

MENTAL REPRESENTATION IN NATURAL LANGUAGE

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Prezenta lucrare abordează drept subiect activitatea mentală umană și reprezentarea ei în limbă. Bazându-se pe tendințele actuale în lingvistică, care consideră limba ca fiind un sistem format sub influența organizării biologice și neurofiziologice general-umane, în același timp, în strânsă legătură cu gândirea, activitatea spirituală și practică a omului, personalitatea lui și cunoașterea lumii, după cum este determinat de complexitatea naturală a interdependenței procesului de gândire, limbii și activității umane, prezenta cercetare și-a propus abordarea aspectelor cognitive ale limbii. În prezent, și-a demonstrat actualitatea și importanța, studiarea limbii nu doar din perspectiva unui set anume de elemente lexicale, dar și din perspectiva relației acesteia cu gândirea și simțul percepției, înaintate de către V.Humbolt. Un lingvist contemporan va aborda inevitabil limba prin prisma relației strânse a acesteia cu gândirea, activitatea și interacțiunile sociale ale oamenilor.

There exist different definitions of language. The one we highlight in the given research reflects on language being “arguably the salient characteristic that defines humanity” [1]. According to Givon [2] language is viewed as a system of representation of knowledge, acquisition of new knowledge, remodeling-change of knowledge and the communication of new knowledge. The choice for verbs belonging to mental field, manifesting brain/cognitive activity including those of thinking, knowing, and opinion, has been stipulated by the fact that it is this group of verbs that is responsible for expressing important aspects of human relations, communication (both intra- and interpersonal), specific ways of their representation in the language. The interest can be also explained by the importance of the verb per se as the most complex part of speech, which plays the central meaning forming role in the sentence. The verbs studied in the given research, include those forming the *mental field [concept]*, with the emphasis on the verbs of thinking, knowing, and opinion. Recent findings in mental activity representation in natural language demonstrate this area’s actuality and importance of verb semantics study for linguistics science, as well as highlight the interdisciplinary aspect of the phenomenon, i.e. its connection/relation to psychology, philosophy, logics, cognitive and ethno linguistics, etc. Research results in mentality theory demonstrate that there is still no clear picture on this phenomenon, only some problems and ways of their solution being in progress. The problem with defining *mentality* itself is stipulated by the fact that scientists often do not take into consideration the notion of mentality and peculiarities of its contents, already developed and accumulated by other scholars (e.g. V. von Humbolt, A. Potebnya, etc.), thereby often almost excluding the problem of *language mentality* [3]. In this connection it would be unfeasible to address the notion of *mentality* without considering its strong link to philosophical, psychological and language (linguistic) perspectives. Decades ago E. Benveniste wrote that “in a man it [language] is the connecting link/ of mental and socio-cultural life, and is at the same time the instrument/tool of their interaction [4]. He also suggested that “on the basis of these terms’ triad ‘language, culture, human personality’ another linguistics could be created” [4]. This conclusion found its explicit confirmation in the development of modern linguistics, and first of all, those sections, that study interactions of language and culture, and peoples’ mentality. Russian linguist A. Potebnya, one of those first who initiated and grounded the idea of thinking/thought and language unity, as well as interdependency in their development, underlined the active role of natural language in this process [5]. He considered the influence of psychological characteristics of an individual or nation) on language development the most interesting and meaningful in this link.

Mentality definition and identification of the ways of its representation present one of the most important and disputable problems/issues related to mental processes description in language. Based on the definitions provided in the philosophical dictionary [6] *mentality* (from Lat. Mens- thought, thinking, way of thinking) presents deep level of collective or individual consciousness, including the subconscious; it is the complex of availabilities, attitudes and predispositions of an individual or social group to act, think, feel and perceive the world in a certain way. It is also noted in the dictionary that mentality is formed depending on traditions, culture, social structures, as well as the whole sphere of a person’s living environment, in its turn forming them, and acting as a not easily defined source of cultural-historic dynamics. Following Kolesov V.V. we

understand *mentality* as world outlook/ (philos.) Weltanschauung) in categories and forms of natural language, uniting in the process of cognition of intellectual, spiritual and will characteristics/features of national character in its typical manifestations” [3]. Such understanding of *mentality* is accepted by a number of linguists, and consequently, the term *language mentality* was suggested, which means the reflection of the variety of spiritual, intellectual and sensible life of a person in language (Kolesov V., Pocheptsov O.). In the present article the term “language mentality” is used with its [mentality] reference, first of all to the world outlook consciousness structure, as well as to the consolidation of the results of thinking activity in natural language [7].

The meaning of the word *mentality* has been elicited from the following dictionaries: Longman Dictionary of Contemporary English (LDCE), Cambridge Advanced Learner's Dictionary (CALD), Cambridge Advanced Learner's Dictionary (CALD), Cambridge Dictionary of American English (CDAE), Roget's II. The New Thesaurus (RNT), Answers.com, Thesaurus, and DICȚIONARUL EXPLICATIV AL LIMBII ROMÂNE (DEX). *Mentality* in LDCE is presented by two entries, including the following: “[U] the abilities and powers of the mind: a person of weak *mentality*; and [C] person's habitual way of thinking; character. Based on the definition provided in the CALD *mentality* is a person's particular way of thinking about things, e.g. I can't understand the *mentality* of people who hurt defenseless animals. *Mentality* is defined as “a person's or group's way of thinking about things” in CDAE, e.g. They buy everything on credit - they have this play now, pay later *mentality*. According to RNT, *mentality* has the following two meanings: 1. The thought processes characteristic of an individual or group: ethos, mind, mindset, psyche, psychology; 2. The faculty of thinking, reasoning, and acquiring and applying knowledge: brain (often used in plural), brainpower, intellect, intelligence, mind, sense, understanding, wit. It is presented as “the sum of a person's intellectual capabilities or endowment” in the Answers.com, and the following two entries in Thesaurus: 1. The thought processes characteristic of an individual or group: ethos, mind, mindset, psyche, psychology. 2. The faculty of thinking, reasoning, and acquiring and applying knowledge: brain (often used in plural), brainpower, intellect, intelligence, mind, sense, understanding, wit. DEX provides the definition as follows: Fel particular de a gândi al unui individ sau al unei colectivități. (Din fr.mentalitate).

Based on the provided above definitions of *mentality* we can monitor the key words/word combinations that highlight the essential shades of its meaning regardless the variety of definitions one may look up, namely “the (particular) way of thinking”, “(intellectual) capabilities/abilities of the mind”; whereas such words/notions as “thinking”, “understanding”, and “knowledge” would always indicate to its [mentality] nature, which influences its representation in the language. The problem related to the ways of representation of *mentality* by various language means is actual for modern linguistics. Mental activity verbs, or predicates, “describing the sphere of mental activity in the broad meaning of the word” [8], are highlighted as the main means of expressing *mentality*. At the same time, terminological diversity, when the same lexemes are named “mental”, “putative”, “factive”, “verbs of propositional attitude”, “parenthetical”, “epistemic verbs”, etc., is indicative of the fact that there does not exist the unanimity in understanding of systemic and functional characteristics of these units. Being one of the means of expressing *mentality* in the language, mental activity verbs, or predicates, are viewed in the given research as lexemes that not only name the thinking process, but also contain in their semantics the elements of its description, as well as consider national – ethnic specifics of perception, understanding, and cognition of reality by the individual/particular language personality and ethno linguistic community as a whole. Attempts to classify predicates date back to Aristotle's works where he already distinguished different types of predicates, pointing out such their characteristics as the ones of state and movement. Although the contents issues of the identified predicates could not be exposed explicitly enough, the terminology introduced by Aristotle, is still used to describe various formal and semantic categories in modern languages. The predicates' classification theme was reflected on in the works of L. Scherba, Z. Vendler, T. Buligina, T. Shabanova, L. Livov, G. Silinitschii, and others. As verbs of mental activity constitute the main object of the present study, the meanings of the words *mental* and *activity* provided in Psychology Dictionary, Cambridge Advanced Learner's Dictionary (CALD), Longman Dictionary of Contemporary English (LDCE), Cambridge Dictionary of American English (CDAE), and DEX have been tracked, thereby contributing to (our) better understanding of the concept per se. Following the definition included in the Psychology Dictionary *activity* is a dynamic system of the subject's interactions with the world, in the process of which appearance and personification in the object of mental image, as well as realization

of the mediated by it relations of the subject in the subject's reality, take place. The given definition suggests a conclusion that the *activity* concept cannot but directly relate to the human's processes of thinking, cognition, and understanding that take place every day through his/her interaction with the world and its reality. All these processes are interconnected, which is most vividly demonstrated in the natural language by the active use of verbs of thinking, knowing, and opinion being part of those comprising the mental verbs field. According to the CALD, the meaning of mental is reflected in the following entry: [before noun] relating to the mind, or involving the process of thinking: e.g. She had a mental picture (= a picture in her mind) of how the house would look when they finished decorating it. LDCE provides three entries: 1. of the mind: a child's mental development e.g. His problem is mental, not physical. 2. [A] done or made only in the mind: mental picture; and 3. concerning illnesses of the mind. Mental is defined as "of or about the mind, or involving the process of thinking" e.g. I made a mental note of her address (= I will try to remember it) in CDAE. DEX explains the meaning of mental as 1. Care aparține minții, privitor la minte; and 2. Care se face în minte. [Var.: mintal, -â adj.] - Din fr.mental, lat. mentalis (după minte). Reading through and analyzing the presented above definitions, conclusion can be made that the key words in defining *mental* include the ones characterizing the process of thinking and those related to the human's mind, brain activity. The analysis of the functional and semantic characteristics of mental activity verbs elicited from the works of American and British writers (Virginia Woolf: "To the Lighthouse", "Jacob's Room", "Night and Day"; J.K.Rowling: "Harry Potter and the Sorcerer's Stone", Helen Fielding "Bridget Jones. The Edge of Reason. Same Bridget. Brand New Diary"), led to conclusion that mental activity verbs, as well as other units related to the thinking process, can be organized within the *mental field*. There have been made attempts to examine this field in scientific literature, however, due to the lack of the clearly worked out criteria for singling out this paradigm, a lot of questions associated with its status, and especially the related to the mental field terminology (ranging from "mental", "putative", "factive" to "epistemic", etc.) are still open for further study [10,11]. Researching mental activity verbs, one should also take into consideration only the data registered in the dictionaries, but also those aspects that are functionally manifested in mental verbs use in speech acts, in context conditions, to contribute to deeper perception of the role that these verbs play in expressing human's thoughts, intentions, feelings, etc. while communicating with the world (interpersonal communication/activity), those characterizing his/ her mental abilities (intrapersonal one). The study of the verbs of mental field presents a fragment of the language picture of the world, related to the person's inner world, which at the same time reflects the experience of introspection of many generations.

Mental activity verbs united in the considered mental field, are characterized by common/commonality of meaning. All structural elements of the mental field in this or that way are correlated to the concept of thinking/thought. It is known that thinking presents the process, and as any process, it presupposes such components as subject, process itself, object, the second object, instrument, the process representation, and time parameter. With regard to this, before we refer to mental verbs/ verbs of thinking (process), it is essential to consider the notion of "thinking" from different perspectives, including the one related to language itself (linguistic). Following the information looked up in The New Encyclopedia Britannica the word thinking in everyday language covers several distinct psychological activities. It sometimes can act as a synonym for "tending to believe", especially with less than full confidence (e.g. I think that it will rain, but I am not sure.). Alongside other activities, it at other times denotes whatever is in consciousness, especially when it refers to something outside the immediate environment (e.g. It made me think of my old grandmother.) It is also highlighted in the encyclopedia that from the viewpoint of the psychologists' concentration/ focus, thinking is considered as intellectual exertion aimed at finding an answer to a question or means of achieving a desirable practical goal. According to the definition provided in the Psychology dictionary, *thinking/ thought* is a process of cognitive activity of an individual, characterized by generalized and mediated reflection of the individual's activity, and is the subject of composite interdisciplinary research. Its main forms include: notion; judgment/ opinion, and deduction [9]. *Thinking* is defined as follows in the Philosophical Dictionary: "an active process of reflecting the objective world in notions, judgments, theories, related to solving various tasks, the highest product of the specially organized matter- the brain. It is also marked there that thinking is closely connected with speech, and its [thinking] results are fixed in the language. Abstractness, analysis, and synthesis are typical of thinking. In DEX we find the following definition of *thinking/thought (gând)*: 1. Proces de gândire sau rezultatul procesului de gândire; idee, cuget, cugetare. 2. Închipuire, imaginație, fantezie;

inspirație. 3. Loc considerat casediu al cugetării; minte, memorie. 4. Intenție, plan. 5. Convingere, părere. 6. Voie, dorința, plac. *Gandire* is defined as: 1. Facultate superioară a creierului omenesc, care reflectă în mod generalizat realitatea obiectivă prin noțiuni, judecăți, teorii, etc. 2. Factor ideal care constituie reflectarea realității obiective: spirit, conștiință. 3. Idee, gând (1), cuget; mediatăre, reflecție. 4. Imaginație, fantezie. According to DEX *cugetare* is “acțiunea de a cugeta și rezultatul ei; gândire, idee. / Judecată, raționament. / Meditație, reflecție. Following the CDAE definition, thinking is the process of forming an opinion or idea about something, or the opinions or ideas formed by this process, e.g. I feel that his thinking is outdated in some ways./ e.g. Several new books have changed my thinking about terrorism. Thinking can be also defined as “the process of thought; the process of exercising the mind in order to make a decision” [12].

Human language constitutes a specific phenomenon, closely related to human’s activity. Human’s speech, by its nature, presupposes functioning of thinking by means of the language, that’s why it is not possible “without the language”. Language is both the means of reality reflection in person’s consciousness, and at the same time-the most important means of people’s communication in the process of transformation of reality. It demonstrates that organic connection of the language with thinking acts as the essential characteristics of the language, defining its functioning and development. Due to human’s activity’s complexity and dynamics, language is a complex, live and developing system and its main functions can be defined as follows: 1) to serve as the means of communication, 2) serve as instrument of thinking. Both of these functions define its social basis.

One of the central problems of modern linguistics is the problem of dependence of language composition and organization on general principles of reality/world perception by human thinking [13], as well as on of social processes and society culture development. Interaction of the components of semantic structure of mental activity verbs shows the variety of thinking process situation. The specifics of the relation of verbs of mental activity with thinking is comprised in possessing the integral seme of “implementation of mental activity”. This seme in turn is then specified by various semes like, for example, “the character of the subject”, “the type of object”, “mental action of the subject”, “the character of mental action”, “mental attitude of the subject to the object”, “presence or absence of mental operations”, etc. Thinking process always presupposes direction of the subject’s thought to the object, which can be direct or indirect, explicit or implicit, concrete or abstract, animate or inanimate, etc. Thus, for instance, in the semantic structure of the verbs *think, know, consider, believe, suppose, learn, ponder, muse, see, etc.* there is no indication to the direct object, while the ability to think itself, whether directly or in abstracto, has the indirect object of thought, without which the proof of thinking process is impossible. The basic model “thinking subject- process of thought- object of thought”, characteristic for semantics of mental verbs and generally expressing the essence of the reflected typical situation, which is connected with the thinking process, can be viewed as an indicator serving the basis for linguistic description of mental verbs lexis within the functional- semantic field.

Research in mental activity verbs has a strong link to the notion of *modality*. *Modality* (from Latin *modus*-measures, way) presents the characteristics of peculiarities of an existing object or notion, process passing (physical modality), as well as ways of constructing and understanding of judgments and logical reasoning about objects, events and processes (*logical modality*). The notion *modality* was introduced by Aristotle. Differences in judgments were in detail researched/studied by philosophers of late antiquity and scholiasts. Modality of judgments can be interpreted doubly: as judgment characteristic by degree of truth of described states of things fixed in it (*modality de dicto*) or by degree of expressed [in it] necessity of predicate’s appertaining to the subject (*modality de re*). *Modality* characteristics in this or that version are studied in different ways in modern modal logics. The main types of logical modality include the following: alethical, e.g. “necessary”, “possibly/probably”, “by chance/accidentally”, deontical, or normative (“forbidden”, “allowed”, etc.), epistemic, i.e. knowledge, suppositions/propositions, presuppositions, beliefs, doubts, etc. The notion *modality* allows to make deeper analysis of peculiarities and rules/laws of human’s cognitive activity [6]. *Modality* is viewed differently in logics and linguistics. In the Logic Dictionary it is viewed as “difference between judgments in dependence on the degree of truth of the reflected fact, fixed in them [judgments], phenomenon – from probability to necessity of existence of the reflected”. In contrast to logical modality, *modality* in linguistics is defined as “grammatical-semantic notion, reflecting the attitude of the speaker making this or that statement to the object of this statement, and it is manifested with the help of different intonation, forms of mood of verbs, introduction words, etc. Therefore, language category of modality is inseparably connected to

the speaker (speaking subject) and characterizes the sentence as the main communicative unit of speech, as it is the sentence where the objective reality is reflected in its interpretation in people's public conscience. Modality of doubtful assessment, included in the structure of epistemic modality, means insufficient knowledge of the speaker about the possibility of existing connection between the object of predication and its indication characteristic. Estimating subject only presupposes/assumes the existence of such connection, i.e., this the result of his thinking activity. In this way, the modality of this type is subjective, as it is always linked to the judgment of the speaker. According to Palmer, modality in language is concerned with subjective characteristics of an utterance. He also mentions that subjectivity can be considered as an essential criterion as the gramaticization of speaker's (subjective) attitudes and opinions.

In the paper an attempt has been made to highlight the importance of understanding and studying the language in its close relation to human's mental activity, thinking being in focus. The verbs forming the mental field, those of thinking, knowing, and opinion (e.g., to think, to consider, to ponder, to believe, to know, to guess, to suppose etc.), best render the important aspects of human relations, intra- and interpersonal communication, specific ways of their representation in the language. Results of recent findings in mental activity representation in natural language demonstrate the necessity for interdisciplinary approach to its study, thereby emphasizing its link/connection to psychology, philosophy, logics, cognitive and ethno linguistics, etc.

The mental activity verbs, comprising the *mental field*, are characterized by commonality of meaning, and its [mental field] structural elements are correlated to the concept of thinking. With close relation and inseparability of language and human speech, organic connection of language with thinking acts as the principal/prime characteristic of the language, defining its functioning and development. Specifics of verbs of mental activity and thinking relation is reflected in their possessing the integral seme of "implementation of mental activity", which is further specified by the ones [semes] of by various semes like, for example, "the character of the subject", "the type of object", "mental action of the subject", "the character of mental action", "mental attitude of the subject to the object", "presence or absence of mental/ intellectual operations", etc.

The study of verbs of mental field is a part of the language picture of the world, which is related to human's complex /multipart inner world, which in its turn, reflects the experience of introspection of many generations. Hence, researching verbs of mental activity, we should take into consideration not only the data included in dictionaries entries, but also the aspects functionally manifested in their [mental verbs'] use in speech acts, different context conditions. In this way, it will help to deeper perceive the role that these verbs play in expressing human's thoughts, intentions, feelings, etc. while communicating with the inner- and outer world.

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