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## The Metamorphosis Formula

Grammar, as a complex system of rules and structures, regulates how words are combined to form coherent sentences and texts. With the advancement of technology and the proliferation of the internet, grammar has undergone significant transformations, influencing both communication methods and thinking processes.

A relevant example is the simplification of grammar in the context of communication through short texts, instant messages, and social media platforms. These mediums have imposed a form of communication that is more concise and rapid, thereby generating the emergence of new rules. For instance, the use of emojis and abbreviations has become a common practice, integrating into contemporary digital language.

As far as possible, through the application of the concept of algorithmic grammar, which involves identifying and using complex mathematical formulas and specific notations, I have tried to elucidate the subtle mechanisms by which languages metamorphose, adapting to the needs of human communication. I have described grammatical transformations from both the structural perspective and the significance of letters, words, sentences, and entire phrases. This process has led to the formulation of a theory regarding the process of metamorphosis: => The Metamorphosis Formula.

### C/c{[(R)]}

In the chapter titled "The Transformation Process," the word (C/c) is considered a fundamental unit of language, subjected to thorough analysis. This analysis focuses on identifying the roots (R) and determining their chromatic position in relation to the addition of **prefixes – [+(Rn)] –**, **infixes – [(+Rn)] –**, **and suffixes – [(Rn)+]**. The chromatic identification of the position is interpreted in the sense that each symbol "+" represents information or a characteristic, thus generating an accumulation of information and characteristics.

The analysis also includes changes in word order, passive-active transformations, and other processes that support the identification of information and grammatical rules. Within this analysis, the types of grammatical elements are identified both at the semantic level (from a letter or a group of letters) and at the level of meaning, including articles, prepositions, and conjunctions.

By studying the interaction and transformation of these elements within the language, comparison formulas are developed, leading to the creation of formulas and a table of grammatical elements. Grammatical information is represented in the form of fractions, thus highlighting the possibility of applying this model in grammar and synthesizing information in a more concise manner. This approach has generated the need to abbreviate the names of grammatical information, which sometimes overlap with those from other languages, as well as the use of colors to reflect this information.

In the section titled "Grammatical Surgery," the main objective is to highlight the specific information associated with grammatical elements. This research involved a synthesis of the identified transformation processes, correlated with the corresponding formulas, and a detailed analysis of their role in the structure of sentences. Additionally, I investigated the interrelationships between these elements, explaining how they correlate and justifying their specific definitions.

As a result of observations that all languages have a common characteristic structure regulated by universal grammatical rules, I proceeded to adapt these principles into the reference language, ensuring that similar characteristics do not overlap and that they do not contradict the existing elements. Additionally, I found that each definition contains a distinct concept and that each piece of information expresses a specific connection between grammatical elements. Furthermore, observing that each reference imposes a unique graphic visual structure, I developed the geometric architecture of grammar. This method facilitates an organized and clear representation of the relationships between grammatical elements, highlighting their complexity and diversity. It is an approach that helps to broaden the general concept of geometry, focused on shape and position, expressed through mathematics, and that can also be found in the field of grammar.

I selected the Greek language (el) as the predominant reference model in the examples of identification and application, due to the semantic positioning of words, which facilitated the construction of interconnections between grammatical elements and their individualized definitions. Additionally, the identification and positioning of common information in relation to other grammatical elements significantly contributed to achieving a coherent visual representation, thus allowing for the borrowing of characteristics from other languages and highlighting their logic in the context of existence and application.

I opted for the English language (eng) as it reflects the specificities of other languages characterized by the absence of grammatical endings. Its structure is based on the use of prepositions and word order to express grammatical relationships. The impact it has on the topic and specific syntactic structure in sentences, as well as on the individual formulation of algorithms, is considerable compared to other languages that rely on endings in an essential way.

The Romanian language (rum) was chosen due to its richness in the algorithmic formation of words. This aspect is highlighted by the characteristics of grammatical elements in relation to the three predominant modes of expressing information: prefixes, infixes, and suffixes. These inflectional modes allow for the modification of the meaning, function, and grammatical value of words. Additionally, the Romanian language is positioned at an intermediate level regarding word order, providing increased freedom in expressing grammatical relationships through the use of affixes.

In this research, other languages were also included, which contributed to the discovery of new specific algorithmic methods. Additionally, many languages have their own processes for forming sentences, each having distinct formulas and even specific algorithms that await exploration and analysis. This work can serve as a reference model for comparing languages, with the ability to rigorously maintain the particularities and specific differences of each language. Such an endeavor could provide an engaging perspective on how certain concepts or expressions are treated in different linguistic contexts, highlighting the richness and complexity of human expressiveness

Grammatical metamorphosis constitutes a complex synthesis between grammatical theory and algorithmic theory, having a profound impact on the future and evolution of language, communication, and the interconnection of various fields of activity. This approach refers to the adaptation of letters and information in a flexible manner, both from a semantic and a physical perspective. The methods associated with metamorphosis can be implemented in the educational field to facilitate a rigorous understanding of the structure and evolution of language, within a formal and mathematical framework, thus contributing to the development of logical thinking necessary for identifying trends and formulating conclusions in various scientific domains.

The algorithm presented in the context of semantic transformations shapes words, having significant effects on their meaning. This application can be extended to natural language processing, allowing for a deeper understanding of how the meaning of words changes depending on different contexts. In the field of mathematics, algorithms are used to solve complex problems, such as the division algorithm. Mathematical formulas can be exploited to develop advanced grammar correction software capable of identifying and correcting subtle errors in text. Another mathematical approach to grammar is found in computational linguistics, contributing to the improvement of translations and automatically generated texts, as well as in any field that relies on transformation.

Artificial intelligence (AI), although based on algorithms, proves to be extremely effective in solving puzzles by breaking down problems into smaller parts, thus facilitating their understanding. However, it cannot achieve complete accuracy. AI uses learned rules and instructions to address each component and brings these parts together to find the solution to the initial problem. The lack of contextual understanding can generate confusion in interpreting the meaning of words. It is similar to memorizing a poem without understanding the author's message; although it may mix the pieces of a puzzle, it fails to create a new picture, even if it might be incorrect. Thus, if it were to act in this way, we might consider that it has certain "deficiencies." Creativity and the ability to form new words are fundamental traits of the Greek language, recognized since antiquity, which have profoundly influenced the evolution of literature and the exact sciences.

In a world that is in constant transformation, the adaptation of grammar becomes not only inevitable but also essential for remaining relevant in the communication of ideas. This evolution facilitates the effective expression of our thoughts. Looking towards the future, we anticipate a constant adaptation of grammatical rules to new technologies and the demands of human communication, a captivating process of transforming words, coordinated by algorithms and informational architectures that encourage creative and efficient communication.

# The Metamorphosis Formula / Formula Metamorfozei / Η Φόρμουλα της Μεταμόρφωσης

## 1) The processes of transformation / Procesele de transformare / Οι διαδικασίες μετασχηματισμού

$$C/c \rightarrow \sim/^?/^n\{\sim/+/+^/^n[\pm/+/-/\sim^>(\sim/>/</\pm/+/-/^?/^n R=/+/-/0^?/^n/+/>/</\sim^>]\sim/-/+/\pm/\sim/=]^?/^n/\sim\}$$

**1')**
- algorithm of the colors of grammatical information
- algoritmul culorilor informaţiilor gramaticale
- αλγόριθμος των χρωμάτων των γραμματικών πληροφοριών

$\sim[\sim,\pm,+,+/-,-,\sim\ (\sim,\pm,+,+/-,-,R)-,-/+,+,\sim]\sim$

$[\pm,+,+/-,-,\sim\ (>,-,\pm,+,+/-,-,>R0<)-,-/+,+,\ \pm,\sim]\sim$

$[\pm,+,+/-,-,\ (\pm,+,+/-,-/R)-,-/+,+,\ \pm]$  $[\pm,+,+/-,-,\ (\pm,+,+/-,-,R)-,-/+,+,\ \pm]$  $[\pm,+,+/-,-\ (\pm,+,+/-,-/R,0)-,-/+,+,\pm]$

**2')**

**A)** $C/c\{[(R)]\} \quad \blacksquare \quad C/c\{[(R)]\}$ — the indication of the transformation process / indicarea procesului de transformare / ένδειξη της διαδικασίας μετασχηματισμού

**B)** ( a → n ) c[+(+R0)+] ■ c[(R0)]
- information transfer
- transfer informaţional
- μεταφορά πληροφοριών

**A')** c(a) — c(b)
- by semantic addition => loss of information
- prin adăugare semantică => pierdere de informaţie
- με σημασιολογική προσθήκη => απώλεια πληροφοριών

**B')** c(a) — c(b)
- by semantic elimination => information transfer
- prin eliminare semantică => transferarea informaţiilor
- με σημασιολογική εξάλειψη => μεταφορά πληροφοριών

**C)** N ■ N — informational substitution / substituire informaţională / η ενημερωτική υποκατάσταση

**3')** +

**A)** [ + ( + R ) + ] — adding grammatical elements / adăugare elemente gramaticale / προσθέτοντας γραμματικά στοιχεία

**B)** C/c[-( -R )-] ■ C/c[-(-R)-] — fusion by addition / fuziune prin adăugare / σύντηξη με προσθήκη

**4')** >)<

**A)**
- incorporation / semantic identification of components
- introducere / identificare semantică a componentelor
- εισαγωγή / σημασιολογική αναγνώριση συστατικών

**a)** >(>< — semantic incorporation / introducere semantică / η σημασιολογική εισαγωγή

**b)** (</<> — semantic identification / identificare semantică / η σημασιολογική ταύτιση

**B)** C[<0(> R<)0> ] — decomposition / descompunere / αποσύνθεση

**5')** -/+

C/c{[ -/+ ( R -/+ R -/+ ) -/+ ]} — semantic replacement / înlocuire semantică / σημασιολογική αντικατάσταση

**6')** /

C/c{[( R )]} / C/c{[( R )]}
- semantic joining
- alăturare semantică
- σημασιολογική ένωση

**A)** c[( R )] / C[( R )]   **B)** C/c[( R )] / C[( R )]   **C)** c[( R )] / C[( R )]

**7')** >/<

**A)** — the merging of formulas / comasarea formulelor / η συγχώνευση των φόρμουλων

**B)** C/c{[(R)]} >/< C/c{[(R)]}
- fusion of meaning and formulas
- fuziune de înţeles şi formule
- σύμπτυξη της έννοιας και των φόρμουλων

**a)** Σc/C >/< Σc/C => Σ(e)C[(R)]   **b)** Σc/C >/< Σc/C => Σ(e)«C[(R)]»νφ   **c)** Σc/C >/< Σc/C => Nη

**8')** -

C[ - ( - R ) - ] elimination of grammatical components / eliminare componente gramaticale / εξάλειψη γραμματικών συστατικών

**9')** ~

**A)** C/c[(( ≠R/0-)=]- — semantic metathesis / metateză semantică / σημασιολογική μετάθεση .

**B)** c[(R)-] — syntactic switching / comutare semantică / συντακτική εναλλαγή .

**C)** FS = C/c{[±/~(±/~Σ/S~/±)~/±] } η
- the inflection of the main sentence composed of n grammatical elements and n syntactic functions
- flexiunea propoziţiei principale compusă din n elemente gramaticale şi n funcţii sintactice
- η κλίση της κύριας πρότασης που αποτελείται από η γραμματικά στοιχεία και N συντακτικές συναρτήσεις

**D)** C/c - C/c — semantic translation / traducere semantică / σημασιολογική μετάφραση

**10')** ~

C [± ( ±R )± ] — semantic flexibility ( declension / conjugation ) / flexibilitate semantică ( declinare / conjugare ) / σημασιολογική ευελιξία ( κλίση / σύζευξη )

**11')**

[(Rn/n/n/n/n....)] = [ (Rn/n/n/n/n/n...)]
{n[n( = )n]n}
- semantic-informational comparison /
- comparaţie semantico – informaţională
- σημασιολογική σύγκριση-πληροφοριακή

**A)**
- change of grammatical value
- schimbarea valorii gramaticale
- αλλαγή γραμματικής αξίας

**B)**
- gramatical sense
- sensul gramatical
- γραμματική έννοια

**12')**

**A)** ΣC/c = (n)
- expression of meaning
- exprimarea sensului
- έκφραση νοήματος

**a)** ΣC/c = (si)
- the expression of inner meaning
- exprimarea sensului interior
- η έκφραση του εσωτερικού νοήματος

**b)** ΣC/c = (se)
- the expression of the external meaning
- exprimarea sensului exterior
- η έκφραση του εξωτερικού νοήματος

**B) / B')**
= types of informational expression
= tipuri de exprimare informaţională
= είδη ενημερωτικής έκφρασης

**a)** C/c {[(R)]} dni< C/c{[(R)]}
- informational semantic dilation
- dilatare semantică informaţională
- πληροφοριακή σημασιολογική διάταση

**b)** C/c {[(R)]} >cni C/c {[(R)]}
- informational semantic contraction
- contracţie semantică informaţională
- πληροφοριακή σημασιολογική συστολή

**c)** C/c {[(R)]} >eni C/c{[(R)]}
- semantic informational equality
- egalitate semantică informaţională
- σημασιολογική πληροφοριακή ισότητα

C/c {[(R)]} >enp C/c {[(R)]}  ≠ i
- sentence semantic equality / - informational difference
- egalitate semantică propoziţională / - diferenţă informaţională
- πρόταση σημασιολογική ισότητα / - πληροφοριακή διαφορά

**13')**

- the process of transformation through national - international connections
- procesul de transformare prin conectare naţional - internaţional
- η διαδικασία του μετασχηματισμού μέσω εθνικής - διεθνούς σύνδεσης

**A)** [( Rx )]n
- the grammatical element has its origin in the respective expressed language = national grammatical element
- elementul gramatical îşi are originea în limba respectivă exprimat = element gramatical naţional
- το γραμματικό στοιχείο έχει την προέλευσή του στην αντίστοιχη εκφρασμένη γλώσσα = εθνικό γραμματικό στοιχείο

**B)** [ ( Rx )]i
- the grammatical element has its international origin = international grammatical element
- elementul gramatical îşi are origine internaţional = element gramatical internaţional
- το γραμματικό στοιχείο έχει τη διεθνή του προέλευση = διεθνές γραμματικό στοιχείο

**C) / A')** R = {[n(x+x+...)]} = 1Cn

**C) / B')** Rx = {[n(x+x+...)]} = nCn — the components of words / componentele cuvintelor / τα συστατικά των λέξεων

**Ii)** Rx= {[n(x+x+...)]} = nCn   componentele cuvintelor

**14')**

n { n [ n ( σn – n / n ) /' n ] /' }n > n — tone formula / formula tonului / τύπος τονισμού

**15')**

$\dfrac{(N/n)}{} \quad / \quad (N/n) \quad / \quad ....$
Σe''(n/n<=/≠>)
- grammatical agreement / disagreement
- acord / dezacord gramatical
- γραμματική συμφωνία / διαφωνία

**16')** C[(-R/+R)] - the total change of a grammatical element / schimbarea totala a unui element gramatical / η συνολική αλλαγή ενός γραμματικού στοιχείου

## 2) The formulas of grammatical elements / Formulele elementelor gramaticale / Οι τύποι των γραμματικών στοιχείων
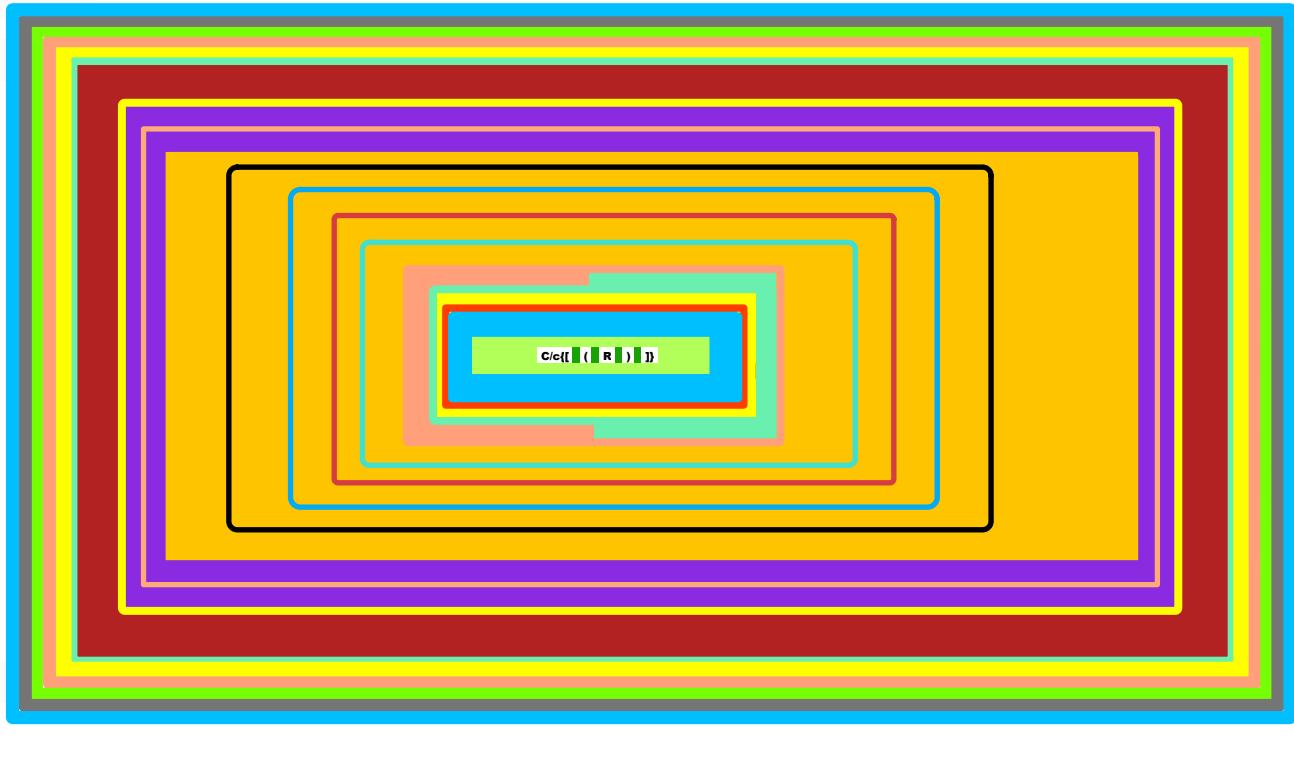
$C/c \cdot /''\{'/''[+'/(+ \cdot /''R+/-/0'/'' +)'+]\}$

### a)

| | |
|---|---|
| **1')** $c[+(+R+)+]$ = letters / litere / γράμμα / | $c[(R0)]$ / $c[(R+)]$ = syllables / silabe / συλλαβές |

$C[(R0)]$ = root / rădăcină / ρίζα

**a)'** $c[+(+R/+/0'/'' )+] / c[+(+R/+/0'/'' )+]$

- semantic dependencies (cdd)
- dependente semantic (cdd)
- εξαρτώμενοι σημασιολογικά (cdd)

**2)'**
- affix
- afix
- αφίξεων

| | | |
|---|---|---|
| **1)'** prefix / prefix / πρόθεμα | $c[+(R/0)]$ | |
| **2)'** infix / infix / ένθεμα | $c[(+R0)]$ | |
| **3)'** suffix- ending / sufix – terminaţie / επίθημα = κατάληξη | $c[(R/0)+]$ | |

**1')** $c[[(R)]]$

- grammatical components
( grammatical elements
dependent on
understanding ) / (cd)

- componente gramaticale
( elemente gramaticale
dependente de înţeles )
(cd)

- γραμματικά στοιχεία
( γραμματικά στοιχεία που
εξαρτώνται από την
κατανόηση ) / (cd)

**b)'**
$cn\{n[n(nRn)n]n\}n$
$c'/''\{'/''[ +'/(+ +'/''R/0/+ )'+]/']/'$

- semantically independent c(di)
= proclitic / enclitic
- independente semantic c(di)
= proclitic / enlcitic
- σημασιολογικά ανεξάρτητο c(di)
= προκλητικός / ενλκιτικός

$c[('/'R0)]$

- definite articles / indefinite articles /
possessive articles / verb auxiliaries
(derived or not from grammatical elements of
base )
- articolele hotărâte / nehotărâte / posesive ,
auxiliare verb
( provenite sau nu din elemnte gramaticale de
bază )
- οριστικά άρθρα / αόριστα άρθρα / κτητικά
άρθρα / βοηθητικά ρήμα
( προέρχεται ή όχι από γραμματικά στοιχεία
του βάση )

- from several letters
( contain information or not
grammar )
- din mai multe litere
( contin sau nu informaţii
gramaticale )
- από πολλά γράμμα
( περιέχει πληροφορίες ή όχι
γραμματική )

- detectable characteristics / root
- detectabile de caracteristici / radacină
- ανιχνεύσιμα χαρακτηριστικά / ρίζα

| | |
|---|---|
| **1)'** proclitic definite article / articol hotărât proclitic / προκλητικό οριστικό άρθρο | $c[('R0)+]$ |
| **2)'** proclitic indefinite article / articol nehotărât proclitic / προκλητικό αόριστο άρθρο | $c[('R0)+]$ |
| **3)'** auxiliaries of verbs / auxiliarele verbelor / βοηθητικά ρημάτων | $c[('R0+)] \;\; c[(+'R0)] \;\; c[('R0)]$ $c[(+'R0)]$ |

| | | | |
|---|---|---|---|
| **4)'** $c[(R0)]n$ | punctuation marks / | semne de punctuaţie / | σημεία στίξης |
| **5)'** $c'[(R0)]$ | the prepositions / | prepoziţii / | οι προθέσεις |
| **6)'** $c'\{[(R0)]\}$ | conjunctions / | conjuncţii / | σύνδεσμοι |

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**2')** $C[[(R)]]$

- basic
= semantically independent and comprehensible
( they are grammatical elements that they
understood by itself that expresses a meaning
full or partial interior / exterior )

- de bază
= independente semantic şi de înţeles ,
( sunt elemente gramaticale ce au înţeles
de sine stătător ce exprimă un sens
interior / exterioir complet sau parţial )

- βασικά
= σημασιολογικά ανεξάρτητο και κατανοητό,
( είναι γραμματικά στοιχεία που κατάλαβαν
από μόνο του που εκφράζει ένα νόημα
πλήρες ή μερικό εσωτερικό / εξωτερικό )

**a)'** $C[+(+R/0/+ )+]$
- from several letters
- din mai multe litere
- από πολλά γράμμα

$C[+(+R)+]$
- semantically detectable by the root
( contain grammatical components of
expression of characteristics )
- detectabile semantic de rădăcină
( conţin componente gramaticale de
exprimare a caracteristicilor )
- σημασιολογικά ανιχνεύσιμο από τη ρίζα
( περιέχουν γραμματικά συστατικού του
έκφραση χαρακτηριστικών )

**3)'**
- suffix
- sufix
- επίθημα

- semantically undetectable
- nedetectabil semantic
- σημασιολογικά μη ανιχνεύσιμος

| | |
|---|---|
| **1)'** prefix / prefix / πρόθεμα | $C[+(R)]$ |
| **2)'** infix / infix / ένθεμα | $C[(+R)]$ |
| **a)'** ending / terminaţie / κατάληξη | $C[(R)+]$ |
| **b)'** enclitic - definite article / + articol hotărât - enclitic / + ενλκιτικό - οριστικό άρθρο | $C[(R')+]$ |
| **c)'** enclitic - definite article / articol hotărât - enlcitic / ενλκιτικό - οριστικό άρθρο | $C[(R'')+]$ |

- enclitic article
- articol enclitic
- εγκλιτικό άρθρο

| | |
|---|---|
| **4)'** - rootless/ fără rădăcină / άρριζος | $C[+(R)+]$ |
| **5)'** - without features / fără caracteristici / χωρίς χαρακτηριστικά | $C[(R0)+]$ |

**b)'** $C[(R+)]$ ( from a letter ) / ( dintr- o literă ) / ( από ένα γράμμα )

**3')**
- semi-independent grammatical elements
- elemente gramaticale semiindependente
- ημι-ανεξάρτητα γραμματικά στοιχεία
$C/c[+(+ R-/0 )+]$

- prefixoid $C/c[+(R-/0 )]$
- infixoid $C/c[(+R-/0 )]$
- suffixoid $C/c[(R-/0 )+]$

- prefixoid $C/c[+(R-/0 )]$
- infixoid $C/c[(+R-/0 )]$
- sufixoid $C/c[(R-/0 )+]$

- protematic $C/c[+(R-/0 )]$
- enthematic $C/c[(+R-/0 )]$
- epithematic $C/c[(R-/0 )+]$

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### b)

**A)**
$C/c[(R)] >< C/c[(R)]$
- fusion of form and meaning between two or
more grammatical elements semantically
independent

- fuziune de formulă şi înţeles între doua sau
mai multe elemente gramaticale
independente semantic

- συγχώνευση τύπου και νοήματος μεταξύ
δύο ή περισσότερων γραμματικών
στοιχείων ανεξάρτητων σημασιολογικά

| | |
|---|---|
| **1)'** $c[+('R0)] >/< C[(R+)+] \Rightarrow C[('/R)+]$ | |
| **2)'** $c[('R0)+] >/< C[(R+)+] \Rightarrow C[('/R)+]$ | |
| **3)'** $c[(R0)+] >/< C[(R+)+] \Rightarrow C[+'/(R)+]$ | |
| **4)'** $c'[(R0)] >/< C[(R)+] \Rightarrow C'/[(R)+]$ | |
| **5)'** $C[(R0+)] >/< \{[(R0)]\}'/c \Rightarrow C[[(R0+)]]\}/'$ | |

**B)**
$C/c[(R)] >< C/c[(R)]$

- fusion of form and meaning between
two or more grammatical elements
semantically independent

- rezultatul procesului de fuziune sau
alăturare al elementelor gramaticale
este manifestat sub forma unei
caracteristici distincte

- συγχώνευση τύπου και νοήματος
μεταξύ δύο ή περισσότερων
γραμματικών στοιχείων ανεξάρτητων
σημασιολογικά

**1)'**
**a)'** ó (π>) o  determiner / determinant / προσδιορισμός  (π>)  determined / determinat / προσδιοριζόμενος
**b)'** o (<π) ó  determined / determinat / προσδιοριζόμενος  (<π)  determiner / determinant / προσδιορισμός

**2)'** Σe'/''= nx/y  - phrasal phrase  - sintagma frazala  - φραστική φράση

**3)'**
( av - active voice / ( va - voce activa ) / ( εν - ενεργητική φωνή )  ( pv - passive voice ) / ( vp - voce pasiva ) / ( πθ - παθητική φωνή )
( ad - active diathesis ) / ( da - diateză activă ) / ( εσ - ενεργητική σύνταξη )  ( pd - passive diathesis ) / ( dp - diateza pasiva ) / ( πσ - παθητική σύνταξη )

**4)' / a')** ( iv - intransitive verb ) / ( vi - verb intranzitiv ) / ( αβ - αμετάβατα ρήμα )  **4)' / b')** ( tv - transitive verb ) / ( vt - verb tranzitiv ) / ( μβ - μεταβατικά ρήμα )

**5)'** $C/c[\pm/\sim(\pm/\sim\Sigma/S\sim/\pm)\sim/\pm]$  FS = flexiune sintactică  IF = inflection of syntactic functions  ΕΣ = έγκλιση συντακτικών συναρτήσεων

**6)'**
**a')**
- coordination
- coordonare
- συντονισμός

**=/=**

**a'')**
- syntax
- sintactică
- σύνταξη

**a)'**  N/n $c[(R0,)]$ N/n / cjx

**b)'**  N/n/n $c'/''[[(R0)] /$ N/n/n / cjc

**b'')**
- propositional
- propoziţională
- προτασιακό

**a)'**  P - S $c[(R0,)]$ P/Π - S / cjx

**b)'**  P - S $c'/''[(R0)]$ P - S / cjc

**b')**
- subordination
- subordonare
- υποταγή

**> <**

**a'')**
- syntax
- sintactică
- σύνταξη

**a)'**  s < r / sjx

**b'')**
- propositional
- propoziţională
- προτασιακό

**a)'**  S < P / sjx

**b)'**  S < P / sjc

**7)'** ria ( grammatical element resumed informational = anaphoric ) / ( element gramatical reluat informaţional = anaforic )  ( γραμματικό στοιχείο συνέχισε πληροφοριακό = αναφορικό )

**8)'** cia ( anticipatory grammatical element informational = cataphoric ) / ( element gramatical anticipativ informaţional = cataforic )  ( προκαταρκτικό γραμματικό στοιχείο πληροφοριακός = καταφορικός )

**9)'** dix ( grammatical element used with literal meaning = deixis ) / ( element gramatical utilizat cu sens literal = deixis )  ( γραμματικό στοιχείο που χρησιμοποιείται με κυριολεκτική σημασία = δείξη )

**10)'** a ( theme ) + b ( retheme ) /  a ( tema ) + b ( retema ) /  a ( θέμα ) + β ( ρεθέματο / αναδιατύπωση )

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### 3)

| **eng** | **rum** | **eln** |
|---|---|---|
| - surgery of grammatical information | - chirurgia informaţiilor gramaticale | - χειρουργεία γραμματικών πληροφοριών |

| eng | The first map of grammar | rum | Prima hartă a gramaticii | eln | Ο πρώτος χάρτης της γραμματικής |

C/c{[ [ ( R ) ] ]}

| eng | - the concentric expression of the characteristics of the grammatical elements | rum | - exprimarii concentrice ale caracteristicilor elementelor gramaticale | eln | - η ομόκεντρη έκφραση των χαρακτηριστικών των γραμματικών στοιχείων |

**a)ʸ** Universal expression of the main characteristics of a grammatical element - Exprimare universală a principalelor caracteristici ale unui element gramatical. - Καθολική έκφραση των κύριων χαρακτηριστικών ενός γραμματικού στοιχείου

caracteristici exterioare / external characteristics / εξωτερικά χαρακτηριστικά

caracteristici interioare / interior features / εσωτερικά χαρακτηριστικά

| eng | ( - gender | - number | - person | - case | + other information | = morphological value ] | = syntactic value } | propositional value >> |
| rum | ( - gen | - număr | - persoană | - caz | + alte informații | = valoare morfologică ] | = valoare sintactică } | valoarea propozițională >> |
| eln | ( - γένος | - αριθμός | - πρόσωπο | - πτώση | + άλλες πληροφορίες | = μορφολογική αξία ] | = συντακτική αξία } | προτασιακή αξία >> |

nP/Пп / nS/Δnη

| eng | The first map of grammar | rum | Prima hartă a gramaticii | eln | Ο πρώτος χάρτης της γραμματικής |

C/c{[ |( |R| )| ]}
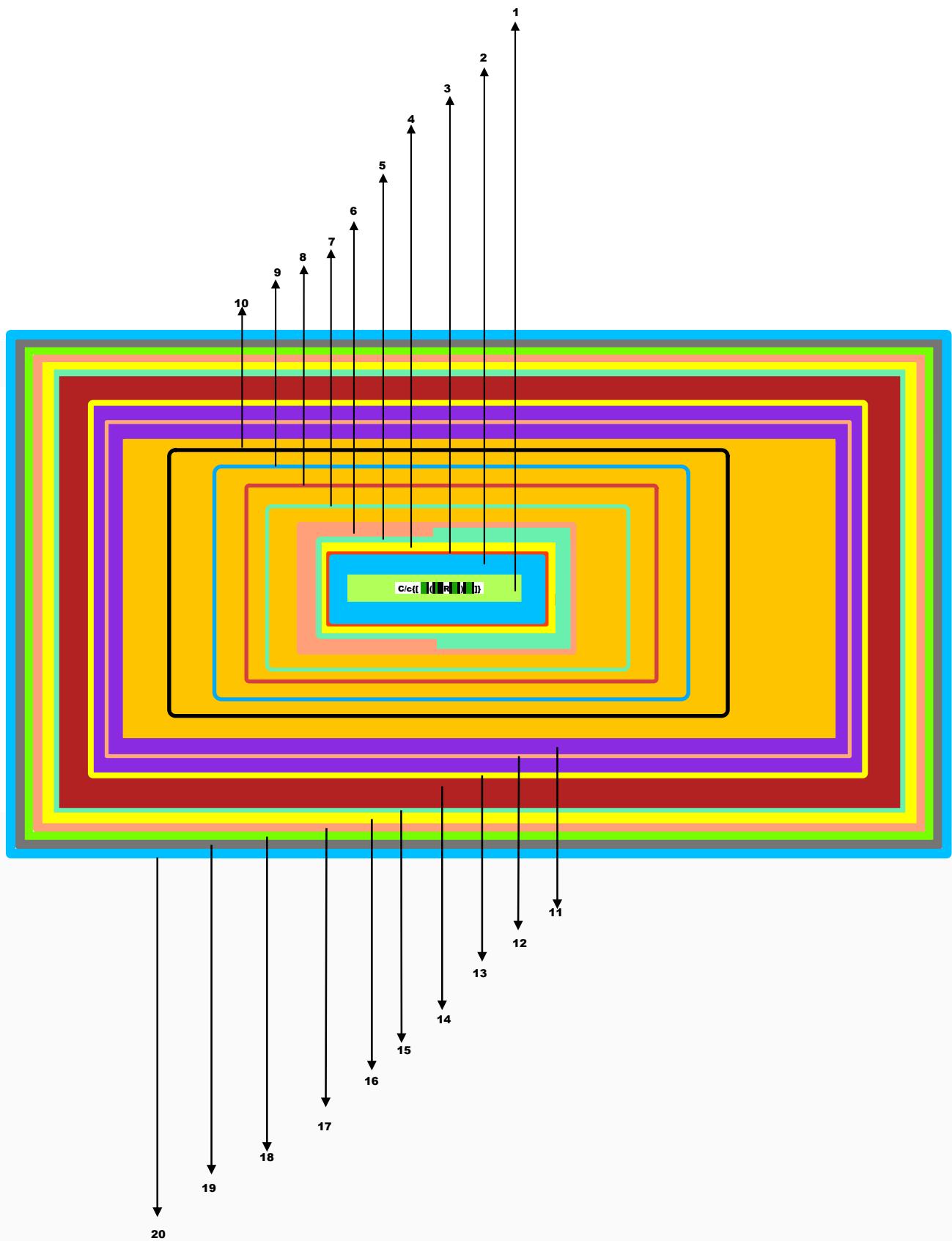
**eng**
- the general expression of the semantic characteristics of a grammatical element.
C/c[(R)]

**rum**
- exprimarea generală a caracteristicilor semantice ale unui elemnt gramatical
C/c[(R)]

**eln**
- η γενική έκφραση των σημασιολογικών χαρακτηριστικών ενός   γραμματικού στοιχείου.
C/c[(R)]

| | | |
|---|---|---|
| C/c[n(R/0)] | = | C/c[+(R)] |
| C/c[(nR/0)] | = | C/c[(+R)] |
| C/c[(R/0n)] | = | C/c[(R+)] |
| C/c[(R/0)n] | = | C[(R)+] |
| C/c[n(R/0)n] | = | C[+(R)+] |
| C/c[n(nR/0)n] | = | C/c[+(+R)+] |

**eng**
- the general expression of the characteristics  of the  grammatical  element  C/c

**rum**
- exprimarea generală a caracteristicilor elemntului gramatical  C/c

**eln**
- η γενική έκφραση των χαρακτηριστικών του  γραμματικού στοιχείου C/c

**1**
- caracteristici principale / completive ale unui element gramatical / verde
- main / comprehensive characteristics of a grammatical element / green
- κύρια / περιεκτικά χαρακτηριστικά ενός γραμματικού στοιχείου / πράσινος

**2**
- caracteristicile elementului gramatical la nivel morfologic / albastru
- the characteristics of the grammatical element at the morphological level / blue
- τα χαρακτηριστικά του γραμματικού στοιχείου σε μορφολογικό επίπεδο / μπλε

**3**     = informații evidențiate , highlighted information ,  επισημασμένες πληροφορίες

**4 / 13**
- caracteristici suplimentare ale unui element gramatical la nivel morfologic, sintactic sau propozițional, sau evidențiate în anumite situații necesare / galben
- additional features of a grammatical element at the morphological, syntactic, or propositional level, or highlighted in certain necessary situations / yellow
- επιπλέον χαρακτηριστικά ενός γραμματικού στο επίπεδο της μορφολογίας, σύνταξης ή προτασιακής δομής, ή που επισημαίνονται σε συγκεκριμένες αναγκαίες καταστάσεις. / κίτρινο

**5 / 15**
- element gramatical morfologic / sintactic cu rol de determinant / petrol
- morphological / syntactic grammatical element with a determining role / petrol
- μορφολογικό  / συντακτικό γραμματικό στοιχείο με προσδιορισμό  ρόλο / πετρόλ

**6 / 12**
- element gramatical morfologic / sintactic cu rol de determinat / coral
- morphological / syntactic grammatical element with a role to be determined / coral
- μορφολογικό / συντακτικό γραμματικό στοιχείο με προσδιοριζόμενο  ρόλο / κοραλί

**7**     = determinanți - petrol  / = determiners - petrol  / = προσδιορισμοί - πετρόλ

**8**     = complement direct / indirect , nume predicativ- vișiniu / = direct - indirect object , predicative nominal -burgundy
= αντικείμενο , κατηγορούμενο / μπορντώ

- caracteristicile  elementului gramatical la nivel sintactic / portocaliu
- the characteristics of the grammatical element at the  syntactic level / orange
- τα χαρακτηριστικά του γραμματικού στοιχείου σε συντακτικό   επίπεδο / πορτοκάλι

**9**     = verb - albastru  / = verb - blue  / = ρήμα - μπλε

**10**     = subiect - negru  / = subject  0 black  / =υποκείμενο - μαύρο

**11** - propoziție principală / mov / main clause / purple , - κύρια πρόταση / μωβ     **14** - propoziție subordonată / vișiniu , subordinate clause / burgundy , δευτερεύουσα πρόταση / μπορντώ

**16**
- national grammatical element
- element gramatical național
- εθνικό γραμματικό στοιχείο

**17**
- basic element , semantically independent / independent in meaning
- element gramatical de  bază , independent semantic , independent de  înțeles
- βασικό γραμματικό στοιχείο, σημασιολογικά ανεξάρτητο, ανεξάρτητο από την κατανόηση

**18**
- semantically dependent grammatical element, dependent on meaning (attachable grammatical components )
- element gramatical  dependent semantic, dependent de înțeles  ( componente gramaticale atașabile )
- σημασιολογικά εξαρτώμενο γραμματικό στοιχείο, εξαρτώμενο από το νόημα (προσαρτώμενα γραμματικά στοιχεία )

**19**
- semi-independent grammatical element
- element gramatical  semiindependent
- ημι-ανεξάρτητο γραμματικό στοιχείο

**20**
- international grammatical element
- element gramatical internațional
- διεθνές γραμματικό στοιχείο

- national grammatical element,  semantically independent
- element gramatical   național ,  independent semantic
- εθνικό γραμματικό στοιχείο,    σημασιολογικά ανεξάρτητο

- national grammatical element,  semantically dependent and / or comprehensible
- element gramatical   național , dependent semantic și / sau de înțeles
- εθνικό γραμματικό στοιχείο,    σημασιολογικά εξαρτώμενο ή/και κατανοητό

- grammatical element,   independent semantic / independent understood - untransformed / attached   international
- element gramatical,   independent semantic / independent înțeles - netransformat / atașat   internațional
- γραμματικό στοιχείο,   αυτοτελές σημασιολογικό / ανεξάρτητο νόημα - αμετάβλητο / συνημμένο   διεθνές

- grammatical element   dependent on meaning / semantically dependent   - international
- element gramatical   dependent de  înțeles  / dependent semantic   - internațional
- γραμματικό στοιχείο   εξαρτώμενο από το νόημα / σημασιολογικά εξαρτώμενο  - διεθνές

- national grammatical element,   semantically independent   dependent on meaning
- element gramatical   național ,   independent semantic   dependent de înțeles
- εθνικό γραμματικό στοιχείο,   σημασιολογικά ανεξάρτητο ,  εξαρτώμενο από το νόημα

- grammatical element,   semi-independent   component ( semantically dependent component / dependent on meaning )   national
- element gramatical   semiindependent   componentă ( componentă  dependentă semantic / dependentă de  înțeles )   național
- γραμματικό στοιχείο,   ημι-ανεξάρτητο   συστατικό ( σημασιολογικά εξαρτώμενο / νοηματοεξαρτώμενο συστατικό )   εθνικό

- grammatical element,   dependent on meaning / dependent semantically   international, transformed into grammatical element   dependent on meaning / dependent semantically   – national
- element gramatical ,   dependent de  înțeles / dependent  semantic   internațional , transformat în element gramatical   dependent  de înțeles / dependent semantic   – național
- γραμματικό στοιχείο,   εξαρτώμενο από το νόημα / σημασιολογικά εξαρτώμενο   διεθνές, μετατρέπεται σε γραμματικό στοιχείο   εξαρτώμενο από το νόημα / σημασιολογικά εξαρτώμενο   – εθνικό,

- grammatical element ,   semantic independent / meaning independent   - international, used semantically   independent / meaning independent   - national .
- element gramatical ,   independent semantic / independent de înțeles   internațional ,  utilizat   independent semantic / independent de înțeles   - național .
- γραμματικό στοιχείο,   σημασιολογικό ανεξάρτητο / σημαίνει ανεξάρτητο   - διεθνές,  χρησιμοποιείται   independent semantic / independent de înțeles   - εθνικό.

- grammatical element,  independent semantic   / dependent on meaning   - national,   transformed into   grammatical element   dependent on meaning / dependent semantic   - international .
- element gramatical ,  independent  semantic   / dependent de înțeles   - național ,   transformat  în   element gramatical   dependent de înțeles  / dependent semantic   - internațional .
- γραμματικό στοιχείο,  αυτοτελές σημασιολογικό   / εξαρτώμενο από τη σημασία   - εθνικό ,   μετατρέπεται σε   γραμματικό στοιχείο   εξαρτώμενο από το νόημα / εξαρτώμενο σημασιολογικό   - διεθνές .

- grammatical element ,   semantically independent / meaning-independent   - national   ,   used   semi-independently   ( component / semantically dependent / meaning-dependent   )   - international .
- element gramatical ,   independent semantic / independent de înțeles   - național   ,   utilizat   semidependent   ( component / dependent semantic / dependent de înțeles   )   - internațional .
- γραμματικό στοιχείο ,   σημασιολογικά ανεξάρτητο / νοηματικά ανεξάρτητο   - εθνικό   ,   χρησιμοποιείται   ημι-ανεξάρτητο   ( συστατικό / σημασιολογικά εξαρτώμενο / νόημα-εξαρτώμενο )   - διεθνές .

- grammatical element ,   semantically independent   / dependent on meaning   - international   transformed into   grammatical element   semantically independent   / dependent on  meaning   - national
- element gramatical ,   independent  semantic   / dependent de înțeles   - internațional   transformat in   element gramatical   independent  semantic   / dependent de înțeles   - național
- γραμματικό στοιχείο ,   σημασιολογικά  ανεξάρτητο   / εξαρτώμενο από τη  σημασία   - διεθνή   μετασχηματισμένο σε   γραμματικό στοιχείο   σημασιολογικά ανεξάρτητο   / εξαρτώμενο από το εθνικό νόημα   - εθνικός

- international   semi-independent   grammatical element   ( semantic dependent / meaning dependent )   used   nationally   .
- element gramatical   semiindependent   internațional   ( dependent semantic / dependent de înțeles )   utilizat   național   .
- διεθνές   ημι-ανεξάρτητο   γραμματικό στοιχείο   ( σημασιολογικό εξαρτημένο / σημαίνει εξαρτώμενο )   που χρησιμοποιείται σε   εθνικό   επίπεδο .

eng - syntactic surgery - propositional and architecture informational of the grammatical elements in a sentence in Greek

rum - chirurgia sintactică - propoziţională şi arhitectura informaţională a elementelor gramaticale dintr-o propoziţie în limba Greacă

eln - συντακτική χειρουργική - προτασιακή και αρχιτεκτονική πληροφοριακά γραμματικά στοιχεία από μια πρόταση στα ελληνικά

"Maria is painting the horse's beautiful body" | "Maria pictează frumosul corp al calului" | "Μαρία ζωγραφίζει το όμορφο σώμα του αλόγου"

τι; / ce? / what?

Σe''(2/3<=>)
ó (π>) o

ποιανού; / al cui? / whose?

τι κάνει; / ce face? / what is she doing ?

ó (π>) o
Σe''(2/3<=>)

o (<π) ó
Σe''(2/2<=>)

ποία; / cine? who?

ó (π>) o
Σe''(2/3<=>)

ó (π>) o
Σe''(2/2<=>)

| Η c[('R÷)] | Μαρία C[(R0÷)] | ζωγραφίζει C[(R)÷] | το c[('R0)÷] | όμορφο C[(R)÷] | σώμα C[(R)÷] | του c[('R0)÷] | αλόγου C[(R)÷] | Σe''=8 |
|---|---|---|---|---|---|---|---|---|
| - ορ. αρθ. | - ουσιαστικό | - ρήμα | - ορ. αρθ. | επίθετο | - ουσιαστικό | - ορ. αρθ. | - ουσιαστικό | 1 |
| - θηλυκό | - θηλυκό | - ενικό | - αιτιατική | - αιτιατική | - αιτιατική | - γενική | - γενική | |
| - ονομαστική | - ονομαστική | - ενεργητική φ. | - ενικό | - ενικό | - ενικό | - ενικό | - ενικό | |
| - ενικό | - ενικό | - 3ο πρόσωπο | - ουδέτερο | - ουδέτερο | - ουδέτερο | - ουδέτερο | - ουδέτερο | |
| | | - ενεστώτα | | | | | | |

C[('/R)÷] ος 'ον(θλ)'

C[(R)÷] ΡΕνε εν(3)'

C[(R)÷] εθ 'ατ(οδ)'

C[('/R)÷] ος 'ατ(οδ)'

C[('/R)÷] ος γν(οδ)'

() Σe''(2/1<=>) () () Σe''(2/1<=>) () () Σe''(2/1<=>) () () Σe''(2/1<=>) ()

Σe''[5/1<=>] / ()

}οφ ονοματική φράση ( sintagmă nominală ) ( noun phrase )

}αρφ απλή ρηματική φράση ( sintagmă verbală simplă ) ( verbal phrase )

}θφ επίθετη απλή φράση ( sintagmă adjectivală ) ( adjective phrase )

}οφ ονοματική φράση ( sintagmă substantivală ) ( noun phrase )

}οψφ ονοματική γενική φράση ( sintagmă substantivală genitivală ) ( genitive noun phrase )

}δφ διευρυμένη φράση ( frază extinsă ) / ( expanded phrase )

ρήμα ( verb )

και ( and / şi )

ρηματικά συμπληρώματα ( verb complements ) ( complementele verbului )

ρηματική φράση }ρφ ( frază verbală / verb phrase )

=>

εξωτερικά αντικείμενα }ξ ( external DO / CD external )

μονόπτωτο ρήμα μ( ( individual verb / verb individual )

<=

αντικείμενο =1 ( object ) / ( complement )

μόνιμο χαρακτηριστικό μ = ( permanent feature ) ( caracteristică permanentă)

αιτιατική (acuzative) (acuzativ )

> ομοιόπτωτος / επιθετικός ( attribute / adjectival ) ( atribut / adjectival )

< αιτιατική (acuzative) (acuzativ)

= χαρακτηρισμένο στοιχείο ( characterized object ) ( articol caracterizat )

= αιτιατική > ετερόπτωτο < γενική =
κατεχόμενο αντικείμενο "κ" —— κτητικό αντικείμενο "κ"
κάτι ανήκει κάτι

= accusative > attribute < genitive =
possessed object owner
something belongs to someone /-thing

= acuzativ > atribut < genitiv =
obiect posedat posesor
ceva aparţine cuiva

ποιος κάνει τη δράση; ( cine face acţiunea? ) ( who does the action? )

η ενέργεια του υποκειμένου => η δράση ( energia subiectului = acţiunea ) ( the energy of the subject = the action )

στο οποίο πηγαίνει άμεσα η ενέργεια του υποκειμένου "άμεσο" to which the subject's energy goes directly "immediately" aspura cui se revarsă direct energia verbului

= ενεργητικό μεταβατικό "}μβ" ( verb tranzitiv / transitive verb )

=> δεν μπορεί να αντικατασταθεί ) ( cannot be replaced - nu poate fi înlocuit )

Υπκ=s > P=r δσθ

ΟΠθ =s > Ατκ=r δσθ

Ατκ = r >ΤΠ = s δσθ

Υπκ=r > P =s δσθ

P = r > Ατκ=s δσθ

- επικουρικό ομοιόπτωτος επιπλέον πληροφορίες "κο" ( adjuvant apoziţional - informaţii suplimentare ) ( appositional adjunct - additional Information )

- επικουρικό ομοιόπτωτο σθένο ( valenţă adjectivală adjuvantivă ) ( adjunctive adjective valency )

υποκειμενικό επιχείρημα "μα" ( argument subiectiv ) / (subjective argument )

αντικειμενική επιχείρημα "μα" ( argument obiectual ) / ( objective argument )

ετεροπτωτως επικουρικό "κτ" ( adjuvant substantival genitival ) / ( genitive adjunct )

- επιχειρηματολογικό υποκειμενικό σθένος ( valenţă subiectivă argumentativă ) ( argumentative subjective valency )

- αντικειμενική επιχείρημα σθένος ( valenţă argumentativă obiectivă ) ( argumentative objective valence )

- επικουρικό ετεροπτωτο σθένο ( valenţă genitivală adjuvantivă ) ( adjunctive adjective valency )

τρισθενές ρήμα „τς" - "]τ" ( verb trivalent „tv" - "]t" ) ( trivalent verb )"tv "- "]t" )

| Υπκς s/r{'ον(θλ)'}οφ»μα | ΡΕνε s/r{[ενη(3)']τ}μβ»μμ>ρφ | ΟΠ s{ θ[ατμ(οδ)']}θ/δφ»κο>ρφ | Ατκς s/r{'άατ(οδ)']}ξ}ο/δφ»μα>ρφ | ΤΠ s{ ς[γνκ(οδ)']}γφ»κτ>ρφ | Σφσ''=5 |

Σ 1Πn = ( Σe'' = 8 )
εσ ( Σφς= 5 )

a + b

a b

a (b→ a) b" ( y + x )

a( b"→ a) + b'

eng - the inflection of the main sentence composed of N grammatical elements and N syntactic functions

rum - flexiunea propoziţiei principale compusa din N elemente gramaticale si N funcţii sintactice

eln -η κλίση της κύριας πρότασης που αποτελείται από Ν γραμματικά στοιχεία και Ν συντακτικές συναρτήσεις