

- a". (Mind)egyikük / mindegyikőjük segíteni szeretne.  
 each\_one.Pl.3Sg / each\_one.Pl.3Sg help.Inf like.Cond.3Sg  
 'One of them / each and all of them would like to help.'
- b. A diákok (mind)egyike segíteni szeretne.  
 the student.Pl each\_one.Poss.3Sg help.Inf like.Cond.3Sg  
 'Each of the students would like to help.'
- c. Figyeljük meg bármelyikük(nek) a) magatartását!  
 observe.Subj.1Pl perf any.Poss.3Sg.(Dat the) behavior.Poss.3Sg.Acc  
 'Observe the behavior of any of them.'

In elliptical noun phrases, *-ik* determiners can also be used predicatively, see the examples in (1086).

- (1086) • *-ik* determiners used predicatively in elliptical noun phrases
- a. Az iskolában két kitűnő tanuló van. Péter az egyik,  
 the school.Ine two pre-eminent student be.3Sg Péter the one  
 Juli a másik.  
 Juli the other\_one  
 'There are two pre-eminent students in the school. Péter is one of them, Juli is the other one.'
- b. A barátaim közül András az egyik,  
 the friend.Pl.Poss.1Sg from\_among András the one  
 akiben még sosem csalódtam.  
 who.Ine still never be\_disappointed.Past.1Sg  
 'András is one of those friends of mine, I've never been disappointed in.'
- c. Sok okos barátom van.  
 many clever friend.Poss.1Sg be.3Sg  
 ?Andrást tartom az egyiknek.  
 Andás.Acc consider.DefObj.1Sg the one.Dat  
 'I have many clever friends. I consider András the one of them.'

## 2.6. Numerals and quantifiers (*Éva Dékány and Anikó Csirmaz*)

This chapter will discuss the use of numerals and quantifiers within the nominal projection. Generally speaking, these elements occur in prenominal position after the determiners (1087a). This can be accounted for by assuming that the structure of the noun phrase is as given in (1087b), where D indicates the position of determiners and NUM / Q the position that can be occupied by a numeral or a quantifier.

- (1087) • The position of numerals and quantifiers within the noun phrase
- a. ez az én három / sok nehéz könyvem  
 this the I three / many heavy book.Poss.1Sg  
 'these three/many heavy books of mine'
- b. [<sub>DP</sub> D [<sub>NumP</sub> NUM/Q [<sub>NP</sub> ... N ... ]]]

We will start in subsection 2.6.1 with a discussion of the numerals. Subsection 2.6.2 will be concerned with the quantifiers. Subsection 2.6.3 concludes this chapter with a discussion of sortal numeral classifiers.

### 2.6.1. Numerals

This subsection summarizes the morphology, syntax and semantics of numerals and those of expressions involving numerals. The discussion addresses cardinal numerals first (subsection 2.6.1.1) and then it turns to fractional numerals (section 2.6.1.2) and finally to ordinal numerals (subsection 2.6.1.3).

#### 2.6.1.1. Cardinal numerals

The subsection addresses the following aspects of cardinal numerals in order: morphological makeup (subsection 2.6.1.1.1); semantic properties (subsection 2.6.1.1.2); the syntax of noun phrases that contain cardinals (subsection 2.6.1.1.3); modification structures (subsection 2.6.1.1.4); and special constructions or properties involving cardinal numerals (subsection 2.6.1.1.5).

##### 2.6.1.1.1. Simple and compound forms

###### 2.6.1.1.1.1. Simple forms

Hungarian uses a decimal numeral system. There are monomorphemic equivalents for ‘half’, for numbers from ‘zero’ to ‘ten’, for ‘twenty’ (1088a) and for powers of ‘ten’ (1088b). The counting form (used when reciting the counting sequence) and the attributive form of cardinals (used in combination with nouns) is the same.

###### (1088) • Monomorphemic numerals

- a. fél, nulla / zéró, egy, kettő, három, négy, öt, hat, hét, nyolc,  
half zero / zero one two three four five six seven eight  
kilenc, tíz, húsz  
nine ten twenty
- b. száz, ezer, millió, milliárd  
hundred thousand million billion  
‘hundred, thousand, million, billion’

Remark 29. An alternative, colloquial, perhaps dialectal or idiolectal way of expressing *ezer* ‘thousand’ is *kiló* ‘kilo’ (i):

- (i) két k/kiló  
two k/kilo  
‘two thousand’

When used attributively, numerals precede the noun (1089). Note that the noun does not have plural marking in the presence of a numeral.

- (1089) öt tojás  
five egg  
‘five eggs’

The numeral ‘two’ has two forms, *kettő* and *két*. Generally, the former is used in counting, as shown in (1088a). The form *két* is often used when setting the rhythm, for example, several people marching together (1090). These variants of ‘two’ will be discussed in detail in subsection 2.6.1.1.5.1.

- (1090) egy, két, egy, két  
 one two one two  
 ‘one, two, one, two’

In such contexts, the numeral *három* also appears in a special truncated form, *há(r)* (1091):

- (1091) egy, két, há(r), négy  
 one two three four  
 ‘one, two, three, four’

Both forms of ‘two’ are acceptable as attributives (1092a), but only the longer form of ‘three’ is (1092b):

- (1092) ● Acceptable forms of ‘two’ and ‘three’ in attributive position
- a. két / kettő tojás  
 two / two egg  
 ‘two eggs’
  - b. három / \*hár tojás  
 three / three egg  
 ‘three eggs’

There also appears to be a monomorphemic form for ‘twelve’: *tucat* is the equivalent of English ‘dozen’ (1093a). Unlike real cardinals, however, *tucat* must always be preceded by a multiplier: a numeral or a (non-downward monotonic) quantifier (1093b).

- (1093) ● The use of *tucat* ‘dozen’
- a. \*(egy / kettő / húsz) tucat  
 one / two / twenty dozen  
 ‘one / two / twenty dozen(s)’
  - b. több tucat, \*kevés tucat  
 more dozen few dozen  
 ‘several dozens, (a) few dozens’

*Tucat* ‘dozen’ is different from real cardinals in another way, too. Real cardinals can be directly suffixed by the collective suffix *-Vn* to form predicative numerals (1094a). *Tucat* ‘dozen’, on the other hand, cannot be suffixed by the collective suffix directly: the suffix *-nyi* ‘-ful’, generally expressing a quantity corresponding to some container or measure, must appear between *tucat* and the collective suffix (1094b). The same suffix cannot appear between real cardinals and the collective suffix.

- (1094) ● The collective suffix with real cardinals and *tucat* ‘dozen’
- a. A diákok het-en voltak.  
 the student.PL seven-Coll be.Past.3Pl  
 ‘There were seven students.’
- b. A diákok hét tucat\*(-nyi)-an voltak.  
 the student.PL seven dozen-ful-Coll be.Past.3Pl  
 ‘There were seven dozen students.’

*Tucat* ‘dozen’ and complex cardinals containing *tucat* cannot be used in the counting sequence, but they are grammatical in an attributive position.

#### 2.6.1.1.1.2. Complex forms

##### 1. Derivation and compounding

The rest of the cardinals are formed by derivation and compounding. (There are also a few cases of subtraction and division, however, which we take up in the next subsection.) Derivation involves cases where the complex form is derived by means of a bound morpheme. This is mainly the case with the formation of those numerals from 40 to 90 that correspond to multiples of 10. Compounding forms complex cardinal numerals from simpler ones that can occur independently. It must be noted, however, that at least some of these complex forms may plausibly be analyzed as phrases. According to the orthographical conventions of Hungarian, if numerals are written out with letters, then complex numerals up to 2000 are written as one word, while numerals higher than 2000 involve hyphenation.

As far as multiples of ten are concerned, ‘twenty’ and ‘thirty’ have suppletive forms (1095a), while ‘forty’ through ‘ninety’ are formed by the *-van/-ven* suffix, the equivalent of English *-ty* (1095b). The surface form of the suffix *-van/-ven* is determined by vowel harmony: the choice of allomorph is determined by whether the stem contains front or back vowels. Note that the long vowel in *négy* ‘four’ and *hét* ‘seven’ is shortened when the numeral is suffixed by *-van/-ven*. Throughout the section, hyphens are used to indicate morpheme boundaries; these hyphens are not present in the standard Hungarian orthography.

- (1095) ● Multiples of ‘ten’
- a. tíz, húsz, harminc  
 ten twenty thirty  
 ‘ten, twenty, thirty’
- b. negy-ven, öt-ven, hat-ven, het-ven, nyolc-ven, kilenc-ven  
 four-ty five-ty six-ty seven-ty eight-ty nine-ty  
 ‘forty, fifty, sixty, seventy, eighty, ninety’

Cardinal numerals that are not multiples of ten are formed by adding the single digit numeral to the multiple of ten. For ‘eleven’ through ‘twenty nine’, an additional affix appears between the two numerals. The affix is *-on/-en* (1096), with the allomorphic choice regulated by vowel harmony with the preceding stem. The long vowel (in *tíz* ‘ten’ and *húsz* ‘twenty’) is also affected; these vowels become short, as indicated by the spelling.

- (1096) tiz-en-egy, tiz-en-öt, husz-on-egy, husz-on-öt  
 ten-ty-one ten-ty-five twenty-ty-one twenty-ty-five  
 ‘eleven, fifteen, twenty-one, twenty-five’

The cardinals ‘thirty-one’ through ‘ninety-nine’ are formed by simply placing a numeral after a multiple of ‘ten’ (1097).

- (1097) harminc-egy, negyven-kettő, ötven-három, hatvan-négy  
 thirty-one forty-two fifty-three sixty-four  
 ‘thirty-one, forty-two, fifty-three, sixty-four’

Multiples of ‘hundred’, ‘thousand’, ‘million’, etc. are formed by placing the required multiple in front of the numeral (1098).

- (1098) három-száz, tíz-ezer, száz-millió  
 three-hundred ten-thousand hundred-million  
 ‘three hundred, ten thousand, hundred million’

The numerals in (1097) can be placed after the numerals in (1098) to form other numerals, and combinations of numerals involving multiples of ‘one hundred’ can also be combined naturally (1099a). Numerals are ordered in a decreasing order (e.g. ‘thousand’, possibly modified by a numeral, followed by ‘hundred’, possibly modified by a numeral, etc). This type of compounding can form numbers of great length (1099b).

- (1099) a. három-száz-harminc-egy  
 three-hundred-thirty-one  
 ‘three hundred and thirty-nine’
- b. hét-száz-milliárd-öt-millió-négy-száz-ezer-száz-nyolcvan-kilenc  
 seven-hundred-billion-five-million-four-hundred-thousand-hundred-eighty-nine  
 ‘seven hundred billion five million four hundred thousand one hundred and eighty-nine’

‘Hundred’, ‘thousand’, etc. can also be modified by certain quantifiers (1100a). As shown below, downward monotonic quantifiers (*kevés* ‘few’, *kevesebb* ‘fewer’) are ungrammatical in these structures (1100b).

- (1100) a. sok / több / néhány / pár száz alma  
 many / several / few / couple hundred apple  
 ‘many / several / [a few] / [a couple of] hundred apples’
- b. \*kevés száz alma, \*kevesebb ezer alma  
 few hundred apple, fewer thousand apple  
 Intended meaning: ‘few hundred apples, fewer thousand apples’

Special rules apply if the multiplier is ‘one’. *Egy* ‘one’ is ungrammatical with *tíz* ‘ten’; it is optional with *száz* ‘hundred’ and *ezer* ‘thousand’; it is obligatory with *millió* ‘million’ and onwards (1101).

- (1101) (\*egy-)tíz, (egy-)száz, (egy-)ezer, (egy-)millió  
 one-ten one-hundred one-thousand one-million  
 ‘ten, one hundred, one thousand, one million’

With the bare numeral *száz* ‘hundred’, all modifiers are grammatical. If *egy* ‘one’ co-occurs with *száz* ‘hundred’, however, then some speakers find *pont* ‘exactly’ to be degraded (1102a). No such restriction holds, however, for *ezer* ‘thousand’ (1102b).

- (1102) a. kerek(en) / pontosan / <sup>%</sup>pont / éppen / majdnem egy-száz forint  
 round(Adv) / exactly / exactly / exactly / almost one-hundred HUF  
 ‘exactly / almost one hundred forints’
- b. kerek(en) / pontosan / pont / éppen / majdnem egy-ezer forint  
 round(Adv) / exactly / exactly / exactly / almost one-thousand HUF  
 ‘exactly / almost one thousand forints’

The conjunction *ezer és egy* ‘thousand and one’ can exceptionally have a quantifier interpretation ‘many’ (1103):

- (1103) a. Ezer és egy kifogásom van.  
 thousand and one excuse.Poss.1sg be.3Sg  
 ‘I have [a thousand and one] / many excuses.’
- b. \*[Tíz és egy] / \*[száz és egy] / \*[millió és egy] kifogásom van.  
 ten and one / hundred and one / million and one excuse.Poss.1Sg be.3Sg  
 Intended meaning: ‘I have many excuses.’

## II. Subtraction and division

The productive ways of forming Hungarian complex numerals are derivation and compounding, as discussed in the previous subsection. However, there are also sporadic examples of subtraction and division in the language. Examples of division involve powers of ten that are divided either into two (via the multiplier *fél* ‘half’, as in 1104a) or four (via the multiplier *negyed* ‘quarter’, as in 1104b). Such forms are always an alternative to some other form that uses multiplication:

- (1104) ● Complex cardinals by division of ‘hundred’
- a. fél-száz / ötven  
 half-hundred / five.ty  
 ‘half a hundred, fifty’
- b. negyed-millió / kétszázötvenezer  
 quarter-million / two.hundred.fifty.thousand  
 ‘quarter million, two hundred and fifty thousand’

Not all powers of ten numerals are acceptable with *fél* ‘half’ and *negyed* ‘quarter’. The following example shows that *száz* ‘hundred’ and *ezer* ‘thousand’ are ungrammatical with *negyed* ‘quarter’ (1105b). Note that *tíz* ‘ten’ is unacceptable with both *fél* ‘half’ and *negyed* ‘quarter’.

- (1105) ● Complex cardinals by division with ‘half’ and ‘quarter’
- a. fél-száz / fél-ezer / fél-millió / fél-milliárd  
 half-hundred / half-thousand / half-million / half-billion  
 ‘half a hundred, half a thousand, half a million, half a billion’

- b. \*negyed-száz / \*negyed-ezer / negyed-millió / negyed-milliárd  
 quarter-hundred / quarter-thousand / quarter-million / quarter-billion  
 'quarter hundred, quarter thousand, quarter million, quarter billion'

The division-based constructions shown above are more frequent with higher numerals (*millió* 'million' and above). *Tucat* 'dozen' can also appear with *fél* 'half' (1106a) but not with *negyed* 'quarter' (1106b).

(1106) • *Tucat* 'dozen' in the division construction

- a. fél-tucat  
 half-dozen  
 'half a dozen'
- b. \*negyed-tucat  
 quarter-dozen

The subtractive *híján* 'missing' construction can be used to express numbers when the number subtracted from is the expected cardinality of the items involved, or a number of items with that cardinality would make a complete set. That is, an example like (1107) can be used when we expected to have forty students, or when forty students would have made a complete set (for instance in a game that requires forty players).

(1107) • Complex cardinals by subtraction

- kettő híján negyven  
 two missing forty  
 'thirty-eight (lit. two missing forty)'

The *híján* 'missing' construction can be used to express numbers in an attributive (1108a) or a predicative position (1108b) but not in the counting sequence.

- (1108) a. Kettő híján negyven diák jött.  
 two missing forty student come.Past.3Sg  
 'Thirty-eight students came. (lit: Two short of forty students came.)'
- b. Az egyik tizenkilenc, a másik egy híján húsz.  
 the one nineteen the other one missing twenty  
 'One is the same as the other. (lit. One is nineteen, the other is one missing twenty.)'

The number that is being subtracted must be small in comparison with the number that is being subtracted from (1109).

- (1109) \*tíz híján negyven  
 ten missing forty  
 Intended meaning: 'thirty (lit. ten missing forty)'

### III. The fél 'half' construction

The numeral 'one and a half' can be expressed either literally as 'one and a half' (1110a), or with a special complex form composed of *más* 'other' and *fél* 'half' (1110b).

- (1110) a. egy és fél  
           one and half  
           ‘one and a half’
- b. más-fél  
           other half  
           ‘one and a half’

The Hungarian ordinal ‘second’ is derived from *más* ‘other’ rather than *kettő* ‘two’; Hungarian ‘second’ is literally ‘the other-th’ (see subsection 2.6.1.3.1). The form *másfél* expresses that the second item to be counted is only a half; i.e. we have one and a half items altogether. *Másfél* can modify higher multiples of ten (1111).

- (1111) másfél %száz / ezer / millió / milliárd  
           other.half hundred / thousand / million / billion  
           ‘one and a half hundred / thousand / million / billion’

For most speakers, the *fél* ‘half’ construction is limited to the stem *más* ‘other’, and real numerals cannot combine with *fél* ‘half’ in absence of the conjunction *és* ‘and’. Some speakers, however, also allow the *fél* ‘half’ construction with other numerals. In this case the *-Vd* ordinalizer suffix appears between the numeral and *fél* ‘half’, and the resulting meaning is ‘numeral minus one plus a half’ (1112). That is, if *öt* ‘five’ is followed by the ordinalizer and *fél* ‘half’, the meaning is ‘four and a half’ (1112a). The logic behind this is that the fifth number is just a half. The numeral in this construction must be relatively small.

- (1112) a. öt-öd-fél  
           five-Ord-half  
           ‘four and a half’
- b. hat-od-fél  
           six-Ord-half  
           ‘five and a half’

#### 2.6.1.1.1.3. The absence of plural marking on the noun

The preceding examples already showed that cardinals occur with singular nouns; there is no overt plural marker (1113).

- (1113) száz ház(\*-ak)  
           hundred house-Pl  
           ‘one hundred houses’

The number specification is singular; it is not just the morphological plural marking that is absent. This is shown by the fact that nouns modified by cardinals trigger singular agreement on demonstratives (1114) as well as on verbal and other predicates (1115). In Hungarian the singular feature is unmarked morphologically, while plurality is marked with the *-(V)k* suffix.



(1114) ● Number marking on demonstratives in the presence of a numeral

- a. ez a száz ház  
 this the hundred house  
 'these one hundred houses'
- b. \*ez-ek a száz ház  
 this-Pl the hundred house
- c. \*ez-ek a száz ház-ak  
 this-Pl the hundred house-Pl

(1115) ● Predicate agreement with NPs containing a numeral

- a. Hét vendég érkezett / \*érkeztek.  
 seven guest arrive.Past.3Sg / arrive.Past-3Pl  
 'Seven guests arrived.'
- b. Hét vendég beteg / \*beteg-ek.  
 seven guest sick / sick-Pl  
 'Seven guests are sick.'

#### 2.6.1.1.2. *Semantics*

The semantics of numerals has an extensive literature. For reasons of space, we forgo a summary of the semantics of numerals in general, and refer the interested reader to *SoD-NP* (6.1.1.2) for a good introduction. We will briefly discuss those semantic issues, however, that have direct relevance to Hungarian syntax.

The interpretation of numerals differs depending on whether the nominal containing the numeral appears in a focus or non-focus position. The designated focus position in question is immediately preverbal in Hungarian, and the constituent in that focus position must bear nuclear stress (as indicated by ' in the examples below).

If the numeral is in focus position (1116c), it has an 'exactly' interpretation, while if it appears in some other position (even if it has nuclear stress there), it has an 'at least' interpretation (É. Kiss (2006b), see examples (1116a,b)). Naturally, even in non-focus environments, scalar implicature will yield an 'exactly' interpretation, but that interpretation can be canceled. No cancellation is possible, however, when the numeral is in preverbal focus (1116c). The contrast can be shown by the continuation given in parentheses.

(1116) ● Focused numerals have an 'exactly' interpretation

- a. Két vendég rosszul lett (sőt, több is).  
 two guest sick became moreover more too  
 'Two guests became sick (and even more).'
- b. Rosszul lett két vendég (sőt, több is).  
 sick became two guest moreover more too  
 'Two guests became sick (and even more).'
- c. Két vendég lett rosszul (\*sőt, több is). [focus]  
 two guest became sick moreover more too  
 '(Exactly) two guests became sick (\*and even more).'

There are further restrictions on numerals. For example, certain modifiers with numerals cannot appear in focus positions. Such restrictions will be discussed in subsection 2.6.1.1.4.

There is an additional restriction that holds for *egy* ‘one’. Nominals with *egy* ‘one’ are positive polarity items, thus they are excluded from downward entailing contexts (1117c), unless they appear with *sem* ‘even’ (1117a). Clausal negation, *nem* ‘not’, is never overt if the negative nominal with *sem* precedes the verb (1117b) (see also M5.1 and M5.3)

- (1117) ● The distribution of NPs containing *egy* ‘one’
- a. Nem láttam egy tengerészt sem.  
not see.Past.1Sg one seaman.Acc even  
‘I didn’t see any seamen.’
  - b. Egy tengerészt sem láttam.  
one seaman.Acc even see.Past.1Sg  
‘I didn’t see even a seaman.’
  - c. \*Nem láttam egy tengerészt.  
not see.Past.1Sg one seaman.Acc  
Intended meaning: ‘I didn’t see a seaman.’

### 2.6.1.1.3. NPs containing a cardinal numeral

#### 2.6.1.1.3.1. The head noun

As we have already mentioned above, the nominal head of an NP containing a numeral does not bear the plural marker. There is one idiosyncratic exception to this generalization. In the set phrase *a három királyok* ‘the three kings of the East’, the noun obligatorily bears plural marking (1118). (1118) cannot refer to any arbitrary set of three kings. It can only refer to the Biblical magi that visited the baby Jesus, namely Caspar, Melchior and Balthasar. In an ordinary noun phrase that refers to any three kings, the noun cannot bear the plural marker (1119).

- (1118) három király-ok  
three king-Pl  
‘the three kings of the East’

- (1119) három király  
three king  
‘three kings’

The set phrase in (1118) triggers plural agreement on the predicate (1120). The non-idiomatic (1119) triggers singular agreement on the predicate (1121).

- (1120) A három király-ok [megérkeztek] / \*[megérkezett].  
the three king-Pl perf.arrive.Past-3Pl / perf.arrive.Past.3Sg  
‘The three kings of the East have arrived.’

- (1121) A három király [megérkezett] / \*[megérkezt-ek].  
 the three king perf.arrive.Past.3Sg / perf.arrive.Past-3Pl  
 ‘The three kings have arrived.’

Another exception to the generalization that the plural does not co-occur with cardinals is the following: when the numeral *egy* ‘one’ functions as (part of) the predicate and the subject is plural, then the plural marker appears on *egy* ‘one’ (1122). This is the result of regular subject-predicate agreement in the language.

- (1122) (Mi) egy-ek vagy-unk.  
 we one-Pl be-1Pl  
 ‘We are one.’

In addition, there are also some systematic exceptions to the co-occurrence restriction of numerals and the plural marker. The first type of systematic exception is when the noun is a plurale tantum. The second type of exception is when the cardinal supports the plural marker in the absence of an overt noun. These examples can be divided into two groups: in the first group the plural scopes over the covert noun, while in the second group the plural scopes over the numeral. Below we shall discuss these cases in turn.

### *INPs with pluralia tantum*

Some proper names obligatorily bear the plural marker and refer to entities that comprise several similar parts. These include *Amerikai Egyesült Államok* ‘United States of America’ (or *Egyesült Államok* ‘United States’ for short) and all proper names ending in *-szigetek* ‘islands’. Some examples are given in (1123).

- (1123) Amerikai Egyesült Állam-ok, Maldív-sziget-ek, Kanári-sziget-ek  
 american united state-Pl Maldive-island-Pl Canary-island-Pl  
 ‘United States of America, Maldive Islands, Canary Islands’

These proper names trigger singular agreement on the predicate (1124).

- (1124) Az Amerikai Egyesült Állam-ok hadat üzent / \*üzent-ek az  
 the american united state-Pl war.Acc declare.Past.3Sg / declare.Past-3Pl the  
 ellenségeinek.  
 enemy.Poss.Pl.Dat  
 ‘The United States of America declared war on its enemies.’

Some common nouns have only a plural-marked form, but this form can have either a singular or a plural referent. These nouns are *hal-ak* fish-Pl ‘Pisces’ (the constellation and the sign of the zodiac), *ikr-ek* twin-Pl ‘Gemini’ (the constellation and the sign of the zodiac), *gázműv-ek* gas.work-Pl ‘gasworks’, *vízműv-ek* water work-Pl ‘waterworks’, *elektromos műv-ek* electric work-Pl ‘electric works’, and *csatornázási műv-ek* sewerage work-Pl ‘sewerage plant’. These nouns can co-occur with cardinals (and with other quantifiers as well). Regardless of whether the cardinal is ‘one’ or a numeral higher than ‘one’, these nouns bear the plural marker (1125).

- (1125) ● Pluralia tanta with cardinals
- a. Az osztályban egy/ két hal-ak van.  
 the class.Ine one / two fish-Pl be.3Sg  
 'There [is a] / [are two] (student(s) born under the sign of) Pisces in the class.'
- b. Az országban összesen egy/ négy gázműv-ek üzemel.  
 the country.Ine altogether one / four gas.work-Pl operate.3Sg  
 'There [is altogether one gas company] / [are altogether four gas companies] in the country.'

These pluralia tanta are compatible with both singular and plural agreement on the predicate (1126) and the demonstrative (1127). With singular agreement the NP has a singular referent, while with plural agreement the NP has a plural referent. These nouns cannot be further pluralized, even if their referent is a plural entity (1128).

- (1126) ● Predicate agreement with pluralia tanta
- a. Én hal-ak / ikr-ek vagy-ok.  
 I fish-Pl / twin-Pl be-1Sg  
 'I was born under the sign of Pisces / Gemini.'
- b. Mi hal-ak / ikr-ek vagy-unk.  
 we fish-Pl / twin-Pl be-1Pl  
 'We were born under the sign of Pisces / Gemini.'

- (1127) ● Demonstrative agreement with pluralia tanta
- a. ez / ez-ek az ikr-ek  
 this / this-Pl the twin-Pl  
 'this / these (person(s) born under the sign of) Gemini'
- b. ez / ez-ek a gázműv-ek  
 this / this-Pl the gas.work-Pl  
 '[this gasworks] / [these gasworks]'

- (1128) ● Further pluralization of pluralia tanta
- Mi hal-ak(\*-ak) / ikr-ek(\*-ek) vagy-unk.  
 we fish-Pl-Pl / twin-Pl-Pl be-1Pl  
 'We were born under the sign of Pisces / Gemini.'

Remark 30. As an alternative to (1126a), some speakers may drop the plural marking when the referent is singular. For these speakers, *halak* 'Pisces' and *ikrek* 'Gemini' are not pluralia tanta (i).

- (i) %Én hal / iker vagyok.  
 I fish / twin be.3Sg  
 'I am a Pisces / Gemini.'

## II. Numeral+plural: plural scoping over the covert noun

In some set phrases, when the NP refers to a well-defined group of people that acts together as a unit and can be characterized by some common, salient trait, then the

noun remains covert and the numeral that signals the cardinality of the group bears the plural marker (1129). In these cases the plural marks the plurality of the covert noun, in other words, it scopes over the covert noun. Given that these NPs denote well-defined groups, they contain the definite article.

- (1129) a. a hárm-ak elhivatása  
 the three-Pl drawing.Poss  
 ‘The Drawing of the Three (Hungarian title of a Stephen King novel)’
- b. a Visegrád-i négy-ek  
 the Visegrad-Attr four-Pl  
 ‘the Group of 4 (regional collaboration of Hungary, the Czech Republic, Slovakia and Poland)’
- c. a négy-ek jele  
 the four-Pl sign.Poss  
 ‘the sign of four (Hungarian title of a Sir Arthur Conan Doyle novel)’
- d. a Cambridge-i öt-ök  
 the Cambridge-Attr five-Pl  
 ‘the Cambridge five (members of a KGB spy ring)’
- e. a hat-ok  
 the six-Pl  
 ‘founding countries of the European Economic Community’
- f. a het-ek csoportja  
 the seven-Pl group.Poss  
 ‘the Group of seven (an independent acting company in Szeged, Hungary)’
- g. a G8-ak  
 the G8-Pl  
 ‘the group of 8’
- h. a novemberi kilenc-ek  
 the November-Attr nine-Pl  
 ‘November Nine (nine finalists of the 2009 World Series of Poker)’
- i. a tíz-ek tanácsa  
 the ten-Pl council.Poss  
 ‘the Council of ten (governing body of the Republic of Venice)’

### *III. Numeral+plural: plural scoping over the numeral*

If the numeral that bears the plural suffix is a power of ten (above ‘hundred’), and the noun is not overt, then the NP is understood to refer to humans or units of currency (dollars, euros, etc.) (1130).

- (1130) a. Száz-ak / ezer-ek / millió-k maradtak áram nélkül.  
 hundred-Pl / thousand-Pl / million-Pl remain.Past.3Pl electricity without  
 ‘There were hundreds / thousands / millions (of people) left without electricity.’

- b. Ezr-ek / millió-k / milliárd-ok / <sup>??</sup>száz-ak tűntek el a  
 thousand-Pl / million-Pl / billion-Pl / hundred-Pl disappear.Past.3Pl away the  
 kasszából.  
 register.Ela  
 ‘Thousands / millions / billions / hundreds disappeared from the register.’

In this case the plural acts as a multiplier of the number expressed by the cardinal rather than signaling the plurality of the covert noun. In other words, the plural scopes over the numeral rather than the covert noun.

Note that the numeral ‘ten’ cannot be used with the plural marker in this way (1131). The ungrammaticality may be due to the requirement that the numeral describe a large number (if ‘ten’ is never contextually determined as being large, as opposed to ‘hundred’, ‘thousand’, etc.).

- (1131) \*tíz-ek  
 ten-Pl  
 Intended meaning: ‘tens (of people/units of currency)’

An NP containing the numeral *száz* ‘hundred’ bearing the plural marker can refer to people, but not to currency (1132). Once again, this restriction may follow from what can be considered to be a large number.

- (1132) száz-ak  
 hundred-Pl  
 ‘hundreds (of people)’

#### IV. *Substance nouns*

As far as substance nouns are concerned, they can appear with a numeral directly (1133). In these examples cardinals are acceptable because the ‘universal packager’ applied, creating contextually determined units, or perhaps types. This pattern is productive.

- (1133) ● Cardinals with substance nouns
- a két cukor  
 ‘two sugar  
 ‘[two sugar cubes] / [two spoons of sugar] / [two bags of sugar]’
- b. két zacskó / kanál cukor  
 two bag / spoon sugar  
 ‘two bags / spoons of sugar’

As expected of nominals with cardinal numerals, substance nouns trigger singular agreement on predicates and demonstratives (1134).

- (1134) ● Agreement with substance nouns modified by cardinals
- a. Két cukor már ártalmas(\*-ok).  
 two sugar already harmful-Pl  
 ‘Two sugars are harmful.’

- b. *ez* / \**ez-ek* a két cukor  
 this / this-Pl the two sugar  
 'these two (bags / spoonfuls of) sugars'
- c. *ez* / \**ez-ek* a három kávé  
 this / this-Pl the three coffee  
 'these three coffees'

### V. *Measure nouns*

As for measure nouns in Hungarian, they can be divided into various subtypes. In general, measure nouns precede the substance noun and permit modification by cardinal numerals (1135).

- (1135) ● Measure nouns
- a. három méter(\*-ek) cérna  
 three meter-Pl thread  
 'three meters of thread'
- b. három liter bor  
 three liter wine  
 'three liters of wine'
- c. három kiló cukor  
 three kilo sugar  
 'three kilograms of sugar'

As with other expressions with cardinal nouns, these phrases trigger singular agreement on the predicate and the demonstrative as well (1136).

- (1136) a. A három méter cérna [drága volt] / [\*drág-ák volt-ak].  
 the three meter thread expensive be.Past.3Sg / expensive-Pl be.Past-3Pl  
 'The three meters of thread were expensive.'
- b. *ez* / \**ez-ek* a három méter cérna  
 this / this-Pl the three meter thread  
 'these three meters of thread'

### A. *Measure nouns denoting time units*

There is a variety of measure nouns which denote time units. Their behavior is not surprising; they can combine with cardinal numerals and they appear as singular nouns when they do so (1137). They trigger singular agreement on the predicate and on the demonstrative.

- (1137) ● Time denoting measure nouns
- a. négy perc  
 four minute  
 'four minutes'
- b. [négy perc-en át] / [négy perc-ig] / [négy perc-en keresztül]  
 four minute-Sup across / four minute-Ter / four minute-Sup through  
 'for four minutes'

- c. [négy perc alatt] / [négy perc-en belül]  
four minute under / four minute-Sup inside  
'in four minutes'
- d. négy perc múl-va  
four minute pass-Conv  
'after four minutes'
- e. négy perc-cel korábban / később  
four minute-Ins earlier / later  
'four minutes earlier / later'
- f. négy perc-re  
four minute-Sub  
'for four minutes (e.g. he borrowed the ladder for four minutes)'

An exhaustive list of time units appears below. The morpheme *-Vd* featured in (1138b) is the ordinalizer suffix (see 2.6.1.2).

(1138) • Time units

- a. nanoszekundum, másodperc, perc, óra, nap, hét, hó(nap)  
nano.second second.minute minute hour day week month(day)  
'nanosecond, second, minute, hour, day, week, month'
- b. év, év-tíz-ed, év-száz-ad, év-ezr-ed, év-millió,  
year year-ten-Ord year-hundred-Ord year-thousand-Ord year-million  
év-milliárd  
year-billion  
'year, decade, century, millenium, one million years, one billion years'

Remark 31. In (i), taken from Mihály Vörösmarty's 19<sup>th</sup> century poem *Szózat*, the two parts of the compound *év-ezred* 'millennium' exceptionally appear in the opposite order.

- (i) Egy ezr-ed-év-i szenvedés kér éltet vagy  
one thousand-Ord-year-Attr suffering ask.3Sg life.Acc or  
halált.  
death.Acc  
'One thousand years of suffering asks for life or death.'

As expected, *fényév* 'light year' is not a time unit. This is also shown by the absence of the form *\*fényévszázad* 'light.year.century' (1139), which would be expected to be grammatical if *fényév* was a temporal expression.

- (1139) fényév, száz fényév, \*fényévszázad  
light.year hundred light.year light-year-hundred-Ord  
'light year, one hundred light years, a century of light years'

Some more complex examples containing temporal units and cardinal numerals are given in (1140).

- (1140) a. három meghatározó / döntő másodperc  
three crucial / decisive second  
'three crucial / decisive seconds'



- b. életem három leghosszabb órája  
 life.Poss.1Sg three longest hour.Poss  
 'the three longest hours of my life'

Let us now turn to punctual time expressions. For calendar dates specifying the day of the month, two strategies are possible. If the day is specified by an ordinal, then it bears the possessive suffix (effectively, the month behaves as the possessor of the day), as in (1141a). Ordinals will be discussed in detail in subsection 2.6.1.3. Alternatively, the day can be specified as a simple cardinal numeral, in which case it does not bear the possessive suffix (1141b). The two alternative forms are not fully interchangeable. While both may answer the question of *What day is it today?* (1141c), the cardinal form is marked when it appears in the full answer (1141d). If written with digits, a period is placed after the numeral.

- (1141) ● The day of the month
- a. szeptember tizenegyedik-e / 11.  
 September eleventh-Poss / 11  
 'September 11'
- b. szeptember tizenegy / 11.  
 September eleven / 11  
 'September 11'
- c. Mi van ma? Szeptember tizenegyedik-e / tizenegy.  
 what be.3Sg today September eleventh-Poss / eleven  
 'What day is it today? September 11.'
- d. Ma szeptember tizenegyedik-e / <sup>?</sup>tizenegy van.  
 today September eleventh-Poss / eleven be.3Sg  
 'It's September 11 today.'

Case suffixed forms of the day of the month show a heterogeneous behavior. The Supressive, as in 'on September 11', can only appear with the ordinal-based form (1142a). If the day is interpreted as an endpoint, the appropriate affixes are grammatical with both forms (1142b,c).

- (1142) a. Ez szeptember tizenegyedik-é-n / \*tizenegy-en történt.  
 this September eleventh-Poss-Sup / elven-Sup happened  
 'This happened on September 11.'
- b. Szeptember tizenegyedik-étől / tizenegy-től lesz New Yorkban.  
 September eleventh-Poss-Abl / eleven-Abl will.be.3Sg New York.Ine  
 'He will be in New York from September 11.'
- c. Szeptember tizenegyedik-é-ig / tizenegy-ig lesz New Yorkban.  
 September eleventh-Poss-Ter / eleven-Ter will.be.3Sg New York.Ine  
 'He will be in New York until September 11.'

Simple punctual time expressions involving other temporal units (minutes, hours, months) are formed with the bare form (1143).

- (1143) a. [Hat óra] / [hat óra tíz perc] (van).  
 six o'clock / six o'clock ten minute be.3Sg  
 'It's six o'clock / six ten.'

- b. Szeptember / 1973 van.  
 September / 1973 be.3Sg  
 'It's September / 1973.'

Complex punctual temporal expressions are shown in (1144). Reporting a time, including complex times, requires the verbs shown in (1144a,b), depending on the tense. The past and future verbs can have the interpretation 'it will be six in a few minutes / it was six a few minutes ago'. The past tense copula can only be used to describe the time in the past, not to state that it was six o'clock a few minutes ago (1144b).

- (1144) ● Complex punctual temporal expressions
- a. Hat óra van / lesz / múlt.  
 six o'clock be.3Sg / will.be.3Sg / pass.Past.3Sg  
 'It is / [will soon be] / [is just past] six o'clock'
- b. Hat óra volt.  
 six o'clock was.3Sg  
 'It was six o'clock. (\*It was six a few minutes ago.)'
- c. Hat óra lesz tíz perc múlva.  
 six o'clock will.be ten minute pass.Conv  
 'It is ten to six.'
- d. Tíz perc híján hat.  
 ten minute short.of six  
 'It is ten to six.'
- e. Hat óra tíz perc.  
 six o'clock ten minute  
 'It is ten past six.'
- f. Hat óra múlt tíz perccel.  
 six o'clock pass.Past.3Sg ten minute.Ins  
 'It is ten past six.'

It is also possible to specify fractions of hours. The fraction is followed by the following full hour, and the fraction expresses the time that has passed since the past hour. Only the fractions *negyed* 'quarter', *fél* 'half', and *háromnegyed* 'three quarters' are grammatical; they express that one quarter, one half, and three quarters of an hour have passed since the past full hour, respectively.

- (1145) ● Fractions of hours
- a. negyed hat  
 quarter six  
 'five fifteen'
- b. fél hat  
 half six  
 'five thirty'
- c. három-negyed hat  
 three-quarter six  
 'five forty five'

- d. \*ötöd / [\*négy-ötöd] hat  
 fifth / four-fifth six  
 'five twelve / five forty eight'
- e. \*harmad hat  
 third six  
 'five twenty'

### B. *Measure nouns denoting monetary units*

As for nouns denoting monetary units or currencies, they can appear with cardinal numerals; the unit appears in the singular form. There is a variety of ways of specifying the cost of an item. It is possible to use the verb *kerül* 'cost', in which case the currency bears Illative case (1146a), or one can use copular constructions, shown in (1146b). The copula is covert in the present tense (1146b), but it is overt in other tenses, such as the past (1146c).

- (1146) a. A kávé két euróba kerül.  
 the coffee two euro.Ill cost  
 'The coffee costs two euros.'
- b. A kávé (ára) két euró.  
 the coffee price.Poss two euro  
 'The cost of the coffee is two euros.'
- c. A kávé (ára) két euró volt.  
 the coffee cost.Poss two euro was.3Sg  
 'The cost of the coffee was two euros.'

Monetary units can also be covert. In this case the numeral expressing the cost appears with the adjectivalizing suffix *-(V)s* (roughly the equivalent of English *-ed*) and it is preceded by the numeral *egy* 'one' (1147a). Low numerical values are ungrammatical in these structures (1147b). High numerical values are also out (1147b), presumably because there is no currency in use with that denomination. The monetary unit is supplied by the context.

- (1147) a. A kávé egy öt-ös / tíz-es / ötven-es / száz-as / ezer-es.  
 the coffee one five-ed / ten-ed / fifty-ed / hundred-ed / thousand-ed  
 'The coffee costs five / ten / fifty / [one hundred] / [one thousand] [contextually determined currency].'
- b. \*A kávé egy egy-es / kett-es / millió-s.  
 the coffee one one-ed / two-ed / million-ed  
 Intended meaning: 'The coffee costs one / two / [one million] [contextually determined currency].'

The complex expressions in question can also describe the coin or bill which has the value specified; the low number restriction is not operative in this case (1148a,b). Coins and bills can also be described by a form where the suffix attaches to the monetary unit itself (1148b). This is not possible when describing a monetary value as a predicate (1148c), but it is grammatical as a nominal modifier (1148d).

- (1148) a. Ez egy egy-es / kett-es / tíz-es / száz-as / ezer-es.  
 this one one-ed / two-ed / ten-ed / hundred-ed / thousand-ed  
 ‘This is a one / two / ten / hundred / thousand [contextually determined currency] coin / bill.’
- b. Ez egy egy-euró-s / két-euró-os / tíz-euró-os / száz-euró-os.  
 this one one-euro-ed / two-euro-ed / ten-euro-ed / hundred-euro-ed  
 ‘This is a one / two / ten / hundred Euro coin / bill.’
- c. \*[NP Ez a kávé] egy öt-forint-os / száz-forint-os.  
 this the coffee one five-HUF-ed / hundred-HUF-ed  
 Intended meaning: ‘This coffee costs a five / [one hundred] Forint coin / bill.’
- d. Ez [NP egy öt-forint-os / tíz-forint-os / száz-forint-os kávé].  
 this one five-HUF-ed / ten-HUF-ed / hundred-HUF-ed coffee  
 ‘This is a five / ten / hundred Forint coffee.’

#### 2.6.1.1.3.2. The determiner

There are few restrictions on what determiners can appear with cardinal numerals. Demonstratives, definite determiners and possessive pronouns can all co-occur with cardinals (1149a,b,c). The quantifier *minden* ‘every’ can co-occur with cardinals. A noun phrase containing this combination is fully grammatical in the subject position (see (1149d), taken from Bartos (1999: 23)), but highly degraded in the object position (1149d’). Other quantifiers cannot co-occur with cardinals (1149e).

- (1149) a. ez / az a két könyv  
 this / that the two book  
 ‘these / those two books’
- b. a két könyv  
 the two book  
 ‘the two books’
- c. az én két könyvem  
 the I two book.Poss.1Sg  
 ‘my two books’
- d. Minden három tanuló kap egy közös szekrényt.  
 every three student get a shared locker.Acc  
 ‘Every three students get a shared locker.’
- d’.<sup>?</sup>\*Feri minden három könyvet becsomagolt.  
 Feri every three book.Acc in.wrap.Past.3Sg  
 Intended meaning: ‘Feri wrapped every three books.’
- e. \*Feri sok / kevés három könyvet becsomagolt.  
 Feri many / few three book.Acc in.wrap.Past.3Sg  
 Intended meaning: ‘Feri wrapped many / few three books.’

A notable exception to the generalization that determiners may freely co-occur with cardinals is *egy*, the element that functions as the indefinite determiner as well as the numeral one (1150a). *Egy* cannot co-occur with cardinals (1150c) or the quantifier *minden* ‘every’ (1150b). Given that the same element functions as the

indefinite determiner and the numeral ‘one’, these two functions cannot co-occur in the same NP (1150c).

- (1150) a. az én egy könyvem  
 the I one book.Poss.1Sg  
 ‘my one book’  
 b. minden (\*egy) könyv  
 every one book  
 ‘every book’  
 c. \*egy egy / két könyv  
 one one / two book

For some speakers, *egy* can precede cardinals, but the interpretation is ‘about’ rather than an indefinite or a numeral (1151). In this use *egy* can always be followed by *olyan* ‘as, so, like’.

- (1151) a. %egy (olyan) négy alma  
 one like four apple  
 ‘about four apples’  
 b. %Hozzál egy (olyan) négy almát!  
 bring.Subj.2Sg one like four apple.Acc  
 ‘Bring about four apples.’

Cardinal numerals can be reduplicated and receive a distributive interpretation, as shown in (1152).

- (1152) Minden diáknak van egy-egy / két-két számológépe.  
 every student.Dat be.3Sg one-one / two-two calculator.Poss  
 ‘Every student has [one calculator] / [two calculators] each.’

Remark 32. In the Csángó dialect, the reduplicated numeral *egy-egy* ‘one-one’ can co-occur with a cardinal (i); this results in a distributive interpretation, like the standard Hungarian (1152).

- (i) Minden autónak van egy-egy négy kereke.  
 every car.Dat be.3Sg one-one four wheel.Poss  
 ‘Every car has four wheels each.’

### 2.6.1.1.3.3. The position of the cardinal numeral within the noun phrase

Cardinal numerals precede adjectives and sortal classifiers (1153a), and they follow demonstratives, determiners, possessors, and quantifiers (1153b). The elements preceding cardinals were illustrated in the introductory paragraph of section 2.6, too.

- (1153) ● The position of cardinals in the NP  
 a. minden öt szem piros alma  
 every five eye red apple  
 ‘every five red apples’

- b. nekem ez a három könyv-em  
 Dat.1Sg this the three book.Poss.1Sg  
 'these three books of mine'

Default stress in Hungarian falls on the left edge of the nominal. The definite determiner, however, cannot be stressed, so if the numeral is immediately preceded by *a* 'the', then the stress falls on the numeral (1154a). A numeral that follows the quantifier *minden* 'every' cannot be stressed; in this case stress falls on *minden* (1154b).

- (1154) a. a 'három hosszú könyv  
 the three long book  
 'three long books'  
 b. 'minden két könyv  
 every two book  
 'every two books'

If the entire nominal is focused, or the cardinal is focused, then the stress is placed as described above (1155a,a'). If any other constituent within the nominal is focused, then the stress is shifted, but the word order does not change (1155b,c).

- (1155) ● Stress in focused NPs with a cardinal  
 a. a 'HÁROM HOSSZÚ KÖNYV  
 the three long book  
 'the THREE LONG BOOKS'  
 a'. a 'HÁROM hosszú könyv  
 the three long book  
 'the THREE long books'  
 b. a három 'HOSSZÚ könyv  
 the three long book  
 'the three LONG books'  
 c. a három hosszú 'KÖNYV  
 the three long book  
 'the three long BOOKS'

Generally, if focus falls anywhere inside the nominal, then the entire nominal appears in the immediately preverbal focus position. In (1156) the verb-particle order indicates the fact that the NP is in focus.

- (1156) a. Feri 'el-olvasott [NP három hosszú könyvet].  
 Feri away-read.Past.3Sg three long book.Acc  
 'Feri read three long books.'  
 b. Feri [NP 'HÁROM HOSSZÚ KÖNYVET] olvasott el.  
 Feri three long book.Acc read.Past.3Sg away  
 'Feri read THREE LONG BOOKS (not two articles).'  
 c. Feri [NP három 'HOSSZÚ könyvet] olvasott el.  
 Feri three long book.Acc read.Past.3Sg away  
 'Feri read three LONG books (not three short ones).'

- d. Feri [<sub>NP</sub> három hosszú 'KÖNYVET] olvasott el.  
 Feri three long book.Acc read away  
 'Feri read three long BOOKS (not three long articles).'

#### 2.6.1.1.4. *Modification*

This subsection will show that it is possible to modify the cardinal numerals, and discusses some of the means that can be used.

##### *I. Approximative modifiers*

First, approximate and estimated values involving two cardinals can be expressed by putting the two cardinals next to each other without any connective (1157a). This is always possible for numerals that are next to each other in the counting sequence. It is also possible to use the connective *vagy* 'or' (1157b).

- (1157) a. négy-öt  
 four-five  
 'about four or five'  
 b. négy vagy öt  
 four or five  
 'four or five'

It is not entirely clear when two cardinals can be placed next to each other without a connective to express an estimated or approximate value. (1158a') does not sound particularly good, but (1158b') and (1158c') do. If the numerals are simply juxtaposed, then it is possible that the actual number falls between the two numerals, as in (1158b'). This is not possible for numerals conjoined by *vagy* 'or', compare (1158b).

- (1158) a. négy vagy hét  
 four or seven  
 'four or seven'  
 a'. \*<sup>2</sup>négy-hét  
 four-seven  
 Intended meaning: 'about four or seven'  
 b. nyolc vagy tíz  
 eight or ten  
 'eight or ten' (cannot be nine)  
 b'. nyolc-tíz  
 eight-ten  
 'about eight or ten' (could be nine)  
 c. tíz vagy tizenöt  
 ten or fifteen  
 'ten or fifteen'  
 c'. tíz-tizenöt  
 ten-fifteen  
 'about ten or fifteen'

It is possible that the magnitude of the juxtaposed numerals influences the grammaticality of the approximative expression: non-adjacent numerals are better when they are higher numerals (1159).

- (1159) a. húsz-harminc  
 twenty-thirty  
 ‘about twenty or thirty’
- a’. \*húsz-ötven  
 twenty-fifty  
 Intended meaning: ‘about twenty or fifty’
- b. száz-száznegyven  
 hundred-hundred.forty  
 ‘about a hundred or a hundred and forty’
- c. másfél-kétmillió  
 other.half-two.million  
 ‘about one and a half or two million’

Approximation can also be expressed with the adverb *körülbelül* ‘about’, which precedes the numeral (1160a). The possibly related postposition *körül* ‘around’ must follow the numeral (1160b) (*körül* can be used in spatial and temporal PPs as well, see P1). If the approximative numeral modifies a noun, then *körül* must bear the *-i* attributivizer suffix (1160b’). This is a property that characterizes all adnominal PPs in the language (see P1).

- (1160) a. körülbelül / \*körül száz  
 about / about hundred  
 ‘about one hundred’
- a’. Körülbelül száz diák jött.  
 about hundred student come.Past.3Sg  
 ‘About one hundred students came.’
- b. száz körül / \*körülbelül  
 hundred about / about  
 ‘about one hundred’
- b’. Száz körül\*(-i) diák jött.  
 hundred about-Attr student come.Past.3Sg  
 ‘About one hundred students came.’

Approximation can be expressed in a number of other ways, too, such as (i) the use of *egy* ‘one’ (1161a), (ii) the use of *olyan* ‘as, so, like’ (1161b) and (iii) the use of the indefinite pronoun *valami* ‘something’ (1161d). *Egy* and *olyan* can co-occur (1161c), but *egy* and *valami* cannot (1161e).

- (1161) a. %Adjál egy öt almát!  
 give.Subj.2Sg one five apple.Acc  
 ‘Give me about five apples.’
- b. Adjál olyan öt almát!  
 give.Subj.2Sg like five apple.Acc  
 ‘Give me about five apples.’



- c. Adjál egy olyan öt almát!  
give.Subj.2Sg one like five apple.Acc  
'Give me about five apples.'
- d. Valami ötven diákja van.  
something fifty student.Poss.3Sg be.3Sg  
'He has about fifty students.'
- e. \*Adjál egy valami öt almát!  
give.Subj.2Sg one something five apple.Acc  
Intended meaning: 'Give me about five apples.'

There are a number of other modifiers which denote approximation; these are illustrated in (1162).

- (1162) a. nagyjából tíz alma  
roughly ten apple  
'roughly ten apples'
- b. hozzávetőlegesen húsz könyv  
approximately twenty book  
'approximately twenty books'
- c. kábé öt alma  
around five apple  
'around five apples'
- d. sacc per kábé öt alma  
guess per around five apple  
'about five apples'
- e. cirka hat alma  
circa six apple  
'circa six apples'
- f. úgy tíz alma  
so ten apple  
'about ten apples'
- g. jó tíz alma  
good ten apple  
'a good ten apples'

Normally, approximate modifiers are only used with fairly round figures. Without any context, (1163a) sounds strange, but it is acceptable if it is known that John aims at collecting exactly 472 books. This restriction does not hold if the noun is a unit of currency: (1163b) could refer to, e.g., an amount of 471.67 euros.

- (1163) a. <sup>\$</sup>Jánosnak körülbelül négy-száz-hetven-két könyve van.  
János.Dat around four-hundred-seventy-two book.Poss be.3Sg  
'János has about 472 books.'
- b. Jánosnak körülbelül négy-száz-hetven-két eurója van.  
János.Dat around four-hundred-seventy-two euro.Poss be.3Sg  
'János has about 472 euros.'

*II. Modifiers indicating exact values*

The fact that the number is precise can also be expressed in a variety of ways (1164).

- (1164) a. pontosan tíz alma  
 exactly ten apple  
 'exactly ten apples'
- b. pont tíz alma  
 point ten apple  
 'exactly ten apples'
- c. kerek-en tíz alma  
 round-Adv ten apple  
 'exactly ten apples'

*III. Modifiers indicating an upper or lower bound*

Turning to other complex forms, let us consider upper and lower bounds first. Upper bounds can be expressed as shown in (1165), and lower bound expressions are illustrated in (1166).

- (1165) ● Upper bounds
- a. legfeljebb hat könyv  
 at.most six book  
 'at most six books'
- b. maximum hat könyv  
 maximum six book  
 'maximum six books'

- (1166) ● Lower bounds
- a. legalább két autó  
 at.least two car  
 'at least two cars'
- b. minimum két autó  
 minimum two car  
 'minimum two cars'

*IV. Comparative modifiers*

Other complex numeral forms, which include comparison, can also have a variety of forms (1167). Note that *több* 'more' and *kevesebb* 'less/fewer' both contain the comparative *-bb* suffix. *Több* involves suppletion (compare *sok* 'many, much'), while *kevesebb* is more transparent; it only involves a vowel length change (*kevés* 'few, little'). (On comparatives, see also A3.3.)

- (1167) ● Comparatives involving numerals
- a. több / kevesebb, mint harminc könyv  
 more / fewer than thirty book  
 'more / fewer than thirty books'

- b. harminc-nál több / kevesebb könyv  
 thirty-Ade more / fewer book  
 'more / fewer than thirty books'
- c. <sup>%</sup>harminc-től több / kevesebb könyv  
 thirty-Abl more / fewer book  
 'more / fewer than thirty books'
- d. Több / kevesebb könyve van Marinak, mint Jánosnak.  
 more / fewer book.Poss be.3Sg Mari.Dat than János.Dat  
 'Mari has more / fewer books than János.'

Differences between numerical values are usually expressed using *több* 'more' and *kevesebb* 'less' as well (1168). Note that the case marking on *több* and *kevesebb* in (1168c',d') is predictable; it is the case marking that is assigned to the noun (phrase).

(1168) ● Differences between numerical values

- a. Három könyvet kapott.  
 three book.Acc receive.Past.3Sg  
 'He received three books.'
- b. Három extra könyvet kapott.  
 three extra book.Acc receive.Past.3Sg  
 'He received three extra books.'
- c. Három-mal több / kevesebb könyvet kapott, mint Ili.  
 three-Ins more / fewer book.Acc receive.Past.3Sg than Ili  
 'He received three more / fewer books than Ili.'
- c'. Három könyv-vel többet / kevesebbet kapott mint Ili.  
 three book-Ins more.Acc / less.Acc receive.Past.3Sg than Ili  
 'He received three more / fewer books than Ili.'
- d. Három könyv-ről gondolta, hogy meg kellene venni.  
 three book-Del think.Past.3Sg.DefObj that perf must.Cond buy.Inf  
 'He thought of three books that they should be bought.'
- d'. Három könyv-vel több-ről / kevesebb-ről gondolta, hogy  
 three book-Ins more-Del / less-Del think.Past.3Sg.DefObj that  
 meg kellene venni.  
 perf must.Cond buy.Inf  
 'He thought of three more / fewer books that they should be bought.'

*V. Noun phrases containing a modified numeral in the clause*

There are restrictions as to where modified numeral expressions can appear (Szabolcsi 2010). In the examples below, the modified expression appears in a preverbal position. If the particle is preverbal, then the nominal is either in a topic position or a quantifier position (we remain agnostic about this choice here). Foci precede the verb immediately, so if the numeral is focused, then the particle *el* (lit. 'away') of *el-olvas* 'read entirely' is postverbal. Thus in the following examples if the string *olvasott el* is grammatical, then the nominal with the modified numeral can be focused. If the string *el-olvasott* is grammatical, then the nominal can appear

in the preverbal topic or quantifier position. (1169) shows the behavior of approximate and specific values and (1170) illustrates the behavior of upward and downward monotone expressions. Note that upward and downward monotone nominals are acceptable as foci, but they are excluded from other preverbal positions.

- (1169) ● NPs with an approximate and specific numeral in the preverbal field
- a. Ili körülbelül három könyvet \*[olvasott el] / [el-olvasott].  
 Ili approximately three book.Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read approximately three books from beginning to end.’  
 (\*with focused nominal, unless *three* or *book* is contrasted)
- b. Ili pontosan három könyvet [olvasott el] / ??[el-olvasott].  
 Ili exactly three book.Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read exactly three books from beginning to end.’
- (1170) ● Upward and downward monotone expressions in the preverbal field
- a. Ili három könyvet [olvasott el] / [el-olvasott].  
 Ili three book.Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read three books.’
- b. Ili három-nál több könyvet [olvasott el] / \*[el-olvasott].  
 Ili three-Ade more book.Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read more than three books.’
- c. Ili három-nál kevesebb könyvet [olvasott el] / \*[el-olvasott].  
 Ili three-Ade fewer book.Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read fewer than three books.’
- d. Ili három könyv-vel több-et [olvasott el] / \*[el-olvasott].  
 Ili three book-Ins more-Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read three books more.’
- e. Ili három könyv-vel kevesebb-et [olvasott el] / \*[el-olvasott].  
 Ili three book-Ins fewer-Acc read.Past.3Sg away / away-read.Past.3Sg  
 ‘Ili read three books less.’

#### 2.6.1.1.5. *Special cases*

This subsection offers a detailed discussion of numerals that show a special behavior. We will first discuss cardinals with more than one form (subsection 2.6.1.1.5.1). Then we turn to cardinals with paired body parts (subsection 2.6.1.1.5.2) and to adjectives derived from cardinals (subsection 2.6.1.1.5.3). The collective suffix and the multiplicative suffix on cardinals will be taken up in subsections 2.6.1.1.5.4 and 2.6.1.1.5.5. Distributivity and exceptives will be the topics of subsection 2.6.1.1.5.6 and 2.6.1.1.5.7 respectively. Subsection 2.6.1.1.5.8 is dedicated to partitives. Finally, subsection 2.6.1.1.5.9 examines the co-occurrence of cardinals with quantifier *mind* (*a*) ‘all (the)’.

## 2.6.1.1.5.1. Cardinals with more than one form

Certain numerals have more than one form, as mentioned at the outset; these numerals are *nulla* ‘zero’, *kettő* ‘two’, *három* ‘three’ and *ezer* ‘thousand’. We will start the discussion with *három* ‘three’ and *ezer* ‘thousand’, then turn to *nulla* ‘zero’, and close this subsection with a closer look at *kettő* ‘two’.

## I. ‘Three’ and ‘thousand’

Some Hungarian content words exhibit a so-called stem-internal vowel-zero alternation (see Rebrus 2000: chapter 13.3, Rebrus and Törkenczy 2008). These content words end in a CVC sequence, but the last (interconsonantal) vowel of their stem is dropped in front of a plural or accusative suffix. It is not possible to predict which roots have this property. This is illustrated in (1171) with three words, all of which have *r* and *ny* as their last two consonants. *Torony* ‘tower’ loses the vowel when suffixed, *szurony* ‘bayonet’ retains the vowel even when suffixed, while *szörny* ‘monster’ does not have the vowel in any environment.

- (1171) a. torony, torny-ot, \*torony-ot  
tower tower-Acc tower-Acc  
‘tower, tower(Acc)’
- b. szurony, szurony-t, \*szurny-ot  
bayonet bayonet-Acc bayonet-Acc  
‘bayonet, bayonet(Acc), bayonet(Acc)’
- c. szörny, szörny-et  
monster monster-Acc  
‘monster, monster(Acc)’

The numerals *három* ‘three’ and *ezer* ‘thousand’ belong to the group of stems that exhibit this vowel-zero alternation. With *három* ‘three’, the vowel-zero alternation is optional for some speakers; these speakers accept the form *háromat* ‘three.Acc’ as well (1172).

- (1172) a. három, hárm-at, %három-at  
three three-Acc three-Acc  
‘three, three(Acc), three(Acc)’
- b. ezer, ezi-et, \*ezer-et  
thousand thousand-Acc thousand-Acc  
‘thousand, thousand(Acc), thousand(Acc)’

The form *há(r)* of ‘three’ is also possible; it is used in dictating rhythm (e.g. uttered by a conductor or a coach; note also the form of ‘two’ in (1173), which will be discussed in detail below):

- (1173) egy, két, há(r), négy  
one two three four  
‘one, two, three, four’

## II. 'Null/zero'

Turning to the cardinal zero, it has two basic forms, illustrated in (1174).

- (1174) nulla, zéró  
 null zero  
 'null, zero'

Furthermore, the final vowel of the form *nulla* is dropped in certain contexts such as sports commentaries and the lottery (1175a,b). The final vowel is also typically dropped in compounds (1175c-f). The final vowel, however is always retained in mathematical operations: (1175g,h).

- (1175) ● *Null(a)* and *null* 'null'
- a. kettő null a Manchester javára  
 two null the Manchester in.favor.of  
 'two-nil to Manchester'
  - b. null–null  
 null–null  
 'nil-nil, i.e. a scoreless draw'
  - c. null(\*a)-széria  
 null-series  
 'trial series'
  - d. null(\*a)-kópia  
 null-copy  
 'reference print (in color photography)'
  - e. null(\*a)-pont  
 zero point  
 'zero point'
  - f. null(\*a)szaldó-s  
 null-sum-ed  
 'sum with which one breaks even'
  - g. Null\*(a) meg null\*(a) az null\*(a).  
 null plus null that null  
 'Zero plus zero is zero.'
  - h. Null\*(a)-szor null\*(a) az null\*(a).  
 null-Mult null that null  
 'Zero times zero is zero.'

## III. 'Two'

The numeral 'two' has a shorter and a longer form in Hungarian: *két* and *kettő*. The distribution of these forms is almost (but not quite) complementary. Both can be used attributively (1176a), both combine with the multiplicative suffix *-szVr* (1176b,b'), both can form complex numerals (1176c,c'), and both can form asyndetic coordination with the numeral 'one' with the meaning 'a few' (1176d,d').

- (1176) ● Contexts that admit both *két* and *kettő* ‘two’
- a. *két* / *kettő* labda  
two / two ball  
‘two balls’
  - b. *két-szer*  
two-Mult  
‘twice’
  - b’. *kettő-ször*  
two-Mult  
‘twice’
  - c. *két-száz*  
two-hundred  
‘two hundred’
  - c’. *kettő-száz*  
two-hundred  
‘two hundred’
  - d. *egy-két*  
one-two  
‘[one or two] / [a few]’
  - d’. *egy-kettő*  
one-two  
‘[one or two] / [a few]’

In the spoken language *két* ‘two’ and *hét* ‘seven’ sound very much alike, and addressees are often not sure which number their interlocutor said. In order to avoid this confusion, some speakers prefer the form *kettő* in (1176a), and they also prefer (1176b’) over (1176b).

Both *kettő* and *két* can take a derivational suffix that yields a verb (1177). However, the suffixes are different (*-(V)z* and *-(V)l* respectively), and the verbs derived from *kettő* and *két* have different meanings: the verb derived from *kettő* has a predictable meaning, while the verb derived from *két* does not. (Note that both *-(V)z* and *-(V)l* are productive verbalizing suffixes and both can yield verbs with predictable meanings.)

- (1177) a. *kettő-z-öm*  
two-Vrb-1Sg  
‘I double (sth)’
- b. *két-l-em*  
two-Vrb-1Sg  
‘I doubt (it that ...)’

Similarly, both forms of the numeral ‘two’ can support the derivational suffix *-(V)s* (roughly the equivalent of English *-ed*) that yields an adjective, but the adjectives derived from them have different meanings, and it is again the form derived from *kettő* that has the predictable meaning (1178).

- (1178) a. kettő-s  
two-ed  
'dual / double'
- b. két-es  
two-ed  
'questionable / shady / uncertain'

In other contexts *két* and *kettő* are in complementary distribution. Fragment answers with no overt material following the numeral (1179a'), elliptical noun phrases in which the overt suffixes of the elided noun are phonologically supported by the numeral (1179b), and predicative contexts (1179c) only admit *kettő*.

- (1179) ● Some contexts that admit only *kettő* 'two'
- a. How many shoes are missing?  
a'. Kettő / \*Két. [fragment answer]  
two / two  
'Two.'
- b. Kérek kettő-t / \*két-et. [elliptical NP]  
want.1Sg two-Acc / two-Acc  
'I want two.'
- c. A labdák száma kettő / \*két. [predicative context]  
the ball.Pl number.Poss two / two  
'The number of the balls is two.'

The possessor suffix *-é*, the fractionalizer suffix *-Vd*, the suffix *-(V)s* deriving sequential numbers, and the collective suffix *-Vn* are also only compatible with *kettő* (1180). When the latter suffix is added to the numeral, it yields the meaning 'a group of people with the cardinality of the numeral'.

- (1180) ● Further contexts that admit only *kettő* 'two'
- a. kettő-é / \*két-é [possessor suffix *-é*]  
two-Posr / two-Posr  
'of two'
- b. kett-ed / \*két-ed [fractionalizer suffix]  
two-Fract / two-Fract  
'half'
- c. kett-es / \*két-es számrendszer [adjectivalizer suffix]  
two-ed / two-ed numeral.system  
'binary numeral system'
- d. Kett-en / \*két-(e)n vagyunk. [collective suffix]  
two-Coll / two-Coll be.1Pl  
'[We are two] / [there are two of us].'

As only *kettő* can co-occur with the collective suffix *-an/en*, the sequence 'cardinal+diminutive suffix+collective suffix *-Vn*' is also only possible with *kettő* (1181).



- (1181) Kett-ecské-n / \*két-(e)cské-n vagyunk  
 two-Dim-Coll / two-Dim-Coll be.1Pl  
 'It's just the two of us.'

Ordinal numerals are formed by adding the ordinalizer suffix *-Vd* and the partitive-like suffix *-ik* to the cardinal (see subsection 2.6.1.3). The days of the month are formed by adding the possessive suffix *-(j)a/(j)e* to the ordinal. Since only *kettő* can support the ordinalizer suffix, only this version of the numeral 'two' can occur in these contexts (1182). (Note that 'second' has a suppletive form, *második*, but in complex numerals it is regularized to *kettedik*.)

- (1182) kett-ed-ik / \*két-ed-ik  
 two-Ord-Ptv / two-Ord-Ptv  
 'second / second'

A further context that admits only *kettő* is the counting sequence (1183).

- (1183) • *Kettő* and *két* 'two' in the counting sequence  
 egy, kettő / \*két, három, négy ...  
 one two / two three four  
 'one, two, three, four ...'

There is an important caveat to this, however. In the counting sequence the numeral *három* 'three' can be abbreviated to *há'*. If this shorter form of 'three' is used, then only *két* can precede it (1184).

- (1184) a. egy, két, há', négy  
 one two three four  
 'one, two, three, four'  
 b. \*egy, kettő, há', négy  
 one two three four

In mathematical operations, where members of the counting sequence are used, the use of *két* is highly restricted. Only *kettő* can be used with addition and extraction (1185a,b). With multiplication *két* is possible only as the multiplicator, but not as the multiplicand or the product (1185c-e).

- (1185) • *Kettő* and *két* 'two' in mathematical operations  
 a. Egy meg kettő / \*két az három.  
 one and two / two that three  
 'One plus two is three.'  
 b. Ötből kettő / \*két az három.  
 five.Ela two / two that three  
 'Five minus two is three.'  
 c. Egy-szer kettő / \*két az kettő / \*két.  
 one-Mult two / two that two / two  
 'One times two is two.'  
 d. Két-szer kettő / \*két az négy.  
 two-Mult two / two that four  
 'Two times two is four.'

- e. Kettő-ször kettő / \*két az négy.  
 two-Mult two / two that four  
 'Two times two is four.'

While in most contexts either *kettő* or *két* are grammatical or only *kettő* is acceptable, *két* is strongly preferred in compounds (1186).

- (1186) ● *Két* 'two' and compounds
- a. két-értelm-ű  
 two-meaning-Attr  
 'ambiguous'
  - a'.<sup>??</sup>kettő értelm-ű  
 two meaning-Attr  
 'with / having two meanings'
  - b. két-fillér-(es)  
 two-penny-ed  
 'a coin worth two pennies'
  - b'. két / kettő fillér  
 two / two penny  
 'two pennies'

#### 2.6.1.1.5.2. Cardinals with paired body parts

Paired body parts can be referred to in the plural or in the definite singular (1187).

- (1187) ● Cardinals with paired body parts
- a. Fáj-nak a láb-a-i-m.  
 hurt-3Pl the leg-Poss-Pl-1Sg  
 'My legs hurt.'
  - b. Fáj a láb-am.  
 hurt the leg-Poss.1Sg  
 'My legs hurt. / One of my legs hurts.'

The expression 'half a + paired body part' is ambiguous between half of the pair (i.e. one body part) or half of one body part (1188a). This ambiguity can be resolved by the context when it is unlikely that one has just a half of one body part, as in (1188b,c).

- (1188) a. A háborúban ellőtték a fél karját.  
 the war.Ine away.shoot.3Pl.DefObj the half arm.Poss.3Sg.Acc  
 'They shot off [one of his arms] / [half of one of his arms] in the war.'
- b. Kilőtték a fél szemét.  
 out.shoot.Past.3Pl.DefObj the half eye.Poss.3Sg.Acc  
 'They shot out one of his eyes.'
  - c. fél-szem-ű  
 half-eye-Attr  
 'one eyed'

Body parts consisting of two symmetrical units are also used in the singular (1189).

- (1189) a. A háborúban ellőtték a karját.  
 the war.Ine away.shoot.3Pl the arm.Poss.3Sg.Acc  
 'They shot off one of his arms in the war.'
- b. Kilőtték a szemét.  
 out.shoot.Past.3Pl the eye.Poss.3Sg.Acc  
 'They shot out one of his eyes.'

Body parts consisting of multiple, identical units are also used in the singular (1190).

- (1190) a. Növesztem a hajamat.  
 make.grow.1Sg the hair.Poss.1Sg.Acc  
 'I am growing my hair.'
- b. Megmosom a fogamat.  
 perf.wash.1Sg the tooth.Poss.1Sg.Acc  
 'I'll brush my teeth.'

Articles of clothing or accessories that come in pairs and are used on paired body parts (shoes, earrings, gloves) are used with numerals similarly to paired body parts. With these nouns, 'half' means one half of a pair (1191a) and the plural means multiple pairs (1191b).

- (1191) a. Elvesztettem a fél fülbevalómat.  
 away.lose.Past.1Sg the half earring.Poss.1Sg  
 'I have lost one from a pair of earrings.'
- b. Fülbevalókat kaptam Jánostól.  
 earring.Pl.Acc get.Past.1Sg János.Abl  
 'I got multiple pairs of earrings from János.'

With these nouns the numeral *egy* 'one' and the expression *egy pár* 'one pair' refer to a pair of articles (1192a). Note that *egy* 'one' cannot co-occur with paired body parts to mean both members of the pair (1192b).

- (1192) a. Vettem egy (pár) csizmát.  
 buy.Past.1Sg one pair boot.Acc  
 'I bought a pair of boots.'
- b. Van egy lábam.  
 be.3Sg one leg.Poss.1Sg  
 'I have one leg. (Not: I have a pair or legs.)'

### 2.6.1.1.5.3. Adjectives derived from cardinals

Adjectives are derived from cardinals by the suffix *-(V)s*, the equivalent of English *-ed* (1193).

- (1193) ● Adjectivalized cardinals  
 egy-es, kett-es, harminchárom-as, száz-as, ezer-es  
 one-ed two-ed thirty.three-ed hundred-ed thousand-ed  
 'one(Adj), two(Adj), thirty-three(Adj), one hundred(Adj), one thousand(Adj)'

The use of adjectivalized numerals is illustrated in (1194). If a noun can only be understood to refer to a group of people, then it cannot be modified by an adjectivalized numeral directly (1194e). In these cases the numeral must first combine with the human classifier *fő* ‘head’, and it is the constituent comprising the numeral and the classifier that is adjectivalized (1194e’). If the noun can refer to a group of people (but does not necessarily do so), then the adjectivalized numeral can modify the noun directly (1194d), but the classifier construction is also possible (1194d’).

- (1194) a. a hárm-as szám  
the three-ed number  
‘the number three’
- b. négy-es fogat  
four-ed team.of.horses  
‘four-in-hand’
- c. harminchat-os farmer  
thirty.six-ed jeans  
‘jeans of size thirty-six’
- d. hat-os csoportokban  
six-ed group.Pl.Ine  
‘in groups of six’
- d’. [hat fő]-s csoportokban  
six head-ed group.Pl.Ine  
‘in groups of six’
- e. \*hat-os család / osztály  
six-ed family / class  
‘a family / class of six people’
- e’. [hat fő]-s család / osztály  
six head-ed family / class  
‘a family / class of six people’

A numeral adjectivalized with the *-(V)s* suffix may refer to the name of the number (except for zero) (1195a). This adjectival form is also used to refer to school grades (labeled with numbers from one ‘fail’ to five ‘excellent’) (1195b), the averaged academic achievement of students (1195c) as well as coins and banknotes.

- (1195) a. Ma megtanuljuk írni az egy-es-t / kett-es-t.  
today perf.learn.3Pl write.Inf the one-ed-Acc / two-ed-Acc  
‘Today we’ll learn how to write the number one / two.’
- b. Öt-ös-t kaptam matekból.  
five-ed-Acc get.Past.1Sg math.Ela  
‘I got a five (i.e. A) in maths.’
- c. Tamás négy-es tanuló.  
Tamás four-ed student  
‘Tamás gets a grade 4 (approx. B) on average.’

- d. Csak egy husz-as van nálam.  
 only a twenty-ed be.3Sg Ade.1Sg  
 'I only have a twenty [contextually determined currency] coin / banknote on me.'

An adjectivalized numeral may combine with the possessive suffix and the Instrumental case marker to yield the meaning 'in groups of (number)' (1196).

- (1196) hat-os-á-val  
 six-ed-Poss-Ins  
 'in groups of six'

Adjectivalized low cardinals (from 2 to 4) can combine with the Inessive case suffix to express the total number of participants in the event.

- (1197) Kett-es-ben / három-as-ban / négy-es-ben mentünk nyaralni.  
 two-ed-Ine / three-ed-Ine / four-ed-Ine go.Past.1Pl holiday.take.Inf  
 'The two / three / four of us went on a holiday.'

The adjectivalized form of *kettő* 'two' can be further nominalized by the *-ság/ség* suffix (1198) (roughly corresponding to English *-ness*, see subsection 1.3.3.1). This nominalization is uncommon for other numerals.

- (1198) kettő-s-ség  
 two-ed-Nmn  
 'duality, duplicity'

Remark 33. In the set expression 'Holy Trinity' the nominalizer *-ság/ség* attaches directly to the cardinal (i).

- (i) Szent-három-ság  
 holy-three-Nmn  
 'Holy Trinity'

Similarly to numerals, *szám* 'number' can also be adjectivalized by the *-(V)s* suffix. The adjective derived this way has the meaning 'numerous' (1199).

- (1199) Szám-os díjat kapott.  
 number-ed award.Acc get.Past.3sg  
 'He received numerous awards.'

#### 2.6.1.1.5.4. Cardinals and the collective suffix

Cardinals (except for zero and one) may combine with the *-(V)n* collective suffix (1200b). The resulting form refers to groups of animate entities, and preferably to humans with the cardinality of the numeral. (The collective suffix is phonologically identical to the suffix that derives adverbs from adjectives, cf. *szép* 'nice' and *szépen* 'nicely'. We remain agnostic about whether we are dealing with two different *-(V)n* suffixes or the collective suffix is, in fact, the ordinary *-(V)n* adverbializer suffix. In the rest of this chapter we shall refer to the *-(V)n* suffix on cardinals as the collective suffix.)

- (1200) ● Cardinals with the collective suffix
- a. Három tanár / oroslán / szék van kint.  
 three teacher / lion / chair be.3Sg outside  
 ‘There are three teachers / lions / chairs outside.’
- b. A tanár-ok / <sup>?</sup>oroszlán-ok / \*szék-ek hárm-an vannak.  
 theteacher-Pl / lion-Pl / chair-Pl three-Coll be.3Pl  
 ‘There are three teachers / lions / chairs.’

If the numeral bears the collective suffix, then no overt noun can follow it (1201b), and the predicate bears plural agreement (1201c).

- (1201) a. Három ember jött / magas / \*jött-ek / \*magas-ak.  
 three people come.Past.3Sg / tall / come.Past-3Pl / tall-Pl  
 ‘Three people came / [are tall].’
- b. Hárm-an (\*ember / \*ember-ek) jött-ek.  
 three-Coll person / person-Pl come.Past-3Pl  
 ‘Three people came.’
- b. Hárm-an jött-ek / magas-ak / \*jött / \*magas.  
 three-Coll come.Past-3Pl / tall-Pl / come.Past.3Sg / tall.Sg  
 ‘Three people came / [are tall].’

Cardinals bearing the collective suffix can modify pronouns (1202). They can either immediately follow the pronoun or appear separated from it.

- (1202) a. Mi négy-\*(en) elmentünk.  
 we four-Coll away.go.Past.1Pl  
 ‘The four of us left.’
- b. Mi tegnap elmentünk négy-\*(en) a moziba.  
 we yesterday away.go.Past.1Pl four-Coll the cinema.Ill  
 ‘Yesterday the four of us went to the cinema.’

#### 2.6.1.1.5.5. The multiplicative suffix

Multiplication is expressed by the *-szVr* multiplicative suffix (1203). Apart from cardinals, this suffix can also combine with the quantifiers *sok* ‘many’ and *kevés* ‘few’, and with ordinals. In the latter case, it yields the meaning ‘for the Xth time’. Here we illustrate only cardinals and the multiplicative suffix. Ordinals and the multiplicative suffix will be discussed in subsection 2.6.1.3.4.4, while quantifiers and the multiplicative suffix will be taken up in subsection 2.6.2.4.4.

- (1203) ● Cardinals with the multiplicative suffix
- egy-szer, két-szer, három-szor, százöt-ször  
 one-Mult two-Mult three-Mult hundred.five-Mult  
 ‘once, twice, three times, one hundred and five times’

## 2.6.1.1.5.6. Distributivity

Distributivity can be expressed in three ways: by the distributive suffix *-(V)nként*, by adjectivalized numerals bearing the possessive suffix and the Instrumental case, or by reduplication.

The combination of cardinals with the distributive suffix *-(V)nként* is shown in (1204).

- (1204) a. hárm-anként  
 three-Dist  
 'three at a time, three by three'

The combination of adjectivalized numerals with the possessive suffix and the Instrumental case marker *-val/vel* is illustrated in (1205). The meaning of these expressions is 'in/by number (at a time)'.

- (1205) a. Kett-es-é-vel szedte a lépcsőket.  
 two-ed-Poss-Ins take.Past.3Sg.DefObj the stair.Pl.Acc  
 'He took two steps at a time.'
- b. A vizsgázók hárm-as-á-val jöttek be.  
 the examinee.Pl three-ed-Poss-Ins come.Past.3Pl in  
 'The examinees came in in threes (i.e three examinees at a time).'

(1206) is multiply ambiguous, as the numeral may quantify either over the subject or the object. The sentence can mean that (i) each man carried three pieces of luggage at a time, or (ii) the men carried suitcases in groups of three, each man carrying one or more suitcases, or (iii) each suitcase was carried by three men.

- (1206) A férfiak harm-as-á-val vitték a bőröndöket.  
 the man.Pl three-ed-Poss-Ins carry.Past.3Pl the suitcase.Pl.Acc  
 'The men carried the suitcases in threes.'

Reduplication of a cardinal yields a distributive reading. In (1207a), altogether three apples are involved in the giving event, while (1207a') describes a situation in which each participant was given three apples. In (1207b), where the numeral of the subject is reduplicated, each room was decorated by three children, while in (1207c), with the numeral of the object reduplicated, each child decorated three rooms. In the latter example the children may have worked on their own or in groups, but no child was involved in the decoration of more than three rooms (or that of fewer than three, for that matter).

- (1207) a. Adtam nekik három almát.  
 give.Past.1Sg Dat-3Pl three apple.Acc  
 'I gave them three apples.'
- a'. Adtam nekik három-három almát.  
 give.Past.1Sg Dat-3Pl three-three apple.Acc  
 'I gave them three apples each.'
- b. Három-három gyerek díszítette a termeket.  
 three-three child decorate.Past.3Pl.DefObj the room.Pl.Acc  
 'Each room was decorated by three children.'

- c. A gyerekek három-három termet díszítettek.  
 the child.Pl three-three room.Acc decorate.Past.3Pl  
 '[The children decorated three rooms each.] / [Every group of children decorated three rooms.]'

#### 2.6.1.1.5.7. Exceptives

Exceptives involve either an Accusative marked numeral followed by the adverbial participle *kivéve* 'except for' (lit. 'out.take.Conv', as in (1208a,a')), or a morphologically unmarked numeral followed by *kivételével* 'with the exception of' (lit. 'exception.Poss.Ins'), as in (1208b,b').

#### (1208) • Exceptives

- a. Kett-öt kivéve megoldottam a feladatokat.  
 two-Acc except.for perf.solve.Past.1Sg the exercise.Pl.Acc  
 'I solved the exercises except for two.'
- a'. Kett-öt kivéve minden feladatot megoldottam.  
 two-Acc except.for every exercise.Acc perf.solve.Past.1Sg  
 'I solved all exercises except for two.'
- b. Kettő kivételével megoldottam a feladatokat.  
 two with.the.exception.of perf.solve.Past.1Sg the exercise.Pl.Acc  
 'I solved the exercises except for two.'
- b'. Kettő kivételével minden feladatot megoldottam.  
 two with.the.exception.of every exercise.Acc perf.solve.Past.1Sg  
 'I solved all exercises except for two.'

#### 2.6.1.1.5.8. Partitives

Partitives are formed by adding either the Inessive case marker or the postposition *közül* 'out of' to the noun (1209).

#### (1209) • Partitives

- a. A bombákból kettő felrobbant.  
 the bomb.Pl.Ela two explode.Past.3Sg  
 'Two of the bombs went off.'
- a'. Három bombából kettő felrobbant.  
 three bomb.Ine two explode.Past.3Sg  
 'Two of three bombs went off.'
- b. A bombák közül kettő felrobbant.  
 the bomb.Pl out.of two explode.Past.3Sg  
 'Two of the bombs went off.'
- b. Három bomba közül kettő felrobbant.  
 three bomb out.of two explode.Past.3Sg  
 'Two of three bombs went off.'



2.6.1.1.5.9. Co-occurrence with the quantifier *mind* ‘all (the)’

The quantifier *mind* ‘all (the)’ can co-occur with cardinals higher than *egy* ‘one’ (1210). This contrasts with the behavior of most other quantifiers, e.g. *sok* ‘many’ or *néhány* ‘some’, which do not co-occur with cardinals (see subsection 2.6.1.1.5.1). When *mind* is in the NP, it is obligatorily followed by the definite article and a cardinal.

- (1210) ● *Mind* ‘all (the)’ with cardinals  
 mind \*(a) \*(kettő / tíz / harmincöt) tojás  
 every the two / ten / thirty-five egg  
 ‘both / [all ten] / [all thirty-five] eggs’

Furthermore, *mind* can form a compound with both the *két* and the *kettő* versions of ‘two’ (see subsection 2.6.1.1.5.9) as well as with *három* ‘three’ (1211). In these compounds there is no definite article intervening between the quantifier and the cardinal.

- (1211) mind-kettő / mind-két, mind-három  
 every-two / every-two every-three  
 ‘both, all three’

Note that *mind* can also serve as a floating quantifier. In this case it is associated with a definite noun phrase, and the presence of a cardinal within that noun phrase is not obligatory (1212).

- (1212) ● floating *mind* ‘all (the)’  
 a. \*(A) (három) tojás mind elgurult.  
 the three egg all away.roll.Past.3Sg  
 ‘The (three) eggs all rolled away.’  
 b. \*(A) tojások mind elgurultak.  
 the egg.Pl all away.roll.Past.3Pl  
 ‘The eggs all rolled away.’

2.6.1.2. *Fractional numerals*

In this subsection we are going to examine the form and use of fractional numerals. The discussion begins with the morphological make-up of fractions in subsection 2.6.1.2.1. Then we turn to some special cases involving fractions in subsection 2.6.1.2.2.

2.6.1.2.1. *Simple and compound forms*

Fractions are formed from simple and complex cardinals by the fractionalizer suffix *-Vd* (1213).

- (1213) ● Fractions  
 nyolc-ad, negyvenöt-öd  
 eight-Fract forty-five-Fract  
 ‘(one) eighth, (one) forty-fifth’

Fractional forms may be preceded by a cardinal numeral that serves as a multiplier of the fraction (1214).

- (1214) három nyolc-ad, hét negyvenöt-öd  
 three eight-Fract seven fortyfive-Fract  
 ‘three eighths, seven forty-fifths’

If the fraction is not preceded by a multiplier, then the multiplier is understood to be ‘one’ (1213). The fraction form of the numeral *kettő* ‘two’ is exceptional because it must be preceded by a multiplier (1215).

- (1215) egy-kett-ed, öt-kett-ed, \*kett-ed  
 one-two-Fract five-two-Fract two-Fract  
 ‘one half, five over two, (one) half’

If no multiplier is present, then instead of the ordinal form *ketted* ‘half’ the monomorphemic form *fél* ‘half’ must be used. *Fél* cannot be preceded by a multiplier (1216).

- (1216) (\*egy-)fél, \*öt-fél  
 one-half five-half

The semantic operation of addition does not require or allow a connective when integers are added to integers within complex cardinals: that is, Hungarian generally does not make use of *and* as English does in *one thousand and fifty two* (see subsection 2.6.1.1.1.2). The addition of *fél*, however, requires the connective *és* ‘and’ (1217).

- (1217) négy \*(és) fél  
 four and half  
 ‘four and a half’

Using the monomorphemic form *fél*, the number ‘one and a half’ can be expressed in two ways: as in (1218a), or more naturally, as in (1218b). See subsection 2.6.1.1.1.2 for a more detailed exposition.

- (1218) a. egy és fél  
 one and half  
 ‘one and a half’  
 b. más-fél  
 other-half  
 ‘one and a half’

Decimal fractions do not require or allow the connective *és* ‘and’ between the integer part and the fractional part of the fraction. Instead, they require the expression *egész* ‘whole’ in this position (compare English *point*). Unlike in English, the tenths, hundredths, thousandths, etc. positions are not spelled out separately (cf. English *zero point zero five*). Instead, the fractional part is spelled out as if it were one integer, and it is followed by the fractional form of the tenths, hundredths, or thousandths position (whichever is relevant in the given decimal fraction). Thus 0.05, for instance, is literally ‘zero whole five hundredth’ (1219).

- (1219) nulla egész három tiz-ed, egy egész öt száz-ad, hét egész  
 zero whole three ten-Fract one whole five hundred-Fract seven whole  
 ötvenkét száz-ad  
 fifty.two hundred-Fract  
 ‘zero point three, one point zero five, seven point fifty-two’

### 2.6.1.2.2. *Special cases*

Percentages are formed by placing the word *százalék* ‘percentage’ after the numeral (1220).

- (1220) ● Percentages  
 három százalék  
 three percent  
 ‘three percents’

### 2.6.1.3. *Ordinal numerals*

In Hungarian, ordinal numerals are formed by attaching two suffixes to the cardinal: the ordinal suffix and the partitive suffix. We first discuss the form of ordinal numerals in subsection 2.6.1.3.1. Subsection 2.6.1.3.2 continues with a discussion of the semantics of ordinals. Subsection 2.6.1.3.3 examines the position of ordinal numerals within the noun phrase. Finally subsection 2.6.1.3.4 discusses some special cases involving ordinals.

#### 2.6.1.3.1. *Simple and compound forms*

Ordinals are formed by attaching both the ordinalizer suffix *-Vd* and the partitive-like *-ik* suffix to the cardinal form (1221).

- (1221) ● Ordinals
- a. nyolc-ad-ik, száznegyvenöt-öd-ik  
 eight-Ord-Ptv hundred.forty.five-Ord-Ptv  
 ‘eighth, one hundred and forty-fifth’
  - b. A nyolc-ad-ik prímszám a 19.  
 the eight-Ord-Ptv prime.number the 19  
 ‘The eighth prime number is 19.’

The ordinalizer suffix is homophonous with the fractional suffix (see section 2.6.1.2.1). The partitive-like suffix is used to mark that the individual or group under discussion is a member of a larger group known from or identifiable in the context, as has uses beyond the domain of ordinal numerals, too. Some examples are given in (1222).

- (1222) ● Other uses of the partitive-like suffix *-ik*
- a. egy-ik-ük  
 one-Ptv-Poss.3Pl  
 ‘one of them’

- b. a más-ik  
the other-Ptv  
'the other one'
- c. mind-egy-ik, némely-ik  
each-one-Ptv some-Ptv  
'each and every one, some of'
- d. a nagyobb-ik  
the bigger-Ptv  
'the bigger one'

The ordinals 'first' and 'second' have suppletive forms (1223a,a'). The suppletive form of 'first' involves partial suppletion. The suppletive form of 'second' involves complete suppletion: 'second' involves the stem *más* 'other' followed by the ordinalizer and the partitive-like *-ik* suffix. In complex ordinals 'first' and 'second' are regularized (1223b,c).

(1223) ● 'First' and 'second' in simple and complex ordinals

- a. \*egy-ed-ik, \*kett-ed-ik  
one-Ord-Ptv two-Ord-Ptv
- a'. első, más-od-ik  
first other-Ord-Ptv  
'first, second'
- b. \*tiz-en-első, \*huszon-első  
ten-ty-first twenty-first
- b'. tiz-en-egy-ed-ik, huszon-egy-ed-ik  
ten-ty-one-Ord-Ptv twenty-one-Ord-Ptv  
'eleventh, twenty-first'
- c. \*tiz-en-második, \*huszon-második  
ten-ty-second twenty-second
- c'. tiz-en-kett-ed-ik, huszon-kett-ed-ik  
ten-ty-two-Ord-Ptv twenty-two-Ord-Ptv  
'twelfth, twenty-second'

### 2.6.1.3.2. *Semantics*

Ordinal numerals can only be used as nominal modifiers when we are dealing with an ordered set of entities, and the numeral is used in order to identify the intended referent from that set. In the majority of cases the ordinal numeral requires a definite determiner to be present, since it picks out an entity from a known set (1224).

- (1224) \*(az) ötödik versenyző  
the fifth contestant  
'the fifth contestant'

There are also some sporadic contexts in which no article is required to the left of the ordinal numeral. Such examples seem restricted to more or less "telegraphic" registers (1225).

- (1225) Harmadik pont: az egyesület tavalyi mérlegének ismertetése.  
 third point the association last.year.Attr balance.Poss.Dat review.Poss  
 ‘Third point (on the agenda): review of the association’s balance from last year.’

In many cases, it is implicitly clear what the principles underlying the ordering are. In (1226a), for instance, the ordering is temporal. When it is not unambiguously clear where the listener must start counting, this can be made explicit by means of a modifier (1226b).

- (1226) a. Az első magyar könyv Szent Ferencről szól.  
 the first Hungarian book saint Francis.Del be.about.Past.3Sg  
 ‘The first Hungarian book was about St. Francis (of Assisi).’  
 b. Balról az első könyv Szent Ferencről szól.  
 left.Del the first book saint Francis.Del be.about.3Sg  
 ‘The first book from the left is about St. Francis (of Assisi).’

### 2.6.1.3.3. *The position of the ordinal numeral within the noun phrase*

Subsection 2.6.1.1.3.3 has shown that cardinal numerals are generated in the position NUM (1227a), which accounts for the fact that these numerals follow determiners but precede the nominal head and its attributive modifiers (1227b).

- (1227) a. [DP D [NUMP NUM [NP N ]]]  
 b. Az igazgató jóváhagyta a négy új javaslatot.  
 the director approve.of.Past.3Sg the four new proposal.Acc  
 ‘The director approved of the four new proposals.’

Ordinal numerals normally occupy this position as well (1228).

- (1228) Az igazgató jóváhagyta a negyedik új javaslatot.  
 the director approve.of.Past.3Sg the fourth new proposal.Acc  
 ‘The director approved of the fourth new proposal.’

Normally speaking, the ordinal and cardinal numerals are in complementary distribution, which suggests that the two compete for the same position NUM. An exception must, of course, be made for those cases where the ordinal numeral and the noun constitute a lexical unit. In those cases, the lexicalized form can be preceded by a cardinal numeral (1229).

- (1229) a két [első hegedűs]  
 the two first violinist  
 ‘the two leading violinists’

Another exception is when the ordinal and the cardinal make up a complex modifier, which picks out e.g. the first/last two/three/four/five etc. candidates in an ordered set (1230). Apart from *első* ‘first’ and *második* ‘second’, other ordinals are possible, too. A *harmadik öt randevű* ‘the third five dates’, for instance, can be felicitously used if somebody buys several packages of speed dates, such that each package contains five dates. A *harmadik öt randevű* ‘the third five dates’ can then

refer to the five dates in the third package. In these cases the ordinal precedes the cardinal numeral.

- (1230) az [első / utolsó / harmadik öt] randevú  
 the first / last / third five date  
 ‘the first / last / third five dates’

Yet another exception is when there are multiple ordered sets, and the cardinal picks out the first/second/third etc. member of each ordered set. In these cases the cardinal precedes the ordinal (1231). In (1231) one had a series of dates with several people, and the first/last/third dates are picked from the series of dates with each person.

- (1231) az öt első / utolsó / harmadik randevú  
 the five first / last / third date  
 ‘the five first / last / third dates’

Like cardinals, ordinal numerals can also co-occur with quantifiers (1232a), and when they do so, they invariably follow quantifiers (1232b). The position of quantifiers in the noun phrase will be taken up in detail in subsection 2.6.2.1.

- (1232) a. Minden / sok első randevú rosszul sikerül.  
 every / many first date badly go.3Sg  
 ‘Every / many first dates were unsuccessful.’  
 b. \*első sok / minden randevú  
 first many / every date

#### 2.6.1.3.4. *Special cases*

##### 2.6.1.3.4.1. Co-occurrence with the plural marker

In noun phrases containing an ordinal numeral, the noun may bear the plural marker if the ordinal is *első* ‘first’, or the general ordinal *utolsó* ‘last’ (1233a,b). The Hungarian equivalent of the set expression ‘the end of days’ features the general ordinal *utolsó* ‘last’, and it requires the plural marking on the noun (1233c).

- (1233) a. Az első könyv-ek nagy gonddal készültek.  
 the first book-Pl great care.Ins prepare.Past.3Pl  
 ‘The first books were made with great care.’  
 b. Az utolsó könyv-ek-et féláron adjuk.  
 the last book-Pl-Acc half.price.Sup give.1Pl  
 ‘We are selling the last books at half-price.’  
 c. az utolsó idő\*(-k)  
 the last time-Pl  
 ‘the end of days’

When used predicatively, the ordinal itself may also be plural marked (1234).

- (1234) Ili és Imi holtversenyben első-k / második-ak / harmadik-ak lettek.  
 Ili and Imi tie.Ine first-Pl / second-Pl / third-Pl be.Past.3Pl  
 ‘Ili and Imi came in a tie at the first / second / third place.’

## 2.6.1.3.4.2. Dates and days of the month

Dates begin with the year and end with the day (1235). The orthographic convention requires a dot after the year, the month (if written with a number rather than with letters) as well as the day.

- (1235) a. 1686. szeptember 2.  
 1686 September 2  
 ‘September 2, 1686’  
 b. 1686. 09. 2.  
 ‘September 2, 1686’

Morphologically, the day of the month is an ordinal numeral bearing the possessive suffix (1236) (compare English ‘the first of May’). Note that the last vowel of *első* ‘first’ changes to *e* if it is followed by the possessive suffix: the possessive form of ‘first’ is *elseje* rather than \**elsője*.

- (1236) március else-je / második-a / tizenegyedik-e / huszonkettedik-e  
 March first-Poss / second-Poss / eleventh-Poss / twenty.second-Poss  
 ‘the first / second / eleventh / twenty-second of March’

## 2.6.1.3.4.3. Adjectives derived from ordinals

Ordinals, like cardinals, can bear the adjectivalizing suffix *-(V)s* (roughly equivalent to English *-ed*). The adjectives formed this way mean ‘Xth grader’ (1237).

- (1237) a. első-s, második-os, harmadik-os, tizenegyedik-es  
 first-ed second-ed third-ed eleven-ed  
 ‘first grader, second grader, third grader, eleventh grader’  
 b. Kata második-os.  
 Kata second-ed  
 ‘Kata is a second grader.’

2.6.1.3.4.4. Ordinals without the partitive-like *-ik* suffix

In some cases the ordinal appears without the partitive-like *-ik* suffix. This happens, for instance, when the ordinal takes the multiplicative suffix *-szVr*, yielding the meaning ‘for the Xth time’ (1238). Note that when the suppletive form *első* ‘first’ combines with the multiplicative suffix, the *s* is obligatorily dropped from the ordinal: *először* rather than \**elsőször*.

- (1238) ● Cardinals with the multiplicative suffix  
 elő-ször, más-od-szor, öt-öd-ször, hat-od-szor  
 first-Mult other-Ord-Mult five-Ord-Mult six-Ord-Mult  
 ‘for the first / second / fifth / sixth time’

The same meaning, ‘for the Xth time’, can be expressed in two other ways as well: (i) by placing the multiplicative suffix and the Sublative suffix on the ordinal

(1239a), and (ii) by putting the possessive suffix and the Sublative suffix on the ordinal (1239b).

- (1239) a. nyolc-ad-szor-ra  
 eight-Ord-Mult-Sub  
 ‘for the eighth time’  
 b. nyolc-ad-já-ra  
 eight-Ord-Poss-Sub  
 ‘for the eighth time’

Ordinals followed by [*maga* ‘self’ + possessive suffix + Instrumental case] mean that X did something together with a number of other people, where the total number of people involved in the event is given by the numeral that forms the basis of the fraction (1240). The *-ik* suffix is obligatorily missing in this case, too.

- (1240) harm-ad-maga-m-mal, öt-öd-maga-d-dal  
 three-Ord-self-Poss.1Sg-Ins five-Ord-self-Poss.2Sg-Ins  
 ‘me and / with two others, you and / with four others’

Ordinals also appear without *-ik* when they function as the first part of a compound (1241).

- (1241) • Cardinals in compounds  
 másod-virágzás, másod-év-es tanuló, másod-rend-ű vádlott,  
 second-bloom second-year-ed student third-order-Attr defendant  
 harmad-osztály-ú áru  
 third-class-Attr goods  
 ‘second growth, [second grader] / [second year student], second defendant, third rate goods’

Such a compound form is also found in the Apostles’ Creed (1242):

- (1242) Harm-ad-nap-ra feltámadt.  
 three-Ord-day-Sub resurrect.Past.3Sg  
 ‘On the third day he rose again from the dead.’

Note that the compound ‘(on) the next day’ has no ordinal suffix either:

- (1243) Más-nap hazamentünk.  
 other-day home.go.Past.1Pl  
 ‘On the next day we went home.’

### 2.6.2. *Quantifiers*

This subsection discusses quantifiers like *minden* ‘every’, *néhány* ‘a few’, *sok* ‘many/much’, *kevés* ‘few/little’. We will begin in subsection 2.6.2.1 with a discussion of some more general properties of, and notions related to these quantifiers. Subsection 2.6.2.2 discusses universal quantifiers in more detail, while 2.6.2.3 discusses existential quantifiers. Subsubsection 2.6.2.4 addresses the behavior of degree modifiers. In subsection 2.6.2.5 we address floating quantifier-like structures, while in subsection 2.6.2.6 we discuss the modification of



quantificational structures. The discussion in this subsection draws on Csirmaz and Szabolcsi (2012); the reader is encouraged to consult that paper for more details.

### 2.6.2.1. Introduction

Hungarian has various forms of both existential and universal quantifiers.

#### I. Core semantics

##### A. Existential quantifiers

Existential quantifiers are illustrated below. The numeral *egy* ‘one’ also functions as an indefinite determiner when not stressed; this is shown in (1244).

- (1244) *egy alma* / \**homok*  
 one apple / sand  
 ‘an apple / sand’

Except for *egy* ‘one’, quantifiers in general can appear with both count and mass nouns. The nouns *alma* ‘apple’ and *homok* ‘sand’ are representative of these two kinds of nouns. The quantifiers *valamennyi* and *valahány* can have both an existential and a universal interpretation (the two readings are disambiguated by stress (ˈ): on the universal interpretation these quantifiers bear salient stress). On the existential reading, they are interpreted as ‘some, a smallish number / amount of’. *Valamennyi*, which comprises an existential morpheme, *vala* ‘some’ and the ‘wh’-word *mennyi* ‘how many/much’, may appear both with count and mass nouns (1245a). In this respect, it is similar to *mennyi* (1245a’). *Valahány*, which comprises an existential morpheme, *vala* ‘some’, and the ‘wh’-word *hány* ‘how many’, can only appear with count nouns (1245b). In this respect, it is similar to *hány* (1245b’).

- (1245) ● Some existential quantifiers
- a. *valamennyi alma* / *homok*  
 some apple / sand  
 ‘some apples / sand’
- a’. *mennyi alma* / *homok*  
 how.many apple / sand  
 ‘[how many apples] / [how much sand]’
- b. *valahány alma* / \**homok*  
 some apple / sand  
 ‘some apples / sand’
- b’. *hány alma* / \**homok*  
 how.many apple / sand  
 ‘[how many apples] / [how much sand]’

A number of different quantifiers with an indefinite interpretation require semantic plurality. This is consistent with the fact that they cannot appear with mass nouns (1246).

- (1246) a. *néhány* / *pár alma*  
 a\_few / couple apple  
 ‘a few / [a couple of] apples’

- b. \*néhány homok, \*pár homok  
 a\_few sand couple sand  
 Intended meaning: 'a few sand, a couple of sand'

### B. Negative quantifiers

Negative quantifiers are negative concord items. All of them comprise the morpheme *se-* 'no, none' and a 'wh'-word. *Sehány* 'not any number of' contains the 'wh'-word *hány* 'how many', and like *hány*, it appears with count nouns (1247a). *Semennyi* 'not any amount of' contains the 'wh'-word *mennyi* 'how many/much', and like *mennyi*, it can quantify both count and mass nouns (1247b). *Semmi* 'not any amount of' contains the 'wh'-word *mi* 'what'. This quantifier is compatible only with mass nouns (1247c). These quantifiers are illustrated below.

- (1247) ● Some negative quantifiers
- a. *se-hány alma / \*homok*  
 se-how.many apple / sand  
 'no apples / no sand'
- b. *se-mennyi alma / homok*  
 se-how.many apple / sand  
 'no apples / no sand'
- c. *sem-mi \*alma / homok*  
 se-what apple / sand  
 'no apples / no sand'

### C. Universal quantifiers

Hungarian has a variety of universal quantifiers (1248). Some of these can generally appear only with count nouns, while others are compatible with both count and mass nouns. Note that, as already mentioned above, the quantifiers *valamennyi* and *valahány* have both a universal and an existential reading. On the former reading they must be stressed (ˈ), and have the interpretation 'every' and 'every single' respectively.

- (1248) ● Some universal quantifiers
- a. *minden / mindegyik alma*  
 every / each apple  
 'every / each apple'
- a'. \**minden / \*mindegyik homok*  
 every / each sand
- b. *'valahány / [az összes] alma*  
 every\_single / the all apple  
 '[every single apple] / [all (the) apples]'
- b'. \**'valahány homok, az összes homok*  
 every\_single sand the all sand  
 'every single sand, all the sand'

- c. 'valamennyi alma / \*homok  
 every apple / sand  
 'every apple / sand'

The quantifier *mind* 'all' occurs in a variety of morpho-syntactic constructions which do not have a unitary analysis in the literature and do not have literal equivalents in English. While acknowledging the special status of *mind*, we gloss it as 'all' in all the environments it occurs in. *Mind* is in complementary distribution with *minden* 'every'. *Minden* appears in nominal expressions only (1249).

- (1249) minden kutya  
 every dog  
 'every dog'

*Mind* 'all' appears as a predicative element in (1250a). It can also immediately precede a definite DP (1250b). In the latter case, the DP must contain a numeral or certain universal quantifiers. Unlike other quantifiers, *mind* cannot precede a bare noun (1250c).

- (1250) a. Az almát tegnap mind megettem.  
 the apple.Acc yesterday all perf.eat.Past.1Sg  
 'As for the apples, I ate all of them yesterday.'
- b. mind [az összes] / [a húsz] / [a két] diák  
 all the all / the twenty / the two student  
 '[all the students] / [all the twenty students] / [both of the two] students'
- b'. \*mind a kevés / sok / legtöbb / egy diák  
 all the few / many / most / one student  
 Intended meaning: 'all the few / many / most / one student(s)'
- c. \*mind kutya  
 all dog  
 Intended meaning: 'all dogs'

While generally *mind* 'all' and *minden* 'every' are not acceptable with mass nouns, they can occasionally co-occur with mass nouns (1251). In this case the noun has a 'kind' or 'portion' reading.

- (1251) a. Minden hús büdös.  
 every meat smelly  
 'Every kind of meat is smelly. / Every portion of meat in the context is smelly.'
- a'. A hús ebben a boltban mind büdös.  
 the meat this.Ine the shop.Ine all smelly  
 'All meat in this shop is smelly.'
- b. Minden hús szép.  
 every meat nice  
 'Every kind of meat is nice. / Every portion of meat in the context is nice.'
- b'. A hús ebben a boltban mind szép.  
 the meat this.Ine the shop.Ine all nice  
 'All the meat in this shop is nice.'

We note here that *mind* ‘all’ is also used as a conjunction (see Szabolcsi 2010, 2015), while such a use is not possible for *minden* ‘every’. (1252) shows that when used as a conjunction, *mind* appears in front of all conjuncts, and it is not possible to replace it with *és* ‘and’ in front of the second (or other further) conjuncts. *Mind*-conjunction is used only with definite DPs, and mostly when only two conjuncts are involved (such conjunctions are best rendered in English with *both*), but a higher number of conjuncts is also possible.

- (1252) ● *Mind* as a conjunction
- a. *Mind* Feri, *mind* Mari olvasott.  
 all Feri all Mari read.Past.3Sg  
 ‘Both Feri and Mari were reading.’
- a’. \*(*Mind*) Feri, *mind* Mari olvasott.  
 all Feri all Mari read.Past.3Sg  
 ‘Both Feri and Mari were reading.’
- a’’. *Mind* Feri, \*(*mind*) Mari olvasott.  
 all Feri all Mari read.Past.3Sg  
 ‘Both Feri and Mari were reading.’
- b. \**Mind* Feri és Mari olvasott.  
 all Feri and Mari read.Past.3Sg  
 Intended meaning: ‘Both Feri and Mari were reading.’

## II. Strong and weak quantifiers

By using the terms “weak / strong” for quantifiers, we assume that the distinction is a semantic one. The semantic properties of weak quantifiers correlate with their acceptability in *there*-sentences in English, and those of strong quantifiers correlate with their ungrammaticality in these sentences. Specifically, we assume, following Keenan (1987), that weak quantifiers are symmetric and strong quantifiers are non-symmetric. As relevant for the strong / weak distinction, a quantifier is symmetric if and only if given two arguments of the quantifier A and B, and an existential argument E which appears in presentational sentences,  $Q(A,B)$  is equivalent to  $Q(E, A \cap B)$ . In (1253a), A is ‘cat’ and B is ‘in the garden’; the semantic structure can be represented as  $\text{some}(\text{cat}, \text{in-the-garden})$ . The structure in (1253b) is  $\text{some}(E, \text{cat} \cap \text{in-the-garden})$ .

- (1253) a. Some cat is in the garden.  
 b. There is some cat in the garden.

Keenan (1987) argues that, among others, the sentences in (1254a) are equivalent while those in (1254b) are not.

- (1254) a. Some cat is in the garden  $\leftrightarrow$  There is some cat in the garden.  
 b. Every cat is in the garden  $\leftarrow/\rightarrow$  There is every cat in the garden.

In this light, the relevant generalizations are as follows: all existential quantifiers and numerals are weak (since they are symmetric) and all universal quantifiers are strong, because they are non-symmetric.

Given the examples above, it appears that Hungarian allows only weak quantifiers in presentational sentences, while strong quantifiers are banned in these constructions. In other words, Hungarian presentational sentences appear to pattern with *there*-sentences in English. However, we will show below that only a subset of weak quantifiers can appear in Hungarian presentational sentences; a fact for which we offer no explanation here.

In Hungarian, presentational sentences distinguish strong and weak quantifiers, as expected. First, note that the novel quantifiers discussed in this subsection can also appear with both count and mass nouns (1255).

- (1255) a. sok / kevés / elég alma  
 many / few / enough apple  
 'many / few / enough apples'
- a'. sok / kevés / elég homok  
 many / few / enough sand  
 'many / few / enough sand'
- b. a legtöbb alma / homok  
 the most apple / sand  
 'most apples / sand'

Only weak quantifiers can appear in presentational sentences. These involve a verb-initial clause, as shown below.

- (1256) ● Weak quantifiers in presentational sentences
- a. Volt egy pár / kevés (szem) dió a polcon. [weak]  
 was a couple / few CLeye walnut the shelf.Sup  
 'There were a couple / few walnuts on the shelf.'
- b. Volt egy / elég dió a polcon. [weak]  
 was a / enough walnut the shelf.Sup  
 'There was [a walnut] / [enough walnuts] on the shelf.'
- c. \*Volt minden / [a legtöbb] dió a polcon. [strong]  
 was every / the most walnut the shelf.Sup  
 'There was every / [the most] walnuts of the shelf.'

Note that not all nominals with weak quantifiers can appear in these structures. The value judgment quantifier *kevés* 'few' can only appear in these structures if it co-occurs with the numeral *egy* 'one' (1257). This is related, we assume, to the fact that normally *kevés* without *egy* cannot occur postverbally (unless the clause contains focus or negation).

- (1257) a. Volt \*(egy) kevés dió a polcon.  
 was a few walnut the shelf.Sup  
 'There were a few walnuts on the shelf.'

- b. Feri olvasott \*(egy) kevés könyvet.  
 Feri read.Past.3Sg a few book.Acc  
 'Feri has read a few books.'

In addition, *sok* 'many' is ungrammatical in presentational sentences unless the verb is focused, as indicated by capitalization (1258a). As before, *sok* is ungrammatical if it is postverbal (1258b).

- (1258) a. VOLT / \*VOLT sok dió a polcon.  
 WAS / was many walnut the shelf.Sup  
 'There WERE many walnuts on the shelf.'
- b. \*Feri olvasott sok könyvet.  
 Feri read.Past.3Sg many book.Acc  
 Intended meaning: 'Feri has read many books.'

The string in (1258a) is possible without focus on the copula only in the context of enumeration and with stress on all major constituents, as shown in (1259).

- (1259) Beléptünk a kamrába. 'VOLT sok 'dió a 'polcon, a 'sarokban  
 enter.Past.1Pl the pantry.Ill was many walnut the shelf.Sup the corner.Ine  
 néhány 'alma, és még 'lekvárt is 'találtunk.  
 some apple and even jam too find.Past.1Pl  
 'We entered the pantry. There were many walnuts on the shelf, there were some apples in the corner, and we even found some jam.'

*Sok* 'many' and *kevés* 'few' are not entirely parallel. Even if the verb is focused, *kevés* on its own remains ungrammatical (1260). We merely note these additional restrictions on weak quantifiers, but present no account of the facts.

- (1260) a. \*VOLT kevés dió a polcon.  
 WAS few walnut the shelf.Sup  
 Intended meaning: 'There WERE a few walnuts on the shelf.'
- b. VOLT egy kevés dió a polcon.  
 WAS a few walnut the shelf.Sup  
 'There WERE some walnuts on the shelf.'

### III. *Quantifiers as modifiers and elsewhere*

It was noted above that the universal quantifiers *mind* 'all' and *minden* 'every' are in complementary distribution. Let us consider the environments where *mind* can appear by comparing it to the other quantifiers.

With the exception of *mind*, predicative quantifiers must have the collective suffix *-Vn*, which is also required for the collective form of cardinals (see subsection 2.6.1.1.5.4). These quantifiers will be labeled adverbial quantifiers below. Most quantifiers have an adverbial counterpart (i.e. most quantifiers can take the collective suffix), but their distributions are different, as the following examples show.

- (1261) a. A diákok tegnap keves-en / sok-an / elég-en mentek (el) a  
 the student.Pl yesterday few-Coll / many-Coll / enough-Coll go.Past.3Pl away the  
 tüntetésre.  
 demonstration.Sub  
 ‘Yesterday few / many / enough students went to the demonstration.’
- b. A diákok tegnap sok-an elmentek a tüntetésre.  
 the student.Pl yesterday many-Coll away.go.Past.3Pl the demonstration.Sub  
 ‘Yesterday many students went to the demonstration.’
- b’. \*A diákok tegnap keves-en / elég-en elmentek a  
 the student.Pl yesterday few-Coll / enough-Coll away.go.Past.3Pl the  
 tüntetésre.  
 demonstration.Sub  
 Intended meaning: ‘Yesterday few/ enough students went to the demonstration.’
- c. A diákok tegnap mind / [a legtöbb-en] / 'valamennyi-en / pár-an  
 the student.Pl yesterday all / the most-Coll / every-Coll / couple-Coll  
 \*(el)mentek a tüntetésre.  
 away.go.Past.3Pl the demonstration.Sub  
 ‘Yesterday [all students] / [most students] / [every student] / [a couple of students] went to  
 the demonstration.’

Strong quantifiers must precede the particle and the verb (1261c). The ungrammaticality of some quantifiers in (1261b’) correlates with the fact that nominals with these quantifiers must immediately precede the verb (1262):

- (1262) a. Sok diák elment a tüntetésre  
 many student away.go.Past.3Sg the demonstration.Sub  
 ‘Many students went to the demonstration.’
- b. \*[Kevés diák] / \*[Elég diák] elment a tüntetésre.  
 few student / enough student away.go.Past.3Sg the demonstration.Sub  
 Intended meaning: ‘Few / enough students went to the demonstration.’

Some of the quantifiers lack an adverbial counterpart (i.e. they cannot take the collective suffix, see (1263)).

- (1263) A diákok \*összes-en / ??valahány-an elmentek a  
 the student.Pl altogether-Coll / some-Coll away.go.Past.3Sg the  
 tüntetésre.  
 demonstration.Sub  
 ‘All / some of the students went to the demonstration.’

It should be noted that the nominal associated with the adverbial quantifier must modify the subject. This observation holds for all adverbial quantifiers except for *mind* ‘all’.

- (1264) a. A rölapokat mind elolvastam.  
 the flyer.Pl.Acc all away.read.Past.1Sg  
 ‘As for the flyers, I have read all of them.’

- b. \*A röplapokat sok-an / eleg-en / [a legtöbb-en] elolvastam.  
 the flyer.Pl.Acc many-Coll / enough-Coll / the most-Coll away.read.Past.1Sg  
 Intended meaning: ‘As for the flyers, I have read many / enough / [the most] of them.’

In addition to adverbial quantifiers, quantifiers with overt case marking can also form a constituent distinct from the nominal they are associated with. Consider first examples where the quantifier is associated with an object (1265). The object must be a bare nominal, without an overt determiner or plural marker (1265a). The quantifier associated with the nominal can only be weak. *Valamennyi* appears in both (1265b) and (1265c); it is grammatical with an existential interpretation ‘some’ and ungrammatical with a universal interpretation ‘every’, as expected.

- (1265) a. Röplapot sokat elolvastam.  
 flyer.Acc many.Acc away.read.Past.1Sg  
 ‘I have read many flyers.’
- a’. \*[A röplap-ok-at] / \*[A röplap-ot] sokat elolvastam.  
 the flyer-Pl-Acc / the flyer.Acc many-Acc away.read.Past.1Sg  
 Intended meaning: ‘I have read many flyers.’
- b. Röplapot sokat / eleget / keveset / valamennyit olvastam.  
 flyer.Acc many.Acc / enough.Acc / few.Acc / some.Acc read.Past.1Sg  
 ‘I have read many / enough / few / some flyers.’
- c. \*Röplapot mind / [a legtöbbet] / 'valamennyit olvastam.  
 flyer.Acc all / the most.Acc / every.Acc read.Past.1Sg  
 Intended meaning: ‘I have read all / [the most] / all flyers.’
- d. A röplapokat mind(et) / \*[a legtöbbet] elolvastam.  
 the flyer.Pl.Acc all(Acc) / the most.Acc away.read.Past.1Sg  
 ‘I have read all / most flyers.’

Floating quantifier-like structures will be discussed in more detail in subsection 2.6.2.5.

### 2.6.2.2. *Universal quantifiers*

This subsection discusses universal quantifiers. We will start in subsection 2.6.2.2.1 with their use as modifiers of the noun phrase. After that, we will examine their use as arguments in subsection 2.6.2.2.2.

#### 2.6.2.2.1. *Use as modifier*

The universal quantifiers shown in subsection 2.6.2.1 can all modify nominals, except for *mind* ‘all’ and *mindenki* ‘everybody’ (1266). Note that just like with numerals, the noun has no plural marking when it appears with universal quantifiers.

- (1266) a. minden / [az összes] / 'valamennyi / 'valahány / mindegyik diák  
 every / [the all] / every / every\_single / each student  
 ‘[every student] / [all students]’
- b. \*mindenki diák, \*mind diák  
 everybody student all student



Remark 34. In very few set expressions that contain no overt noun, *minden* 'every' obligatorily bears the plural marker (i). The form in (i.c) was used in earlier stages of the language but is not part of the contemporary language any more.

- (i) a. minden-ek felett  
every-Pl above  
'above all'
- b. minden-ek előtt  
every-Pl in.front.of  
'above all'
- c. \$minden-ek  
every-Pl  
'everything / everybody'

### *I. Distributive and collective interpretation*

All of the universal quantifiers that can modify nominals allow a distributive interpretation (1267a). A collective interpretation is only available with some quantifiers (1267b, c).

- (1267) a. Minden / [az összes] / 'valamennyi' / 'valahány' / mindegyik diák  
every / [the all] / every / every\_single / each student  
megette az ebédet.  
perf.eat.Past.3Sg the lunch.Acc  
'[Every student] / [all students] / [each student] ate up the lunch.'
- b. Minden / az összes / 'valamennyi' diák összegyűlt a  
every / the all / every student together.gather.Past.3Sg the  
téren.  
square-Sup  
'[Every student] / [all students] gathered on the square.'
- b'. \*Valahány / \*Mindegyik diák összegyűlt a téren.  
every\_single / each student together.gather.Past.3Sg the square-Sup  
Intended meaning: 'Every / each student gathered on the square.'
- c. Minden / [az összes] / 'valamennyi' diák összeverekedett.  
every / [the all] / every student together.fight.Past.3Sg  
'[Every student] / [all students] got into a fight (with each other).'
- c'. \*Valahány / \*Mindegyik diák összeverekedett.  
every\_single / each student together.fight.Past.3Sg  
Intended meaning: 'Every / each student got into a fight (with each other).'

### *II. Distributivity and cumulativity*

Universal quantifiers show heterogeneous behavior with respect to the availability of a cumulative interpretation. A distributive interpretation is available universally. No cumulative interpretation is available for *mindegyik* 'each' and for the adverbial *mind* 'all'. For the other universal quantifiers, a cumulative interpretation is available. However, in general it is available if the quantifier has a left dislocation interpretation.

- (1268) a. [Az összes] / 'Valamennyi / Minden könyv 5000 forintba kerül.  
 the all / every / every book 5000 HUF.III cost.3Sg  
 '[All books] / [every book] costs HUF 5000.' [distributive, cumulative]
- b. Mindegyik / minden könyv 5000 forintba kerül.  
 each / every book 5000 HUF.III cost.3Sg  
 'Each / every book costs HUF 5000. [distributive, %cumulative]
- c. A könyvek mind 5000 forintba kerülnek.  
 the book.PI all 5000 HUF.III cost.3PI  
 'The books all cost HUF 5000.' [distributive, \*cumulative]

If the quantificational expression is postverbal, then both the distributive and the cumulative interpretations are available with a neutral intonation; no left dislocation is necessary for cumulativity (1269a,c). As before, *mindegyik* 'each' and adverbial *mind* 'all' only permit a distributive interpretation (1269b,d).

- (1269) a. 5000 forintba kerül [az összes] / 'valamennyi/ minden könyv.  
 5000 HUF.III cost.3Sg the all / every / every book  
 '[All books cost] / [every book costs] HUF 5000.' [distributive, cumulative]
- b. 5000 forintba kerül mindegyik könyv.  
 5000 HUF.III cost.3Sg each book  
 'Each book costs HUF 5000.' [distributive, %cumulative]
- c. ??5000 forintba kerül 'valahány könyv.  
 5000 HUF.III cost.3Sg every\_single book  
 'Every (single) book costs HUF 5000.'
- d. 5000 forintba kerülnek a könyvek mind.  
 5000 HUF.III cost.3PI the book.PI all  
 'All the books cost HUF 5000.' [distributive, \*cumulative]

The cumulative and distributive interpretations can be enforced by certain adverbial elements. These are illustrated in (1270).

- (1270) a. A könyvek összesen / együtt / együttesen / cakumpakk / cuzammen  
 the book.PI altogether / together / collectively / in.all / altogether  
 5000 forintba kerülnek.  
 5000 HUF.III cost.3PI  
 'The books altogether / together / collectively / [in all] /altogether cost HUF 5000.' [cumulative]
- b. A könyvek egyenként / külön-külön / darabonként 5000 forintba  
 the book.PI one.by.one / separate-separate / piece.Dist 5000 HUF.III  
 kerülnek.  
 cost.3PI  
 'The books cost HUF 5000 each.' [distributive]

As expected, enforcing a distributive reading with universal quantifiers is grammatical (1271c). Forcing a cumulative interpretation with the quantifiers shown in (1271a) is also grammatical. While the cumulative reading is marked with *mindegyik* 'each', as in (1271b), the sentence is judged better if *mindegyik* has a salient stress.

- (1271) a. 5000 forintba kerül együtt [az összes] / 'valamennyi/ minden könyv.  
 5000 HUF.III cost.3Sg together the all / every / every book  
 '[All books] / [Every book] together cost(s) HUF 5000.'
- b. <sup>??</sup>5000 forintba kerül együtt mindegyik könyv.  
 5000 HUF.III cost.3Sg together each book.  
 'All books together cost HUF 5000.'
- c. 5000 forintba kerül külön-külön [az összes] / 'valamennyi / minden /  
 5000 HUF.III cost.3Sg separate-separate the all / every / every /  
 mindegyik könyv.  
 each book  
 'The books cost HUF 5000 each.'

### III. Predicative use

The predicative use of quantifiers in isolation was illustrated above. Of the universal quantifiers, only *minden* 'every' is excluded, as was noted earlier (1272b). Examples like (1272) will be taken up in detail in subsection 2.6.2.5.

- (1272) a. Az almát mind(et) / [az összeset] / 'valamennyit / mindegyiket  
 the apple.Acc all(Acc) / the all.Acc / every.Acc / each.Acc  
 megettem.  
 perf.eat.Past.1Sg  
 'I have eaten [all the apples] / [every apple] / [each apple].'
- b. Az almát <sup>??</sup>valahányat / \*mindent megettem.  
 the apple.Acc every\_single.Acc / every.Acc perf.eat.Past.1Sg  
 'I have eaten every apple.'

When the quantifier appears with a noun, most universal quantifiers are acceptable (1273a). *Mind* 'all' is ungrammatical, as is generally true for the modifier usage of the quantifier. *Mindegyik* 'each' is also ungrammatical, which is expected, since the example forces a cumulative interpretation and *mindegyik* allows only a distributive one (1273b).

- (1273) a. Ez a négy lány [az összes] / minden / 'valamennyi/ <sup>?</sup>valahány  
 this the four girl the all / every / every / every\_single  
 diákom.  
 student.Poss.1Sg  
 'These four girls are all the students I have.'
- b. \*Ez a négy lány mindegyik / mind diákom.  
 this the four girl each / every student.Poss.1Sg  
 Intended meaning: 'These four girls are all the students I have.'

### IV. Co-occurrence with numerals

Some universal quantifiers can co-occur with an ordinal numeral (1274). Only *minden* 'every' is clearly grammatical (1274a); other quantifiers have a marginal or clearly ungrammatical status.

- (1274) ● Universal quantifiers with a numeral: single series reading
- a. Minden ötvenedik rabot elengedték a rendőrök.  
 every fiftieth prisoner.Acc let.go.Past.3PI the policeman.Pl  
 ‘The police let every 50th prisoner go.’
- b. \*Valamennyi / \*Valahány / \*Mindegyik / \*[Az összes] / \*Mind  
 every / every\_single / each / [the all] / all  
 ötvenedik rabot elengedték a rendőrök.  
 fiftieth prisoner.Acc let.go.Past.3PI the policeman.Pl  
 Intended meaning: ‘The police let every 50th prisoner go.’

The judgments shown in (1274) reflect a single series where every 50<sup>th</sup> prisoner in that series was freed. Thus potentially there are many prisoners freed from a single group; each 50<sup>th</sup> prisoner from that group was let go. Judgments are subtly different if there are multiple series. For example, there are different groups of prisoners. From each group, the 50<sup>th</sup> prisoner is let go (a single prisoner from each group). (1275) shows judgments for the multiple groups / series scenario.

- (1275) ● Universal quantifiers with a numeral: multiple series reading
- a. Minden / valamennyi / mindegyik / [az összes] ötvenedik rabot  
 every / every / each / [the all] fiftieth prisoner.Acc  
 elengedték a rendőrök.  
 let.go.Past.3PI the policeman.Pl  
 ‘The police let every 50th prisoner go.’
- b. \*Valahány / \*Mind ötvenedik rabot elengedték a rendőrök.  
 every\_single / all fiftieth prisoner.Acc let.go.Past.3PI the policeman.Pl  
 Intended meaning: ‘The police let every 50th prisoner go.’

Universal quantifiers can also co-occur with cardinal numerals. The specific structures may allow a different set of universal quantifiers, however, and the quantifiers themselves that are grammatical in these structures also vary.

If the cardinal *n* determines groups of *n* members, then only *minden* ‘every’ is grammatical, as shown in (1276). Visitors were escorted to the elevator in groups of ten.

- (1276) a. Minden tíz látogatót bekísértek a liftbe.  
 every ten visitor.Pl in.escort.Past.3PI the elevator.Ill  
 ‘They escorted all the visitors to the elevator in tens / [groups of ten].’
- b. \*Valamennyi / \*Valahány / \*Mindegyik / \*[Az összes] / \*Mind tíz  
 every / every\_single / every / the all / all ten  
 látogatót bekísértek a liftbe.  
 visitor.Pl.Acc in.escort.Past.3PI the elevator.Ill  
 Intended meaning: ‘They escorted [every visitor] / [all the visitors] into the elevator in tens / [groups of ten].’

If the universal quantifier precedes a definite determiner as well, as in (1277a), then there is a unique group of visitors and the numerosity of this group is specified by the cardinal. In (1277), there is a single group of ten visitors, who were escorted to the elevator.

- (1277) a. Mind a tíz látogatót bekísérték a liftbe.  
 all the ten visitor.Acc in.escort.Past.3Pl the elevator.Ill  
 'They escorted all 10 visitors into the elevator.'
- b. \*Minden / \*Valamennyi / \*Valahány / \*Mindegyik / \*[Az összes] (a)  
 every / every / every\_single / each / the all the  
 tíz látogatót bekísérték a liftbe.  
 ten visitor.Acc in.escort.Past.3Pl the elevator.Ill  
 Intended meaning: 'They escorted all 10 visitors into the elevator.'

The cardinal numeral can also appear with *összesen* 'altogether', the adverbial form of *összes* 'all'. According to (1278), there were altogether ten visitors. Note that *összesen* 'altogether' also enforces a cumulative interpretation, as noted above.

- (1278) Összesen tíz látogatót kísérték a liftbe.  
 altogether ten visitor.Acc escort.Past.3Pl the elevator.Ill  
 'They escorted altogether ten visitors into the elevator.'

Finally, *összesen* 'altogether' can also appear prefixed with *mind* 'all'. It suggests that the number specified, in (1279) 'ten', was lower than expected.

- (1279) Mind-összesen tíz látogatót kísérték a liftbe.  
 all-altogether ten visitor.Acc escort.Past.3Pl the elevator.Ill  
 'They escorted altogether (only) ten visitors into the elevator.'

#### V. *Generic use*

Universal quantifiers lack an unambiguously generic use. Definite singular and plural nominals as well as indefinite singulars have generic interpretation (1280). Indefinite generic expressions have a law-like interpretation, which definite generic expressions lack. Definite nominals also allow kind interpretations (1281).

- (1280) ● Generic use of definite nominals
- a. A zebra csíkos.  
 the zebra striped  
 'The zebra is striped.'
- a'. A brontoszaurusz leveleket eszik.  
 the brontosaurus leaf.Pl.Acc eat.3Sg  
 'The brontosaurus eats leaves.'
- b. A zebra-k csíkos-ak.  
 the zebra-Pl striped-Pl  
 'Zebras are striped.'
- b'. A brontoszaurusz-ok leveleket esz-nek.  
 the brontosaurus-Pl leaf.Pl.Acc eat-3Pl  
 'Bronatosauruses eat leaves.'
- c. Egy zebra csíkos.  
 a zebra striped  
 'A zebra is striped.'

- c'. Egy brontosaurusz leveleket eszik.  
 a brontosaurus leaf.Pl.Acc eat.3Sg  
 'A brontosaurus eats leaves.'

- (1281) ● Kind interpretations
- a. A dodó kihalt.  
 the dodo out.die.Past.3Sg  
 'The dodo died out.'
- b. A dodó-k kihalt-ak.  
 the dodo-Pl out.die.Past-3Pl  
 'Dodos died out.'
- c. \*Egy dodó kihalt.  
 a dodo out.die.Past.3Sg

As shown in (1282), indefinites cannot appear with stage-level predicates if the interpretation is generic: the asterisk here indicates that the string is ungrammatical on a generic interpretation.

- (1282) ● Stage-level predicates and generic interpretation
- a. A brontosaurusz buta.  
 the brontosaurus stupid  
 'The brontosaurus is stupid.'
- b. A brontosaurusz-ok butá-k.  
 the brontosaurus-Pl stupid-Pl  
 'Brontosauruses are stupid.'
- c. \*Egy brontosaurusz buta.  
 a brontosaurus stupid  
 Intended meaning: 'A brontosaurus is stupid.'

As noted above, universal quantifiers do not allow a generic interpretation. It should be noted that whenever the predicate allows (1283a) or requires (1283b) a kind interpretation, universally quantified nominals allow the noun to refer to subspecies rather than individuals belonging to the species. Thus the statement in (1283a) can refer to subspecies of dinosaurs and the one in (1283b) must do so.

- (1283) a. Minden / [az összes] / 'valamennyi' / 'valahány' / mindegyik  
 every / the all / every / every\_single / each  
 dinoszaurusz kihalt.  
 dinosaur out.die.Past.3Sg  
 '[Every (single) dinosaur] / [all dinosaurs] / [each dinosaur] died out.'
- b. Minden / [az összes] / 'valamennyi' / 'valahány' / mindegyik  
 every / the all / every / every\_single / each  
 dinoszaurusz több évezreden át élt ezen a területen.  
 dinosaur more millennium.Sup across live.Past.3Sg this.Sup the area.Sup  
 '[Every (single) dinosaur] / [all dinosaurs] / [each dinosaur] lived in this area for many millennia.'

VI. *Mass nouns*

Many quantifiers in Hungarian can appear with count and mass nouns alike. Ignoring abstract nouns for the time being, most universal quantifiers are grammatical with mass nouns (1284a).

- (1284) a. Minden / [az összes] / 'valamennyi vaj megolvadt.  
 every / the all / every butter perf.melt.Past.3Sg  
 'All the butter melted.'
- b. \*'Valahány vaj megolvadt.  
 every\_single butter perf.melt.Past.3Sg  
 Intended meaning: 'All the butter melted.'

The distributive *mindegyik* 'each' can also appear with mass nouns (1285). It does not quantify over an undifferentiated mass of butter (unlike the quantifiers in (1284a)), but over individual lumps, sticks, or perhaps types of butter. In this respect, *mindegyik* behaves similarly to quantifiers which require count nouns.

- (1285) Mindegyik vaj megolvadt.  
 each butter perf.melt.Past.3Sg  
 'Each lump of butter melted. (or: Every type of butter melted.)'

Let us turn to abstract nouns next. The judgments about these nouns seem to depend on how easily the referent can be individualized. For example, consider *szabadság* 'freedom'. If it is interpreted as the term describing a work holiday, then *szabadság* allows individualization, so it is grammatical with universal quantifiers. Note that the requirement of individualization of abstract nouns does not apply to concrete nouns such as *vaj* 'butter'; except for *mindegyik* 'each', universal quantifiers do not require individualization for the latter. We propose that unlike *szabadság* 'freedom', *nyomor* 'misery' is grammatical with some quantifiers because it allows individualization, with the interpretation of 'example / occurrence of misery' (compare (1286a) and (1286b)). We have no explanation for the ungrammaticality of the use of some universal quantifiers with *nyomor*, shown in (1286a').

- (1286) a. Minden / [az összes] / <sup>3</sup>valamennyi nyomor a kapitalisták  
 every / the all / every misery the capitalist.Pl  
 bűne.  
 sin.Poss.3Sg  
 'All the misery is the capitalists' doing.'
- a'. \*'Valahány / \*Mindegyik nyomor a kapitalisták bűne.  
 every\_single / each misery the capitalist.Pl sin.Poss.3Sg  
 Intended meaning: 'All the misery is the capitalists' doing.'
- b. \*Minden / [az összes] / \*valamennyi / \*valahány / \*mindegyik  
 every / the all / every / every\_single / each  
 szabadságért meg kell harcolni.  
 freedom.Cau perf must fight.Inf  
 Intended meaning: 'One must fight for all / every freedom.'

It should be noted that universal quantifiers do not require a mass interpretation for non-abstract mass nouns. They allow both a type and a portion interpretation, as shown in (1287). The quantifier quantifies over types and portions of the referent of the mass noun, respectively.

- (1287) Minden bor hideg / francia.  
 every wine cold / French  
 ‘Every wine is cold / French.’

### VII. Agreement

Some comments are in order with respect to agreement on the noun as well as on the verb. As is generally true, quantifiers with an overt nominal trigger singular agreement in Hungarian (1288).

- (1288) Minden / [az összes] / 'valamennyi / 'valahány / mindegyik diák  
 every / the all / every / every\_single / each student  
 elmenekült\*(-ek).  
 away.flee.Past-3PI  
 ‘[Every (single) student] / [all students] / [each student] fled.’

With *mind*, in contrast, the agreement is plural (1289).

- (1289) (A diákok) mind elmenekült\*(-ek).  
 the student.Pl all away.flee.Past-3PI  
 ‘(The students) all fled.’

A noun phrase that has no definite article but contains *minden* ‘every’ elicits indefinite agreement on the verb (1290a), while noun phrases that have no definite article and contain *mindegyik* ‘each’ or *valamennyi* ‘every’ elicit definite agreement on the verb (1290b). The quantifier *összes* ‘all’ is obligatorily preceded by the article, and so it also elicits definite agreement on the verb (1290b).

- (1290) ● Verbal agreement with some quantifiers
- a. Minden bombát megtaláltak.  
 every bomb.Acc perf.find.Past.3PI  
 ‘They found every bomb.’
  - b. Mindegyik / 'valamennyi / [az összes] bombát megtalálták.  
 each / every / the all bomb.Acc perf.find.Past.3PI.DefObj  
 ‘They found [each bomb] / [every bomb] / [all bombs].’

### VIII. Co-occurrence with possessive morphology

In contrast to other universal quantifiers, *mindegyik* ‘each’ can appear with the possessive suffix (1.1.1.4.1) and it can agree with the (plural) restrictor, which appears as a possessor (1291a,b).



- (1291) ● *Mindegyik* ‘each’ with a possessive suffix
- a. A bombák mindegyik-e elpusztította volna az épületet.  
 the bomb.Pl each-Poss away.destroy.Past.3Sg be.Cond the building.Acc  
 ‘Each one of the bombs would have destroyed the building.’
- a’. \*A bombák minden-e / [(az) összes-e] / ‘valamennyi-je / ‘valahány-a  
 the bomb.Pl every-Poss / the all-Poss / every-Poss / every\_single-Poss  
 elpusztította volna az épületet.  
 away.destroy.Past.3Sg be.Cond the building.Acc  
 Intended meaning: ‘[Every (single) bomb] / [all the bombs] / [each bomb] would have destroyed the building.’
- b. A gombák mindegyik-e / \*minden-e / \*[az összes-e] /  
 the mushroom.Pl each-Poss / every-Poss / the all-Poss /  
 \*‘valamennyije / \*‘valahány-a már elég sok volt az  
 every-Poss / every\_single-Poss already quite lot be.Past.3Sg the  
 ebédhez.  
 lunch.All  
 ‘[Each mushroom] / [every (single) mushroom] / [all the mushrooms] taken together was /  
 were quite a lot for lunch.’

Interestingly, the possessor in these examples cannot appear as a dative nominal if the quantifier is preceded by a definite determiner (a parallel possessive example is given for comparison as well, see also subsection 2.6.2.5), as shown in (1292).

- (1292) a. A gombáknak a kalapja elég volt az ebédhez.  
 the mushroom.Pl.Dat the cap.Poss enough be.Past.3Sg the lunch.All  
 ‘The cap of the mushrooms was enough for lunch.’
- b. \*A bombáknak a mindegyik-e elpusztította volna az  
 the bomb.Pl.Dat the each-Poss away.destroy.Past.3Sg be.Cond the  
 épületet.  
 building.Acc  
 Intended meaning: ‘Each one of the bombs would have destroyed the building.’
- c. \*A gombáknak a mindegyik-e már elég sok volt az  
 the mushroom.Pl.Dat the each-Poss already quite lot be.Past.3Sg the  
 ebédhez.  
 lunch.All  
 Intended meaning: ‘Each of the mushrooms would have been quite a lot for lunch.’

Finally, some universal quantifiers can appear with possessive agreement (1.1.1.4.1), but only with a non-overt plural possessor, which is interpreted as referring to humans (1293a-c). One of these, *mindegyik* ‘each’ comprises *mind* ‘all’, *egy* ‘one’ and the partitive-like *-ik* suffix. Two of the quantifiers that can appear with possessive agreement have an unusual form and distribution. The first is the quantifier *mindnyáj* ‘all of (a group expressed by a pronoun)’. Historically it can probably be decomposed into *mind* ‘all’ and *nyáj* ‘flock’. Contemporary speakers, however, do not perceive it as a bi-morphemic form any more. This quantifier must bear either a possessive suffix or a collective suffix (see below); the bare form

*mindnyáj* is not grammatical. The other unusual quantifier is *mindannyi*. It has the same meaning, ‘all of (a group expressed by a pronoun)’, and the same distribution as *mindnyáj*, i.e. it always occurs with possessive agreement or with the collective suffix but never in the bare uninflected form. *Mindannyi* appears to be decomposable into *mind* ‘all’ and *annyi* ‘that.much’. This decomposition, however, would not explain the overall meaning ‘all of (a group expressed by a pronoun)’. Thus, either *mindannyi* has a non-compositional, idiomatic meaning, or, more plausibly, speakers do not analyze it as a bi-morphemic form.

- (1293) ● Universal quantifiers with possessive agreement
- a. *mindnyáj-unk, mindnyáj-atok, mindnyáj-uk*  
all\_of-Poss.1Pl    all\_of-Poss.2Pl    all\_of-Poss.3Pl  
‘each and all of us, each and all of you, each and all of them’
  - b. *mindannyi-unk, mindannyi-ótok, mindegyik-ük*  
all\_of-Poss.1Pl    all\_of-Poss.2Pl    all\_of-Poss.3Pl  
‘each and all of us, each and all of you, each and all of them’
  - c. *mindegyik-ünk, mindegyik-ötök, mindegyik-őjük*  
each-Poss.1Pl    each-Poss.2Pl    each-the\_one-Poss.3Pl  
‘each and all of us, each and all of you, each and all of them’
  - d. *'valamennyi-ünk, 'valamennyi-ötök, 'valamennyi-jük*  
every-Poss.1Pl    every-Poss.2Pl    every-Poss.3Pl  
‘every one of us, every one of you, every one of them’
  - e. *\*az összes-ünk, \*minden-ünk, \*'valahány-unk*  
the all-Poss.1Pl    every-Poss.1Pl    every\_single-Poss.1Pl

The other environment where *mindnyáj* and *mindannyi* are acceptable is one where they appear with the collective suffix *-Vn*. In these structures they can optionally co-occur with an overt nominative pronoun, and as before, they must quantify over a group of humans (1294).

- (1294) a. (Mi) *mindnyáj-an tudjuk az igazat.*  
we all\_of-Coll know.1Pl.DefObj the truth.Acc  
‘Each and all of us know the truth.’
- b. (Ti) *mindannyi-an tudjátok az igazat.*  
you(pl) all\_of-Coll know.2Pl.DefObj the truth.Acc  
‘Each and all of you know the truth.’

The possessive marked quantifiers shown in (1293) can appear with Accusative case marking as well (1295), as expected given the discussion in subsection III of 2.6.2.1. The collective marked *mindnyájan*, in contrast, can only modify the subject.

- (1295) a. *A rendőrség mindnyáj-unk-at / mind-egyik-ünk-et*  
the police all\_of-Poss.1Pl-Acc / all-the\_one-Poss.2Pl-Acc  
*letartóztatta.*  
down.arrest.Past.3Sg.DefObj  
‘The police arrested each and all of us.’

- a'. A rendőrség 'valamennyi-ünk-et letartóztatott.  
 the police every-Poss.1Pl-Acc down.arrest.Past.3Sg  
 'The police arrested each and all of us.'
- b. \*A rendőrség mind-nyáj-an (-t) letartóztatta.  
 the police all\_of-Coll-Acc down.arrest.Past.3Sg.DefObj  
 Intended meaning: 'The police arrested each and all of (contextually determined group).'

#### 2.6.2.2.2. *Use as argument*

Universal quantifiers can appear without an overt noun. Based on their behavior in this environment, quantifiers fall into two groups. *Minden* 'everything' and *mindenki* 'everybody', the latter only acceptable without an overt nominal, are non-elliptical and they quantify over all non-human and human individuals, respectively (1296a,b). That is, these quantifiers can fill argument positions themselves. Note that *minden* may also appear in a modifier position, in which case it means 'every'. *Mindenki* 'everybody', on the other hand, is only acceptable without an overt nominal.

- (1296) a. Mindenki eltűnt.  
 everybody away.disappear.Past.3Sg  
 'Everybody disappeared.'
- b. Minden eltűnt.  
 everything away.disappear.Past.3Sg  
 'Everything disappeared.'

The other universal quantifiers can also appear without an overt noun, but they involve ellipsis in these structures (1297). They do not quantify over all non-human individuals, but rather over individuals of a contextually determined type (e.g. books or bugs). In other words, these quantifiers cannot fill argument positions themselves.

- (1297) [Az összes] / 'valamennyi' / 'valahány' / mindegyik eltűnt.  
 the all / every / every\_single / each away.disappear.Past.3Sg  
 'All / [every one] / [each one] (contextually specified referent) disappeared.'

In an elliptical object noun phrase that has no overt noun, *minden* 'every' is ungrammatical (1298a). On the other hand *mind* 'all', *mindegyik* 'each', and *az összes* 'all the' are grammatical (1298b).

- (1298) ● Elliptical object NP, no overt noun
- a. \*Minden-t megtaláltak.  
 every-Acc perf.find.Past.3Pl  
 Intended meaning: 'They found all / each of them.'
- b. [Az összeset] / mindet / mindegyiket megtalálták.  
 the all.Acc / every.Acc / each.Acc perf.find.Past.3Pl.DefObj  
 'They found all / [every one] / [each of them].'

Note that (1298a) is a grammatical string in another interpretation (1299), but in this case we are dealing with *minden* in an argument position, not with an elliptical noun

phrase from which the noun has been elided. As a result, in this case *minden* receives the ‘everything’ interpretation.

- (1299) *Mindent megtaláltak.*  
 everything.Acc perf.find.Past.3Pl  
 ‘They found everything.’

### 2.6.2.3. Existential quantifiers

In Hungarian, there are a variety of existential quantifiers. The quantifiers in (1300a) are compatible with situations in which there is only one individual for which the noun predicate holds. For some speakers, though, *valamennyi* ‘some’ requires there to be at least two such individuals. The quantifiers in (1300b) require the existence of more than one individual for which the noun predicate holds. Of these, *némelyik* ‘some of’ is obligatorily partitive (it can be deconstructed into *némely* ‘some’ and the partitive-like suffix *-ik*), and requires definite object agreement on the verb (1301). As already mentioned before, the quantifiers *valamennyi* and *valahány* also have universal readings: ‘every’ and ‘every (single)’ respectively. These quantifiers are stressed on the universal reading and unstressed on the existential ‘some’ reading.

- (1300) ● Existential quantifiers in Hungarian
- a. *valamennyi / egy tüntető*  
 some / one protester  
 ‘[some protesters] / [one protester]’ (felicitous even if there is a single protester)
  - b. *néhány / pár / valahány / némelyik tüntető*  
 a\_few / couple / some / some.of protester  
 ‘[a few] / [a couple of] / some / [some of the] protesters’ (felicitous only if there are at least two protesters)
- (1301) ● Object agreement with nouns modified by existential quantifiers
- a. *Lát-ok néhány / pár / valahány / valamennyi / egy tüntetőt.*  
 see-1Sg a\_few / couple / some / some / one protester.Acc  
 ‘I can see [a few] / [a couple of] protesters.’
  - a’. \**Lát-om néhány / pár / valahány / valamennyi / egy tüntetőt.*  
 see-1Sg.DefObj a\_few / couple / some / some / one  
 tüntetőt.  
 protester.Acc  
 Intended meaning: ‘I can see [a few] / [a couple of] protesters.’
  - b. *Lát-om / \*lát-ok némelyik tüntetőt.*  
 see-1Sg.DefObj / see-1Sg some.of protester.Acc  
 ‘I can see some of the protesters.’

The quantifier *pár* ‘a couple of, a few’ is homophonous with the noun meaning ‘couple, pair’ – the two uses are presumably related to each other (1302).

(1302) ● The use of *pár* as a quantifier and as a noun

- a. *pár ház, három pár zokni*  
 couple house three couple sock  
 ‘a couple of houses, three pairs of socks’
- b. *Ili és Imi egy pár.*  
 Ili and Imi a couple  
 ‘Ili and Imi are a couple.’

*Pár* can also co-occur with the indefinite article *egy* ‘one’. This complex form is multiply ambiguous between the meanings ‘one couple’, ‘one pair (of sth)’ and ‘a few, a couple of’. In the ‘one pair (of sth)’ reading, stress falls on the indefinite article (1303a), while in the ‘one couple’ and the ‘a few, a couple of’ readings stress is on *pár* (1303b,c).

(1303) ● The use of *egy pár*

- a. *'egy pár zokni*  
 one couple sock  
 ‘one pair of socks’
- b. *egy 'pár zokni*  
 one couple sock  
 ‘a few socks, a couple of socks’
- c. *Bejött a szobába egy 'pár.*  
 in.come.Past.3Sg the room.Ill a couple  
 ‘A couple came into the room.’

### 2.6.2.3.1. *Use as modifier*

The existential quantifiers, except for *némelyik* ‘some of’, can appear as modifiers in both presentational and non-presentational contexts (1304). In presentational contexts, they are obligatorily postverbal.

- (1304) a. *Van néhány / valahány / valamennyi / pár / egy bomba*  
 be.3Sg a\_few / some / some / couple / one bomb  
*az udvaron.*  
 the yard.Sup  
 ‘There are [a few] / [a couple of] bombs in the yard. / There is a bomb in the yard.’  
 [presentational]
- a'. \**Van némelyik bomba az udvaron.*  
 be.3Sg some.of bomb the yard.Sup  
 Intended meaning: ‘There are some of the bombs in the yard.’ [presentational]
- b. *Néhány / valahány / valamennyi / pár / egy bomba az udvaron*  
 a\_few / some / some / couple / one bomb the yard.Sup  
*van.*  
 be.3Sg  
 ‘[A few] / [A couple of] bombs are in the yard. / A bomb is in the yard.’  
 [non-presentational]

- b'. Némelyik bomba az udvaron van.  
 some.of bomb the yard.Sup be.3Sg  
 'Some of the bombs are in the yard.' [non-presentational]

### I. *Count and mass nouns*

Existential quantifiers can appear with count nouns, as shown in (1305).

- (1305) ● Count nouns with existential quantifiers
- a. Néhány / pár / valahány / valamennyi / egy fiú elment  
 a\_few / couple / some / some / one boy away.go.Past.3Sg  
 a moziba.  
 the cinema.Ill  
 '[A few boys] / [A couple of boys] / [Some boys] / [Some boys] / [One boy] went to the cinema.'
- b. Némelyik fiú elment a moziba.  
 some.of boy away.go.Past.3Sg the cinema.Ill  
 'Some of the boys went to the cinema.'

Mass nouns must have some countable interpretation if they appear with existential quantifiers. They require either a unit interpretation (for example, mugs in (1306)) or a type interpretation.

- (1306) ● Mass nouns with existential quantifiers
- a. Néhány / pár / valamennyi / egy sör megmelegedett.  
 a\_few / couple / some / one beer perf.warm.Past.3Sg  
 '[A few] / [a couple of] / some / one beer(s) warmed up.'
- b. %Valahány sör megmelegedett.  
 some beer perf.warm.Past.3Sg  
 Intended meaning: 'Some beers / [glasses / bottles / cans of beer] warmed up.'

With abstract nouns, existential quantifiers are ungrammatical (1307). A countable interpretation corresponding to 'work holiday' or 'rights' may allow these quantifiers to co-occur.

- (1307) ● Abstract nouns with existential quantifiers
- \*Néhány / \*pár / \*valahány / \*valamennyi / \*egy szabadságért évekig  
 a\_few / couple / some / some / one freedom.Cau year.Pl.Ter  
 harcolt Budapest lakossága.  
 fight.Past.3Sg Budapest people.Poss  
 Intended meaning: 'The people of Budapest have been fighting for [a few] / [a couple of] / some / one freedom for years.'

### II. *Intensifiers with existential quantifiers*

Intensifiers in Hungarian are illustrated in (1308). Some quantifiers are included in parentheses with the intensifiers.

- (1308) elég (sok), meglehetősen (kevés), nagyon (kevés)  
 enough (lot) rather (few) very (few)  
 ‘quite a lot, rather few, very few’

None of these intensifiers can co-occur with existential quantifiers (1309). This holds for all existential quantifiers and all of the intensifiers shown in (1308).

- (1309) \*elég néhány, \*meglehetősen pár, \*nagyon valamennyi  
 enough a\_few rather couple very some

Hungarian has a construction, however, in which some existential quantifiers appear prefixed with *jó* ‘good’ (1310). This prefixed form indicates a quantity larger than that marked by the non-prefixed form. In fact, the prefixed forms are largely equivalent to *many*.

- (1310) • Existential quantifiers prefixed by *jó* ‘good’  
 a. jó-néhány, jó-pár  
 good-a\_few good-couple  
 both: ‘quite a few’  
 b. \*jó-valahány, \*jó-valamennyi, \*jó-egy  
 good-some good-some good-one

### III. Other

#### A. Negative polarity items

Some existential quantifiers, eg. *valaki is* ‘somebody too’ *valami is* ‘something too’, can behave as NPIs (1311).

- (1311) a. Ha valami is kimaradt, Ili majd figyelmeztet.  
 if some(thing) too out.stay.Past.3Sg Ili then warn.3Sg  
 ‘If anything has been left out, Ili will warn us.’  
 b. Ha néhány / pár / valahány / valamennyi / kimaradt, Ili  
 if a\_few / couple / some / some / out.stay.Past.3Sg Ili  
 majd figyelmeztet.  
 then warn.3Sg  
 ‘If [a few] / [a couple] / [some] have been left out, Ili will warn us.’  
 [all are \* as NPIs; OK as elliptical NPs with the noun elided]  
 c. Akar valaki is fagyit enni?  
 want.3Sg anybody too ice-cream.Acc eat.Inf  
 ‘Does anybody want to eat ice-cream?’  
 d. Akar néhány / pár / valahány / valamennyi fagyit enni?  
 want.3Sg a\_few / couple / some / some ice-cream.Acc eat.Inf  
 ‘[Do a few] / [Do a couple of] / [Do some] want to eat ice-cream?’  
 [all are \* as NPIs; OK as elliptical NPs with the noun elided]

On a broader definition of the term *NPI*, n-words like *senki* ‘nobody’ and *semmi* ‘nothing’ are also (strong) NPIs (as opposed to the *valaki is* ‘anybody too’ type

NPIs discussed above, which are called weak NPIs in this broader definition). See M5.

### B. Type-related interpretation

A type interpretation in Hungarian is available with dedicated quantificational elements (1312). Two of these contain the suffix *-féle*, which we will gloss as ‘type’. These elements are *mindenféle* lit. ‘every-type’ meaning ‘all kinds of’ and *különféle* lit. ‘different-type’ meaning ‘different types of’. The third modifier, *különböző*, means ‘different’.

- (1312) a. Minden-féle könyv van az asztalon.  
 every-type book be.3Sg the table.Sup  
 ‘There are all kinds of book on the table.’
- b. Külön-féle / különböző könyvek vannak az asztalon.  
 different-type / different book.PI be.3PI the table.Sup  
 ‘There are different kinds of books on the table.’

The type interpretation is not available with bare existential quantifiers, as shown in (1313a). The interpretation is available if the quantifier appears with *-féle* ‘type’. The only existential quantifier which can co-occur with *-féle* is the indefinite *egy* (1313b). The ability of co-occurring with *-féle* may be tied to the fact that numerals in general, as well as some other, non-existential quantifiers, can appear with *-féle*, as shown in (1313c). As shown in (1313c), *kevésféle* ‘few types of’ is slightly degraded with respect to *sokféle* ‘many types of’. *Kevésféle* ‘few types of’ sounds natural only when more types of books were expected to be on the table. *Sokféle* ‘many types of’ does not express any previous expectations with regard to the diversity of book types.

- (1313) a. Néhány / pár / valahány / valamennyi / egy könyv van az  
 a\_few / couple / some / some / one book be.3Sg the  
 asztalon.  
 table.Sup  
 ‘There are / is [a few] / [a couple of] / some / one book(s) on the table.’
- b. Csak egy-féle könyv van az asztalon.  
 only one-type book be.3Sg the table.Sup  
 ‘There is only one type of book on the table.’
- b\*. \*Néhány-féle / \*pár-féle / \*valahány-féle / \*valamennyi-féle könyv  
 a\_few-type / couple-type / some-type / some-type book  
 van az asztalon.  
 be.3Sg the table.Sup  
 Intended meaning: ‘There are / is [a few] / [a couple of] / some types of book on the table.’
- c. Sok-féle / három-féle / ötven-féle / <sup>3</sup>kevés-féle könyv van  
 many-type / three-type / fifty-type / few-type book be.3Sg  
 az asztalon.  
 the table.Sup  
 ‘There are many / three / fifty / few types of books on the table.’



- c'. \*Számos-féle könyv van az asztalon.  
 numerous-type book be.3Sg the table.Sup  
 Intended meaning: 'There are numerous types of books on the table.'

### C. Other quantifiers with an existential flavor

There are some other existential elements which can appear as modifiers of nominals; these are illustrated in (1314). *Valamiféle* 'some kind of' comprises the existential *vala-* and *-féle* 'type'. It is synonymous with *valamilyen* 'some kind of'. Using *valami* 'some, something' as a modifier results in a negative connotation (1314b,c), unlike *valami* as an independent argument (see subsection 2.6.2.3.2). The latter lacks this connotation.

- (1314) a. Valamiféle / valamilyen szakember hatástalanítja a bombát.  
 some.kind.of / some.sort.of specialist defuse.3Sg.Def.Obj the bomb.Acc  
 'Some [kind of] / [sort of] specialist is defusing the bomb.'
- b. Valami örült üvöltözik a rendőrség előtt.  
 some(thing) madman shout.3Sg the police.station in.front.of  
 'Some madman is shouting in front of the police station.'
- c. Valami szakember hatástalanítja majd a bombát.  
 some(thing) specialist defuse.3Sg.Def.Obj later the bomb.Acc  
 'Some specialist will defuse the bomb.'

### IV. Special uses

A generic reading is only available with *egy* 'one' (see subsection V of 2.6.2.2.1 for more details).

- (1315) Egy dinoszaurusz húst eszik.  
 a dinosaur meat.Acc eat.3Sg  
 'A dinosaur eats meat.' [generic]

#### 2.6.2.3.2. Use as argument and adjunct

When used as arguments, existential quantifiers have complex forms. The first part expresses existential quantification (the purely existential *vala-* or the free choice item *bár-*) and the second part is a 'wh'-word. (1316) lists the 'wh'-words, the first two of which can appear with a variety of case markers. Note that there are two 'wh'-words corresponding to 'how many': *mennyi* and *hány*. *Mennyi* is grammatical with both count and mass nouns, while *hány* is only acceptable with count nouns (1317).

- (1316) ● 'Wh'-words  
 ki, mi, hol, mikor, hogyan, miért, hány, mennyi, melyik  
 who what where when how why how.many how.many which  
 'who, what, where, when, how, why, how many, how many'

- (1317) a. Mennyi ember / homok van az udvaron?  
 how.many person / sand be.3Sg the yard.Sup  
 '[How many people are] / [how much sand is] there in the yard?'
- b. Hány ember / \*homok van az udvaron?  
 how.many person / sand be.3Sg the yard.Sup  
 'How many [people are] / [sand is] there in the yard?'

The complex forms that serve as arguments are given in (1318); note that the form \**bárhány* is ungrammatical (1318c).

- (1318) ● Existential quantifiers used as arguments: *vala-* and *bár-* forms
- a. *vala-ki, vala-mi, vala-hol, vala-mikor, vala-hogyan, vala-miért,*  
 some-who some-what some-where some-when some-how some-why  
*vala-hány, vala-mennyi, vala-melyik*  
 some-how.many some-how.much some-which  
 'somebody, something, somewhere, sometime, somehow, for some reason, some, some, one or the other'
- b. *bár-ki, bár-mi, bár-hol, bár-mikor, bár-hogyan, bár-miért,*  
 any-who any-what any-where any-when any-how any-why  
*bár-mennyi, bár-melyik*  
 any-how.much any-which  
 'anybody, anything, anywhere, any time, anyhow, for whatever reason, any amount of, any'
- b'. \**bár-hány*  
 any-how.many  
 Intended meaning: 'any number of'

(1319) shows some examples of *vala-* existentials as arguments.

- (1319) a. *Valaki / valami zörög.*  
 some.who / some.what rumble.3Sg  
 'Somebody / something is rumbling.'
- b. *Valaki-k / valami-k zörögnek.*  
 some.who-Pl / some.what-Pl rumble.Pl  
 'Some people / things are rumbling.'
- c. *Valaki valahol valamiért zörög.*  
 some.who some.where some.why rumble.3Sg  
 'Somebody is rumbling somewhere for some reason.'

The existential quantifier *néhány* 'a few' can be used as a possessee; in this case it cannot be followed by a noun (1320). The possessor is a covert plural pronoun and the quantifier shows agreement with this pronoun. Overt pronominal possessors are ungrammatical (1320b). (Also compare the possessed forms of universal quantifiers discussed in 2.6.2.2.1 subsection VIII and subsection 2.6.2.2.2.) As a possessee, *néhány* 'a few' must refer to humans, even if it is 3Pl.

- (1320) ● *Néhány* ‘a few’ as a possessee
- a. *Néhány-unk* / *néhány-atok* / *néhány-uk zörög.*  
 a\_few-Poss.1Pl / a.few-Poss.2Pl / a.few-Poss.3Pl rumble.3Sg  
 ‘A few of us / you / them are rumbling.’
- b. \*[*Mi néhány-unk*] / \*[*Ti néhány-atok*] / \*[*Ő néhány-uk*]  
 we a\_few-Poss.1Pl / you(Pl) a.few-Poss.2Pl / they a.few-Poss.3Pl  
*zörög.*  
 rumble.3Sg  
 Intended meaning: ‘A few of us / you / them are rumbling.’
- c. \**Néhány-unk zörg-ünk.*  
 a\_few-Poss.1Pl rumble.1Pl  
 Intended meaning: ‘A few of us are rumbling.’

As (1320a,c) show, these quantifiers trigger third person singular agreement. The only existential quantifier which can appear as a possessee is *néhány* ‘a few’; other existential quantifiers are ungrammatical in this construction.

- (1321) \**pár-unk* / \**valahány-unk* / \**valamennyi-ünk* / \**egy-ünk*  
 couple-Poss.1Pl / some-Poss.1Pl / some-Poss.1Pl / one-Poss.1Pl

Some other existential quantifiers can appear as a possessee only if they are adorned with the partitive-like *-ik* suffix (1322).

- (1322) *egy-ik-ünk*, *egy-ik-ünk-más-ik-unk*, *némely-ik-ünk*,  
 one-Ptv-Poss.1Pl one-Ptv-Poss.1Pl-other-Ptv-Poss.1Pl some-Ptv-Poss.1Pl  
*bármely-ik-ünk*, *valamely-ik-ünk*  
 any-Ptv-Poss.1Pl some-Ptv-Poss.1Pl  
 ‘one of us, one or the other of us, some of us, any of us, one of us’

It is possible for an existential quantifier to appear without an associated nominal even if it lacks possessive morphology (1323). These can refer to both humans and non-humans. These structures, however, are elliptical; the nominal is elided. Not all existential quantifiers are acceptable in such elliptical constructions.

- (1323) a. *Néhány zörög.*  
 a\_few rumble.3Sg  
 ‘A few are rumbling.’
- b. [*Egy pár*] / *valahány* / *valamennyi* / *valamelyik zörög.*  
 one couple / some / some / one.or.the.other rumble.3Sg  
 ‘[A couple of them are] / [some of them are] / [one or the other is] rumbling.’
- c. \**Pár* / \**valamilyen zörög.*  
 couple / some.sort.of rumble.3Sg  
 Intended meaning: ‘[A couple of them] / [some sort of (sth)] is rumbling.’

### 2.6.2.3.3. *Free choice items*

Free choice items are also complex forms. They contain the prefix *akár-* or *bár-*, both meaning ‘any’ and they are affixed to the equivalents of ‘wh’-words, which are

shown in (1316). An example involving free choice items is given in (1324a) and a list of these items is shown in (1324b,c). Free choice items are discussed in detail in M4.

- (1324) a. Most már akár-mit / bár-mit megehetsz.  
 now already any-what.Acc / any-what.Acc perf.eat.Mod.2Sg  
 ‘You can now eat anything.’
- b. akár-mi, akár-ki, akár-hol, akár-mikor, akár-hogyan, akár-miért,  
 any-what any-who any-where any-when any-how any-why  
 akár-hány, akár-mennyi, akár-melyik  
 any-how.many any-how.many any-which  
 ‘anything, anybody, anywhere, any time, any way, for whatever reason, any number /  
 amount of, any number of, any’
- c. bár-mi, bár-ki, bár-hol, bár-mikor, bár-hogyan, bár-miért,  
 any-what any-who any-where any-when any-how any-why  
 bár-mennyi, bár-melyik  
 any-how-much any-which  
 ‘anything, anybody, anywhere, any time, any way, for whatever reason, any number /  
 amount of, any’
- c’. \*bár-hány  
 any-how.many  
 Intended meaning: ‘any number of’

#### 2.6.2.4. Degree quantifiers

This subsection discusses degree quantifiers. Subsection 2.6.2.4.1 deals with their use as modifiers of the noun phrase. Subsection 2.6.2.4.2 is concerned with their independent use as arguments, and 2.6.2.4.3 discusses degree quantifiers as adverbials. Finally, subsection 2.6.2.4.4 examines some special cases involving degree quantifiers.

Following *SoD-NP*, we will label value judgment quantifiers or scalar quantifiers as ‘degree quantifiers’. Degree quantifiers involve a kind of standard; the truth of the quantificational proposition is evaluated with respect to that standard.

We note that bare degree quantifiers do not appear in presentational contexts (1325b). (This is partially due to the fact that decreasing degree quantifiers are obligatorily focused, and so they are immediately preverbal, see also M4.) *Egy kevés* ‘a few’ (lit. ‘one few’) can appear in a presentational sentence (and be postverbal, as expected, see (1325a)). Other degree quantifiers with *egy* ‘one’ are ungrammatical (1325a’), which may be the reason why these quantifiers are excluded from presentational environments.

- (1325) ● Degree quantifiers in a presentational context
- a. Van egy kevés diák a tüntetésen.  
 be.3Sg a few student the demonstration.Sup  
 ‘There are a few students at the demonstration.’

- a'. \*Van egy sok / rengeteg/ tömérdek / töméntelen diák a  
 be.3Sg a many / scores / slathers / countless student the  
 tüntetésen.  
 demonstration.Sup  
 Intended meaning: 'There are many / [scores of] / [slathers of] / countless students at the demonstration.'
- b. \*Van kevés / sok / rengeteg/ tömérdek / töméntelen diák a  
 be.3Sg few / many / scores / slathers / countless student the  
 tüntetésen.  
 demonstration.Sup  
 Intended meaning: 'There are few / many / [scores of] / [slathers of] / countless students at the demonstration.'

#### 2.6.2.4.1. *Use as modifier*

In general, degree quantifiers can appear with both count and mass nouns (1326). If they appear with mass nouns, they do not require a type or unit interpretation (1326b).

- (1326) ● Degree quantifiers with count and mass nouns
- a. Kevés / sok / rengeteg/ tömérdek / töméntelen / elég diák  
 few / many / scores / slathers / countless / enough student  
 volt a tüntetésen.  
 be.Past.3Sg the demonstration.Sup  
 'There were few / many / [scores of] / [slathers of] / countless / enough students at the demonstration.'
- b. Kevés / sok / rengeteg/ elég füst volt az utcán.  
 few / many / scores / enough smoke be.Past.3Sg the street.Sup  
 'There was little / much / [scores of] / enough smoke on the street.'
- b'. <sup>?</sup>Töméntelen / <sup>??</sup>Tömérdek füst volt az utcán.  
 countless / slathers smoke be.Past.3Sg the street.Sup  
 'There was a vast amount of /slathers of smoke on the street.'

#### *I. Value different from the standard*

A number of degree quantifiers, including those illustrated below, indicate a quantity that is below or above the standard. The examples in (1327) serve as an illustration.

- (1327) a. sok, rengeteg, tömérdek, töméntelen  
 many scores slathers countless  
 'many / much, scores of, slathers of, countless / a vast amount of'
- b. kevés  
 few  
 'few, little'

In general, degree quantifiers are ambiguous. (1328a), for example, can be interpreted as either stating that many of the contextually determined books contain typos, or that in general, many of the books (in existence) contain typos. The quantifiers in (1328b) are similarly ambiguous.

- (1328) a. Sok könyvben van nyomdahiba.  
 many book.Ine be.3Sg typo  
 'Many books contain typos.'
- b. Kevés / rengeteg / tömérdek / töméntelen könyvben van  
 few / scores / slathers / countless book.Ine be.3Sg  
 nyomdahiba.  
 typo  
 'Few / [scores of] / [slathers of] / countless books contain typos.'

*Sok* 'many, much' and *kevés* 'few, little' can be modified by a variety of degree modifiers (1329a,b). They also have comparative and superlative forms (1330). The other degree quantifiers cannot be modified in this way (1330c) and they also lack comparative and superlative forms.

- (1329) • Modification of degree quantifiers
- a. elég sok, nagyon sok, túl(ságosan) sok  
 enough many very many over(ly) many  
 'quite a lot, very many / much, too many / much'
- b. elég kevés, nagyon kevés, túl(ságosan) kevés  
 enough few very few over(ly) few  
 'fairly few / little, very few / little, too few / little'
- c. \*elég rengeteg, \*elég tömérdek, \*elég töméntelen  
 enough scores enough slathers enough countless'

- (1330) • Comparative and superlative of *sok* 'many, much' and *kevés* 'few, little'
- a. sok / több / [a legtöbb] nyomdahiba  
 many / more / the most typo  
 'many / more / most typos'
- b. kevés / kevesebb / [a legkevesebb] nyomdahiba  
 few / fewer / the fewest typo  
 'few / fewer / [the fewest] typos'

(1331a) and (1331b) are ambiguous: they either mean that (too) many books contain typos in general, or that (too) many contextually determined books contain typos.

- (1331) a. Sok könyv tartalmaz nyomdahibát.  
 many book contain.3Sg typo.Acc  
 'Many books contain typos.'
- b. Túl sok könyv tartalmaz nyomdahibát.  
 too many book contain.3Sg typo.Acc  
 'Too many books contain typos.'

Some degree quantifiers can appear as a *mint* ‘than’-clause with the comparative *több* ‘more’ (1332). The quantifier *több* ‘more’ can appear with *mint* ‘than’ only predicatively, in the set phrase in (1332a’) or its alternative in (1332a’').

(1332) • Degree quantifiers in *mint* ‘than’-clauses

- a. Több, mint elég tüntető volt ahhoz, hogy kikényszerítsék a  
 more than enough protester be.Past.3Sg that.All that force.Subj.3Sg the  
 változást.  
 change.Acc  
 ‘There were more than enough protesters to force the change.’
- a’. Ez már több, mint sok!  
 this already more than lot  
 ‘This is a bit steep. / That is going too far.’
- a’’. Ez már több a soknál!  
 this already more the lot.Ade  
 ‘This is a bit steep. / That is going too far.’
- b. \*több mint kevés / rengeteg / tömérdek / töméntelen tüntető  
 more than few / scores / slathers / countless protester
- c. \*kevesebb mint sok / kevés / rengeteg / tömérdek / töméntelen /  
 fewer than many / few / scores / slathers / countless /  
 elég tüntető  
 enough protester

We speculate that *rengeteg* ‘scores of’, *tömérdek* ‘slathers of’ and *töméntelen* ‘countless’ are ungrammatical in (1332b) because they mean ‘more than many’. *Több mint sok* ‘more than many’ means ‘[more than what] / [more than the minimal amount] that counts as ‘many’’.

Degree quantifiers appear between definite determiners and the highest adjective (1333a), except for *elég* ‘enough’, which cannot appear with a determiner (1333b). If the high adjective precedes the quantifier, as in (1333a’), the result is severely degraded. It is relatively more acceptable on an ironic interpretation, such that the adjective modifies the degree quantifier (allegedly there are many weapons) rather than the noun itself (there are many alleged weapons).

- (1333) a. a(z) sok / kevés / rengeteg / tömérdek / töméntelen / elég állítólagos  
 the many / few / scores / slathers / countless / enough alleged  
 fegyver  
 weapon  
 ‘the many / few / [scores of] / [slathers of] / countless / enough alleged weapons’
- a’.<sup>???</sup> az állítólagos sok / kevés / rengeteg / tömérdek / töméntelen fegyver  
 the alleged many / few / scores / slathers / countless weapon  
 ‘the alleged many / few / [scores of] / [slathers of] / countless weapons’

The last type of degree quantifier to be discussed is complex phrases with *menyiségű* lit. ‘quantity.Attr’ (‘of quantity’) and *számú* lit. ‘number.Attr’ (‘of numerosity’). These expressions can appear with various quantifiers, yielding interpretations comparable to the degree quantifiers shown above. Only *töméntelen*

‘countless’ can appear with these expressions (1334a, 1335a). The meaning comparable to *many*, *little* and *enough* is conveyed by *nagy* ‘big’, *kis* ‘small’ and *elegendő* ‘sufficient’, respectively (1334c, 1335c). Count nouns, shown in (1334a, 1335a), can appear with *mennyiségű* ‘of quantity’ as well as *számú* ‘of numerosity’, even though the former is somewhat marked.

(1334) ● Degree quantifiers with *számú* ‘of numerosity’

- a. <sup>??</sup>töméntelen számú tüntető  
 countless number.Attr protester  
 ‘countless protesters’
- b. \*sok / \*kevés / \*rengeteg / \*tömerdek / \*elég számú tüntető  
 many / few / scores / slathers / enough number.Attr protester  
 Intended meaning: ‘many / few / [scores of] / [slathers of] / enough protesters’
- c. nagy / kis / elegendő számú tüntető  
 big / small / sufficient number.Attr protester  
 ‘a large / small / sufficient number of protesters’

(1335) ● Degree quantifiers with *mennyiségű* ‘of quantity’

- a. töméntelen mennyiségű könnygáz  
 countless amount.Attr teargas  
 ‘a vast amount of teargas’
- b. \*sok / \*kevés / \*rengeteg / \*tömerdek / \*elég mennyiségű könnygáz  
 many / few / scores / slathers / enough amount.Attr teargas  
 Intended meaning: ‘much / little / [scores of] / [slathers of] / enough teargas’
- c. nagy / kis / elegendő mennyiségű könnygáz  
 big / small / sufficient amount.Attr teargas  
 ‘a large / small / sufficient amount of teargas’

## II. Value meets the standard

In addition to the high and low degree quantifiers discussed above, there are quantifiers such as *elég* ‘enough’, *elegendő* ‘sufficient’ and *elégséges* ‘sufficient’, which express that the cardinality of the intersection satisfies a certain contextually determined norm. *Elég* ‘enough’ and *elegendő* ‘sufficient’ can stand in an adnominal position with both countable and uncountable nouns, while *elégséges* ‘sufficient’ is at best degraded in an adnominal position (1336).

- (1336) a. elég / elegendő / <sup>??</sup>elégséges tüntető  
 enough / sufficient / sufficient protester  
 ‘[a sufficient number of] / enough protesters’
- b. elég / elegendő / <sup>??</sup>elégséges sör  
 enough / sufficient / sufficient beer  
 ‘[a sufficient amount of] / enough beer’

All of these quantifiers can be used predicatively with both countable and uncountable nouns (1337).



- (1337) a. A víz elég / elégséges / elegendő.  
 the water enough / sufficient / sufficient  
 'The water is enough / [of the sufficient amount].'
- b. Három tüntető elég / elégséges / elegendő.  
 three protester enough / sufficient / sufficient.3Sg  
 'Three protesters are enough / sufficient.'

Complex phrases with *mennyiségű* 'of quantity' and *számú* 'of numerosity' can combine with *elegendő* 'sufficient', they are degraded with *elégséges* 'sufficient', and ungrammatical with *elég* 'enough' (1338).

- (1338) a. elegendő / <sup>?</sup>elégséges / \*elég számú tüntető  
 sufficient / sufficient / enough number.Attr protester  
 'sufficient / enough protesters'
- b. elegendő / <sup>?</sup>elégséges / \*elég mennyiségű könnygáz  
 sufficient / sufficient / enough amount.Attr teargas  
 'enough / sufficient amount of teargas'

#### 2.6.2.4.2. *Use as argument*

This subsection discusses the use of the degree quantifiers as independent arguments. Degree quantifiers behave similarly to other quantifiers which can form a constituent distinct from the associated numeral (this will be discussed in detail in subsection 2.6.2.5). They can appear with the collective suffix *-Vn* or with case marking. Adverbial quantifiers are impossible for a number of degree quantifiers (1339b). All degree quantifiers can appear as case marked quantifiers (1339c). Also, as may be expected, all of these quantifiers can appear in elliptical structures, where the nominal is deleted (1339d).

- (1339) a. A diákok sok-an / keves-en / rengeteg-en / elég-en voltak.  
 the student.Pl many-Coll / few-Coll / scores-Coll / enough-Coll be.Past.3Pl  
 'There were many / few / [scores of] / enough students.'
- a'. Sok-an / keves-en / rengeteg-en / elég-en voltak.  
 many-Coll / few-Coll / scores-Coll / enough-Coll be.Past.3Pl  
 'There were many / few / [scores of] / enough people.'
- b. \*A diákok tömérdek-en / töméntelen-(en) voltak.  
 the student.Pl slathers-Coll / countless-Coll be.Past.3Pl  
 Intended meaning: 'There were countless / enough students.'
- c. Diákot sokat / keveset / rengeteget / tömérdeket / töméntelent /  
 student.Acc many.Acc / few.Acc / scores.Acc / slathers.Acc / countless.Acc /  
 eleget tartóztattak le a rendőrök.  
 enough.Acc arrest.Past.3Pl down the policeman.Pl  
 'The police arrested many / few / [scores of] / [slathers of] / countless / enough students.'
- d. Sok / kevés / rengeteg / tömérdek / töméntelen / elég volt bent.  
 many / few / scores / slathers / countless / enough be.Past.3Sg inside  
 'There were many / few / [scores of] / [slathers of] / countless / enough (contextually  
 determined entities) inside.'

Degree quantifiers can be predicative as well, as shown in (1340).

- (1340) a. Ez (a mennyiség) sok / kevés / rengeteg / tömérdek / töméntelen /  
 this the quantity many / few / scores / slathers / countless /  
 elég.  
 enough  
 ‘This (quantity) is a lot / little / [very much] / enough.’
- b. Sok-ba / kevés-be / rengeteg-be kerül.  
 many-III / few-III / scores-III cost.3Sg  
 ‘This costs a lot / little / [very much].’
- b’. \*Tömérdek-be / \*Töméntelen-be / \*Elég-be kerül.  
 slathers-III / vast.amount-III / enough-III cost.3Sg  
 Intended meaning: ‘This costs [very much] /enough.’
- c. Sok-at / keves-et / rengeteg-et / eleg-et nyom.  
 many-Acc / few-Acc / scores-Acc / enough-Acc weigh.3Sg  
 ‘This weighs [a lot] / little / [very much] / enough.’
- c’. \*Tömérdek-et / \*Töméntelen-t nyom.  
 slathers-Acc / countless-Acc weigh.3Sg  
 Intended meaning: ‘This weighs very much.’

#### 2.6.2.4.3. Use as adverb

Degree quantifiers can be used as adverbs when they appear with Accusative case marking. Compare the meaning difference between a degree quantifier with Accusative case in (1341a) and one with the collective suffix *-Vn* in (1341b).

- (1341) ● Degree quantifiers used as adverbs
- a. Sok-at / keves-et utaztak a tüntetők.  
 many-Acc / few-Acc travel.Past.3Pl the protester.Pl  
 ‘The protesters traveled a lot / little.’ (distance or number of times traveled)
- b. Sok-an / keves-en utaztak a tüntetők.  
 many-Coll / few-Coll travel.Past.3Pl the protester.Pl  
 ‘There were many / few protesters who traveled.’

The adverbial function is only available to degree quantifiers that appear with accusative marking (1342). With the collective suffix *-Vn*, the quantifier must modify an associated nominal.

- (1342) a. Sok-at olvas verseket, keves-et néz tévét.  
 many-Acc read.3Sg poem.Pl.Acc few-Acc watch.3Sg TV.Acc  
 ‘He reads poems a lot, but he watches little TV.’
- b. Sok-at akar utazni.  
 many-Acc want travel.Inf  
 ‘He wants to travel a lot.’

Compare also the adverbial use of numerals in (1343).

- (1343) a. Kettő-t csenget.  
two-Acc ring.3Sg  
'He rings twice.'
- b. \*Kettő-t utazik.  
two-Acc travel.3Sg  
Intended meaning: 'He travels twice.'

Comparative and superlative forms of *sok* 'many, much' and *kevés* 'few, little' can also appear as an accusative constituent (1344). On the morphological composition of comparatives and superlatives, see A3.3.1.2.

- (1344) a. Több-et / kevesebb-et utazik.  
more-Acc / less-Acc travel.3Sg  
'He travels more / less.'
- b. [A legtöbb-et] / [a legkevesebb]-et Ili utazik.  
the most-Acc / the least-Acc Ili travel.3Sg  
'It is Ili that travels [the most] / [the least].'

Accusative degree quantifiers cannot function as a degree modifier in examples such as (1345a). In these contexts the grammatical degree modifiers contain Translative/Essive case morphology, or the modifier can be *nagyon* 'very', as given in (1345b).

- (1345) a. \*Sok-at / \*keves-et szereti a sajtot.  
many-Acc / few-Acc like.3Sg the cheese.Acc  
Intended meaning: 'He likes cheese [a lot] / [a little].'
- b. Kevés-sé / kevésbé / nagyon szereti.  
few-TrE / fewer-TrE / very like.3Sg  
'He likes it [only a little] / [less (than sth or sy else)] / [very much].'

Only stage-level predicates can be modified by accusative degree modifiers (1346). This is expected if such degree quantifiers can quantify over the number of occurrences of the event or over some scalar property (e.g. distance or time) associated with the event.

- (1346) a. Sok-at részeg / \*részezes.  
lot-Acc drunk / drunkard  
'[He is drunk a lot.] / [He is a drunkard a lot.]'
- b. \*Sok-at kopasz / magas.  
lot-Acc bald / tall  
Intended meaning: 'He is bald / tall a lot.'

#### 2.6.2.4.4. *Special cases*

##### *I. Co-occurrence with the plural marker*

As already mentioned before, nouns modified by numerals and quantifiers are morphologically singular (1347).

- (1347) hét / minden / néhány / sok cikk(\*-ek)  
 seven / every / a\_few / many article.Pl  
 'seven / every / [a few] / many article(s)'

We have seen in subsection 2.6.1.1.3.1 that in the absence of an overt noun, numerals can co-occur with the plural marker under two exceptional circumstances. When a low numeral is involved, the plural scopes over (modifies or multiplies) the covert [+HUMAN] noun (1348). When a high numeral, such as a power of ten, is involved, then the plural scopes over, i.e. modifies or multiplies, the numeral (1348b), and the covert noun refers to humans or units of currency.

- (1348) a. a hárm-ak elhivatása  
 the three-Pl drawing.Poss  
 'The Drawing of the Three (Hungarian title of a Stephen King novel)'  
 b. Száz-ak / ezer-ek / millió-k maradtak áram nélkül.  
 hundred-Pl / thousand-Pl / million-Pl remain.Past.3Pl electricity without  
 'There were hundreds / thousands / millions (of people) left without power.'

The quantifiers *sok* 'many, much' and *kevés* 'few, little', *több* 'many, much' and *a legtöbb* 'the most' may also co-occur with the plural marker. The resulting interpretation is similar to that in (1348a): the plural scopes over the covert [+HUMAN] noun. An interpretation whereby the covert noun refers to units of currency is not available (1349b, 1350b).

- (1349) ● *Sok* 'many, much' with the plural marker  
 a. sok-ak véleménye szerint  
 many-Pl opinion.Poss according.to  
 'according to the opinion of many (people)'  
 b. \*Sok-ak tűntek el a kasszából.  
 many-Pl disappear.Past.3Pl away the register.Ela  
 Intended meaning: 'Many (units of currency) disappeared from the register.'
- (1350) ● *Kevés* 'few, little' with the plural marker  
 a. Kevés-ek-nek tetszik a döntés.  
 few-Pl-Dat please.3Sg the decision  
 'Few (people) like the decision.'  
 b. \*Kevés-ek tűntek el a kasszából.  
 few-Pl disappear.Past.3Pl away the register.Ela  
 Intended meaning: 'Few (units of currency, eg. dollars or euros) disappeared from the register.'

The quantifier *több* 'more' has some unusual properties when it co-occurs with the plural marker (1351). The meaning of the complex form *több-ek* lit. 'more-Pl' is 'many people', not 'more people', as would be expected. Thus *többek* is synonymous with *sokak*, lit. 'many-Pl'.

- (1351) ● *Több* ‘more’ with the plural marker
- a. több-ek véleménye szerint  
 more-Pl opinon.Poss according.to  
 ‘according to the opinion of many (people)’
- b. \*Több-ek eltűntek a kasszából.  
 more-Pl away.disappear.Past.3Pl the register.Ela  
 Intended meaning: ‘Many (units of currency, eg. dollars or euros) disappeared from the register.’

## II. Degree quantifiers with the collective suffix and comparison with *minden* ‘every’

Degree quantifiers can support the collective suffix. The distribution of forms like (1352) will be detailed in subsection 2.6.2.5.

- (1352) sok-an, keves-en, több-en  
 many-Coll few-Coll more-Coll  
 ‘many people, few people, many people’

A comparison between the forms in (1352) and the quantifier *minden* ‘every’ shows that *minden* cannot be decomposed into the quantifier *mind* ‘all’ and the collective suffix *-Vn*. To wit, the distribution of *minden* ‘every’ is different from that of the adverbs *sokan* ‘many people’ and *kevesen* ‘few people’. *Sokan* ‘many people’ and *kevesen* ‘few people’ appear in floating quantifier-like structures (see subsection 2.6.2.5) and have no adnominal uses (1353b). *Minden*, however, can appear in a prenominal position (1353a). As adverbs do not modify nouns, this points to the conclusion that unlike *sokan* ‘many people’ and *kevesen* ‘few people’, *minden* ‘every’ is not an adverbial form.

- (1353) a. minden fiú  
 every boy  
 ‘every boy’
- b. \*sok-an fiú  
 many-Coll boy

Secondly, while *sokan* ‘many people’ and *kevesen* ‘few people’ must have human referents (1354a), *minden* ‘every’ must have inanimate referents if no overt noun follows it (1354b). This leads us to concluding that *minden* cannot be deconstructed into *mind* ‘all’ and the collective suffix in the same way as *sokan* ‘many people’ and *kevesen* ‘few people’ can be deconstructed into *sok* ‘many’ / *kevés* ‘few’ and *-Vn*.

- (1354) a. Sok-an eltűntek.  
 many-Coll away.disappear.Past.3Pl  
 ‘Many people disappeared.’
- b. Minden eltűnt.  
 every away.disappear.Past.3Sg  
 ‘Everything disappeared.’

The genuine adverbial forms of the quantifier *mind* ‘all’, both bearing the *-Vn* collective suffix, are shown in (1355); they contain an additional morpheme

between the quantifier and *-Vn*. That these are genuine adverbs is corroborated by the facts that, just as in the case of *sokan* and *kevesen*, they do not have an adnominal use (1355b), and they must have human referents. These forms are discussed in more detail in subsection 2.6.2.2.2.

- (1355) a. mindannyi-an, mindnyáj-an  
 all\_of-Coll          all\_of-Coll  
 both: ‘each and all of (a group)’
- b. \*mindannyi-an / mindnyáj-an ember  
 all\_of-Coll          / all\_of-Coll          person  
 Intended meaning: ‘each and all persons’

### III. The multiplicative suffix and the fractional suffix

As already shown in subsection 2.6.1.1.5.5, the multiplicative suffix *-szor/-szer/-ször* can combine with cardinals. In addition, this suffix can also be supported by the degree quantifiers (1356). The quantifier *több-ször* ‘more-Mult’ is ambiguous between the meanings ‘more times’ and ‘many times’; in the latter reading it is synonymous with *sok-szor* ‘many-Mult’.

- (1356) sok-szor, kevés-szer, több-ször, a legtöbb-ször, elég-szer  
 many-Mult    few-Mult          more-Mult    the most-Mult          enough-Mult  
 ‘many times, few times, [more times] / [many times], the most times, enough times’

Just as the multiplicative suffix can attach to the ordinal form of numerals to derive the meaning ‘for the X<sup>th</sup> time’ (1357a), it can also attach to the ordinal form of degree quantifiers to derive the meaning ‘for the X<sup>th</sup> time’ (1357b). The degree quantifiers that have an ordinal form are *sok* ‘many’ and *több* ‘more’, so only these can support the multiplicative suffix. *Több* ‘more’ again has an unexpected meaning: *több-ed-szer* lit. ‘more-Ord-Mult’ means what English ‘manyeth time’ would, if this English phrase existed, rather than the also non-idiomatic ‘moreth time’. *Kevés* ‘few’ and *elég* ‘enough’ have no ordinal form, shown in (1357c), hence they have no multiplicative form either.

- (1357) a. harm-ad-szor  
 three-Ord-Mult  
 ‘for the third time’
- b. sok-ad-szor, több-ed-szer  
 many-Ord-Mult    more-Ord-Mult  
 both: ‘for the manyeth time’
- c. \*keves-ed-szer, elég-ed-szer  
 few-Ord-Mult          enough-Ord-Mult

*Sok* ‘many’ and *több* ‘more’ also have ordinal full forms with the *-ik* suffix (1358). The ordinal form of *több* ‘more’ is ambiguous between what English ‘moreth’ and ‘manyeth’ would mean if these words existed; in the latter reading *többedik* is synonymous with *sokadik*.

- (1358) sok-ad-ik, több-ed-dik  
 many-Ord-Ptv more-Ord-Ptv  
 both: 'manyeth'

#### IV. Distributivity

As we have seen in subsection 2.6.1.1.5.6, reduplication of numerals yields a distributive meaning (1359).

- (1359) Adtam nekik három-három almát  
 give.Past.1Sg Dat-3Pl three-three apple.Acc  
 'I gave them three apples each.'

The degree quantifier *sok* 'many, much' can also be reduplicated (1360), but this yields an emphatic reading rather than a distributive meaning. The quantifier *kevés* 'few, little' cannot be reduplicated.

- (1360) a. Sok-sok férfi vitte a bőröndöket.  
 many-many man carry.Past.3Pl the suitcase.Pl.Acc  
 '(Very) many men carried the suitcases.'
- b. A férfiak sok-sok bőröndöt vittek.  
 the man.Pl many-many suitcase.Pl.Acc carry.Past.3Pl  
 'The men carried (very) many suitcases.'

Remark 35. Texts from the 18<sup>th</sup> and 19<sup>th</sup> centuries also feature the degree quantifier *több* 'more' in a reduplicated form (i). This expression, however, has a different structure. *Több több* does not have an emphatic 'very many' reading; instead, it means 'more and more'. This form is thus probably an instance of asyndetic coordination rather than genuine reduplication. Note that when *több több* modifies a count noun, the noun characteristically bears plural marking. (The example in (i) is from János Imre's 1830 book *Az ifju magyar bölcselkedő*.)

- (i) akaratomat is mindig több több jótettekkel nemesíteni  
 will.Poss.1sg too always more more good.deed.Pl.Ins noble.make.Inf  
 'to make my will, too, more noble with more and more good deeds'

In contemporary Hungarian the reduplicated form of *több* 'more' is marked; many speakers outright reject it. These speakers require (while others allow) the conjunction *és* 'and' to appear overtly (ii) (this would not be possible for *sok-sok* 'many-many').

- (ii) A férfiak több és több bőröndöt vittek.  
 the man.Pl more and more suitcase.Pl.Acc carry.Past.3Pl  
 'The men carried more and more suitcases.'

The coordinated form *több és több* 'more and more' is often preceded by the intensifiers *egyre* 'ever' or *mind* 'ever / all'. In the presence of these modifiers the conjunction *és* 'and' is obligatory even for those speakers who otherwise allow *több több* 'more more'. The coordinated form *kevesebb és kevesebb* 'fewer and fewer / less and less' is also possible (iii), and is also often preceded by the intensifiers *egyre* 'ever' or *mind* 'ever / all'.

- (iii) Egyre kevesebb és kevesebb könyvet olvasnak az emberek.  
 ever fewer and fewer book.Acc read.3Pl the people  
 'People read ever fewer and fewer books.'

### 2.6.2.5. Floating quantifier-like structures

It was mentioned above and in subsection 2.6.2.1 that quantifiers can form a constituent distinct from the nominal that they are associated with. Such quantifiers were mentioned earlier, but the facts are summarized in this subsection. These quantifiers are labeled floating quantifier-like structures because we are not committing ourselves to assuming a complete parallelism with any construction labeled ‘floating quantifier’ crosslinguistically. Floating quantifier-like structures fall into two groups: the quantifier may be adverbial, bearing the collective suffix *-Vn*, or it can have case morphology identical to the nominal it is associated with. We shall discuss these types in turn.

#### 1. Floating quantifier-like structures with adverbial quantifiers

Adverbial quantifiers require the associated nominal to refer to humans (1361a-c) and may only be associated with the subject (1361d,e). Below we illustrate these facts with the degree quantifier *sok* ‘many’.

- (1361) a. A fiúk sok-an elestek.  
 the boy.Pl many-Coll away.fall.Past.3Pl  
 ‘Many boys fell.’
- b. ??A tyúkok sok-an voltak az udvaron.  
 the chicken.Pl many-Coll be.Past.3Pl the garden.Sup  
 ‘There were many chickens in the garden.’
- c. \*A buszok sok-an késtek.  
 the bus.Pl many-Coll late.Past.3Pl  
 Intended meaning: ‘Many buses were late.’
- d. Mari (\*sok-an) meghívta (\*sok-an) a fiúkat.  
 Mari many-Coll perf.invite.Past.DefObj.3Sg many-Coll the boy.Pl.Acc  
 Intended meaning: ‘Mari invited many boys.’
- e. Mari (\*sok-an) küldött (\*sok-an) a fiúknak meghívót.  
 Mari many-Coll send.Past.3Sg many-Coll the boy.Pl.Dat invitation.Acc  
 Intended meaning: ‘Mari sent an invitation to many boys.’

The associated nominal must be plural definite (1362). If, however, the associated nominal is a contrastive topic, then it may also be indefinite (1362 c).

- (1362) a. A fiúk sok-an elestek.  
 the boy.Pl many-Coll away.fall.Past.3Pl  
 ‘Many boys fell.’
- b. \*Fiúk sok-an elestek.  
 boy.Pl many-Coll away.fall.Past.3Pl  
 Intended meaning: ‘Many boys fell.’
- c. Fiúk, sok-an elestek.  
 boy.Pl many-Coll away.fall.Past.3Pl  
 ‘As for boys, many (of them) fell.’

As shown by (1363), adverbial quantifiers do not appear in the prenominal quantifier position.



- (1363) a. a sok fiú  
           the many boy  
           'the many boys'
- b. \*a sok-an fiú(-k)  
           the many-Coll boy-Pl

In fact, the adverbial quantifier and the associated nominal never form a constituent. Note, however, that the focus test cannot directly confirm this. In Hungarian, it must be a unique constituent that appears in the preverbal focus position. The focused constituent bears nuclear stress on the first syllable; this is indicated by ' in (1364). The focused constituent, however, must be a phrase in which the head is the last element. Since adverbial quantifiers always follow the associated nominal, a *DP* [*adverbial quantifier*] string will be excluded from the focus position for independent reasons, too. The examples in (1364a,b,c') indicate that *sok fiú* 'many boys', *sokan* 'many.Coll' and *a fiúk* 'the boys' all form a constituent. The DP followed by an adverbial quantifier, in contrast, is out because of the above-mentioned restriction, too (1364c).

- (1364) a. 'Sok fiú jött el.  
           many boy come.Past.3Sg away  
           'Many boys came.'
- b. 'Sokan jöttek el a fiúk.  
           many.Coll come.Past.3Pl away the boy.Pl  
           'Many boys came.'
- b'. '[A fiúk]<sub>FOC</sub> jöttek el sokan.  
           the boy.Pl come.Past.3Pl away many.Coll  
           'It is the boys that came in a large number.'
- c. \*'[A fiúk sokan] jöttek el.  
           the boy.Pl many.Coll come.Past.3Pl away  
           Intended meaning: 'It is many boys that came.'
- c'. [A fiúk]<sub>TOP</sub> 'sokan jöttek el.  
           the boy.Pl many.Coll come.Past.3Pl away  
           'As for the boys, many of them came.'

The surface position of adverbial quantifiers is restricted. They cannot appear postverbally in a neutral sentence. Whenever they are postverbal, the sentence contains a contrastive topic, negation, focus, or it is imperative, as (1365) illustrates.

- (1365) ● The surface position of adverbial quantifiers
- a. \*A fiúk eljöttek sokan.  
           the boy.Pl away.come.Past.3Pl many.Coll  
           Intended meaning: 'Many boys came.'
- b. A fiúk, eljöttek sokan (de a lányok nem).  
           the boy.Pl away.come.Past.3Pl many.Coll but the girl.Pl not  
           'As for the boys, many came (but as for the girls, this isn't the case).' [contrastive topic]

- c. A fiúk nem OTTMARADTAK, hanem ELJÖTTEK sokan.  
 the boy.Pl not there.stay.Past.3Pl but away.come.Past.3Pl many.Coll  
 ‘Many boys CAME, rather than many boys STAYED THERE.’ [focus on verb]
- d. A FIÚK jöttek el sokan.  
 the boy.Pl come.Past.3Pl away many.Coll  
 ‘Many BOYS came.’ [subject focus]
- e. Gyertek el sokan!  
 come.Subj.2Pl away many.Coll  
 ‘Many of you should come.’ [imperative]
- f. A fiúk nem jöttek el sokan.  
 the boy.Pl not come.Past.3Pl away many.Coll  
 ‘The boys didn’t come in large numbers.’ [negation]

Adverbial quantifiers can be formed from universal, existential, and degree quantifiers alike (1366).

- (1366) A diákok 'valamennyi-en / néhány-an / sok-an' eljöttek.  
 the student.Pl every-Coll / a\_few-Coll / many-Coll away.come.Past.3Sg  
 ‘[Every student] / [A few students] / [Many students] came.’

Not all universal quantifiers can be used as adverbial quantifiers. While '*valamennyi* 'every' can be adorned with the collective suffix *-Vn* (1367a), the universal quantifiers *az összes* 'all the', '*valahány* 'every single' and *mindegyik* 'each', cannot support the collective suffix and so cannot appear as adverbial quantifiers (1367b). Despite appearances, *minden* is not an adverbial quantifier; instead, *mind* 'all' appears in these structures (1367a).

- (1367) • Adverbial quantifiers based on universal quantifiers
- a. A diákok 'valamennyien / mind' eljöttek.  
 the student.Pl every.Coll / all away.come.Past.3Sg  
 ‘[Every student] / [All the students] came.’
- b. \*A diákok minden / [az összesen] / 'valahányan' / mindegyiken  
 the student.Pl every.Coll / the all.Coll / every\_single.Coll / each.Coll  
 eljöttek.  
 away.come.Past.3Sg  
 Intended meaning: ‘[Every (single) student] / [All the students] / [Each student] came.’

As mentioned above, adverbial quantifiers in general require the associated nominal to refer to humans (1368a). *Mind* 'all', however, is an exception; it does not impose the human requirement (1368b). It is likely that the [+HUMAN] restriction on adverbial quantifiers is rooted in the collective suffix itself, and the restriction does not apply to *mind* because this form does not contain the collective suffix.

- (1368) a. \*A buszok sok-an / keves-en / néhány-an késtek.  
 the bus.Pl many-Coll / few-Coll / a\_few-Coll come.late.Past.3Pl  
 Intended meaning: ‘Many / few / a few buses were late.’

- b. A buszok mind késtek.  
 the bus.Pl all late.Past.3Pl  
 'The buses were all late.'

## II. Floating quantifier-like structures with case matching

Case-marked floating quantifier-like elements can be associated with a nominal (phrase) and they bear the same case as the associated nominal. In (1369) we illustrate this with the degree quantifier *sok* 'many'.

- (1369) • Case on the floating quantifier-like element
- a. Diák-ot sok-at tartóztatott le a rendőr.  
 student-Acc many-Acc arrest.Past.3Sg down the policeman  
 'The police arrested many students.' [Accusative]
- b. Diák-nak sok-nak jutott zászló.  
 student-Dat many-Dat get.Past.3Sg flag  
 'Many students got a flag.' [Dative]

The associated nominal must be a bare singular noun (1370).

- (1370) a. Diákot sokat tartóztatott le a rendőr.  
 student.Acc many.Acc arrest.Past.3Sg down the policeman  
 'Of students, the police arrested many.'
- b. \*[A diákot] / \*Diákokat / \*[A diákokat] sokat tartóztatott  
 the student.Acc / student.Pl / the student.Pl many.Acc arrest.Past.3Sg  
 le a rendőr.  
 down the policeman

*Mind* 'all' is unusual in that if the associated noun (phrase) bears Accusative marking, then the case marking on *mind* is optional (1371b).

- (1371) a. A beszédek mind felrázták az embereket.  
 the speech.Pl all up.psych.Past.3Sg.DefObj the man.Pl.Acc  
 'The speeches all psyched the people up.' [Nominative]
- b. A rölapokat mind(et) olvastam.  
 the flyer.Pl.Acc all(Acc) read.Past.1Sg  
 'I have read all flyers.' [Accusative]

The associated nominal of *mind* 'all' must be definite plural (1372), unlike the case marked quantifiers discussed above.

- (1372) a. \*Rölapot mind olvastam.  
 flyer.Acc all read.Past.1Sg  
 Intended meaning: 'I have read all flyers.'
- b. \*Beszéd mind felrázta az embereket.  
 speech all up.psych.Past.3Sg.DefObj the man.Pl.Acc  
 Intended meaning: 'The speech all psyched the people up.'

Not all quantifiers can appear as a case-marked quantifier; the restrictions are illustrated in (1373).

- (1373) a. Röplapot sokat / eleget / keveset / valamennyit / párat /  
flyer.Acc many.Acc / enough.Acc / few.Acc / some.Acc / couple.Acc /  
néhányat olvastam.  
a\_few.Acc read.Past.1Sg  
'I have read many / enough / few / some / [a couple of] / [a few] flyers.'
- b. \*Röplapot mind / [a legtöbbet] / 'valamennyit' / 'valahányat'  
flyer.Acc all / the most.Acc] / every.Acc / every\_single.Acc  
olvastam.  
read.Past.1Sg  
Intended meaning: 'I have read [all flyers] / [the most flyers] / [every flyer] / [every single] flyer.'

### 2.6.2.6. Modification of quantifiers

#### I. Universal quantifiers

Universal quantifiers can be modified by approximatives. The specific range of modifiers can differ depending on the quantifier, so we provide examples for the various universal quantifiers below. (1374) shows the various approximatives and (1375a-f) show the acceptability of the approximatives with the quantifiers.

- (1374) majdnem, szinte, körülbelül, hozzávetőlegesen, saccperkábé, kábé, közel  
almost almost about roughly guess.per.around about nearly  
'almost, almost, about, roughly, at a rough guess, about, nearly'
- (1375) ● Approximative modification of universal quantifiers
- a. Majdnem / szinte / közel minden bombát megtaláltak.  
almost / almost / nearly every bomb.Acc perf.find.Past.3Pl  
'They have found almost / almost / nearly every bomb.'
- a'. \*Körülbelül / \*Hozzávetőlegesen / \*Saccperkábé / \*Kábé minden  
about / roughly / guess.per.around / about every  
bombát megtaláltak.  
bomb.Acc perf.find.Past.3Pl
- b. Majdnem / szinte / <sup>?</sup>közel az összes bombát megtalálták.  
almost / almost / nearly the all bomb.Acc perf.find.Past.3Pl.DefObj  
'They have found almost / almost / nearly all the bombs.'
- b'. \*Körülbelül / \*Hozzávetőlegesen / \*Saccperkábé / \*Kábé az összes  
about / roughly / guess.per.around / about the all  
bombát megtalálták.  
bomb.Acc perf.find.Past.3Pl.DefObj
- c. \*Majdnem / \*szinte / \*körülbelül / \*hozzávetőlegesen / \*saccperkábé /  
almost / almost / about / roughly / guess.per.around/  
\*kábé / \*közel 'valamennyi bombát megtalálták.  
about / nearly every bomb.Acc perf.find.Past.3Pl.DefObj

- d. \*Majdnem / \*szinte / \*körülbelül / \*hozzávetőlegesen / \*saccperkábé /  
almost / almost / about / roughly / guess.per.around /  
\*kábé / \*közel 'valahány bombát megtaláltak.  
about / nearly every\_single bomb.Acc perf.find.Past.3Pl
- e. Majdnem / szinte / közel mindegyik bombát megtalálták.  
almost / almost / nearly each bomb.Acc perf.find.Past.3Pl.DefObj  
'They have found almost / almost / nearly each bomb.'
- e'. \*Körülbelül / \*Hozzávetőlegesen / \*Saccperkábé / \*Kábé mindegyik  
about / roughly / guess.per.around / about each  
bombát megtalálták.  
bomb.Acc perf.find.Past.3Pl.DefObj
- f. Majdnem / szinte / közel mindet megtalálták.  
almost / almost / nearly all.Acc perf.find.Past.3Pl.DefObj  
'They have found almost/ almost / nearly all of them.'
- f'. \*Körülbelül / \*Hozzávetőlegesen / \*Saccperkábé / \*Kábé mindet  
about / roughly / guess.per.around / about all.Acc  
megtalálták.  
perf.find.Past.3Pl.DefObj

The universal *minden* 'every' may be modified by *sok* 'many' (1376). The resulting meaning is non-compositional; this complex quantifier can have a wide variety of interpretations. *Sokminden* cannot appear in a genuine partitive structure with *közül* 'out of' (1376b), and it cannot form a constituent with a nominal (1376c).

- (1376) a. Sok minden történt az elmúlt években.  
many everything happen.Past.3Sg the past year.Pl.Ine  
'Many things happened in the past years.'
- b. \*A röpcédulák közül sok mindent megsemmisítettek.  
the flyer.Pl out.of many everything.Acc perf.destroy.Past.3Pl  
Intended meaning: 'They destroyed many (of the) flyers.'
- c. \*Sok minden tüntetőt letartóztattak.  
many everything protester.Acc down.arrest.Past.3Pl  
Intended meaning: 'Many (of the) protesters were arrested.'

## II. Existential quantifiers

Of existential quantifiers, only negative existential quantifiers can be modified. As mentioned in subsection 2.6.2.1, negative existential quantifiers are negative concord items. In this subsection we only illustrate how these quantificational elements are modified. First, note that these items are morphologically complex. They have the prefix *se(n)-* and it is affixed to the 'wh'-word stem. The forms are shown in (1377). The only exception is *soha* 'never': in this case the *se(n)-* prefix appears in the form *so-*, and it combines with *ha* 'if/when'. This form exists along the expected *sem-mikor* lit. 'se-when' ('at no time').

- (1377) ● Negative existential quantifiers  
 sen-ki, sem-mi, se-hol, sem-mikor, so-ha, se-hogyan, sem-miért,  
 se-who se-what se-where se-when se-if se-how se-why  
 se-hány, se-mennyi  
 se-how.many se-how.many  
 ‘nobody, nothing, nowhere, at no time, never, in no way, for no reason, none, none’

In general, negative concord items can be modified only by *majdnem* ‘almost’, *szinte* ‘almost’ and *közel* ‘nearly’ (1378).

- (1378) ● Approximative modification of negative existential quantifiers
- a. majdnem / szinte / közel senki  
 almost / almost / nearly nobody  
 ‘almost / almost / nearly nobody’
- a’. \*körülbelül / \*hozzávetőlegesen / \*saccperkábé / \*kábé senki  
 about / roughly / guess.per.around / about nobody
- b. majdnem / szinte / közel semmi  
 almost / almost / nearly nothing  
 ‘almost / almost / nearly nothing’
- b’. \*körülbelül / \*hozzávetőlegesen / \*saccperkábé / \*kábé semmi  
 about / roughly / guess.per.around / about nothing
- c. majdnem / szinte / közel sehhol  
 almost / almost / nearly nowhere  
 ‘almost / almost / nearly nowhere’
- c’. \*körülbelül / \*hozzávetőlegesen / \*saccperkábé / \*kábé sehhol  
 about / roughly / guess.per.around / about nowhere
- d. majdnem / szinte / közel soha  
 almost / almost / nearly never  
 ‘almost / almost / nearly never’
- d’. \*körülbelül / \*hozzávetőlegesen / \*saccperkábé / \*kábé soha  
 about / roughly / guess.per.around / about never
- e. majdnem / szinte / közel sehogyan  
 almost / almost / nearly in.no.way  
 ‘almost / almost / nearly in no way’
- e’. \*körülbelül / \*hozzávetőlegesen / \*saccperkábé / \*kábé sehogyan  
 about / roughly / guess.per.around / about in.no.way
- f. majdnem / szinte / közel semmiért  
 almost / almost / nearly for.no.reason  
 ‘almost / almost / nearly for no reason’
- f’. \*körülbelül / \*hozzávetőlegesen / \*saccperkábé / \*kábé semmiért  
 about / roughly / guess.per.around / about for.no.reason

- g. \*majdnem / \*szinte / \*körülbelül / \*hozzávetőlegesen / \*saccperkábé /  
 almost / almost / about / roughly / guess.per.around /  
 \*kábé / \*közel sehány bomba  
 about / nearly not\_any\_number\_of bomb
- h. \*majdnem / \*szinte / \*körülbelül / \*hozzávetőlegesen / \*saccperkábé /  
 almost / almost / about / roughly / guess.per.around /  
 \*kábé / \*közel semmi bomba  
 about / nearly not\_any\_amount\_of bomb'

### III. Degree quantifiers

In general, degree quantifiers cannot co-occur with approximatives. They can co-occur, however, with the intensifiers given in (1379). Note that as an approximative, *elég* lit. 'enough' means 'rather'. Examples of modified degree quantifiers are given in (1380).

- (1379) nagyon, jó, szép, túl, elég, meglepően, váratlanul  
 very good nice overly enough surprisingly unexpectedly  
 'very, good, nice, overly, rather, surprisingly, unexpectedly'

(1380) ● Modification of degree quantifiers

- a. nagyon / jó / túl / elég / meglepően / váratlanul sok  
 very / good / overly / enough / surprisingly / unexpectedly many  
 'very / a good / overly / enough / surprisingly / unexpectedly many'
- a'. \*szép sok  
 nice many
- b. nagyon / túl / elég / meglepően / váratlanul kevés  
 very / overly / enough / surprisingly / unexpectedly few  
 'very / overly / rather / surprisingly / unexpectedly few'
- b'. %jó / %szép kevés  
 good / nice few  
 both: 'very few'

The quantifier *elég* 'enough' is acceptable with the same range of approximatives as numerals (1381).

- (1381) a. nagyjából / bőven / majdnem / ?szinte / körülbelül / hozzávetőlegesen /  
 by.and.large / more.than / almost / almost / about / roughly /  
 saccperkábé / ?kábé / közel elég  
 guess.per.around / about / nearly enough  
 '[by and large] / [more than] / almost / almost / about / roughly / [at a rough guess] / about /  
 nearly enough'
- b. nagyjából / bőven / majdnem / ?szinte / körülbelül / hozzávetőlegesen /  
 by.and.large / more.than / almost / almost / about / roughly /  
 saccperkábé / ?kábé / közel húsz  
 guess.per.around / about / nearly enough  
 '[by and large] / [more than] / almost / almost / about / roughly / [at a rough guess] / about /  
 nearly twenty'

### 2.6.3. Numeral (sortal) classifiers

Hungarian features different types of classifier constructions: there are sortal classifiers (denoting individual units of count nouns), as in (1382), group classifiers (denoting groups of mostly animate entities that act together as a unit), illustrated in (1383), container classifiers, shown in (1384), and mensural classifiers (denoting units of measuring), as in (1385).

- (1382) ● Sortal classifier structure  
 két szem alma  
 two eye apple  
 ‘two apples’
- (1383) ● Group classifier structure  
 két falka kutya  
 two pack dog  
 ‘two packs of dogs’
- (1384) ● Container classifier structure  
 két csésze kávé  
 two cup coffee  
 ‘two cups of coffee’
- (1385) ● Mensural classifier structure  
 két liter / csepp vér  
 two liter / drop blood  
 ‘two liters / drops of blood’

This subsection discusses sortal classifiers. These are different from group, container, and measure classifiers because the latter can be found in every language, but not every language has sortal classifiers. We will first give a general overview of sortal classifiers in Hungarian in subsection 2.6.3.1, and then turn to their distribution in subsection 2.6.3.2. Compound formation involving the classifier and the noun is the topic of subsection 2.6.3.3. Subsection 2.6.3.4 focuses on adjectivalized classifiers, while subsection 2.6.3.5 zooms in on the position of classifiers with respect to adjectives. Classifiers in noun phrases without an overt noun are discussed in subsection 2.6.3.6. Finally, subsection 2.6.3.7 is dedicated to the exceptional use of two classifiers.

Group, container, and measure classifiers are discussed in detail in section 2.4; that chapter also offers a discussion of sortal classifiers.

#### 2.6.3.1. General overview

Hungarian features numeral classifiers (see also Dékány (2011), Csirmaz and Dékány (2014) and section 2.4); these classifiers are similar to the numeral classifiers of the Chinese languages. An example is given in (1386).



- (1386) egy szem keksz  
 one eye biscuit  
 'one (piece of) biscuit'

Table 86 presents a near-exhaustive list of numeral classifiers (see also Table 77 in section 2.4.1.1). Most of them are homonymous with garden variety nouns. *Szem*, for instance, means 'eye' in its ordinary nominal use. When used as a classifier, on the other hand, it categorizes the noun as a characteristically small and spherical object. The classifiers *gerezd* 'clove' and *vekni* 'loaf' have only a classifier use, however.

Table 86: *Sortal classifiers*

CLASSIFIER	NOMINAL MEA	CLASSIFIER MEANING	EXAMPLES OF CLASSIFIED NOUNS
<i>BOKOR</i>	bush	plant used in agriculture or gardening	potato, raspberry, rose
<i>CIKK</i>	segment, section	edible with crescent shaped parts	garlic, orange, tangerine, grapefruit
<i>CSERÉP</i>	pot	potted plant	any potted flower
<i>CSÍK</i>	stripe, line	long, flat, square-shaped	chewing gum
<i>CSŐ</i>	tube	edible plant with tubular shape	sweetcorn, bell pepper
<i>DARAB</i>	piece, item	count noun	any count noun, preferably [-human]
<i>FEJ</i>	head	big spherical	cabbage, lettuce, cauliflower, onion
<i>FŐ</i>	head	people, esp. in regimented situations	crew, infantryman
<i>GEREZD</i>	segment	edible with crescent shaped parts	garlic, orange, tangerine, grapefruit
<i>KARIKA</i>	circle, ring	round shaped slice	sausage
<i>KÖTET</i>	volume	bound volume	book, journals
<i>ÍV</i>	sheet, arc	flat, thin	paper
<i>RÓZSA</i>	rose	floret	broccoli, cauliflower
<i>RÚD</i>	pole, stick, rod	stick of sausage or other food	chitterling, salami, vanilla
<i>SZÁL</i>	thread	long, thin with round cross-section	flower, hair, fur, grass, match, sausage, welt, candle, green onion, carrot, cigarette, plank
<i>SZEM</i>	eye	small spherical	grape, tomato, all types of berries, pearl, all types of nuts, potato, raisin, corn, biscuit, coffee bean, pepper, pill, sand
<i>TŐ</i>	stem	plant	grape, rule, nursling, any plant with a nursling
<i>VEKNI</i>	loaf	loaf of bread	bread

2.6.3.2. *Distribution*

Numeral classifiers can appear in the noun phrase if there is a numeral, quantifier, or (singular) demonstrative in the noun phrase (1387).

- (1387) a. hét / sok szem ribizli  
 seven / many eye redcurrant  
 'seven / many redcurrant berries'
- b. az / ez a szem ribizli  
 this / that the eye redcurrant  
 'this / that redcurrant berry'

Neither the definite article (1388a) nor the plural marker can license the classifier (1388b), and classifiers also cannot co-occur with bare nouns (1388c). While the present authors do not share these judgments, some speakers find that the presence of both a (plural marked) demonstrative and the plural marker makes the classifier acceptable (1388d) (see Rothstein and Schvarcz to appear).

- (1388) a. \*a szem ribizli  
 the eye redcurrant  
 Intended meaning: 'the redcurrant berry'
- b. \*szem ribizli-k  
 eye redcurrant-Pl  
 Intended meaning: 'redcurrant berries'
- c. \*szem ribizli  
 eye redcurrant  
 Intended meaning: 'redcurrant berry'
- d. %az-ok a szem ribizli-k  
 that-Pl the eye redcurrant-Pl  
 'those redcurrant berries'

Numeral classifiers are mostly optional (1389) in the sense that leaving them out of the noun phrase does not lead to ungrammaticality (but see below for a possible impact on meaning if the classifier is left out).

- (1389) egy (szem) keksz, két (fej) káposzta, egy (szál) cigaretta  
 one eye biscuit two head cabbage one thread cigarette  
 'one (piece of) biscuit, one head of cabbage, one cigarette'

In a few cases, however, it is not possible to drop the classifier (1390).

- (1390) a. egy \*(szál) fű / haj / szalma / széna  
 one thread grass / hair / straw / hay  
 'one blade of grass, one strand of hair, one blade of straw, one blade of hay'
- b. egy \*(szem) homok  
 one eye sand  
 'one grain of sand'
- c. öt \*(fő) legénység / személyzet / őrség  
 five head crew / staff / ward  
 'a crew / staff / ward comprising five members'

This shows that *fű* ‘grass’, *haj* ‘hair’, *széna* ‘hay’, *szalma* ‘straw’, *homok* ‘sand’, *legénység* ‘crew’, etc. are mass nouns, and the classifier serves the function of making them countable. *Vanília* ‘vanilla’ and *kávé* ‘coffee’ are very similar to *fű* ‘grass’, *haj* ‘hair’, and *homok* ‘sand’, except that the former can be used without a classifier in case the context provides the ‘natural units’ of vanilla and coffee. For instance, if a baker is making a cake and there are sticks of vanilla and coffee beans on the table, then (1391c) is a grammatical sentence. Without such a strong context, however, (1391c) is ungrammatical, and (1391b) can only be interpreted as referring to a cup of coffee rather than a coffee bean.

- (1391) a. egy \*(rúd) vanília  
           one rod vanilla  
           ‘one stick of vanilla’
- b. egy ??(szem) kávé  
           one eye coffee  
           ‘one coffee bean’
- c. Tegyé! félre három vaníliát / kávé!  
           take.Subj.2Sg aside.Sub three vanilla.Acc / coffee.Acc  
           ‘Put three [(sticks of) vanilla] / [coffee beans] aside.’

The classifier *darab* ‘piece / item’ is a so-called general (or generic) classifier: it can co-occur with any count noun (1392). This classifier is not compatible with abstract nouns.

- (1392) egy darab ház, egy darab autó  
           one piece house one piece car  
           ‘one house, one car’

*Darab* ‘piece / item’ is most natural with [–HUMAN] nouns. [+HUMAN nouns are not impossible with *darab* but there is a slight preference for dropping *darab* in these noun phrases (1393).

- (1393) ?száz darab katona / tanár / űrhajós  
           hundred piece soldier / teacher / astronaut  
           ‘one hundred soldiers / teachers / astronauts’

Note that *darab* ‘piece / item’ is, in fact, an ambiguous lexical item. In one of its uses it is a classifier meaning ‘item’ or ‘(whole) piece’. In the other use it is a measure expression meaning ‘piece of’. In the former use *darab* cannot bear stress, while in the latter case it has to bear stress (1394).

- (1394) a. 'egy darab kolbász  
           one piece sausage  
           ‘one sausage’
- b. egy 'darab kolbász  
           one piece sausage  
           ‘a piece of a sausage’

The other classifiers are specific classifiers: they can co-occur with only a small group of selected nouns. Most specific classifiers categorize nouns on the basis of

shape, size and structure: *szem* is for small spherical objects, *fej* ‘head’ is for big spherical objects, *szál* ‘thread’ is for long and thin objects. Not every noun can take a specific classifier. The shape, size, and kind combinations that classifiers cover are not appropriate for all nouns. Houses, watches, chairs and desks, for instance, have a shape that is not compatible with the meaning of any specific classifier. Such nouns can co-occur only with the general classifier *darab*. *Darab* ‘piece / item’, however, is not restricted to these nouns; it can also co-occur with nouns that are compatible with a specific classifier, too (1395). (1395a) and (1395b) have the same meaning.

- (1395) a. egy (darab) meggy  
 one piece sour.cherry  
 ‘one sour cherry’
- b. egy (szem) meggy  
 one eye sour.cherry  
 ‘one sour cherry’

In certain cases a noun is compatible with more than one specific classifier, and the choice of the classifier has an impact on the meaning of the noun phrase. Numeral classifiers in these cases thus play a disambiguating role. Compare (1396a) and (1396b): the former means a single rose stem with a flower on it, while the latter refers to a rose bush. Leaving out the classifier is compatible with both meanings. In this case the context disambiguates the meaning: at the florist, *egy rózsza* ‘one rose’ would be interpreted as a rose stem, while in a gardening store it would be interpreted as one rose bush.

- (1396) a. egy szál rózsza  
 one thread rose  
 ‘a rose stem’
- b. egy tő rózsza  
 one stem rose  
 ‘a rose bush’

Similar contrasts can also be observed between (1397a) and (1397a’), on the one hand, and between (1397b) and (1397b’), on the other. (1397a) means ‘one potato’ while (1397a’) means ‘one potato plant’, while (1397b) means ‘one tangerine’ and (1397b’) means ‘one tangerine segment’. Note that using tangerine without a classifier leads to a strong preference for the ‘one tangerine’ interpretation. The ‘one tangerine segment’ interpretation is possible only with a strong contextual support, where only tangerine segments are present but there are no whole tangerines.

- (1397) a. egy szem krumpli  
 one eye potato  
 ‘one potato’
- a’. egy bokor krumpli  
 one bush potato  
 ‘a potato plant’

- b. egy (szem) mandarin  
 one eye tangerine  
 'one tangerine'
- b'. egy (gerezd) mandarin  
 one segment tangerine  
 'one tangerine segment'

The classifier *fő* 'head' is used exclusively for humans, especially in a regimented situation (1398). Note, however, that it is not compatible with all human denoting nouns even in regimented situations.

- (1398) három fő legénység / személyzet / őrség / \*csapat  
 three head crew / staff / ward / team  
 'a crew / staff / ward / team comprising five members'

### 2.6.3.3. Compound formation

Some classifiers can form compounds with the some nouns that they co-occur with. *Szál* 'thread' can form a compound with *virág* 'flower' and *cigaretta* 'cigarette' (1399a), but not with *szalámi* 'salami' or *répa* 'carrot' (1399a'). Similarly, *szem* 'eye' can form a compound with *homok* 'sand' and *gyöngy* 'pearl' (1399b), but not with *dió* 'walnut' or *paradicsom* 'tomato' (1399b'). *Vekni* 'loaf', on the other hand, does not form compounds with the nouns it can classify (1399c). Compound formation with nouns is thus not a productive mechanism that characterizes numeral classifiers.

- (1399) a. virág-szál, cigaretta-szál  
 flower-thread cigarette-thread  
 '(cut) flower, cigarette'
- a.' \*szalámi-szál, répa-szál  
 salami-thread carrot-thread
- b. homok-szem, gyöngy-szem  
 sand-eye pearl-eye  
 'grain of sand, pearl'
- b.' \*dió-szem, \*paradicsom-szem  
 walnut-eye tomato-eye
- c. \*kenyér-vekni  
 bread-loaf

### 2.6.3.4. Adjectivalized classifiers

Some classifiers can be adjectivalized by the *-Vs* '-ed' suffix. That the classifiers in (1400a) through (1400d) have been adjectivalized is shown by two facts. Firstly, the 'classifier' no longer needs a numeral or demonstrative licenser in the noun phrase. Secondly, if the noun is a count noun (as in the case of *kukorica* 'sweet corn' and *bors* 'pepper'), the 'classifier' can be immediately preceded by the general classifier *darab* (1400d). This is not possible for genuine classifiers (1400e).

- (1400) a. csöv-es kukorica  
 tube-ed sweetcorn  
 ‘corn on the cob (as opposed to corn shredded from its cob)’
- b. szem-es bors, szem-es takarmány  
 eye-ed pepper eye-ed fodder  
 ‘pepper grains (as opposed to ground pepper), fodder comprising seeds and grains’
- c. szál-as takarmány  
 thread-ed fodder  
 ‘fodder comprising crop residues’
- d. egy darab csöv-es kukorica, egy darab szem-es bors  
 one piece tube-ed sweetcorn one piece eye-ed pepper  
 ‘a corncob, a pepper grain’
- e. \*egy darab cső kukorica, \*egy darab szem bors  
 one piece tube sweetcorn one piece eye pepper  
 Intended meaning: ‘one ear of corn, one pepper grain’

Adjectivalized classifiers can only be used with a very limited set of nouns; the range of examples given above is near-exhaustive. *Szál* ‘thread’, for instance, can co-occur with *rózsa* ‘rose’ and *cigaretta* ‘cigarette’ as a classifier, but not as an adjectivalized classifier (1401).

- (1401) \*szál-as rózsza / cigaretta  
 thread-ed rose / cigarette

The classifier *fő* ‘head’ is exceptional because it can take the *-Vs* adjectivalizing suffix but even in this adjectivalized form it has to be licensed by a numeral (1402).

- (1402) \*(három) fő-s legénység  
 three head-ed crew  
 ‘a crew comprising three members’

Note that in the adjectivalized form, *fő* ‘head’ can also modify nouns that it cannot co-occur with in its non-adjectivalized use (1403).

- (1403) a. \*öt fő csapat  
 five head team  
 Intended meaning: ‘a team comprising five members’
- a’. öt fő-s csapat  
 five head-ed team  
 ‘a team comprising five members’
- b. \*öt fő teríték  
 five head place.setting  
 Intended meaning: ‘five place settings’
- b’. öt fő-s teríték  
 five head-ed place.setting  
 ‘place setting for five people’

It is not the case, however, that *fős* can modify all kinds of nouns. (1404), for instance, is ungrammatical.

- (1404) \*öt fő-s autó  
 five head-ed car  
 Intended meaning: 'car for five people'

Remark 36. The classifier *fő* 'head' is exceptional in another respect, too: it is the only sortal classifier that can combine with the suffix *-nyi* '-ful' (i).

- (i) a. öt fő-nyi legénység  
 five head-nyi crew  
 'a crew comprising five members'  
 b. \*öt fej-nyi káposzta, \*egy szem-nyi alma  
 five head-nyi cabbage one eye-nyi apple  
 Intended meaning: 'five headful of cabbage, one itemful of apple'

### 2.6.3.5. *Position with respect to adjectives*

Numeral classifiers follow numerals or quantifiers and precede the noun. Their position with respect to adjectives, however, cannot be characterized in such simple terms: the ordering depends on both the type of classifier and the type of adjective involved (Dékány 2011, Csirmaz and Dékány 2014). Scott (2002) observes that different types of adjectives are ordered with respect to each other as in (1405) (see also subsection 2.2.1.1.1.1 and A4.1).

- (1405) ordinal > cardinal > size > length > height > speed > width > weight >  
 temperature > wetness > age > shape > color > origin > material

The general classifier *darab* 'item / piece' immediately follows the numeral or quantifier and precedes all types of adjectives. (1406) features a high size adjective and a low color adjective.

- (1406) egy (\*nagy) darab nagy alma, öt (\*fehér) darab fehér káposzta  
 one big piece big apple five white piece white cabbage  
 'one big apple, five white heads of cabbage'

Specific classifiers, on the other hand, appear in the middle of the adjective sequence in (1407): their most neutral position is between weight and temperature adjectives.

- (1407) a. egy nehéz fej (\*nehéz) káposzta  
 one heavy head heavy cabbage  
 'a heavy head of cabbage'  
 b. egy szem sárga gyöngy, egy sárga gyöngy-szem  
 one eye yellow pearl one yellow pearl-eye  
 both: 'a yellow pearl'  
 b'. %egy szem sárga gyöngy-szem  
 one eye yellow pearl-eye  
 'a yellow pearl'

If high adjectives follow a specific classifier, then we obtain a type reading. That is, in (1408a) it is the apple token at hand that is big, while in (1408b) the apple is of a big type, but the apple token at hand may be small.

- (1408) a. egy nagy szem alma  
 one big eye apple  
 'a big apple'
- b. egy szem nagy alma  
 one eye big apple  
 'an apple of the big type'

A high adjective may both precede and follow a specific classifier, with the pre-classifier adjective yielding a token reading, while the post-classifier adjective yielding a type reading. Given the token vs. type contrast, the inclusion of opposite adjectives in (1409) does not lead to semantic anomaly.

- (1409) egy nagy szem kis alma  
 one big eye small apple  
 'a big apple of the small type'

Low adjectives cannot both precede and follow a specific classifier, leading to a type vs. token reading (1410). These adjectives must follow the specific classifier. A type vs. token contrast can be expressed by placing both adjectives after the classifier, with stress on the first (token expressing) adjective.

- (1410) a. egy szem 'sárga zöld alma  
 one eye yellow green apple  
 'a yellow apple of the type green apple'
- b. \*egysárga szem zöld alma  
 one yellow eye green apple  
 Intended meaning: 'a yellow apple of the type green apple'

As already pointed out above, the general classifier cannot be immediately followed by a specific classifier (1411b). However, if a high adjective intervenes between the two classifiers, then the example is ameliorated (Dékány 2011). The inclusion of a low adjective (after the classifier) does not have the ameliorating effect (1411c), thus the increased acceptability of (1411a) must be attributed to breaking the surface adjacency between the two classifiers.

- (1411) a. <sup>(?)</sup>egy darab nagy szem krumpli  
 one piece big eye potato  
 'one big potato'
- b. \*egy darab szem krumpli  
 one piece eye potato
- c. \*egy darab szem lila krumpli  
 one piece eye purple potato



2.6.3.6. *Classifiers in the absence of an overt noun*

If the noun is elided, the classifier can, but does not have to be elided with it (1412).

- (1412) a. három szem alma  
 three eye apple  
 'three apples'
- b. három szem  
 three eye  
 'three ones'
- c. három  
 three  
 'three'

If the classifier is not elided and it is the rightmost overt element in the noun phrase, then the stranded suffixes of the elided noun receive phonological support from the classifier, as in (1413) (see volume C).

- (1413) a. három szem eper-nek  
 three eye strawberry-Dat  
 'to three strawberries'
- b. három szem-nek  
 three eye-Dat  
 'to three ones'

As discussed above, low adjectives follow the classifier and precede the noun. In the case of noun (phrase) ellipsis, we expect the order of the classifier and the low adjective to be preserved. This is indeed possible, however, in case the noun is not overt, the low adjective may also precede the classifier, as in (1414) (see also Dékány 2011).

- (1414) a. Félreteszek egy szem piros-at és egy szem zöld-et.  
 put.aside.1Sg one eye red-Acc and one eye green-Acc  
 'I put aside a red one and a green one.'
- b. Félreteszek egy zöld szem-et.  
 put.aside.1Sg one green eye-Acc  
 'I put aside a green one.'

In (1414b) the classifier is in a position that is normally occupied by nouns. Curiously, in this position the classifier does not need a 'licensor' (a numeral, quantifier, or demonstrative pronoun) any longer; it can occur in a noun phrase that features a definite article but no classifier 'licensor' (1415).

- (1415) A zöld szem-et megettem.  
 the green eye-Acc perf.eat.Past.1Sg  
 'I ate the green one.'

The fact that no licensor is needed in (1415) cannot simply be attributed to noun (phrase) ellipsis. Compare (1416a), a noun phrase in which the head noun has been elided with (1416b), a noun phrase with an overt, non-elided head but without a

classifier licensor. These examples are equally ungrammatical. The crucial difference between the ellipsis examples in (1415) and (1416) is the order of the classifier and the low adjective. As long as the classifier precedes the low adjective, a classifier licensor must be present in the structure.

- (1416) a. \*A szem zöld-et megettem.  
           the eye green-Acc perf.eat.Past.1Sg  
           Intended meaning: ‘I ate the green one.’
- b. \*A szem epr-et megettem.  
           the eye strawberry-Acc perf.eat.Past.1Sg  
           Intended meaning: ‘I ate the strawberry.’

Structures in which there is no overt head noun and the classifier follows the low adjective also behave exceptionally when it comes to plural marking. We have seen above that classifiers do not co-occur with the plural marker. Compare (1417a), a noun phrase without ellipsis and (1417b), a noun phrase in which the head noun has been elided and in which the classifier precedes the low adjective. The restriction on the appearance of the plural marker is in effect in both cases.

- (1417) a. \*Az-ok a szem zöld epr-ek éretlen-ek.  
           that-Pl the eye green strawberry-Pl unripe-Pl  
           Intended meaning: ‘Those green strawberries are not ripe.’
- b. \*Az-ok a szem zöld-ek éretlen-ek.  
           those-Pl the eye green-Pl unripe-Pl  
           Intended meaning: ‘Those green ones are not ripe.’

However, the plural marker may appear if the noun or noun phrase is elided and the classifier follows the low adjective (1418).

- (1418) Az-ok a zöld szem-ek éretlen-ek.  
           those-Pl the green eye-Pl unripe-Pl  
           ‘Those green ones are not ripe.’

### 2.6.3.7. *Exceptional uses of szem ‘eye’ and szál ‘thread’*

As discussed above, classifiers co-occur with a limited set of nouns. *Fej* ‘head’ classifies (some) big round objects, *szem* ‘eye’ classifies (some) small round objects, *szál* ‘thread’ classifies (some) long thin objects, etc. However, in case the numeral can be considered to be contextually very low or minimal, the classifiers *szem* ‘eye’ and *szál* ‘thread’ can combine with any noun. (1419a) shows that *szem* ‘eye’ is normally incompatible with the noun ‘child’, and (1419b) shows that when the number is contextually low, this combination becomes possible.

- (1419) a. \*húsz szem gyerek  
           twenty eye child  
           Intended meaning: ‘twenty children’
- b. Egy szem gyerekük van.  
           one eye child.Poss.3Pl be.3Sg  
           ‘They have only one child.’

Similarly, *szál* ‘thread’ is normally incompatible with the noun *ember* ‘person’ (1420a), but just in case the number can be considered to be contextually very low, the combination is fine. Note that (1420b) also shows that the numeral can be other than *egy* ‘one’ in case the used number is a low number in the context.

- (1420) a. \*száz szál ember  
 hundred thread man  
 Intended meaning: ‘a hundred men’
- b. Három szál ember lézeng a téren.  
 three thread man idle.3Sg the square.Sup  
 ‘Merely three people are idling on the square.’

Further frequently used phrases involving the exceptional use of *szál* ‘thread’ are shown in (1421).

- (1421) a. egy szál gitárral, egy szál harisnyában / ingben / semmiben  
 one thread guitar.Ins one thread stocking.Ine / shirt.Ine / nothing.Ine  
 ‘with a single guitar, wearing [just stockings] / [just a shirt] / nothing’
- b. Gond egy szál se!  
 problem one thread neither  
 ‘No problem!’

The fact that it is precisely with *szem* ‘eye’ and *szál* ‘thread’ that the selectional restrictions between the classifier and the noun can be suspended in the context of a low numeral is quite possibly related to the meanings of these classifiers. Both *szem* ‘eye’ and *szál* ‘thread’ express that a dimension of the object they categorize can be considered to be small: with *szem* ‘eye’ this is the diameter, while with *szál* ‘thread’ this is the width of the object. It is therefore expected that if any classifiers have a distinguished role in expressions of minimal or contextually very low quantity, then it will be these two classifiers.

## 2.7. Bibliographical notes (*Gábor Alberti, Anikó Csirmaz, Éva Dékány, Judit Farkas, Judit Kleiber, Veronika Szabó, Bernadett Szőke, Bálint Tóth and Anita Viszket*)

As we have followed the method of permanently inserting references in the main text of the subsections of the chapter, our only task here is to highlight the main points.

Of the questions of complementation, discussed in section 2.1, the topic (of the mere status) of postnominal complement zone of nouns is a highly contentious issue in the Hungarian generative literature (Szabolcsi and Laczkó 1992, É. Kiss 2000, Alberti and Medve 2002/2005). Our discussion of the topic is essentially based on Alberti, Farkas and Szabó (2015). As for the topic of distinguishing arguments from adjuncts, Komlósy’s (1992, 1994) classification has served as a point of departure (in particular, in the case of the concept of *optional* arguments), together with Laczkó’s (2000a) and Rákosi’s (2009) argumentations on *conceptual arguments*, *quasi-arguments* or *thematic adjuncts*. In practice, we have essentially adapted the