyz
    Thus all the saint-PL together say-PL3 This the virgin
    ‘Thus all the saints said together: This is the virgin’ (Kazinczy C. 9v)

b. Tehat ime az hagot napra es helre *mind*
    Thus lo the leave-PART day-SUB and place-SUB all
    *özue goleneke:*
    together gather-IMP-3PL:
    ‘Thus they all assembled on the appointed day, at the appointed place’ (Kazinczy C. 61r)

*Mind* and reciprocals. (There are no comparable data with *minden*.)

22
Similarly, no examples have been attested with distributivity markers in the Nuclear Scope of minden. Examples with mind abound (e.g. (16) on 8). There are a handful of cases involving minden and the distributivity operator ki-ki that suspiciously look like requantification; since such cases do not directly affect the interpretation of minden they remain a matter for further research.

As combinations (or the lack of them) with reciprocals and collective expressions show, OH mind and minden reflect the well-studied divergence one can see with English all and every (cf. among others Dowty (1987), Hoeksema (1996), Winter (2001), or Champollion (2010) for a more recent reference).

In addition, OH minden could bind its variables in the approved textbook fashion, and its scope was flexible. Mind on the other hand appeared more inclined toward anaphoric relations, and did not exhibit the scope interactions typical of minden. (This will be apparent from the comparison of examples (52) and (53) from the next subsection.)

### 3.3 Less expected, but still predictable properties

OH minden could be used as a purely logical tool, the grammar exploiting its properties as a logical constant.

In the codices minden-DPs could precede sentence negation, in a configuration ∀...¬, which was of course equivalent to ¬...∃. (As seen from (52-b), egmenden lit. ‘one-every’ could also appear in this role, whereas mind did not. Sentence (53), with a similar surface syntax, conveys a different meaning.)

(52) a. menden titk nem lehetetlen tenèked
   Every secret not impossible you-DAT
   ‘No secret is impossible before thee’ (Vienna C. 136)
   Lit. ‘Every secret is not impossible before thee’

   b. egmenden gonozt ne gondollon ő baratt’a
      one-every evil-ACC not think-IMP.3SG he friend-POSS.3SG
   ellèn against
      ‘No-one should think ill of his brethren’ (Vienna C. 305)

   c. mynden ydöben be ne mennyen az sanctuarionba, . . . ,
      every time-INE in not go-IMP.3SG the sanctum-ILL . . . that
Sentence (53) (part of the earlier example (32)) shows a similar syntactic configuration involving mind ‘all’. This is not a case of a (distributive) universal outscoping negation; rather, the operator underlying mind associates with the world in its entirety. We take the sentence to mean that the entire world would have been insufficient to grasp (St John’s message).

(53) hyzóm hogy mind ez vylaag sem foghatta believe-1SG that all this world neither catch-Possib-perf.3SG volna meg be-cond prt
‘I believe that not even the whole wide world could have grasped it’
(Érdy C. 54a)

Cases such as (52) characterise a particular stage of the Jespersen cycle in OH: n-words such as semmi ‘nothing’ senki ‘no-one’ have been attested, but their distribution appears to be more restricted than in Modern Hungarian (cf. É.Kiss (2014)). (It could be seen in example (4) on page 3 that postverbal n-words could be exchanged for indefinite valami ‘someone’ or for an indeterminate pronoun, as in (30) on page 14.)

An interesting consequence of the purely logical use of minden in front of negation is that it could occur as a polarity/FC item in expressions with nélkül ‘without’. (Again, mind did not appear in such environments.) Example (39), repeated here as (54), shows minden in a Free Choice role with nélkül ‘without’.

(54) De zenth pether azonmal fel alwan menyen feelélémelký'l
But Saint Peter immediately up standing every fear-without
Es retthegeesnelký'l nagy fel zowal monda...
and trepidation-without great loud word-instr said
‘But Saint Peter was instantly on his feet and said loudly, without any fear or trepidation . . . ’ (Érsekújvár C. 80va)

3.4 The unexpected

This subsection is devoted to rarities and exotic cases from the codices. They are presented here because they shed light on (i) The quasi-lexical meaning of minden kertélés nélkül
‘without any hedging/fudging’

An anonymous reviewer finds such MH examples perfectly acceptable and productive. In the author’s dialect, however, they appear a bit unusual.
minden as ‘full’, ‘complete’, and on (ii) a period of OH when variable binding in the logic textbook sense coexisted (and interfered) with antecedent–anaphora relations.

Mind could (and can to this day) combine with abstract nouns (e.g. jó ‘good’) or mass nouns (arany ‘gold’). The root of the problem, we think, is the particular algebraic structure of the domain of Hungarian Ns/NPs; the logical properties of quantifiers operating on such structures is in a sense secondary to that (cf. Tovena (2003) on parametric variation in the sortal/algebraic restrictions on determiners).9

The codices contain some minden + NP combinations that would count as unusual even for present-day speakers of Hungarian. We take such examples to indicate that minden could originally have had a quasi-open-class lexical meaning, viz. ‘full’, ‘complete’. An example in point is (55) below, where minden eletünk can only mean our entire life, the entire life of each one of us, and not every life of ours.

(55) Ez zamos zent napokban myndden eletünk meg yobbók improve-sbjv.1pl 'During these many feast days we should improve our entire life’ (Érđy C. 4a)

One example had been found where minden modifies a predicative adjective. Again, the only interpretation of menden kazdag lit. ‘every rich’ in this sentence is ‘completely rich’, ‘full of riches’. It indicates that at some stage of its life could have been a modifier with the meaning ‘full-y’, ‘completely’. From the Jókai codex onwards such meanings are usually conveyed with the derived form minden-es-tól (‘every-ADJ-ABL’).

(56) ez velagon zegen legy evremest. es menyorzagban this world-sup poor be-imp.2sg gladly and heaven-sup dist legy mynden kazdag. be-imp.sg every rich 'In this world be poor gladly, and in heaven be all-rich (full of riches)’ (Cornides C. 81v)

One example has been found where the Restrictor of minden contains distributive/quantificational -keed:

(57) zollywnk arrol ky mynden naponkeed zemewnk speak-sbjv.1pl that-del which every day-sup-dist eye-poss.1pl előt forog before revolve-3sg 'Let us speak about that which is before our eyes every day’ (Érđy C. 20a)

9Mind is not the only Hungarian determiner that can combine with mass nouns or abstract nouns such as remény ‘hope’; sok ‘much/many’ and kevés ‘little/few’ are like minden, cf. among others Csirmaz and Szabolcsi (2012). Curiously, when minden combines with a collective noun it behaves in the ‘English’ way: minden család means ‘every family’ and not ‘the entire family’. 
This example suggests that *minden* need not have been inherently distributive.\footnote{Recent literature on quantification has questioned precisely the inherent, lexically hard-wired distributivity of *every* and its kin. In terms of such analyses an example like (57) would mean either that (i) *minden* was not accompanied by a covert distributive operator, or that (ii) *-keed* could have been precisely the overt reflex of such an operator. Under alternative (ii) the question is how overt *-keed* has become superfluous.}

Double case marking: appositives? OH codices quite frequently contain doubly case marked (*Det + case . . . NP + case*) strings like (58). Such examples are by no means confined to *minden*, and typically involve ‘heavy’, complex NPs. (These are often, but not always, non-finite constructions, as shown in (58) itself.)

(58) mőguon *menden* varost & *mődent* a. földön
\text{PRT-take-PST.3SG every town-ACC and every-ACC the earth-SUP}
lakozt
\text{dwell-PART-ACC}
\text{‘He conquered every town and every inhabitant of the land’ (Vienna C. 14)}

It has to be noted that examples like (58) precede the emergence of doubly case marked demonstrative-article-NP complexes (shown in (59-a) and discussed in Egedi (2014)).

(59) a. *az a könyv-e-t*
\text{that-ACC the book-ACC}
\text{‘that book’}
b. *az a könyv-e-t*
\text{that the book-ACC}
\text{intended: same as above}

Cases like (58) also differ from genuine appositives in Modern Hungarian (in that the determiner immediately precedes the NP).\footnote{The following is a ‘true’ Hungarian appositive:}

\begin{itemize}
\item (i) Vércsőt tegnap kettőt láttam (vőcskőt pedig hármat)
\text{Kestrel-ACC yesterday two-ACC saw-1SG (grebe-ACC and three-ACC)}
\text{‘Of kestrels I saw two yesterday; of grebes I saw three’}
\end{itemize}
vudzol
redeem(-ed)

‘Everyone who cries the name of the Lord will be redeemed’ (Vienna C. 208)

A sentence like (60) looks strange to contemporary speakers of Hungarian: Nowadays, vala-indefinites are quintessential positive polarity indefinites, so (60) would read as Every someone who cries the name of the Lord will be redeemed. Actually, such sentences are not puzzling, given that in OH vala-expressions could be relative pronouns. They typically introduced free relatives / correlatives, but the step from free relative to ordinary relative (exemplified by (60)) does not come as a total surprise. On the basis of (60) alone we might conclude that the puzzle of relative vala-expressions is a problem for the history of Hungarian indefinites, and not for the study of minden.

Sentence (61) is more problematic, however, because of the anaphoric expression ez el'eten ember ‘such a man’ in the Nuclear Scope of minden. A possible explanation is that codices often mirror spoken language by emphasising connections between sentence bits. If we insist on a purely grammatical explanation we are compelled to say that minden had to associate with the anaphoric expression in some manner, either through binding its variable, or by means of some intrasentential anaphoric mechanism.

(61) minden vala[ki attafiat gûöli ez el'eten

Every VALA-who brother-POS.3SG-ACC hates the such
embor gílicos
man murderer

‘Everyone who hates his brother is a murderer’ (Guary C. 6)

‘Everyone who hates his brother, such a man/this kind of man is a murderer’

Minden with correlatives2: One sentence has been found in the codices where the Nuclear Scope of minden contains a correlative.

(62) menden, nek meg ada aztj akynék myj evue, vala
every-DAT PRT gave that-ACC, who,DAT whatj hisj be-PAST

‘She gave everyone his due’ (Cornides C. 178r)

‘She gave everyone, thatj to whomj whichj was hisj (due)’

In (62) minden is supposed to bind the relative pronoun akinek in its Nuclear Scope. The problem is that the pronoun is in an operator position (and in the semantics component it is in the scope of a covert maximality operator). An added complication with (62) is that it is a double correlative, so that the quantifier is supposed to bind the first relative pronoun, while the definite correlate axt ‘that’ in the matrix is supposed to be bound to the second relative pronoun my ‘what’. If we adopt an analysis of correlatives that assumes a covert maximality operator (such as Braşoveanu (2008)), one question is how the quantifier is supposed to access a discourse referent in the scope of this operator.

Again, a proper analysis of an exceptional case like (62) has to be deferred. (62) is taken to provide a glimpse into a time when strict binding (D-quantification) and looser, externally and internally dynamic structures co-
exists.\textsuperscript{12}

### 3.5 The feature content of \textit{minden}

To conclude the discussion of \textit{minden}, we return to Kratzer–Shimoyama’s analysis of local particle + indeterminate combinations. Taking epistemic German \textit{irgend}-indefinites as a point of departure, Kratzer (2005) proposed that in these combinations the particle has no quantificational force of its own. Instead, a particle such as German \textit{irgend-} is a concord marker, a signal that the alternatives introduced by the indeterminate are to be discharged by a covert operator higher in the structure. At the level of syntax this means that these particles contain an uninterpretable feature that needs to be checked by the operator that ‘binds’ the indefinite. This account, as Kratzer herself pointed out, tallies with the dynamic view on indefinites, viz. they introduce a free variable that is bound, or closed, elsewhere.

At this stage of research, OH Hungarian ‘compound’ indefinites can be assumed to behave as predicted by Kratzer and Shimoyama. \textit{Né-} indefinites, for instance, could be bound at matrix level (presumably by an operator with a context-sensitive parameter, to account for their specificity), \textit{vala-}indefinites could be bound under negation, both \textit{akár-} and \textit{vala-}indefinites could be bound by covert relative operators, and so on. (But see Yanovich (2005) for a more fine-grained analysis of indefinites and the DPs containing them.) From a diachronic perspective, an added advantage of such a proposal is that most of the meaning changes affecting indefinites can be explained as a change in feature values, and not as a change in the indefinites themselves, as stressed in Jäger (2011). On the analysis in Jäger (2011) change is indeed captured as a change in feature values (and, consequently, as a change in licensing operators).

Where \textit{minden} is concerned, we would like to argue that \textit{minden} was a self-contained quantifier, which came with its own (interpretable) feature. The reader may recall morphosyntactic arguments from 3.1, which indicate that \textit{minden} and its family did not fit well into the (particle+indeterminate) series of OH expressions. \textit{Mindén} could act as a determiner and freely combine with NPs (unlike the bare particles \textit{vala-} or \textit{akár}). In addition, \textit{minden} had its own quantificational content, unlike the particles that combined with indeterminates: with the exception of negative \textit{se-m-}, these particles came to mark existential force, specificity or Free Choice readings precisely because they combined with indeterminates.

The morphosyntactic composition of \textit{mind} and \textit{minden} does not match the particle + indeterminate order of the indefinite series; instead, their makeup is

\begin{itemize}
  \item \texttt{Mindenkinek megadta kinek mi járt}
  \end{itemize}

\begin{itemize}
  \item \texttt{Everyone-who DAT gave who DAT what was due}
  \item \texttt{‘She gave everyone his due’}
  \item \texttt{‘To whomever, whatever was due, she granted it to everyone’}
\end{itemize}

According to an anonymous reviewer sentences like (62) are ‘pretty good’ in present-day Hungarian:

\begin{itemize}
  \item \texttt{Mindenkinek megadta kinek mi járt}
  \end{itemize}

\begin{itemize}
  \item \texttt{Everyone-who DAT gave who DAT what was due}
  \item \texttt{‘She gave everyone his due’}
  \item \texttt{‘To whomever, whatever was due, she granted it to everyone’}
\end{itemize}

According to native speakers I have consulted such sentences are felicitous with a marked intonational pause before the correlative, suggesting some kind of discourse relation between the correlative and the clause containing \textit{mindenki} ‘everyone’. That is, the correlative does not appear to be embedded under the quantifier; it can be seen as elaborating on the information provided by the \textit{minden}-clause.
better suited to a head-final formula.

In addition to morphological arguments, OH records show *minden* behaves like a self-relying quantifier, in that its scope is flexible, and its preverbal occurrences can be taken as evidence for overt movement.

## 4 Conclusions

The inventory presented in Section 2 has shown that the expression of universal/maximal readings in Old Hungarian was varied, not to say, heterogeneous. The table in (63) summarises the main forms of expression, together with their main properties.

<table>
<thead>
<tr>
<th></th>
<th>Indet. pronouns</th>
<th>A-quantifiers</th>
<th>D-quantifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator movement</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Scope</td>
<td>Frozen</td>
<td>Frozen (mostly)</td>
<td>Flexible</td>
</tr>
<tr>
<td>Binding</td>
<td>Discharge</td>
<td>Depends on the quantifier</td>
<td>Logical</td>
</tr>
<tr>
<td>of alternatives</td>
<td>Non-local</td>
<td>Can be non-local</td>
<td>Local</td>
</tr>
<tr>
<td>Selective?</td>
<td>No</td>
<td>Depends on the quantifier</td>
<td>Yes</td>
</tr>
<tr>
<td>Islands</td>
<td>Not sensitive</td>
<td>Insufficient</td>
<td>Sensitive</td>
</tr>
<tr>
<td>data</td>
<td></td>
<td>(mostly)</td>
<td></td>
</tr>
</tbody>
</table>

The main empirical findings of this contribution concern OH A-quantifiers and indeterminate-based quantification.

Temporal expressions marked with the distributive suffix *-ked* expressed universal quantification; they had a tripartite structure, and could take scope over material to their right.

The morphological composition of such expressions has been proposed to belong to an earlier, head final stage of Hungarian.

Bare pronouns under negation and in conditionals have been taken to indicate that during earlier stages of Hungarian indeterminate pronouns could be bound long distance. (63) table reflects the assumption that there such a system of long-distance binding, and that it was amenable to a Hamblin-style analysis. Further research will have weigh in deeper syntactic considerations, taking into account the principles that determine relationships between *uh*-movement, indeterminates and the determiner system within a given type of language (Watanabe (2004)), as well as a careful semantic analysis of particle-indeterminate complexes in Hungarian (in the vein of Yanovich (2005)).

*Indefinite* particle + indeterminate complexes in OH codices have been taken to lend themselves to the analysis proposed in Kratzer (2005) or Biberauer and Roberts (2011): the particle (plain indefinite *vala*, Free Choice *akár*) is like a concord marker, in that it contains an uninterpretable feature that needs to be checked by an operator. Morphosyntactic and semantic evidence (scope and binding) has shown *minden* ‘every’ to be a quantifier in its own right.

In a handful of cases OH *minden* behaved in an unusual manner: it could agree in case with its NP, or a correlative would end up embedded under it. We take such examples to correspond to intermediate stages in a process that eventually led to *minden* being a tripartite D-quantifier.
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