

QUANTIFYING STRUCTURES AND THE MORPHOLOGICAL CLASS OF THE NUMERAL¹

Abstract: *The numeral has always been a long debated subject in the Romanian grammar, due to its heterogeneous nature. The debate is closely connected to the grammarians' generally stated idea that this lexical-grammatical class is denied the status of part of speech, being included in other grammatical classes. The present study is a bold attempt to demonstrate that the semantic and morpho-syntactic features categorize the numeral as an independent lexical-grammatical class, even though a series of elements interacts with other parts of speech. The values of the various types of numerals explain the morpho-syntactic heterogeneity of this class. Nevertheless, these values attributed to numerals must not be intermingled with the parts of speech themselves.*

Keywords: *heterogeneous, morpho-syntactic features, part of speech, numeral.*

The numeral, defined as a heterogeneous lexical-grammatical class, which interferes with the noun, adjective, pronoun or adverb, is one of the most controversial parts of speech both in studies of recent years and the history of the Romanian grammar. The numeral "is part of the semantic class of quantifiers and includes words and word groups with specific morphological and syntactic features." (GALR I, 2008: 289)

The disputes rise from the fact that some experts, noting that the numeral mostly has the value of other parts of speech (adjective, noun, adverb), deny its grammatical status and distribute it to those word classes. According to Al. Rosetti and J. Byck, "the numeral is not a category itself, since it is about adjectives, pronouns, nouns or adverbs." (GALR, 1945: 64). "The numeral is in fact an adjective, which instead of expressing actual features (colour, shape, dimension etc.) conveys quantifying features" (Iordan, 1956: 355). Other authors, on the contrary, take into account the common features of the numeral with the adjective, noun or pronoun and try to justify its status as an independent part of speech "the general semantic and grammatical characteristics lead to the idea that the numeral can be considered an independent part of speech..." (Dimitriu, 2000: 306)

The lack of homogeneity for the class, the adjectival value of certain numerals determining nouns and the adverbial value of other numerals do not represent solid arguments to demonstrate the inexistence of this part of speech. In order to delimit the class, it is necessary to highlight the specific semantic and grammatical characteristics of the words and establish the diagnostic contexts of numerals. Functionally, numerals vary according to the purpose they are used for, i.e. a group being cardinal and another ordinal.

Some numerals vary according to the grammatical categories of gender, number and case which are specific for nouns. There is not one single diagnostic context, but as many as there are types of numerals. This concept has been put forth by Z. Harris within the distributional type analysis and it has proved extremely useful to classify certain words in terms of morphology and to clarify their ambiguous status. In the case of the numeral, the diagnostic contexts are represented by interrogative elements: *câți / câte?* (cardinal numeral), *al cătelea / a căta?* (ordinal numeral), *câte câți / câte câte?* (distributive numeral), *de câte ori?* (adverbial numeral), *de câte ori mai mult / de câte ori mai mare?* (multiplicative numeral).

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Therefore, the morphological features peculiar to all types of numerals and the presence of diagnostic contexts enforce the idea that the numeral differs from the other parts of speech and should be approached as a separate chapter in the Romanian grammar.

Cardinal Numeral and Adjective

Theoretically, cardinal numerals are unlimited in number, but due to reduced possibilities of the human brain, only small numerals have a relatively large frequency, unlike high numbers with a low usage. Nevertheless, the class of the cardinal numeral comprises a large number of words, easily recognizable in the decimal system.

The diagnostic context is rendered in the following structures: *Cât anume ai vândut?* (10 kilograme), *Câtă anume ai consumat?* (3 litri), *Câte anume vin?* (20), *Cât unt anume ai folosit?* (100 de grame), *Câtă miere nume ai consumat?* (4 kilograme), *Câți studenți anume ai chemat?* (10), *Câte camere anume ai închiriat?* (5)

As regards the status of the forms: *sută, mie, milion, miliard*, their noun value has been recognized, thus conveying different forms according to number: *sute / sutele* or case – they use a typical G–D noun construction, by means of indefinite article (*înțoarcerea sutelor / miilor de păsări călătoare*), or an analytical construction (*venirea unor sute de turiști*). In the singular, they are numerals if only preceded by *un / o*, while in the plural, they act like numerals only when preceded by other numerals from inferior classes. In constructions such as: *sute de muncitori, fiecare milion de lei, această mie de lei* etc., the numerical concepts are converted into nouns.

As regards the category of determination, the numeral corresponding to the singular form for one unit, i.e. one *un* (the form for the masculine) / *o* (the form for the feminine) gets the definite article, unlike the numerical concepts, *sută, mie, milion* which get both the definite enclitic article (*suta, milionul*) and the indefinite determiner (*o sută, un milion*).

As mentioned in the specialized studies, *un / o* can be in turn, numeral, indefinite determiner or indefinite pronominal adjective. In the presence of graphic forms, the numeral no longer designates a number, but a noun: *Am luat un opt la istorie*. The phenomenon has been described as “accidental substantivizations of the numeral, conversions made by syntactic and / or inflected means” (Graur, 1971: 108).

The numerical concepts *zeci, sută / sute, mie / mii, milion / milioane* require a separate discussion because of the classification difficulties pointed out by the grammarians. Considering the distributional properties, similar to those of the noun, some authors have proposed their inclusion in the noun class, though in subsequent studies they were analyzed as cardinal numerals. “The numerals *zece, sută, mie* act like feminine nouns....simple neologistic numerals *milion, miliard* and compounds of the type *bilion, trilion*,...act similarly to neutral nouns.” (Avram, 2001: 100)

In reality, there are a few arguments that support their inclusion in the numeral class. In terms of the category, the words *zeci, sute, mii* have fixed gender like the nouns and impose their gender on the adjective they precede (*alt miliard de euro, câteva mii de lei*).

The numerical concepts are based on the opposition sing. / pl.: *o sută, o mie* are in the singular, whereas *două sute, patru mii* are in the plural. Also, the forms can use the definite and indefinite determiners like the noun (*sutele de studenți, niște sute de oameni*). The plural forms can be preceded by quantitative adjectives, which is impossible for other cardinal numerals (*câteva / multe / atâtea sute de elevi* vs. **câteva douăzeci de cărți, *mulți treizeci de muncitori*).

All these arguments are enough to include the numerical concepts *zeci*, *sute*, *mii* in the noun class. The numeral is said to have kept intact the category of number and all the quantitative oppositions, unlike other parts of speech which have only assimilated the singular / plural opposition. In terms of the category of number, the numeral imposes a limit of the number form on the noun. "The numeral and the noun agree semantically, not grammatically: the adjectival numeral *un / o* requires a noun in the singular, while numerals higher than *un / o* require a noun in the plural." (Graur, 1971: 8).

Semantically, *exactness* (precizia) is a specific definite feature of the numeral, while morphologically it renders the category of number through different means: suppletion (*zece / zeci*), additional morpheme Ø (*douăzeci, treizeci*), additional morpheme *spre* (*unsprezece, paisprezece*), additional morpheme *și* (*patruzeci și șapte*) or *de* (*sute de milioane*) (Găitănar, 1993: 44).

In terms of the case category, the numeral occupies a questionable position. According to some authors (Golopenția-Eretescu, 1965: 618), the numeral does not know the category of case, while others consider the numeral invariable in terms of case (G. G. Neamțu, 1980: 249-250). The two morphemes specialized to render the grammatical case are the prepositions *a* and *la* for genitive and dative: *sosirea a trei președinți, dau la cinci orfani* and the semi-independent pronoun *cei / cele* for nominative and accusative and *celor, al celor* for dative and genitive: *am dat burse celor doi studenți*.

Based on several arguments, some scholars have concluded that "*a* and *la* are wholly involved in generating the value of these cases, which, in fact, denies their prepositional status, giving them instead the quality of formants in the analytical structure of numeral cases, i.e. morphemes." (Neamțu, 1980: 250)

The forms *cei / cele / celor* are case morphemes, instead of gender and number morphemes. Cardinal numbers conveying the quantifying feature of the entities, are supposed to be in genitive or dative, only when preceded by *cel* (*Cei trei îmi sunt colegi, Despre cei doi se vorbește în sală, Casa celor doi este spațioasă, Celor doi le trebuie mai multă experiență*). "In such constructions, however, it cannot be definitely stated that *cel* is an adjectival determiner preceding the cardinal number or a demonstrative pronoun, in which case, the respective cardinal number is a numeral adjective." (Dimitriu, 1999: 312). *Cel* is used as a means to express cases for ordinal numerals: *Cărțile celui de-al doilea (G), I-am oferit celui de-al doilea o bursă (D)*, in which context it is no longer a determiner.

The category of approximation

Although not a subject of extensive research, the category of approximation has been frequently mentioned in the grammar studies. In the past, people used to describe the object groups by different quantifying words called numerals (*mulțime, grămadă, turmă, grup, ceată*, etc.), but today such words are no longer part of the numeral class, since they do not specify an exact number. However, when the counting system was adopted, these words lost their role of "numerals", being analyzed as quantifying nouns. There is some parallelism between numerals and these nouns, in that they express a quantifying semantic nuance, exact for numerals and approximate for nouns.

The category of approximation has so developed as to be divided into:

a. *Circumscribed approximation* which uses specific morphemes, approximation adverbs, adverbial phrases and prepositional phrases: *cam, circa, aproximativ, aproape, în jur de, cam la* etc., (*Cred că cei din organizație erau în jur de două sute*).

b. *Extreme approximation* which has a superlative value and is expressed by high or low indefinite numerals: *Am o mie și una de probleme de rezolvat*.

In the case of numeral omission, the limited approximation may get a superlative value, on a par with extreme approximation. In the enunciation *Au participat cam la patru sute de oameni*, *la* is no longer a preposition in the accusative, but a morpheme of approximation. Similar to approximation, *la* has no syntactic function.

Another way of indicating an indefinite number is the use of *n* letter, peculiar to mathematics. It is a symbol frequently used in everyday language and an indefinite substitute of a cardinal number: *Am de rezolvat n probleme* (foarte multe). The indefinite *n* has also extended to ordinal numbers, being often used in conversational phrases of the type: *I-am explicat a enșpea oară*, on older form of the phrase *a nu știu câta oară*.

c. *Lower approximation* is expressed by such morphemes as: *aproape*, *sub*, *până la*, *mai puțin de* and is equal to the comparative of inferiority. Nevertheless, distinction should be made between the enunciations *Maria este mai puțin harnică decât fratele ei* and *Au plecat mai puțin de treizeci de oameni*, where in the former example *mai puțin* is a proper comparison, while in the latter *de treizeci* is the object of the comparison, not a comparison *per se*.

d. *Upper approximation* is rendered by a numeral preceded by the preposition *peste* or combinations such as: *mai mult de*, *mai bine de*, *și mai mult*, *și mai bine* (*Trebuie să împrumut mai bine de zece mii de euro*, *S-au prezentat peste șizeci de profesori*).

e. *Limited approximation* implies the insertion of the compound preposition *până la* between two numerals (*Au venit patruzeci până la patruzeci și cinci de elevi*) or the use of the morpheme *între...și* (*Temperaturile vor fi cuprinse între zece și doisprezece grade*).

Therefore, the numeral implies the opposition + / - *exactness*, the latter being a category of approximation. In terms of this category, there is a correlation between numeral and the category of comparison. The numeral *per se* can be equal to the positive, the lower approximation corresponds to the comparative of inferiority, the upper approximation assimilates with the comparative of superiority while the extreme approximation corresponds to the superlative form of the adjective.

Cardinal numeral adjective

Cardinal numeral adjectives, except for *un / o* have the same phonetic basis as cardinal numbers, they determine the governing nouns with which they agree in gender, number and case, having the syntactic function of attribute. In the enunciation *Bărbatul avea trei fii*, the numeral is said to have adjectival value, i.e. it acts as an adjective to the governing noun.

Based on different arguments, grammar studies have aimed to establish whether constructions with numerals preceded by the preposition *de* have a pronominal or an adjectival value. In statements of the type *Am vândut treizeci și unu de tablouri*, traditional grammar considers that the syntactic relation is overturned, in which case the numeral acts as a noun and subordinates to the next term by means of *de* with a syntactic function of prepositional substantival attribute (*douăzeci și trei de elevi*, *o mie și una de probleme*).

Functionally, there is no difference between *doisprezece elevi* and *douăzeci și unu de elevi*, since both specify the number information. Morphologically, the agreement in gender between the numeral and the noun is a favorable argument to interpret the numeral in both constructions as an adjective taking on the gender of the determined noun.

Regardless of the presence or absence of *de*, when the numeral precedes a noun, it acts as an adjective. In such cases, the preposition “does not generate a syntactic group and does not impose a case restriction upon the noun.” (Dindelegan, 2003: 80).

The preposition is a required formant of the construction as can be easily seen in phrases such as: *astfel de*, *extraordinar de*, *destul de*, where the first element is subordinate, while the second is the governing element.

It can be concluded that in the structure *Numeral + de + Noun* (*Am vândut patruzeci și două de oi*), the second is the governing element, while the first accompanied by *de* is the subordinate term, as in *Numeral + Noun* (*Am vândut treisprezece oi*). In both cases, the numeral has an adjectival value and the syntactic function of an adjectival attribute.

Another particular case is the form *un / o* which can also incorporate the value of a cardinal numeral adjective. This is known by that *un / o* opposes to a cardinal numeral adjective higher than *two* (*o poveste este adevărată și două povești sunt false*).

In other contexts, the numeral adjective acting as an attribute can replace an ordinal number: *kilometrul 43*, *pagina 101*, *etajul 8* etc., showing the number of an object. The approach of the morphological class of the noun has aimed to partially solve the contradictions existing in the grammar studies. The analysis has highlighted the morpho-syntactic and semantic characteristics, in order to establish that the numeral is an independent lexical-grammatical class, even if a series of elements interact with other parts of speech.

Morphologically, the elements of the class have a specific semantic feature + *exactness*, which determines the quantitative oppositions. Semantically, the numeral is an exact numerical quantifier opposed to non-numerical quantifiers represented by indefinite pronouns or quantifying adverbs (*mulți*, *puțini*, *câțva*, *destul* etc.).

Due to the diversity of opinions, the numeral remains a chapter opened to linguistic research, both in terms of the nature of its elements and the richness of theoretical details.

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