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**A COGNITIVE APPROACH OF MULTILINGUAL TERMINOLOGY IN  
THE TRIAD EMOTIONAL INTELLIGENCE-COGNITIVE  
INTELLIGENCE-ARTIFICIAL INTELLIGENCE (IN ENGLISH AND  
ROMANIAN LANGUAGES )**

**621.04 Lexicology and lexicography, terminology and specialized languages,  
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The doctoral thesis and the summary can be accessed at the Library of Moldova State University and on the webpage of ANACEC <https://www.anacec.md/>.

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## ABBREVIATIONS

DB – database  
CVC – (Centrum voor Vaktaal en Communicatie) Center for Terminology and Communication in Brussels  
DEX – Explanatory dictionary of the Romanian language  
EI – from the field of emotional intelligence  
AI – from the field of artificial intelligence  
IATE – terminological database of the European Union (Interactive Terminology for Europe)  
IQ – from the domain of cognitive intelligence  
ISO – International Standardization Organization  
IST – Information Society Technologies  
Lat. – Latin  
CL – common language  
SL – specialized language  
TAL – (Traitement automatique de langues) automatic natural language processing  
CTT – Communicative Theory of Terminology  
GTT – General Theory of Terminology  
TKB – (Terminological Knowledge Bases) terminological databases  
UoU – Unit of Understanding

## CONCEPTUAL BASIS OF THE RESEARCH

**Topicality and importance of the subject addressed.** In the contemporary context of the cognitive paradigm framed in the social and technological evolution that propels the development of science, we propose an investigation in order to revalue the dynamics of the evolution of language, an important pillar of the theory of knowledge, in particular, by means of studying the terminology of three areas closely integrated in the process of knowledge - of emotional intelligence, cognitive intelligence and artificial intelligence. At the same time, the development of artificial intelligence, in which generative models are already used to solve human problems, would be one of the great stages of progress reached by technology. The topicality of our theme can be confirmed by the specialized literature consulted for the elaboration of the doctoral thesis - the writings of authors such as P. Carter, M. Diki-Kidiri, E. Dupoux, P. Ekman, P. Faber, C. Fillmore, J. Gao, D. Goleman, K. Kerremans, G. Lakoff, A. McEnery, M. Minsky, A. Rees, RJ Seitz, R. Temmerman, M. Vanderhasselt, Y. Wang, E. Wüster, A. Yousefi, and A Bidu-Vrănceanu, I. Busuioc, I. Coteanu, G. Dragan, I. Druță, E. Gheorghită, F. Leon, E. Munteanu, A. Pascaru, M. Vrejoiu, L. Zbanț; about the sciences and tools related to knowledge and human cognition, such as - cognitive linguistics, cognitive terminology, conceptual metaphors, and emotional, cognitive and artificial intelligences, respectively. The specialized literature contributes to a double cognitive approach to our investigation - that is, we are talking about a *metacognitive approach*, which allowed an in-depth study of the revealing structures characteristic of the terminology in the triad, coming with an explanation of the specialized fields and the fundamental theories of cognitive linguistics; which confirms, once more, the relevance of this research.

**The purpose and objectives of the thesis.** *The goal* of the work is the comparative functional approach to the functioning of terminology through the cognitive prism of three domains united by the notion of intelligences. *The objectives* of the thesis reside in: re-evaluating the cognitive approach in terminology for the field of intelligences; outlining a conceptual system resulting from the evolution of the theory in the field of intelligences through the terminology created along the way;

establishing and presenting the methodology and criteria for forming the corpus of specialized texts and the terminological corpus applied to the examined field; description of the methodology applied to the analysis of terminology in the field of intelligence; comparing the methods of forming the terms in the triad of intelligences; examining the phenomenon of reterminologization in the triad of intelligences and developing the statistics of terminological migration in the triad of intelligences based on our investigation.

**Hypothesis.** The hypothesis issued in the present paper starts from the cognitive nature of the terminology approach from the triad of emotional, cognitive and artificial intelligences. The tools applied to the extraction of conceptual and, respectively, terminological overlaps allowed the study of the specific characteristics of each field separately, but also as a whole. Our research focuses on the following scientific theses proposed to be supported: the development of terminologies in the triad of emotional, cognitive and artificial intelligences has as its source the field of cognitive intelligence; at the terminological level, interferences are outlined between the three domains, which manifest themselves as tangents, coincidences or stable interferences; the connecting bridge between the domains of the triad of emotional, cognitive and artificial intelligences is established as a result of the semantic re-terminologization operation; in the triad of emotional, cognitive and artificial intelligences, the process of determinologization resulting from the process of popularization of cognitive psychology as a tool of social knowledge.

**Summary of scientific research methodology.** The basic theoretical tools used in the paper include analysis and synthesis, functional method, corpus method, componential analysis, statistics, qualitative tools and contrastive analysis. The intention to constitute the methodological basis of the present research motivated us to turn to the writings of authors such as P. Carter, M. Diki-Kidiri, E. Dupoux, P. Ekman, P. Faber, C. Fillmore, J. Gao, D. Goleman, K. Kerremans, G. Lakoff, A. McEnery, M. Minsky, A. Rees, R.J. Seitz, R. Temmerman, M. Vanderhasselt, Y. Wang, E. Wüster, A. Yousefi et al. ; in the Romanian area, we found many answers to the investigated subject in authors such as A. Bidu-Vrănceanu, I. Busuioc, I. Coteanu, G. Drăgan, I. Druță, E. Gheorghită, F. Leon, E. Munteanu, A. Pascaru , M.

Vrejoiu, L. Zbanț et al. We emphasized the semic and componential analysis, proposed in the theories of G. Lakoff, M. Johnson, R. Langacker, L. Talmy et al. The analysis of the terms was based on the parallel and comparative corpus method and on bilingual records, developed for a contrastive analysis by comparing the definitions when validating the terms. Also, the constitution of the terminological corpus was influenced by the prior study of the evolution of the terminology of intelligences in the existing theories with reference to the formation and development of the domains of intelligences, which undoubtedly contributed to the construction and examination of the conceptual system of the triad of intelligences that further represented the base of the terminological corpus.

**Research corpus.** The work is based on corpora of compared and parallel texts in Romanian and English, on publications from specialized journals: published in the USA, Canada, Great Britain, Germany, Romania and the Republic of Moldova, at internationally renowned publishing houses such as Cognitive Science Society, Elsevier, Springer, Massachusetts Institute of Technology, Hindawi Publishing Corporation and those from the Romanian language area: Romanian Academy Publishing House, Romanian Academy – Institute of Artificial Intelligence, Trinitas, Industrial and Organizational Psychology Association etc. The terminological corpus consisted of 119 bilingual term records and 274 monolingual extraction records (for English and Romanian languages).

**The novelty and originality of the paper.** The novelty of the paper consists of studying the conceptual, respectively terminological, interference of three domains of intelligence. The conceptual overlap of the triad of intelligences is a promising and productive research topic, relevant in the current context of globalization and can serve as a useful tool for stakeholders.

**The solved scientific problem** resides in the theoretical and practical study of the formation, functioning and interferences within the cognitive terminology between the fields of emotional intelligence - cognitive intelligence - artificial intelligence with an emphasis on reterminologization processes, researched through the terms that migrate between these three domains.

**The theoretical importance of the research.** The paper proposes a conclusive theoretical basis for tracing the evolution of the cognitive dimension in the theory of terminology. This meta-terminology researched in the paper constitutes an in-depth study of the conceptual side of terminology, from which all interested parties can benefit: specialists, translators, students and non-specialists.

**The applied value of the research.** The research results are gathered in a terminological glossary, intended for those interested in the field of intelligence: specialists, translators and students. And the functional analysis in the paper represents a model of conceptual overlaps in the triad of emotional, cognitive and artificial intelligences for specialists, translators and students.

**Approval of results.** The results of the research were presented at conferences within the "College Doctoral Francophone d'Europe centrale et orientale en Arts, Langues, Lettres et Sciences humaines", at the National Scientific Conference with International Participation "Integration through research and innovation", at the International Colloquium of Sciences of Language "Eugeniu Coșeriu", at the International Colloquium - Translation: a creative act between science and art, and in specialized journals with a total of 11 publications.

#### **Summary and sections of the paper.**

Our work consists of *annotations (Romanian, Russian and English), introduction, three chapters, conclusions, bibliography of 175 titles, 134 pages of text and annexes.*

**Keywords:** cognitive approach, concept, semic analysis, seme, sememe, intelligence, artificial intelligence, cognitive intelligence, emotional intelligence, metaphorization, metonymization, terminological migration, reterminologization, determinologization, term, terminology, ontology, cognitive sciences.

### **CONTENT**

In the **Introduction** we include the topicality of the investigated subject, the purpose and objectives of the paper, its hypothesis and theses, the scientific problem solved, the novelty of the paper, the scientific methodology, information about the

corpus, the theoretical and applied value in the paper and the summary of the sections of the paper.

**Chapter 1, Cognitive Aspects in the Constitution and Functioning of Theoretical Thinking in Terminology**, summarizes the theoretical foundations that formed the basis of the formation of terminology as a science and the development of studies on the conceptual side within terminology. Subchapter 1.1, *The Assertion of Terminology as a Science* presents an incursion of the cognitive course from the first studies in modern terminology, represented by the Vienna School, the Prague School and the Moscow School to the appearance of the General Theory of Terminology, proposed by the Austrian engineer E Wüster, who in his doctoral thesis *The Machine Tool: An Interlingual Dictionary of Basic Concepts*, approaches the conceptual dimension of terms as central in terminology, coming later with his postulates that laid the foundations of classical normative terminology [22]. The researcher presents the need for terminological standardization for a scientific and technical communication with a terminology without elements of ambiguity, plurivalent or multiple denominations of the same concept. The sub-chapter presents the cognitive/conceptual part of terminology from its beginnings, where it was seen as an art, a practice and then a science; the stages of development and evolution of terminology are presented, and also the history and foundation of the scientific discipline of terminology, its status in ISO standards and the circumstances that laid the foundations of the normative terminology - which could not exist without the conceptual dimension - are presented. Thus, until the 90s, *cognitive terminology* dominated the perspectives of terminological study, being faithful to the postulates of GTT, presenting premises such as:

- terms are disambiguation tools that can appear in specialized languages, which must be standardized by the competent fora;
- the definition of terms is done transparently, logically and onomasiologically, from concept to terms;
- the definition allows the hierarchization of concepts, the concept being the object of the definition;



- between concept and denomination there is a monoreferential relationship, thus monosemy is a desideratum of cognitive terminology;
- synonymy is an obstacle in specialized language and it is accepted in a controlled manner; terminological research is done only in synchrony;
- the term is nominal and is studied under a lexical aspect; standardization and linguistic planning control the evolution of terminology [1] .

Consequently, the affirmation of terminology as a science is produced on the basis of emerging theories in the Vienna area that emphasize the cognitive and ontological side of terminology, having an echo from the field of engineering to linguistics.

In subchapter 1.2, *The Sociopragmatic Dimension in Terminology*, we report the course of modern currents in terminology, emphasizing the period after the 1985s, signifying a period of innovative theoretical scientific contributions in terminology with new proposals and ideas that integrated terminology in a social, communicative and linguistic context. In terminology, two new research directions are emerging: social and communicative theories of terminology and cognitivist theories of terminology. The new direction in terminological theories has a sociopragmatic side present in F. Gaudin socioterminology, the Communicative Theory of Terminology represented by M.T. Cabré, frame-based terminology and the latest evolution of cultural terminology [12]. In this line of ideas, the sociopragmatic dimension in terminology is based on the Communicative Theory of Terminology by M.T. Cabré, which aims to integrate new theories in socioterminology with classical prescriptive terminology. The new communicative dimension is based on a *theory of multiple entries*, which continues the conceptual normative dimension from GTT with a polyhedral approach to the term from the perspective of three dimensions from CTT:

- cognitive dimension, a linguistic dimension and a communicative dimension. Each dimension can function as an entry through which terminological units can be addressed. The description of a terminological unit is included in the cognitive dimension (concept), the linguistic dimension (the term) and the sociocommunicative dimension (situation). In this context, the Catalan researcher considers that the conceptual side of a unit can represent an entry for

the description and explanation of terminological units, without rejecting its multidimensionality [2].

CTT works with terminological units through the linguistic modality, by combining semantic and pragmatic aspects to make an analysis compatible with the theory of knowledge and communication, that is, of the general context of specialized communication. The cognitive perspective of the sociopragmatic dimension is complemented by *the frame-based terminology* proposed by P.F. Benítez that presents the new cognitive paradigm shift as an opportunity to study the way of conceptual structuring and organization based on contexts. Inspired by the field of artificial intelligence, this theory of terminology values *conceptual organization and technologies as valuable databases* for the formation of terminologies [11]. And *cultural terminology* in the view of M. Diki-Kidiri is a new direction of the sociopragmatic dimension that is based on *the concept, the percept - the perception of a culture on a concept, and the signifier* [5]. Modern terminology gives priority to pragmatics through the terminology theories of J.C. Sager, M.T. Cabré and P.B. Faber etc., having a considerable contribution to preserving the importance of conceptual systems, referents from the extralinguistic, pragmatic and concrete dimension.

Subchapter 1.3, *The Sociocognitive Approach in Terminology*, reviews the theory of R. Temmerman, together with fellow linguists K. Kerremans and I. Meyer, who, based on the work of the author *Towards New Way of Terminology Description* from the 2000s, support a theory of terminology that focuses on the cognitive approach in terminology, on the conceptual side of the term as it has not been done before even in normative terminology. Thus, the author R. Temmerman, in this new shift in terminology, in which it becomes imperative to emphasize the *ontological side of terminology and conceptual systems*, proposes principles that complement or are calculated to be opposed to the initial postulates of E. Wuster [20]. In this respect, the Belgian researcher brings a contemporary theory of terminology, emphasizing both the *conceptual side* and *its social particularities*, its dynamism *in diachrony*, *polysemy*, *synonymy*, *a multimodal approach*, *categories and categorization or classification*. The difference between sociocognitive terminology and other theories

lies precisely in the emphasis placed on *conceptual organization and the structure of categories* from the perspective of cognitive linguistics approaches. While, according to GTT, conceptual systems are organized by generic and partitive conceptual relations, cognitive categories have a prototypical structure, and conceptual representations, in the initial phase, take the form of *cognitive/conceptual models*. Another important difference is that sociocognitive terminology is possibly the first approach that takes into account the *historical and diachronic side of terms*. Together with his colleagues K. Kerremans and G. Zhao, R. Temmerman started a new way of using terminology as a tool in computer sciences, and in this sense sociocognitive terminology began to focus on ontologies, considered as a *reliable* form implementation of conceptual representations. The combination of terminology and ontology creates *termontology*, which is a hybrid term, a combination of *terminology, ontology and terminography*. The main objective is to create a relationship between ontologies and multilingual terminological information and to embed ontologies into terminological resources. This approach presents the result of the collaboration between terminologists from *the Centrum voor Vaktaal en Communicatie (CVC) Brussels* and ontology engineers from *the European FP6 POIROT Project (IST 2001-38248)*. The purpose of this direction in terminology remains the representation and management of knowledge. On the one hand, it discusses how terminology can contribute to the new challenges of the future within a *multilingual semantic web (World Wide Web)*. On the other hand, it is researched how terminology and terminology management can facilitate access to new information and computer technologies and natural language processing, especially, with the help of which terminology management would contribute to the created ontologies. Also, sociocognitive terminology emphasizes terminological databases, *knowledge databases, frameworks of categories and units of knowledge or units of understanding* [15].

Thus, in subchapter 1.4, *The Cognitive Approach in Language, Linguistics and Terminology, Applied to the Investigated Domains*, an essential aspect is the cognitive dimension, occupying a central place as an approach, subject and as a specialized domain. This double cognitive approach also refers to the research

methodology, and to the specialized texts, which are part of the domain of information theory and knowledge theory. The cognitive approach to terminology cannot exclude the theories of the great researchers from *cognitive linguistics and the theory of knowledge* related to *language*, because we cannot move away from theories about *cognitivism, language, concept, conceptual system, Gestalt* etc. They represent the foundation of a good understanding of *the conceptual relationships* that support the formation and description of the cognitive approach in any domain, in our case, in terminology. Of great interest are the theories developed by R.M. Frumkina, D.S. Lihaciov, E.S. Kubreakova, A. Wierzbicka etc., because they form a framework for the cognitive approach regarding the *concept, conceptual system, definitions* etc. Modern theories in the direction of cognitive linguistics thus frame terminology, based on *the cognitive dimension*, as one of its functions. Given that the cognitive approach to terminology in our paper is based on three areas focused on *the theory of knowledge*, it is important to structure *the position of terminology, linguistics and language within cognitivism*. Therefore, the cognitive approach of language and linguistics, together with terminology, *aims to conceptually integrate language and its content, i.e. knowledge*. In the present paper, we rely predominantly on the *sociocognitive terminology criteria* of the researcher R. Temmerman, so the ideas presented with reference to the concept can be found in their entirety in the respective direction of terminological research. Such a perspective allows for a more successful, more complex examination, in an interdisciplinary area, of three domains related to the intelligence/cognitive relationship, which are based on valid *encyclopedic and ontological knowledge* [21]. We extracted the records valid for the terms from the triad of domains under examination in our paper through the prism of sociocognitive terminology: it is about the effects of the phenomenon of *metaphorization*, the analysis of human cognitive capacities, *knowledge engineering* and its *computerized systems*. Also, the development of the Internet implies an evolution of applications and databases, which rely on human logic. Starting from the theory of knowledge, we note that, traditionally, *electronic corpora* are separated by categories and contribute to the process of knowledge accumulation according to the model centered on the new concept of understanding units. Thus, a conceptualization adapted to both cases is

attempted. The service sector can register a profound development due to the cognitive and/or metacognitive approach. Thus, the *World Wide Web* space is oriented towards internationalization due to the engineering of knowledge and information about categories, which are marked by terms - in termomontography. Being a complex topical subject, it requires a cutting-edge approach and the gathering of everything that is valid on the subject, at the level of analysis, techniques, methods, presenting overlaps at the *level of the triad in the field of intelligences from a cognitive perspective*. This phenomenon requires a detailed investigation to discriminate *possible terminological overlaps and coincidences* in cognitive terminology.

**Chapter 2, The Characteristics of the Functioning of Specialized Languages in the Domains of Emotional, Cognitive and Artificial Intelligence** reflects the argumentation of the methodology and the main peculiarities in the approach of the specialized domains involved. Subchapter 2.1, *Delimitation of the Status of Specialized Languages in the Context of Modern Research* refers to the belonging of specialized languages within the language and describes their particularities from various perspectives. *From a lexical point of view*, we distinguish *literary, familiar language, specialized languages, slang, jargon* etc. Which implies by extension that *specialized languages include scientific language and technical language*, which are based on *terminologies* specific to the respective specialized domain [8]. *From the perspective of the purpose of communication and style*, language as a general linguistic system is subdivided into functional subsystems: *common language, specialized languages, popular language, scientific language, poetic language* etc. We adhere to the opinion that *scientific and technical terms make up the specialized lexicon*, which includes specialized vocabularies, and the system of terms belonging to a scientific or technical domain constitutes the specialized terminology of the corresponding domain. *Regarding the typology of these languages*, the text types specific to the scientific language, we are talking about *monographs, articles, collections of articles presented at conferences, symposia, lectures, presentations, manuals, theses, scientific literature* etc. Technical language texts are *technical documents, patents and technical warnings* etc. [7].

Subchapter 2.2, *Terminology of the Triad Emotional Intelligence - Cognitive Intelligence - Artificial Intelligence - Part of Specialized Languages* represents an approach to observe the *specialization* of the announced triad terminology. The concept of intelligence is the research object of cognitive sciences, according to P. Thaghard, which are based on several disciplines - psychology, philosophy, linguistics, anthropology, neurosciences and artificial intelligence. The types of intelligence in the triad emotional intelligence - cognitive intelligence - artificial intelligence, represent subfields of cognitive sciences, which study the knowledge that society has reached up to now. The framing of specialized domains and terminologies from the triad of emotional, cognitive and artificial intelligences in specialized languages is based on the theories of linguists R. Temmerman, P. Lerat, M.T. Cabré et al., A. Bidu-Vrănceanu, I. Druță et al. The subchapter presents the specialized languages and their defining, functional, typological, specialization, communicative, cognitive, lexical, textual aspect etc. For our study, specialized journals in English and Romanian were used : profile journals, with an impact factor, included in *ERIH+*, *Index Copernicus*, *h5-index*, *Scopus*, *Web of Science*, *DOAJ*, *EBSCO*, *the categories B*, *the volumes of the Academies of Sciences*. For the corpus of our study, we also used various profile journals in English and Romanian: "Behavioral Sciences", "Brain and Cognition", "Cognition", "Cognitive Science", "Cognitive Sciences and Human Development", "Cognitive, Affective and Behavioral Neuroscience", "EMERG", "International Journal of Cognitive Informatics and Natural Intelligence", "Meridian 1", "Neural Computation", "Psychologies", "Identity of the Romanian language and literature in the perspective of globalization", "Psychology of human resources", "Psychology - scientifico-practical journal", "Philosophy Journal", "Sociology and political sciences", "Economy and sociology journal", "Romanian journal of informatics and automation", "Romanian journal of human-computer interaction", "Technocopy" etc. For this purpose, we initiated the process of examining the notions by referring to the electronic dictionaries for the English and Romanian languages that propose *specialized definitions* - the Oxford, Cambridge, Collin's, Merriam-Webster dictionaries, DEX, DB IATE.

Subchapter 2.3, *Terminological Evolution of the Domains of Emotional, Cognitive, and Artificial Intelligence* covers the history and evolution of the terminology used in the development of theories of intelligence. In this sense, the analysis of the evolution of terminology in the field of emotional, cognitive and artificial intelligence in *English* starts from the views of researchers H. Gardner, D. Goleman, J.P. Guilford, M. Minsky, C. Spearman, R.J. Sternberg, L.L. Thurstone et al., who made available to users publications in the field of psychology and information technologies [18]. In our study we operate with *publications written in English* with reference to the types of intelligences announced, because the English-language areas are the emerging ones for the development of theories about intelligences. In order to study the evolution of terminology in the reference domains, we focused on the following periods and periodization criteria: 18th-19th centuries – the *emergence of theories about intelligence*, the first half of the 20th century – *the development of the first intelligence test*, the second half of the 20th century – *the development of artificial intelligence*, the 21st century – *the development of cognitive sciences*. Thus, we study *69 terms that come from theoretical sources in English in the field of intelligence*. The terms are extracted according to the first appearance of the respective scientific theories, *in chronological order* :

- reasoning, memory, discrimination, imagination, intelligence quotient, understanding, manipulation, g factor, s factor, general intelligence, mental energy, numerical ability, induction/inductive reasoning, spatial reasoning, perceptual speed, word fluency, verbal comprehension, artificial neuron, artificial intelligence, cognition, divergent production, convergent production, evaluation, genetic factor, fluid ability, crystallized ability, perception, learning, problem-solving, intelligent robot, expert system, signal, information processing, neuronal center, synapse, frame, mental operation, logical intelligence, intrapersonal intelligence, interpersonal intelligence, spatial intelligence, musical intelligence, naturalist intelligence, existential intelligence, body intelligence, codification, inference, analytical intelligence, creative intelligence, practical intelligence, adaptation, mapping, emotional perception, emotional

understanding, emotional management, emotional awareness, self awareness, social awareness, social management, inspection time, restoration of information, visual perceptual speed, production of ideas, computational thinking, machine learning, deep learning, humanoid robot.

After analyzing the terminology from the theory of emotional, cognitive and artificial intelligences at a diachronic and evolutionary level, we can observe that: *cognitive intelligence has a considerable contribution to the manifestation and functioning of the other types of intelligences*, thus forming a codependency in the terminology of the triad of intelligences. Both the terminological resources in English and their equivalents in Romanian, selected from the theories about emerging intelligences in the Anglophone space, were used as a conceptual reference system for the composition of the terminological corpus in the paper.

In subchapter 2.4, *Methodology Applied to the Constitution of the Corpus of Emotional Intelligence - Cognitive Intelligence - Artificial Intelligence*, we have placed the terminological corpus of the research in the center of attention and we provide all the data on its constitution in our investigation. The corpus, defined by the Explanatory Dictionary of the Romanian Language (second edition) as a *collection of texts, documents, inscriptions, laws*, represents in this research, first of all, a corpus/a collection of texts approached in an analysis from terminological perspective. In the paper we present the corpus types according to studies of A. McEnery, A. Wilson and M. Baker, in which the authors A. McEnery and Z. Xiao recommend for a qualitative terminological study the combination of available corpus types, which would allow the validation and multilateral research of terms in the process of contrastive studies. Further in the thesis we present the opinions of authors such as P. Faber, D. Gouadec, L.J. Rousseau and M.T. Cabré regarding the principles, methods and criteria for constituting the corpus in the paper. The analysis of the terms is based on the methods of decomposition and conceptual / cognitive analysis relevant to the paper, according to the linguistic theories of semic analysis by L. Talmy, A.J. Greimas, B. Pottier, N. Troubetzkoy, L. Zbanț and E. Gheorghiiță. The terms are to be validated by applying the criteria of frequency, type of unit, subject, equivalent, synonyms. The specialized scientific journals that we used for the creation of the corpus are published in *the USA*,



Canada, Great Britain, Germany, Romania and the Republic of Moldova, at internationally renowned publishing houses such as *Cognitive Science Society, Elsevier, Springer, Massachusetts Institute of Technology* etc. and those from the Romanian language area : *Romanian Academy Publishing House, Romanian Academy – Institute of Artificial Intelligence, Trinitas, Industrial and Organizational Psychology Association* etc. To create the terminological corpus, we consulted 65 scientific articles in the field of neurobiology, social psychology and artificial intelligence in English and Romanian. The terminological corpus met 119 bilingual term records resulting from 274 monolingual extraction records, and the rest of 36 records were not validated at the bilingual level to be included in the terminological records. Those 119 terms formed a terminological glossary, in English and Romanian, with a total of 50 terms from the field of cognitive intelligence, 24 - from that of emotional intelligence and 45 terms from the field of artificial intelligence.

**Chapter 3, The Functioning of Terms in the Triad of Cognitive Intelligence, Emotional Intelligence and Artificial Intelligence in the English and Romanian languages**, covers the three specialized domains whose terminology is studied through the functional analysis of terms, according to the procedures proposed by modern terminological linguists. In subchapter 3.1, *The Variety Formation Procedures of the Terms Studied in Terminology*, we emphasize a multitude of perspectives on the formation procedures. The paper, representing a double cognitive approach, includes formation procedures, providing continuity and importance to the semantic processes of term formation, referring specifically to conceptual metaphor and, occasionally, to metonymization. In our research, we analyzed the formation of terms following the objectives of the investigation, referring to the procedures analyzed in the works of J.C.Sager, M.T. Cabré, G. Rondeau, J. Humbley, A.V. Superanskaia, N.V. Vasilieva, N.V. Podolskaia, J. Halskov, A. Bidu -Vrănceanu, M.-M. Rizea, I. Druta, M.V. Kosova, A.B. Mihailovici et al. which include the formal procedures of *derivation, compounding, conversion and abbreviation, the semantic procedures of terminologicalization, reterminologization and determinologization and the creation of new terms by direct borrowing from other languages or by linguistic calculation* [19 ; 6]. We believe that there is a continuous process of

migration between the common language and the specialized languages or only between the specialized languages, which can have a reflux and an impact towards the general language, given the evolution of the language and the sociocultural evolution. So, we refer to a confirmation of modern views on terminology, accepting the status of dynamic terminology, in which there are many possibilities for the manifestation of a specialized language, therefore we refer to a global, integrative approach.

Subchapter 3.2, *Functional Analysis of the Terminology in the Domain of Intelligences* involves an analytical study in which a certain order of the domains of reference of research is presented according to the evolution of theory in the area of intelligences. From the perspective of the evolution of terminology in the theory of intelligences, following a functional analysis we record valuable opinions regarding the development of intelligences at the social, psychological, biological etc. level, which ended with the formation of a glossary to which we refer in the subsequent selection of terms for presenting the investigated terminology for the triad and what generated such an order of the types of intelligences in the triad: *cognitive intelligence*, *emotional intelligence* and *artificial intelligence*. Then, for each type of intelligence in the triad, a componential analysis was made of the definitions selected from the dictionaries with the specialized sections to which the term researched in the paper refers, which include dictionaries such as: Oxford, Collins, Meriam-Webster, Cambridge and for their equivalents in Romanian language : DEX with its specialized sections. Functional analysis refers to semic or componential analysis proposed by G. Lakoff, M. Johnson, R. Langacker, L. Talmy as a conceptual decomposition method; and in the paper we refer to the common semes identified between the term in English and the equivalent in Romanian in the definitions; and the validation of the equivalent in Romanian for the term in English, as well as the validation through contexts and of the specialized domain to which it belongs. The methodology for the corpus generated a terminological corpus of 119 terms in English validated for the terminological glossary of the triad, from a total of 274 monolingual extraction records for English and Romanian. In the field of cognitive intelligence, we have compiled 50 term records or terms resulting from 117 monolingual extraction records. The analysis of

the corpus in the domain of emotional intelligence reveals *24 terms* from *52 monolingual extraction records*, and for the domain of artificial intelligence we identify *45 terminological records* from *105 monolingual extraction records*. Based on the registered extraction records and the correspondence queries between the languages, their definitions and contexts, 238 monolingual extraction records were validated - in English - as an emerging field, the origin of theories about intelligence, and in Romanian. In total, from the 119 records with 238 terms in Romanian and English, we identified 50 terms from the field of cognitive intelligence, 24 from emotional intelligence and 45 from artificial intelligence, after which we compiled a terminological glossary.

We gave special importance to the interdisciplinary side of the research subject, which refers to reterminologization through the migration of terms between domains, that is, we emphasize the procedures of metaphorization and metonymization in the triad. The triads reterminological procedures resulted in example terms for each reference domain and represents a sample or model presentation of term migration. In the field of cognitive intelligence from 50 terms, we further present:

- ability – capacitate, adaptation – adaptare, association – relație, attention – atenție, behavior – comportament, belief – convingere, brain – creier, cognition – cunoaștere, cognitive intelligence - inteligență cognitivă, cognitive process - proces cognitiv, cognitive psychology - psihologie cognitivă, comprehension – înțelegere, concept – concept, creativity – creativitate, decision making - luarea deciziilor, decode - a decodifica, discrimination – discriminare, encode - a codifica, evaluation – evaluare, evolution – evoluție, expression – expresie, framework – cadru, imagination – imaginație, implicature – implicit, induction – inducție, inference – inferență, integration – integrare, intention – intenție, interpretation – interpretare, judgment – rațiune, learning – învățare, mapping – atribuire, memory – memorie, neural network - rețea neuronală, neuron – neuron, neurotransmitter – neurotransmițător, paradigm – paradigmă, pattern – model, perception – percepție, performance – performanță, problem solving

- rezolvarea problemelor, processing – procesare, production – producție, projection – proiecție, representation – reprezentare, signal – semnal, stimulus – stimul, symbol – simbol, thought – gândire, update – reînnoire; we identify metaphors : *pattern – model; performance – performanță; signal – semnal; encode – a codifica; decode – a decodifica; mapping – atribuire; update – reînnoire; production – producție; projection – proiecție* and metonyms : *expression – expresie; adaptation – adaptare*. In the field of emotional intelligence, the 24 terms are presented here:

- adaptation – adaptare, affective – afectiv, anger – furie, disgust – deznădăjduit, emotion – emoție, emotion regulation – gestionarea emoțiilor, emotional awareness – înțelegerea emoțiilor, emotional intelligence – inteligență emoțională, emotional process – proces emoțional, emotional reaction – reacție emoțională, empathy – empatie, expression – expresie, fear – frică, interpersonal – interpersonal, intrapersonal – intrapersonal, joy – bucurie, recognition – recunoaștere, sadness – tristețe, self-regulation – autoreglare, sensation – senzație, social cognition – competențe sociale, social relationships – relații sociale, state – stare, surprise – surpriză;

we recognize a phenomenon of exchange from metonymy to metaphor (metaphor ← metonymy), which is registered in terms such as: *(emotional) process – proces emoțional, (emotional) reaction – reacție emoțională*; and the movement from metaphor to metonymy (metaphor → metonymy) can be seen in terms such as: *(social) cognition – competențe interpersonale, (emotional) intelligence – inteligență emoțională, (self-)regulation – autoreglare, (emotion) regulation – gestionarea emoțiilor*. And in artificial intelligence, the 45 terms are presented the following way:

- adaptation – adaptare, affective computing – calcul afectiv, artificial intelligence – inteligență artificială, backpropagation – propagare înapoi, behavior – comportament, big data – big data, computation – calcul, concept – concept, convolutional neural network – rețea neuronală convoluțională, crowd-sourcing – externalizare, data – date, decision making – luarea deciziilor, decode – a decodifica, deep architectures – arhitecturi de rețele neuronale adânci RNA, deep learning – învățare profundă, encode – a

codifica, evolutionary computation – calcul evolutiv, expression – expresie, feature extraction – extragerea caracteristicilor, feedforward – propagare înainte, framework – cadru, fusion – fuziune, fuzzy – logică fuzzy, image recognition – recunoașterea de imagini, inference – inferență, interpretation – interpretare, knowledge extraction – extragerea cunoștințelor, machine learning – învățare automată, mapping – mapare, memory – memorie, natural language processing – prelucrarea limbajului natural, neural computation – calcul neuronal, neural network – rețea neuronală, neuron – neuron, noise – zgomot, pattern – model, problem solving – rezolvarea problemelor, reaction – reacție, segmentation – segmentare, sensor – senzor, signal – semnal, stimulus – stimul, symbol – simbol, update – actualizare, visualization – vizualizare;

We selected terms created through conceptual metaphor such as: *adaptation* – *adaptare*, *behavior* - *comportament*, *concept* - *concept*, *decision making* – *luarea deciziilor*, *expression* - *expresie*, *framework* - *cadru*, *fusion* – *fuziune*, *image recognition* – *recunoașterea de imagini*, *inference* - *inferență*, *interpretation* – *interpretare*, *memory* - *memorie*, *neural network* – *rețea neuronală*, *neuron* - *neuron*, *pattern* - *model*, *problem solving* – *rezolvarea problemelor*, *reaction* – *reacție*, *segmentation* – *segmentare*, *signal* - *semnal*, *stimulus* - *stimul*, *symbol* – *simbol*. Also, in the field of artificial intelligence we find metonymy in terms such as *fuzzy* – *logică fuzzy*, *artificial intelligence* – *inteligență artificială*, *knowledge extraction* – *extragerea cunoștințelor*, *machine learning* – *învățare automată*, *deep learning* – *învățare profundă*, *neural computation* – *calcul neuronal*, *evolutionary computation* – *calcul evolutiv*, *affective computing* – *calcul afectiv*.

*Affective computing* is a term created by compounding: but within it a process of *metonymization* takes place. *Computing* is a term from computer science, and *affective* is created by metonymization. *Affective* is the term added to *computing* to include and imply the conceptual combination assimilated by the complex term *affective computing* between the field of emotional intelligence and the field of artificial intelligence; *affective* meaning a term that refers to *mood, feelings and attitudes*, according to the definition: *relating to moods, feelings, and attitudes*. Thus,

we have a metonymy of the type Sign→Origin (Sign for Origin). Which means that this metonymy has the role of holding the place of the origin of this term, namely, the field of emotional intelligence. The componential analysis of the definitions reveals the coincidence of the contents: *the study and development of systems and devices that can recognize, interpret, process, and simulate human affects*, and in Romanian *detectarea și recunoașterea emoțiilor pentru construirea mașinilor emoționale*. Thus, in both languages for the common term and equivalent is *the construction of machines and / which have the function of recognizing emotions*. *Affective computing* is also based on the principles of emotional intelligence and studies emotions for these systems to recognize them; it is a representative term for a branch of artificial intelligence that provides interdisciplinarity between human intelligence and artificial intelligence.

Subchapter 3.3, *Delimitation of Interlinguistic Terminological Equivalents for the Terminology of the Triad: Cognitive Intelligence – Emotional Intelligence – Artificial Intelligence* aims to validate the terminology of the triad cognitive intelligence, emotional intelligence and artificial intelligence from the terminological glossary of the paper. It is about a parallel corpus of texts, which confirmed the quality of terms identified from the terminological glossary compiled in our investigation; which was analyzed at the level of texts in English, the Anglophone space being the emerging space of theories in the field of intelligence, put face to face with their Romanian translations for *The complete book of intelligence tests* by P. Carter [3; 4]; *Emotional Intelligence. Why it can matter more than IQ* by D. Goleman [13; 14], *Emotions Revealed* by P. Ekman [9; 10]; and *Syntheses of Artificial Intelligence* by F. Leon [16; 17]. The terms identified represent a sample and a research model of 48 terms from the glossary. About this sample it can be said that in general terms - for 39 terms out of 48 in total - the translations coincide, i.e. *at the sample model level for 81.25% of the terms, the translation coincided with the equivalent from the compiled terminological glossary*.

In the last subchapter of the paper 3.4, *Transversal Study of Terminology in the Domains: Cognitive Intelligence, Emotional Intelligence and Artificial Intelligence*, we draw conclusions for the migration of terms in the triad. We notice

that all three domains form terms through the process of metaphORIZATION or metonymization with the domain of origin in one of the terminologies of another domain, also from the triad (we use the abbreviations IQ – for terminology from cognitive intelligence; EI – for terminology from the field of emotional intelligence and AI – for artificial intelligence terminology):

- metaphor, IQ → AI → IQ: *pattern – model; encode – a codifica; decode – a decodifica; mapping – atribuire; update – reînnoire; projection – proiecție.*
- metonymy, IQ ← EI: *expression – expresie; adaptation – adaptare.*
- metaphORIZATION and metonymization, IQ → EI: *(emotional) process – proces emoțional, (emotional) reaction – reacție emoțională, (social) cognition – competențe interpersonale, (emotional) intelligence – inteligență emoțională, (self)regulation – autoreglare, (emotion) regulation – gestionarea emoțiilor.*
- metaphor, IQ → AI: concept, symbol, framework, pattern, inference, behavior, stimulus, memory, signal, neuron, neural network, image recognition, interpretation, problem-solving, decision-making
- metaphor, EI → AI: expression, adaptation
- metonymy, IQ → AI: fuzzy – logică fuzzy, artificial intelligence – inteligență artificială, knowledge extraction – extragerea cunoștințelor, machine learning – învățare automată, neural computation – calcul neuronal, evolutionary computation – calcul evolutiv.
- metonymy, IQ, EI → AI: deep learning – învățare profundă.
- metonymy, EI → AI: affective computing – calcul afectiv.

Thus, the directions of terminological migration respect the combinatorics between them, but we do not observe the direction from artificial intelligence to emotional intelligence.

The distribution of reterminologization by types of intelligence is a total of about 23% in the domain of cognitive intelligence, about 13% for the domain of emotional intelligence and about 64% for the domain of artificial intelligence, where we are dealing with 30 terms reterminologized with artificial intelligence as a receiving domain of 47 terms in total per triad.

## CONCLUSIONS AND RECOMMENDATIONS

As part of our investigation, being a current, important subject and including the latest literature on the research subject, which assumes a high complexity and methodologies chosen in research in the solved scientific problem of the paper, the theses advanced initially are confirmed and respond to the aims and objectives of the paper, according to their order and priority within the chapters and sub-chapters. The paper answered the theses of the hypothesis in the following context:

- The thesis is confirmed and refers to the development of terminologies of the triad of emotional, cognitive and artificial intelligences, in which the domain of cognitive intelligence could prevail at the base of the triad of intelligences, this being the first domain of the triad of emotional, cognitive and artificial intelligences in which the first recorded theories about intelligences appeared.
- Among the domains of the triad of emotional, cognitive and artificial intelligences, a bridge is constantly functioning in the form of a semantic operation of transdisciplinary reconceptualization of terminology, which can be confirmed by the fact that among the domains of the triad we identify terms created by reterminologization in a proportion of 39,4%.
- Within the terminology of the triad of emotional, cognitive and artificial intelligences there can be determinologization in the case of emotional intelligence terminology. The level of specialization of the texts for the terminology related to human intelligence can also be low, due to the peculiarities of psychology texts to address the general public and to be explicit.
- In the terminology of the triad of emotional, cognitive and artificial intelligences, there is terminological interference in the form of interdomain metaphorization and metonymization, in approximately all directions, except for the direction from the terminology of artificial intelligence to the terminology of emotional intelligence. Based on the corpus of the paper, terminological interferences or tangents can be found, because there are three areas formed based on the concept of intelligence. In this sense, examples of such terms are : adaptation, behavior, expression, process etc. They can be found in the terminology of each domain in the triad of emotional, cognitive and artificial intelligence.



The purpose of the paper - the compared functional approach through the cognitive prism of three domains united by the notion of intelligences - was achieved through the objectives advanced in our research. The purpose and objectives of the doctoral thesis were answered in the following conclusions:

- An essential aspect in the approach of our investigation is the cognitive dimension, this occupying a central place as an approach, subject and as a field of expertise. This double cognitive approach also refers to the research methodology, and to the specialized texts, which are part of the domain of information theory and knowledge theory. The latter can only be seen scientifically and ontologically structured. That is why this subject includes concepts, concepts about concepts - as a double cognitive approach to conceptual systems, theories of information, theories of language etc. The interests of our research have a double cognitive approach also because: firstly, they start from the cognitive paradigm applied to terminology and, secondly, our doctoral investigation aims at the terminological study focused on three domains, namely, the triad of emotional, cognitive and artificial intelligences. That is, we are dealing with an approach to the terminology related to intelligence from a cognitive perspective, which emphasizes the level of complexity of the elaborated research subject.

- The sociocognitive approach to terminology brings to the fore the ontological and conceptual system side of terminology, which gives structure to terminology and reconfirms its status as a science. Operating with notions such as categories, content units, terminological knowledge bases etc., it widens the spectrum of functionality of terminology, brings the cognitive approach to the center of terminology and expresses its quintessence. Sociocognitive terminology, postulated by R. Temmerman, represents the pinnacle of the cognitive approach in terminological research within the cognitive shift.

- The reterminologization takes place in the case of the important terminological units that function in the triad of intelligences analyzed in our investigation. The chronological advancement of representative terms created through re-terminologization depends on the expansion of visions towards the respective

directions under the impact of scientific and technological progress, including through the development of high-performance technologies.

- The terminological corpus included 119 bilingual term records (238 terms in total in English + Romanian) and 274 monolingual extraction records (in English and Romanian). Of 274 collection records, 36 were not validated for inclusion in the term records because they did not meet the validation criteria. The correspondence between the extraction records and the term records is made according to the criterion of cognitive content (definition and keywords). The parallel corpus confirmed the quality and reliability of the translation of terms in the compared corpus, adding/proposing other equivalents, while providing fertile ground for translation analysis.

The scientific problem solved related to the theoretical and practical study of the formation, functioning and interferences within the cognitive terminology of emotional intelligence - cognitive intelligence - artificial intelligence allowed the creation of a theoretical basis for interdisciplinary connections and the elaboration of a bilingual glossary of terms (in Romanian and English) for domains related to cognition.

- In the componential analysis of the terminology in the fields of cognitive intelligence, emotional intelligence and artificial intelligence, we identify the following formation processes: derivation, compounding, terminologization, reterminologization.

- In total, among the domains in the triad, we identify 47 terms created by reterminologization from 119 terms in the domain of intelligences in the triad, which constitutes 39,4%; 30 terms reterminologized with artificial intelligence as the receiving domain out of 47 terms in total, which is about 64%.

- Consequently, the novelty of the investigated problem resides in the formation of a terminological glossary of terms within cognitive, emotional and artificial intelligences, which can be conceptually illustrated as conceptual systems of emotional, cognitive and artificial intelligences, with conceptual tangents expressed as products of metaphorization and metonymization, presented in the form of a scheme, proposed at the end of the paper.

After presenting the results of the paper and the scientific problem solved, we propose the following *recommendations*:

- The functional analysis of the specialized terminology and the terminological glossary elaborated in this investigation serve as a model of the conceptual overlaps in the triad of emotional, cognitive and artificial intelligences and may be useful for new transversal terminological investigations in other related specialized domains.

- The subject of the research can be extended to other investigations, focusing on the role of the conceptual metaphor in the formation of terms in various specialized domains.

- The theoretical material, the applied methodology, the analyses on the corpus from this investigation could be useful in the specialized translation classes, in the Terminology course offered to students following a translator and conference interpreter program.

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**ADNOTARE**

**Cristina NICHITA: Abordarea cognitivă a terminologiei multilingve în triada inteligența emoțională – inteligența cognitivă – inteligența artificială (în limbile engleză și română), teză de doctor în filologie, Chișinău, 2023**

**Structura tezei:** introducere, trei capitole, concluzii generale, 2 figuri, 2 diagrame, bibliografie, constituită din 175 de titluri, 14 anexe, declarația privind asumarea răspunderii și CV-ul autoarei.

**Rezultatele tezei** au fost reflectate în 11 lucrări științifice.

**Cuvinte-cheie:** concept, inteligență artificială, inteligență cognitivă, inteligență emoțională, metaforizare, metonimizare, migrare terminologică, reterminologizare, termen, terminologie.

**Scopul și obiectivele tezei.** *Scopul* lucrării este abordarea funcțională comparată prin prisma cognitivă a trei domenii reunite prin noțiunea de inteligențe. *Obiectivele* tezei rezidă în:

- reevaluarea abordării cognitive aplicate terminologiei din domeniul inteligențelor;
- conturarea unui sistem conceptual rezultat din evoluția teoriei în domeniul inteligențelor prin terminologia creată în acest parcurs;
- prezentarea metodologiei și criteriilor de formare a corpusului de texte specializate și a corpusului terminologic, aplicate domeniului examinat;
- descrierea metodologiei aplicate la analiza terminologiei din domeniul inteligențelor;
- compararea procedeelelor de formare a termenilor în triada inteligențelor;

- examinarea fenomenului de reterminologizare în triada inteligențelor;
- elaborarea statisticii de migrare terminologică în triada inteligențelor pe baza investigației noastre.

**Noutatea și originalitatea lucrării.** Noutatea lucrării constă în studierea interferenței conceptuale, respectiv terminologice, a trei domenii. Suprapunerea conceptuală a triadei inteligențelor poate fi un subiect productiv de cercetare și de necesitate în contextul actual al globalizării, ceea ce poate servi ca un instrument util părților interesate.

**Importanța teoretică a cercetării.** Lucrarea are un suport teoretic concludent pentru trasarea evoluției dimensiunii cognitive în teoria terminologiei. Pe linia lingvisticii cognitive, terminologia cognitivă a triadei inteligențelor creează un dublu demers în cognitivism. De aceea această metaterminologie și metacogniție este un parcurs în profunzime în latura conceptuală a terminologiei pentru toate părțile interesate: specialiști, traducători, studenți și nespecialiști.

**Valoarea aplicativă a cercetării.** Rezultatele cercetării constituie un glosar terminologic pentru multilingv destinat celor interesați de domeniul inteligențelor: specialiști, traducători și studenți, iar analiza funcțională reprezintă un model al suprapunerilor conceptuale în triada inteligențelor emoțională, cognitivă și artificială pentru specialiști, traducători și studenți.

**Implementarea rezultatelor.** Rezultatele cercetării cumulate în noutatea științifică a lucrării pot fi o bună sursă pentru toate părțile interesate de terminologia triadei inteligențelor emoțională, cognitivă și artificială – pentru uzul în cadrul activității profesioniștilor din domeniile umaniste, precum și pentru publicul larg.

## АННОТАЦИЯ

**Кристина Никита: Когнитивный подход к многоязычной терминологии в триаде: эмоциональный интеллект – когнитивный интеллект – искусственный интеллект (в английском и румынском языках). Диссертация на соискание ученой степени кандидата филологических наук. Кишинёв, 2023.**

**Структура диссертации:** введение, три главы, общие выводы, 2 диаграммы, 2 схемы, библиография из 175 названий, 14 приложений, заявление об ответственности за оригинальность и автобиографию.

**Результаты диссертации** нашли отражение в 11 научных работах.

**Ключевые слова:** искусственный интеллект, когнитивный интеллект, концепт, метафоризация, метонимизация, ретерминологизация, термин, терминологическая миграция, терминология, эмоциональный интеллект.

**Цель и задачи диссертации.** Целью диссертации является сопоставление функционального подхода через когнитивную призму трех областей, объединенных понятием интеллекта. **Задачи диссертации** заключаются в следующем:

- переоценка когнитивного подхода к терминологии в области интеллекта;
- определение концептуальной системы, возникшей в результате эволюции теории в области интеллекта, посредством терминологии, созданной на этом пути;

- представление методики и критериев формирования корпуса специализированных текстов и терминологического корпуса применительно к исследуемой области;
- описание методологии анализа терминологии в сфере исследования;
- сравнение способов образования терминов в триаде интеллектов;
- рассмотрение явления ретерминологизации в триаде интеллектов;
- разработка терминологической миграционной статистики в триаде интеллектов на основе нашего исследования.

**Новизна и оригинальность исследования.** Новизна работы заключается в изучении понятийно-терминологической интерференции трёх предметных областей. Концептуальное перекрытие триады интеллектов может быть продуктивной и необходимой темой исследования в нынешних условиях глобализации; которое может служить полезным инструментом для заинтересованных сторон.

**Теоретическая значимость исследования.** Работа имеет значительное теоретическое обоснование для изучения эволюции когнитивного аспекта в теории терминологии. По аналогии с когнитивной лингвистикой, когнитивная терминология триады интеллектов создает в когнитивизме двойной подход. Таким образом, эта «метатерминология» и «метапознание» представляет собой углубленный подход к концептуальному направлению развития терминологии для всех заинтересованных сторон: специалистов, переводчиков, студентов и неспециалистов.

**Прикладное значение исследования.** Результаты исследования представляют собой двуязычный терминологический глоссарий для интересующихся сферой интеллекта: специалистов, переводчиков и студентов. Функциональный анализ представляет собой модель концептуальных совпадений в триаде эмоционального, когнитивного и искусственного интеллекта - для специалистов, переводчиков и студентов.

**Внедрение результатов.** Накопленные в научной новизне работы результаты исследования могут стать хорошим источником для всех интересующихся терминологией триады эмоционального, когнитивного и искусственного интеллектов для использования в работе специалистов гуманитарных специальностей, а также для широкой общественности.

## ANNOTATION

**Cristina NICHITA: A cognitive approach to multilingual terminology in the triad: emotional intelligence – cognitive intelligence – artificial intelligence (in English and Romanian Languages), PhD thesis in Philology, Chisinau, 2023.**

**Structure of the thesis:** introduction, three chapters, general conclusions, 2 figures, 2 charts, the bibliography composed of 175 titles, 14 annexes, the statement regarding the accountability for the originality of the paper and the CV of the author.

**The results of the thesis** were reflected in 11 scientific articles.

**Keywords:** artificial intelligence, cognitive intelligence, concept, emotional intelligence, metaphorization, metonymization, reterminologization, term, terminological migration, terminology.



**The purpose and objectives of the theme.** The aim of the paper is the cognitive approach of three domains united by the notion of intelligences with the objectives:

- re-evaluation of the cognitive approach applied to terminology in the field of intelligences;
- outlining a conceptual system resulting from the evolution of the theory in the field of intelligence through the terminology created;
- presentation of the methodology and criteria for the formation of the corpus of specialized texts and the terminological corpus applied to the examined field;
- description of the methodology applied to the analysis of terminology in the field of intelligences;
- comparing the methods of creating the terms in the triad of intelligences;
- examination of the reterminologization phenomenon in the triad of intelligences;
- elaboration of terminological migration statistics in the triad of intelligences based on our investigation.

**The novelty and originality of the paper.** The novelty of the paper consists of studying the conceptual and terminological interferences of three domains. The conceptual overlap of the triad of intelligences can be a productive and necessary topic of research in the current context of globalization, which can serve as a useful tool to users.

**The theoretical importance of the research.** The paper has a useful theoretical support for tracing the evolution of the cognitive dimension in the theory of terminology. Along the lines of cognitive linguistics, the cognitive terminology of the triad of intelligences creates a double approach in cognitivism. Therefore, this metaterminology and metacognition is an in-depth investigation into the conceptual side of terminology for all users: specialists, translators, students and non-specialists.

**The applied value of the research.** The research results are a terminological glossary for those interested in the field of intelligence: specialists, translators and students. The functional analysis represents a model of conceptual overlaps in the triad of emotional, cognitive and artificial intelligences useful for specialists, translators and students.

**Implementation of results.** The research results accumulated in the scientific novelty of the work can be a good source for all parties interested in the terminology of the triad of emotional, cognitive and artificial intelligences - for use in the work of professionals in the humanities fields, as well as for the general public.

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**NICHITA CRISTINA**

**ABORDAREA COGNITIVĂ A TERMINOLOGIEI MULTILINGVE ÎN  
TRIADA INTELIGENȚA EMOȚIONALĂ-INTELIGENȚA COGNITIVĂ-  
INTELIGENȚA ARTIFICIALĂ (ÎN LIMBILE ENGLEZĂ ȘI ROMÂNĂ)**

**621.04 Lexicologie și lexicografie, terminologie și limbaje specializate,  
traductologie**

Rezumatul tezei de doctor în filologie

CHIȘINĂU, 2023

NICHITA CRISTINA

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