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# Understanding and evaluation: a cross-linguistic study of the evaluative collocates of English and Armenian verbs of understanding

**Abstract.** The paper studies the correlation between understanding and evaluation in the light of social interactions, and aims at exploring the metaphorical mapping of the process of understanding in the English and Armenian languages. The purpose of the paper is to analyze the two cognitive processes, based on the contrastive study of verbs of understanding in terms of the evaluative meaning of their collocates, thus explaining the dynamics of understanding-evaluation relations, fully manifested in the metaphorical patterns underlying the sense of the verb. It is shown that the evaluative meaning of the collocates plays a pivotal role in shaping how understanding is emotionally and rationally assessed. A corpus driven analysis of the English and Armenian factual material reveals the collocations that metaphorically confer different dimensions to the process of understanding and points out a clear tendency to mark understanding as positive when evaluated rationally and negative when evaluated emotionally. The research detects and determines three types of evaluation in the axiological system under study and classifies them as emotional, rational or orientational. Their relative positioning on the axiological scale correlates with the accepted norm viewed as the deictic centre (reference point) of the whole process. The main findings of the research make a novel contribution to the study of understanding-evaluation correlation, offering insights into the metaphorical nature of how understanding is perceived and evaluated in both English and Armenian.

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## 1. Introduction

The notion of understanding is believed to be closely connected with that of evaluation and determined by some other notions of the human mind. These two cognitive processes are not independent, but rather interact in a dynamic way: to effectively evaluate something requires a deep understanding of its content and arguments; at the same time evaluation from different perspectives provides a deeper understanding.

Several factors have been identified that contribute to the close interaction between understanding and evaluation. First, it has been shown that people tend to use their prior knowledge, schemas and beliefs to evaluate new information and integrate it into these schemas (Kuhn 1991; Graesser et al. 1994). Second, it has also been shown that evaluation involves the use of higher-order cognitive skills such as critical thinking, reasoning and problem-solving (Anderson 1993); one should be able to analyze the relevant domain of knowledge and through a consistent judgement draw reasonable conclusions to come up with some solutions.

Over the years, scholars have explored the relationship between conceptual metaphors and evaluations, examining how metaphorical expressions influence our judgements and assessments. This study, carried out in the light of Conceptual Metaphor Theory (CMT) (Lakoff & Johnson 1980), attempts to correlate the notions of understanding and evaluation taking into account the metaphorical nature of understanding and the role of evaluation in the metaphorical representation of understanding.

As known, conceptual metaphor research investigates how metaphorical language shapes our perception of abstract concepts through mapping them onto more concrete domains, onto more accessible and embodied experiences. Conceptual metaphors do not only structure our language but also enhance/refine our understanding of intangible notions and complex issues. They shape our reasoning and attitudes, and by outlining the cognitive, affective and social factors influence the process of communication in general and that of understanding in particular. G. Lakoff and M. Johnson's groundbreaking work on CMT, though not explicitly focused on evaluation, laid the foundation for subsequent research on the cognitive and affective dimensions of understanding taking into account its metaphorical nature.

The study of the English and Armenian language data which pertains to the linguistic expression of metaphorical representation of understanding suggests the presence of a consistent pattern. It appears that a verb of understanding having a metaphorical basis is frequently collocated with terms conveying evaluative meaning, with words or phrases which carry subjective emotional connotations, often associated with the speaker's/writer's attitude, judgement or opinion towards either the object being understood or the very process of understanding itself. Accordingly, when speaking about the correlation between understanding and evaluation, two types of evaluative structures should be considered – assessment of the *material* to be understood and assessment of the *quality* of the whole process of understanding, that is the assessment of the level of understanding achieved. Drawing on these assumptions, the following research questions are addressed in the paper:

- 1. What is the target of understanding? Is it more often evaluated as something negative, positive or neutral?
- 2. How is the process of understanding evaluated (negatively, positively or neutrally)? Consequently, two types of structure are under discussion in the paper:
- a. verb of understanding + target of understanding evaluated;
- b. verb of understanding + evaluation of the process of understanding.

Thus, we begin with a brief introduction on understanding, evaluation and metaphor, and provide a state of the art literature review. Then a special section specifies and delineates the methodology of the research and the main methods used. The Results and Discussion section presents metaphorical patterns revealed in the research, and identifies the set of systematic correspondences and differences between the two languages by specifying the target of understanding and defining the three types of evaluations: emotional, rational and orientational. The Conclusion succinctly summarizes the major findings and key discoveries of the research.

# 2. Theoretical background of the research

Evaluation is a crucial component of social communication. It is an inherent aspect of language use, conveyed through various linguistic resources (adjectives, adverbs, modality, intonation, metaphor). Evaluation enables us to express subtle shades of meaning and negotiate our position in relation to other speakers and writers, thus allowing people to position themselves and others in relation to various evaluative criteria. It is worth noting that metaphor is classified as one of the main linguistic resources comprising evaluative meaning. Metaphorical language is claimed to convey evaluations in various contexts (Gibbs 1994; Semino & Masci 1996; Kövecses 2005; Martin & White 2005; Burgers et al. 2016; Fuoli et al. 2021).

Evaluation is not a monolithic concept, but rather a complex and multifaceted phenomenon. The terms Target, Evaluator, Evaluation and Ground are widely accepted and used by many researchers and practitioners in the field of evaluation. The Target refers to the object or entity being evaluated, while the Evaluator refers to the speaker or writer who is making the evaluation. Evaluation refers to the judgement or opinion being expressed, and Ground refers to the criteria or standards that are being used to make the evaluation.

Evaluation is not only expressed through language but is also shaped by discourse context, social norms and cultural values. It is argued that the way evaluation is expressed can vary across different cultures, languages and social contexts.

In academic literature researchers have identified several fundamental concepts covering the pragmatic dimensions of speech, that is the discourse context in its broadest sense (dialogue, context of situation, knowledge/perception of interconnection between the elements of a system, intention, attitude, emotion, evaluation) as playing a crucial role in the whole process of understanding. These concepts are not separate aspects of understanding but are interconnected, with evaluations serving as markers of understanding.

As a dialogical process understanding implies at least two parties engaged in the communication process. As M. Bakhtin puts it, "...understanding presupposes two individual consciences, two subjects; understanding is always dialogical" (Bakhtin 1995: 78). The interaction between the speaker and the interlocutor suggests that understanding is correlated with a specific situation, that is in a broader sense, with a certain context.

The significance of the context in the characterization of the mental process of understanding is highlighted by most scholars. Specifically, they posit that understanding involves communication within a particular context, and that it presupposes the existence of a subject and a context for an action. In essence, understanding is contingent on the consideration of the context, situation and the underlying conditions, that is to say to grasp a particular phenomenon the subject must apprehend the situation and the underlying circumstances (Shchedrovitsky 1995: 481; Kelly et al. 1999: 589; Gadamer 2008: 10; Regt 2014: 377–396).

Thus, speech is construed within the contextual framework of a given situation. The primary objective of comprehension is to apprehend the implicitly expressed and embedded information. In this regard, understanding incorporates all relevant aspects of the communication process, encompassing both subjective and objective factors (Dilthey 2001: 512, 515; Gadamer 2005: 236; Gallagher 2008: 446, 449). In order to understand something, it is necessary to adopt a broader perspective and consider diverse factors.

Understanding, as commonly discussed in the literature, entails more than mere belief, acceptance or knowledge of discrete information. It pertains to the comprehension of the relationships between the constituent elements of the system. Essentially, it involves discerning the connections, interactions and interdependence between them, developing an appreciation of how they are interrelated and fit together, integrating the material under consideration with other relevant material. While it is possible to possess unrelated pieces of information, it is through their combination that comprehension emerges (Rosenberg 1981: 33; Kvanvig 2003: 192; Riggs 2003: 218; Lipton 2009: 43–63; Ylikoski 2009: 100–119).

At the same time, to understand is not only to perceive the interconnectedness of elements but also to comprehend the underlying reasons for their interconnectedness. Thus,

understanding involves providing an answer to the question of *how* and *why* different elements within the same system influence one another and fit together, constituting the intentional aspect of the understanding process which shapes an individual's personal attitude towards the information being conveyed (Baumberger et al. 2016: 29–30; Grimm 2016: 209–225).

Since understanding is determined by the agent's (evaluator's) attitude towards the target, it is worth noting that a positive attitude holds particular significance in the process of understanding – a favourable and positive approach facilitates and leads to comprehension. For achieving a comprehensive understanding it is necessary to perceive the intention or purpose behind the phenomenon as desirable, preferable, true and justified (Kvanvig 2003: 188; Grimm 2006: 515–535; Elgin 2007: 33–42; Grimm 2016: 209–225; Susen 2016: 69–70). By attributing desirability, preference, truth and fairness to the understanding process the speakers express their positive attitude.

Here it becomes obvious that at the heart of the understanding process lies the human factor as both the speaker and the interlocutor bring their opinions, emotions and feelings into the process of understanding, thus making the evaluation of the communicated material subjective. Positive and negative evaluations are on different sides of the axiological scale. At the same time, though being in different locations, they are determined in relation to some definite reference point, Norm or Origo.

In this regard, the Norm and the Origo are the two concepts closely associated with that of understanding studied from the perspective of values and the meaning conveyed. The Norm is seen as an axiological category, while the Origo is deemed a pragma-semantic category. The key distinction between the axiological Norm and the pragma-semantic Origo is determined by the claim that norms stem from shared community values and beliefs (Kecskes 2014), whereas the Origo is determined by individual speakers or specific communities. The Origo highlights the speaker as a reference point (Bühler 2011), which might deviate from normative/objective reference points. On the whole, we can argue that understanding and evaluation are both relative, that is to say, they are related to a specific point, a benchmark – the Norm or the Origo.

It is worth noting that people are capable of both underestimating and overestimating the comprehension of actions, facts, events, situations. According to some research, individuals tend to overestimate their understanding due to their prejudiced attitude towards the communicated material (Ylikoski 2009: 100–119). Therefore, it is crucial to determine which level of understanding can be considered as understanding proper, the understanding itself.

The discussion of the works of prominent scholars and researchers establishes a common thread between understanding, evaluation and metaphor. While evaluation serves as the lens through which we assess the depth and quality of our comprehension, metaphoricity of understanding enriches the context in which evaluation takes place.

# 3. Material and methodology

A dataset (15000 sample contexts containing English and Armenian verbs of understanding) derived from the British National Corpus (BNC), Corpus of Contemporary American English (COCA) and Eastern Armenian National Corpus (EANC) served as the basis for the research, out of which 1000 sample tokens comprising verbs of understanding along with their evaluative collocates were chosen for the analysis. The results of the study are analyzed both in quantitative and qualitative terms.

The BNC, COCA and EANC are large-scale corpora of English and Armenian: they provide a comprehensive data source for investigating lexical associations. To identify significant collocational relationships, the research methodology comprises the use of collocation extraction tools, which scan the corpus to identify evaluative collocates; the query involves a systematic analysis of the verb of understanding co-occurrence patterns within a specified span of words, within the immediate left (L8) and right (R8) contexts. R8 collocates are the 8 words that appear to the right of the target word, while L8 collocates are the 8 words that appear to the left of the target word.

The analysis of the data obtained from the relevant corpora enabled us to uncover patterns of verb usage, identify recurrent linguistic constructions, gain insights into their semantic and pragmatic dimensions, and explore the underlying linguistic principles that shaped word combinations and contributed to a deeper consideration of the cognitive organization of the concept of understanding in the languages under study.

The research methodology based on the corpus analysis tools is backed up by contrastive, distributional and componential methods of analysis.

The contrastive analysis contributed to identifying the correspondences and divergences in the process of understanding between the English and Armenian languages by studying the pragma-semantic potential of the verbs of understanding and creating a fuller picture of the whole process.

The distributional analysis enabled us to identify patterns of co-occurrence between linguistic units denoting understanding and evaluation. It was used to identify lexical and semantic relationships between the linguistic units under study, which helped to gain a deeper understanding of underlying structures and relationships that govern the language use.

The research focuses on analyzing a set of 28 English and 22 Armenian verbs associated with the concept of understanding, as presented in the table below.

Table 1. Verbs of understanding

#### **English** Armenian understand (260894)<sup>2</sup>, comprehend (5611), հասկանալ (78981), ընկալել (5354), ըմբոնել appreciate (51392), recognize (50655), ackno-(3721), թափանցել, կոահել (3816), գուշակել wledge (19747), realize (75685), fathom, pene-(3199), տեսնել, յուրացնել, գլխի ընկնել (2461), trate, bottom, dig, reach, get, follow, draw, see, գյուիսը մտնել (49), գյուիսը մտցնել (56), գլիսին view, envision, discern, make out, take, appreհասնել (28), գլխին հասցնել (13), ուղեղին hend, seize, grasp, accept, perceive (10578), gatհասնել (5), ուղեղին հասցնել (2), իսելքը կտրել her, empathize (1271), sympathize (2067) (17), $hut_1ph$ unuture unutur(13), իսելքին հասնել (4), իսելքին հասցնել (4), ականջը մտնել, ականջը մտցնել

The selection of the English and Armenian verbs was based on a thorough analysis of their dictionary definitions, which were used to support the arguments and factual claims. A total of 30 authoritative English and Armenian explanatory dictionaries have served as a reliable and credible source of information about the meaning conveyed by the verbs under study. (The dictionaries immediately cited in the paper are listed in the references.)

The dictionary definition analysis involved two main steps: identification of the so-called determiners and concretizers through a methodology known as componential analysis. Upon examining the dictionary definitions, it became apparent that the verbs under study were defined in terms of the verbs to understand and to comprehend in the English language and huuluuluu 'understand', puppula 'comprehend' in the Armenian language, which determined the component being sought. This semantic tendency was confirmed by applying the technique of lexical transformation followed by step-by-step identification (e.g., the verb recognize is defined as perceive to be something or someone previously known, perceive clearly; in its turn the verb perceive is defined as attain awareness or understanding of (CALD)). Thus, the components of understanding and comprehension were considered to be the determiners in the semantic structure of the verbs under study.

The second step involved the setting of the concretizers, that is the words which concretized the determined meaning and introduced the potential of evaluation in the understanding verbs. Detection of concretizers was the main criterion used to determine whether the verb comprised evaluation of quality, i.e., the level of understanding, or not (e.g., comprehend – understand completely (CALD), seize – understand fully, clearly, distinctly (OALD, MWCD)).

All the methods and techniques used enabled a thorough exploration of the semantic intricacies of the verbs, their contextual preferences and English-Armenian cross-linguistic

<sup>2</sup> Data derived from the corpora indicate the raw frequency of the verbs that primarily express the sense of understanding.

variations, contributing to a deeper comprehension of language-specific evaluative expressions and the cognitive organization and metaphorical embeddedness of the notion of understanding.

Thus, the process of understanding is a multifaceted cognitive phenomenon. On a linguistic level, this complexity is manifested in a variety of verbs used to convey the act of comprehending with different levels of penetrating into the subject of understanding.

In this paper we consider the notion of understanding in its broadest sense, presupposing any kind of "change" from *unknown* to *known* in the state of mind and incorporating evaluation. The analysis of the factual material confirms once again that metaphor is pervasive in language and thought by showing that the conceptual domain of understanding is embodied through the conceptual domain of movement in both of the languages. This yields a structural metaphor that underpins the process of understanding as *movement*. Since understanding is often conceptualized on the basis of movement terminology, it enables us to view this metaphorical process in the light of the pragma-semantic category of deixis. Defining deixis as a type of nomination through a marking off point in relation to which real world subjects, objects, phenomena, situations, actions and events are being characterized, we assume that the metaphorical movement is realized in relation to the Norm viewed as the Origo of the mental movement (Yerznkyan 2013).

It is argued that the destination point of this mental movement serves as a metaphorical reference point for the process of understanding, and that the process itself is primarily structured around the metaphorical movement. The language material is analyzed through the metaphor of conceptualizing knowledge as a journey or path through the mapping of the abstract notion of understanding onto more accessible and embodied experiences of exploring an unknown/unfamiliar space or environment. In this process of metaphorical movement evaluation plays a key role: it reveals the level of understanding achieved.

# 4. Results and discussion

The current study was pursued to show that metaphor powerfully conceptualizes the abstract notion of understanding through tangible references, imbuing varied evaluations. By considering the dimension of evaluations, we uncover the ways in which metaphors embody our cognition and influence the perception of the world around us. The main thesis we try to defend here is that understanding is metaphorically construed and often through the evaluation of this mental process.

# 4.1. Metaphoric construal of understanding

The language data extracted from contextual uses and dictionary definitions show that the level of understanding is expressed through various adjectives, adverbs and adverbial expressions, which reflect the speaker's evaluation of the limits of the understanding process. The latter are more often than not rated/evaluated as *full(y)*, to the *fullest degree*, *complete(ly)*, *broad(ly)*, *wide(ly)*, *accurate(ly)*, *deep(ly)*, *high(ly)*, in *detail* and the like. These evaluations are related to the norm accepted in the given culture/society and outline the extent to which the actual understanding has reached. The analysis suggests that full understanding occurs when the agent and destination coincide, and are thus immersed into each other.

It is worth noting that these evaluative markers/concretizers outweigh other alternative concretizers (such as wrong(ly), the wrong way, erroneously, without full understanding/knowledge/proof/examination/verification/evidence/conviction/absolute certainty, unnin understanding, understanding, understanding, thus revealing the semantic asymmetry between understanding and understanding. The polarity contrast marked by the evaluative concretizers supports our view that the mental process of understanding comprises some "depth" which detects the degree of understanding.

## 4.2. Evaluation of the target of understanding

The analysis of the semantic potential of the verbs of understanding demonstrates that most of them are targeted towards abstract phenomena incorporating the component of complexity in their semantic structures. The dictionary definitions imply that the target of understanding is something **challenging and complicated**: e.g., fathom – understand (a difficult problem) after much thought (OALD), grasp – understand (something that is complicated or difficult) (MWCD), envision – form a mental picture of something that is invisible or abstract (vocabulary.com), discern – recognize or understand something that is not obvious, see/hear something, usually with difficulty (OALD), penetrate – achieve understanding of, despite some obstacles (OALD). It is important to note that when we encounter something complicated, invisible, abstract or unfamiliar to us, we may need to invest more effort and cognitive resources to gain a deeper understanding.

In the examples given below the verbs of understanding are all used along with terms which serve as targets of understanding. The language data extracted from the corpora by applying collocational frequency tools confirm that the speakers are making judgements and try to understand certain abstract notions and concepts. The most frequent collocates are listed here: UNDERSTAND meaning/complexity, COMPREHEND text/mind, RECOGNIZE need/importance, GRASP meaning/reality/direness, APPRECIATE help/offer, EMPATHIZE inability/pain, SYMPATHIZE plight/victim, ACKNOWLEDGE existence/reality, SEIZE opportunity/moment, APPREHEND individual/danger, REALIZE potential/mistake, LUGUIGL hungh Eniponiun/puunh lunquunnunun 'perceive the essence of the issue/the regulation of the problem', LUPUIGL punipon/hpuunhaunh comprehend the nature/situation', GLUPIGL USSUGL unu uuhhhpunniponiu 'put wild thoughts/nonsense into the head', UPGGL CUUSUGL unu uuhhhpunniponiun 'bring this nonsense to the brain', GUUSGL quunuhh uuununniponiuhunnhaunhhunhun

մտքերը 'guess the secret stories/second thoughts', ՅՈՐ ԱՑՆԵԼ նրբույթյուններ/զաղտնիքներ 'assimilate subtleties/secrets', ՏԵՍՆԵԼ նման վտանգ 'see such a threat'.

The following data extracted from the corpora summarize the quantitative correlation between abstract and concrete targets of understanding.

Table 2. Quantitative analysis of abstract and concrete targets of understanding in English

Types of Targets	Abstract Targets		Concrete Targets	
Number of Tokens	644 (92%)		56 (8%)	
Types of Evaluated Targets	Negative	Positive	Negative	Positive
Frequency of Evaluated Targets	48 (7.45%)	596 (92.54%)	3 (1.68%)	53 (94,64%)
Total	700			

Table 3. Quantitative analysis of abstract and concrete targets of understanding in Armenian

Types of Targets	Abstract Targets		Concrete Targets	
Number of Tokens	272 (90.66%)		28 (9.33%)	
Types of Evaluated Targets	Negative	Positive	Negative	Positive
Frequency of Evaluated Targets	20 (7.35%)	252 (92.64%)	1 (3.57%)	27 (96,43%)
Total	300			

As can be inferred from the figures provided in Table 2 and Table 3, in total 91.6% of contexts reveal abstract targets of understanding, while 8.4% of contexts reveal concrete targets of understanding. Negatively evaluated targets are more typical of abstract targets. In total negatively evaluated targets of understanding make up 7.2% of the contexts studied. The quantitative analysis results indicate that there is a nearly identical correlation between concrete and abstract targets of understanding in both languages. However, it is worth noting that negatively evaluated concrete targets in Armenian (3.57%) exhibit a higher frequency of usage in comparison to English (1.68%).

The closer examination of the collocability tendencies reinforces our claim that understanding is targeted towards abstract phenomena often implying semantic negativity (see such "targets" as *plight, frustration, inability, danger, direness, nonsense, etc.*). Data collected from the corpora show that the English and Armenian verbs under study often collocate with words (adjectives, adverbs and verbs) conveying some negative connotation. The number of occurrences of the most frequent terms is indicated in the brackets:

refuse (3095), difficult (2668), fail (2596), rarely (2099), hard (1138), unable (972), reluctant (320), impossible (201), ndyun 'difficult' (1276), huqhy 'hardly/barely' (267), pupp 'complex/complicated' (82). The association of these specific words with the verbs of understanding is consistently observed in a wide range of contexts.

This significant collocation pattern indicates a strong semantic bond between the words given above and the verbs, shedding light on how they are commonly used together to mark that in the process under study the component of negativity is prevailing.

It should be mentioned that the Armenian material includes verb phrases as well, akin to compound multi-word verbs. Notably, unlike English, the Armenian compound verbs themselves embody some negativity and convey the speaker's negative attitude (e.g., <code>qpnlup winglup</code> means 'to forcibly put into the head'). In contrast, the negativity of the English verbs of understanding is not so explicitly expressed. Instead it is revealed and identified through the analyses of contextual uses, as presented in the examples above.

On the whole, the discussion above demonstrates the abstract character of the target of understanding, pointing out the complexity and variability of the process, as well as the necessity of overcoming obstacles and difficulties in order to effectively handle challenging situations. Thus, it is argued that understanding involves evaluation of the complex target phenomena requiring empathy and understanding, which incorporates a certain degree of negative evaluative value as well.

## 4.2.1. Emotions as targets of understanding

Having a definite impact on the cognitive process of understanding and being inherently linked to it, emotions (positive and negative) also serve as "targets" of this process. The examples given below prove that the verbs of understanding often collocate with terms denoting emotions. The ratio between negative emotions and positive emotions is 1.5:1 correspondingly, with 60 and 40 tokens revealed.

Viewed from the perspective of negative and positive polarity, the language data present a series of different emotions. The negative emotions include sadness, frustration, disappointment, anger, fear, grief, concern, hurt, anxiety, etc.: empathize with one's despair/pain, sympathize with one's frustration/disappointment, understand sorrow/anger, comprehend frustration, acknowledge shame/fear, fathom grief/confusion, appreciate concern, recognize anxiety/disappointment, the positive emotional evaluations include contentment, enthusiasm, relief, joy, etc.: understand contentment/happiness, comprehend admiration/happiness, appreciate enthusiasm/excitement, acknowledge relief/elation, recognize joy/pleasure.

Regarding the interaction between understanding and emotions, our analysis reveals that understanding can either "soothe" someone's negative emotions or "facilitate, enhance" their positive ones. The speaker's understanding of the other person's negative emotions comes to calm them down and ease their negative emotions.

On the whole, as can be inferred from above, the analysis of the target types suggests that the process of understanding implies something like "problem-solving". Handling challenging and difficult situations and grasping complex abstract issues is a vital cognitive skill, reflecting critical thinking, creativity and problem-solving. Moreover, the process of understanding can speak of our capacity for empathy and compassion. By seeking to understand difficult phenomena, we may gain insight into the experiences and perspectives of others, as well as cultivate greater empathy and compassion for them.

# 4.3. Evaluation of the process of understanding: emotional and rational evaluation

Understanding is a cognitive process comprising emotional and rational evaluations. Though they closely interplay and are not mutually exclusive, the distinction between emotional and rational evaluations can be considered through the following key criteria:

Semantic structure. Rational evaluations lack the component of feeling, while emotional evaluations inherently include the *feeling* component, vividly expressed in dictionary definitions.

Consistency. Rational evaluations remain consistent across individuals and contexts, relying on such objective and measurable criteria as quality or efficiency. Emotional evaluations lack consistency and stem from subjective factors like personal preferences and emotional appeal.

*Evidence*. Rational evaluations involve systematic analysis and comparison of data and relevant evidence for conclusions. Emotional evaluations rely on personal experiences and feelings without necessarily following a structured process.

As our analysis shows that understanding involves the evaluation of conveyed information, with emotional and rational evaluative overtones, it is reasonable to assume that the information being perceived is situated on an axiological scale. The extent of understanding includes the intensity of attitudes, evaluations and emotions spanning the positive-negative polarity spectrum. (It is to be noted that the differentiation between negative and positive evaluations involved the manual review of the evaluations to label the negative-positive polarity.) The act of understanding occurs when this type of comparative positioning is achieved, thus pointing out the deictic nature of understanding, substantiated in light of axiology.

Based on the examination of English and Armenian contexts (in total 177), it has been observed that the perception of understanding is generally viewed in a positive light when evaluated rationally, but tends to have a negative connotation when evaluated emotionally. Table 4 illustrates this contrast in the evaluation of understanding and highlights the significance of recognizing the interplay between emotional and rational elements in the process of understanding in the English and Armenian languages.

Table 4. Emotional and rational evaluation of the process of understanding

Evaluation of the Process of Understanding	Number of Tokens in English	Number of Tokens in Armenian	Total
Negative Emotional Evaluation	20 (83.33%)	7 (46.66%)	27 (69,23%)
Positive Emotional Evaluation	4 (16.67%)	8 (55.33%)	12 (30.77%)
Total of Emotional Evaluation	24 (15.79%)	15 (60%)	39 (22.04%)
Negative Rational Evaluation	42 (32.82%)	6 (60%)	48 (34.78%
Positive Rational Evaluation	86 (67.18%)	4 (40%)	90 (65.22%)
<b>Total of Rational Evaluation</b>	128 (84.21%)	10 (40%)	138 (77.96%)
<b>Total of Negative Evaluation</b>	62 (40.78%)	13 (52%)	75 (42.37%)
Total of Positive Evaluation	90 (59.22%)	12 (48%)	102 (57.63%)
Total	152	25	177
Grand Total	17	77	177

The comparison of emotional and rational evaluations shows that rational evaluations are much more frequent than emotional evaluations, making up 77.96% of the tokens analyzed. The analysis hints that emotional evaluations of the process of understanding only make up 22.04% of the tokens.

It is worth noting that out of all the tokens analyzed, negative evaluations of the understanding process account for 42.37%, while positive evaluations constitute 57.63%.

## 4.3.1. Emotional evaluation of the process of understanding

It is claimed that positive emotions are more closely associated with the attainment of the agent's understanding rather than the process of understanding itself. Once we have gained understanding of a "target", we may experience positive emotions as a result of the sense of accomplishment.

For instance, the English language uses the metaphor of vision and tactile perception to depict the accomplishment of understanding evaluated through such positive emotions as sympathy, interest and satisfaction: view more sympathetically/with much interest/with satisfaction, grasp eagerly/readily, etc. In Armenian, the agent's understanding is metaphorized through tactile perception and assimilation, suggesting a positive attitude towards understanding and incorporating new information: phymla qnhnihulmiojuulp/huhnijojuulp/huhnijojuulp/huhnijojuulp/huhnijojuulp/huhnijojuulp/herceive/grasp with satisfaction/a sense of

joy/great interest', յուրացնել ոգևորությամբ/մեծ ցանկությամբ/ազահաբար/ստեղծագործաբար 'assimilate with enthusiasm/great desire/greedily/creatively', etc.

The same tendency of metaphorical mappings is observed in the case of negative emotional evaluations. Thus, vision is metaphorically linked to such negative emotions as rage, contempt and alertness: view with considerable anger/great disdain/alarm. The verb apprehend is defined in the dictionaries as grasp with the understanding, grasp mentally, anticipate with dread, anxiety, worry, fear and uncertainty (AHDEL, CCALD, MWCD). As can be seen, tactile perception (grasp) serves as a source domain to conceptualize negative emotional response to understanding. The Armenian language data show the same tendency as in the case of positive emotional evaluation, with tactile perception and assimilation serving tangible source domains: \( \frac{1}{2} \pi \pi \nu\_1 \nu\_

Thus, sensory (vision, tactile perception) and physical experiences (assimilation) through which negative and positive emotional evaluations are embodied play an important role in emotion-understanding interaction.

Being expressed through metaphors, understanding introduces a nuanced layer of emotional connotations that sway our evaluations towards the negative end of the evaluative spectrum. The ratio between negative emotional evaluations (27 revealed tokens) and positive emotional evaluations (12 revealed tokens) is 2.25:1. There are probably several reasons why negative emotional evaluations of the process of understanding are more numerous than positive emotional evaluations.

Firstly, understanding can be tough, especially with complex or abstract concepts, fostering negative emotional evaluations like confusion, anxiety or stress, outweighing curiosity and excitement.

Secondly, confronting new information often challenges prior beliefs, triggering discomfort, dissonance and some negative attitudes towards the information or the person conveying it.

Thirdly, negative emotional evaluations are often more impressive and memorable due to the negativity bias in human cognition, which gives negative events stronger emotional impact.

All these factors contribute to the higher frequency of negative emotional evaluations of the process of understanding.

## 4.3.2. Rational evaluation of the process of understanding

The study shows that speakers evaluate understanding based on their own reasoning and logic, incorporating values and beliefs with reference to the axiological norm. Overall, the language data suggest that understanding and evaluation are closely intertwined, as speakers use their understanding of a situation to make rational evaluations based on accepted values and beliefs.

The collocations in our data are grouped into two categories: positive rational evaluations and negative rational evaluations.

The second category includes collocations that involve negative rational evaluations, once again pointing out the complexity of the process of understanding: see as a threat, view as dismal/incompetent/impossible, take as an act of aggression, phlunth nputu nunlubulumintyonih/ upunnnyonih 'perceive/grasp as a betrayal/defeat', phlunth nputu ubunpuh/whhhuuun/whhtpohp 'perceive/grasp as substandard/meaningless/absurd', phphhh nputu uyunhulpp 'comprehend/ grasp as a threat'.

As we see, our ability to express and process rational evaluations relies on the same metaphorical language as in the case of emotional evaluations: evaluation of understanding is argued to be grounded on concrete domains of *vision*, *tactile perception* and *assimilation*.

The ratio between negative rational (48 revealed tokens) and positive rational evaluations (90 revealed tokens) is calculated as 1:1.87. The results of the study are explicated by the following claims.

The statistical data confirm that positive rational evaluations of understanding dominate in the material under study due to enhanced clarity, offering satisfaction and empowerment. Overcoming challenges fosters accomplishment and achievement, especially when clarifying previously uncertain or confusing aspects.

Moreover, individuals prioritize benefits of understanding over challenges, recalling and sharing positive outcomes more than negative ones. Besides, understanding itself can be intrinsically rewarding, driven by curiosity, exploration and discovery.

Lastly, social desirability bias may prompt positive understanding evaluations, as individuals conform to norms, accentuating positives and downplaying negatives, potentially resulting in an overestimation of understanding.

These factors contribute to the increase in the occurrence of positive rational evaluations of understanding.

To sum up this section, we can state that the conceptual patterns revealed shape the process of understanding through emotional and rational evaluations. Although the emotional and rational evaluations have distinct features, both of them rely on the same basic source domains in the languages under study. We metaphorically *see*, *grasp* or *assimilate* notions, ideas, etc., thus signifying the process of mentally incorporating new information into existing knowledge structures and extending our ability of understanding.

It is important to note that though these metaphorical mappings conform to the generally accepted view that conceptual metaphor is based on the transition from concrete to abstract domains, here the pattern is a bit different, as evaluation and understanding are both abstract concepts: the more abstract domain of evaluation undergoes further metaphorization through the less abstract domain of understanding. In other words, we have metaphorical connections between "less" abstract understanding and "more" abstract evaluation.

## 4.4. Orientational evaluation of the process of understanding

A total of 823 datasets are analyzed in terms of orientational evaluations. The notion of understanding is also metaphorically conceptualized through vertical and horizontal spatial orientations. Below, we consider the two main metaphors: *Understanding is deep and high* and *Understanding is far and close*. Table 5 provides quantitative data concerning the metaphorical evaluations of understanding in English and Armenian by means of spatial orientations like *deep, high, far* and *close*.

Table 5. Embodiment of understanding through orientational metaphors

Orientational Evaluation	Number of tokens in English	Number of tokens in Armenian
Understanding is deep	325 (59.3%)	103 (37.45%)
Understanding is high	30 (5.47%)	121 (44%)
Total of Vertical Embodiment	355 (64.78%)	224 (81.45%)
Understanding is far	56 (10.22%)	21 (7.63%)
Understanding is close	137 (25%)	30 (10.9%)
Total of Horizontal Embodiment	193 (35.22%)	51 (18.55%)
Total	548	275
Grand Total	823	}

In English *Understanding is deep* accounts for 59.3%, signifying a predominant usage, whereas in Armenian it is used to a lesser extent. *Understanding is high* tends to be more typical for the Armenian language, with a frequency of 44%. When indicating *Understanding is far*, English employs it in 10.22% of cases, while Armenian uses it slightly less frequently at 7.63%. In contrast, the metaphor *Understanding is close* is utilized in English at a rate of 25%, whereas in Armenian it is employed to a lesser degree, at 10.9%. These statistics reveal both shared and divergent patterns in the use of expressions related to

the depth, height, proximity and distance of understanding in the English and Armenian languages.

## 4.4.1. Understanding is deep and high

These examples demonstrate that understanding is conceptualized as a vertical downward movement implying different degrees of cognitive engagement with special reference to the notion of depth. Notably, the very notion of depth is itself shaped by the concept of understanding. To be more exact, the notions of understanding and depth are mutually definable. The term *deep* conveys the meaning of understanding: *deep – not easy to understand* (CALD), *difficult to understand* (OALD), *difficult to penetrate or comprehend* (MWCD). On the whole, the intricate interplay between these terms underscores the multifaceted nature of the notion of understanding, wherein the depth is the element that influences and is influenced by the process of comprehension.

The corpus analysis of the English and Armenian verbs of understanding has also revealed some instances of the Understanding is shallow metaphor: understand things in surface terms, view it as superficial or of little relevance, grasp surface features only, huuluuluul/nuluul

Still, though in such English expressions as understand/dig/discern/get/see beneath the surface, under the surface, beyond the surface, through the superficial understanding is characterized in terms of superficiality and shallowness, a metaphorical mental movement towards some depth is marked here too, that is to say we observe that understanding is going beneath/under/beyond the surface, which implies some "deepening" and highlights the pivotal role of the fundamental concept of depth in revealing the metaphorical conceptualization of understanding.

Thus, a closer look at the factual material reveals that the metaphor *Understanding* is deep is more prevalent and conceptually stronger in both of the languages. This once

again confirms that understanding is more frequently conceptualized as deep, bringing about some quantitative asymmetry between the metaphors *Understanding is deep* and *Understanding is shallow*.

The asymmetry between *deep understanding* and *shallow understanding* can be attributed to various factors such as cognitive processes, linguistic conventions and cultural influences.

Firstly, depth is a fundamental concept used to describe various aspects of knowledge, perception and comprehension. It is related to the exploration of complex ideas and notions.

Secondly, human cognition often associates greater depth with greater knowledge and insight. The metaphor taps into this cognitive mapping, as individuals typically perceive a deeper understanding as a more valuable and comprehensive form of knowledge: the metaphor is more likely to occur in linguistic expressions to describe an advanced level of comprehension.

Lastly, many cultures have a tradition of valuing depth and profundity in knowledge acquisition. Philosophical and intellectual traditions often prioritize thorough understanding, which contributes to the metaphor's prominence in language usage. This cultural bias towards depth as a desirable quality further reinforces the prevalence of the metaphor *Understanding is deep*.

The concept of understanding can also be interpreted as high ('up'). This orientational metaphor is more prominent in the Armenian language, e.g., huuluului lipu pupap lipuluuluininginilip 'understand its high significance', huuluuluin uyli pupap ulipp 'understand that high (elevated) love', pulpului ulip pupap quuquuhup 'comprehend a high idea', huuluuluin pupap pupap pupap huululup 'understand high ideals', pulpului uului pupap uupap uundup tuluinin 'perceive higher value phenomena', pulpului ludilip pupap uupaulupuluin 'comprehend the high merits of the language', etc. The "high" metaphor is less typical for the English language, though a few instances of such usage were found in the corpus, e.g., understand the high importance, follow this idea up, reach the highest of ideals/the height of poetic expression, grasp the higher spiritual truth.

The examples provided demonstrate that concepts like *significance*, *importance*, *love*, *idea*, *ideals*, *phenomena having value*, *merits of the language*, *poetic expression*, *spiritual truth* are depicted as *high*. In other words, they are metaphorically placed at a certain elevated position. To put it in metaphorical terms, to comprehend these concepts one should undertake an upward movement.

Upon analysis, it becomes evident that as physical orientations, *deep and high* denote significant spatial relations when it comes to understanding. They refer to a specific deep or high point that requires a downward or an upward movement to reach which will eventually mark the actual understanding. Thus, understanding as a cognitive process involves both downward and upward movements.

At this point, it is essential to note that the degree or level of understanding, which can be measured in terms of depth or height, is relative to a psychological zero point. In such instances, the norm or the so-called "normal state of being" is marked as the deictic centre (Yerznkyan 2018: 13–20). In relation to this norm, we can classify the level of understanding as *surface*, *deep* or *high*. Therefore, the depth/height of understanding can be determined through a metaphorical scale, inherent in people's cognition, and the downward/upward orientation specific to the English and Armenian cultures.

## 4.4.2. Understanding is far and close

The study shows that the mental process of understanding is conceptualized not only as a vertical movement but also as a horizontal movement. Thus, the analysis of the dictionary entry reveals the component of linearity in the English verb to follow, as indicated in the illustrations to the definitions: if you follow something such as a line of argument, that means you understand it (vocabulary.com), understand the sense or logic of (as a line of thought) (MWCD), keep the mind upon while in progress (NWADEL), discover or ascertain the course of development of something (WordNet 3.0), etc. The lexical transformation of such terms as line, progress and course implies the meaning of 'a horizontal row of written or printed characters' (MWCD), 'a forward or onward movement (as to an objective or to a goal)' (MWCD), 'movement forwards and towards a place' (OALD), and enables us to assume that although horizontality is not explicitly structured in the semantics of the verb to follow, it implicitly incorporates horizontal orientation.

The English verbs view, perceive, get, discern, reach, penetrate, take, as well as the Armenian huuluuluu 'understand', qnızullu 'guess' also imply horizontality. Here are some other instances of verb collocations where this argument is supported by other markers denoting distance: view broadly/widely, widely perceive, get closer to the truth, get as near the truth as possible, discern how far they use the arguments (far – by a broad interval: widely (MWCD)), reach/penetrate further, take the idea further, huuluuluu pununulu 'understand widely', hhnuulun languulu quuzululu 'guess remotely', etc. It should be noted that the Armenian multi-word verbs of understanding luhlun unulu literally translated as 'enter the mind', luhluhluh huululu 'reach the mind', quulun unulu 'enter the head', quluhu huululu 'reach the head', uluulun unulu 'enter the ear', luhluhlu unulu 'eome closer to the mind' also integrate the component of horizontality since the Armenian verbs unulu 'enter', huululu 'reach', (unu) quu 'come closer' denote horizontal movement towards the destination point (Aghayan 1976: 214, 829, 1027, 1033).

Such horizontal conceptualization of the notion of understanding is grounded by the claim that the concept of distance is often associated with horizontal spatial orientation and horizontal movement in particular, as we typically move horizontally across a plane or surface. Thus, understanding is conceptualized in terms of both *far* and *close* orientational spatial relations, eventually delivering the same and not opposite senses when it

refers to understanding. We argue that UNDERSTANDING IS FAR (when the trajectory of the mental movement is correlated with the starting point) and UNDERSTANDING IS CLOSE (when the trajectory of the mental movement is correlated with the final destination point).

An obvious inference can be drawn from the above that the extent of understanding is evaluated on the basis of the distance covered vertically or horizontally. It is noticeable that verticality and horizontality are not only intrinsic to, but also indispensable elements of the semantic structures of the verbs in question. The notion of vertical movement denotes a *descent* or *ascent* towards a greater *depth* or *height*, while horizontal movement denotes a progression towards a greater horizontal distance – *far* or *close*. They both indicate the level of comprehension achieved.

Thus, the process of understanding is metaphorically embodied as a mental movement implying a direct reference to a definite point of origin as well as some destination point that makes the whole cognitive process basically deictic. Our analysis proves that understanding is conceptualized as a downward as well as an upward movement where the level of its depth or height serves as an explicit evaluative marker of the degree of understanding. The linear progression to a greater distance which can be evaluated as *far* and *close* specifies the limits of the mental movement. To put it metaphorically, the object of understanding is located either at a certain deep/high level or at a certain far/ close point from/to the deictic centre and is embodied in the following metaphors: UNDERSTANDING IS DEEP and UNDERSTANDING IS HIGH; UNDERSTANDING IS FAR and UNDERSTANDING IS CLOSE.

The table below summarizes how emotional, rational, and orientational evaluations are distributed within the analyzed contexts.

Evaluation	Number of Tokens in English	Number of Tokens in Armenian	Total
Emotional Evaluation	24 (3.42%)	15 (5%)	39 (3.9%)
Rational Evaluation	128 (18.29%)	10 (3.33%)	138 (13.8%)
Orientational Evaluation	548 (78.29%)	275 (91.67%)	823 (82.3%)
Total	700	300	1000

Table 6. Distribution of evaluative tokens in English and Armenian

Emotional evaluations, overall, account for 3.9% of all contexts examined. In English they represent 3.42% of the total, while in Armenian this figure is higher at 5%. Rational evaluations make up 13.8% of the contexts under study. In English they constitute a larger portion at 18.29%, whereas in Armenian rational evaluations are lower at 3.33%. Notably,

orientational evaluations dominate the majority of the analyzed contexts, accounting for 82.3% overall. In English this category represents 78.29% of the contexts, while in Armenian it comprises a significant 91.67%. These data reveal shared patterns in the dominance of orientational evaluations across both languages, but they also highlight the contrast in the prevalence of emotional and rational evaluations, with English and Armenian showing distinct proportions in these categories.

# 5. Conclusion

The paper is an attempt to study the cognitive process of understanding and its evaluation from the perspective of semantics, pragmatics, cognitive linguistics and axiology. The relation between the two cognitive processes (understanding and evaluation) revealed as a result of the study of verbs of understanding in English and Armenian in terms of the evaluative meaning of their collocates is analyzed for the first time here.

The paper attempts to expand the boundaries and contribute to the theories of metaphor, deixis and evaluation, as well as shed light on the multilayer cognitive process of understanding taking into account the data from such an understudied language as Armenian, thus verifying and making the results of the study more complete.

Our findings suggest that although English and Armenian have distinct linguistic structures and characteristics, in terms of the conceptualization of the cognitive process of understanding they share a lot of similar features.

The results of the research show that evaluation is deeply rooted in the process of understanding and has a direct impact on social communication. The analysis of the factual material demonstrates that understanding itself and the close interconnection between understanding and evaluation is metaphorically construed.

The concept of understanding is framed as a virtual mental movement which incorporates a distinct point of origin, that is to say a clear reference to a specific starting point, and a destination as the endpoint of the virtual process. Viewing understanding as a metaphorical mental movement allows us to reveal the deictic nature of understanding.

The paper detects three types of evaluation – *emotional, rational* and *orientational* – which also reveal the deictic nature of the process of understanding, with the axiological Norm and the Origo viewed as the deictic centre (reference point) of the whole process.

The research shows that the rational evaluations of the process of understanding tend to be positive, while emotional evaluations are likely to be negative.

The positive evaluations mark the attainment and the realization of the understanding process; negative evaluations indicate the complexity and variability of the process of understanding.

In the Armenian language positive emotional evaluations are predominant, while in the English language negative emotional evaluations tend to prevail. However, in English positive rational evaluations are more frequent, whereas in Armenian negative rational evaluations tend to be more common. Considering that on the whole a significant portion of evaluations regarding the process of understanding are negative, we claim that our findings based on the metaphoricity of understanding and its evaluative potential reveal that metaphorical evaluation is often more negative than non-metaphorical evaluation.

The consideration of understanding as a metaphorical abstract movement and its analysis from the perspective of the orientational evaluation comprising verticality and horizontality enables us to reveal the level of understanding on the basis of the notion of distance: deep/high, close/far, to/from the reference point. The level of understanding has also been revealed with reference to evaluative markers.

In the evaluation of understanding through an orientational lens, English predominantly favours the concept of "deep", signifying a profound level of understanding. In contrast, in the Armenian language, the prevailing orientational evaluation of understanding leans heavily towards "high", indicating a significant emphasis on elevated understanding. Our findings highlight a distinctive linguistic nuance in how depth and height are conceptually associated with understanding in these two languages. On the whole, vertical conceptualization of understanding is more typical of the languages under study than horizontal conceptualization.

The research on evaluation and metaphorical representation of understanding may have significant implications for communication and social interaction as it highlights the importance of the role of evaluative language and metaphor in communication: evaluations shape how we perceive the world and how our comprehension is linked to a series of evaluative responses.

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