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WAYS OF RENDERING MODALITY IN TECHNICAL TEXTS

This paper delves into the diverse strategies employed to express modality within technical texts. Modality, a linguistic concept conveying the speaker's attitude toward the likelihood or necessity of a situation, plays a pivotal role in shaping the tone, precision, and authority of technical discourse. This study aims to dissect and analyze methods used to render modality in technical writing, shedding light on their nuances, effectiveness, and situational applicability. The investigation begins by elucidating modal verbs, a fundamental tool for expressing modality. However, the exploration extends beyond these verbs to encompass adverbs, adjectives, and other syntactic structures, each offering unique avenues for articulating degrees of certainty, possibility, obligation, or permission. This comprehensive review examines the contextual usage of each method, considering their implications on conveying precision and confidence in technical communication. Additionally, this analysis dissects the interplay between modal expressions and their impact on reader comprehension, emphasizing the significance of clarity and accuracy within technical documentation. It investigates how these modal strategies cater to different audiences, such as experts, novices, or interdisciplinary readers, thereby influencing the overall effectiveness of communication. The findings underscore the importance of selecting appropriate modal constructs to enhance the credibility and persuasiveness of technical content. By discerning the most fitting modality expressions, technical writers can tailor their texts to meet the specific informational needs of their intended audience while maintaining a balance between authority and accessibility.

Key words: modality, technical texts, modal verbs, linguistic strategies, communication, contextual usage

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СПОСОБИ ПЕРЕДАЧІ МОДАЛЬНОСТІ В ТЕХНІЧНИХ ТЕКСТАХ

У цьому дослідженні розглядаються різноманітні стратегії, які використовуються для вираження модальності в технічних текстах. Модальність, лінгвістичне поняття, що передає ставлення мовця до ймовірності або необхідності ситуації, відіграє ключову роль у формуванні тону, точності та авторитетності технічного дискурсу. Це дослідження має на меті розібрати й проаналізувати десять різних методів, які використовуються для передачі модальності в технічному письмовій формі, проливши світло на їхні ефективність й ситуаційну застосовність. Дослідження включає дослідження модальних дієслів як фундаментального засобу для вираження модальності. Однак дослідження виходить за межі цих дієслів і охоплює прислівники, прикметники та інші синтаксичні структури, кожна з яких пропонує унікальні шляхи для формулювання ступенів визначеності, можливості, обов'язку чи дозволу. У цьому всебічному огляді розглядається контекстне використання кожного методу, враховуючи їх вплив на передачу точності та впевненості в технічній комунікації. Крім того, цей аналіз розбирає взаємодію між модальними виразами та їхній вплив на розуміння читача, наголошуючи на важливості ясності та точності в технічній документації. Він досліджує, як ці модальні стратегії обслуговують різні аудиторії, такі як експерти, новачки чи міждисциплінарні читачі, тим самим впливаючи на загальну ефективність комунікації. Результати підкреслюють важливість вибору відповідних модальних конструкцій для підвищення достовірності та переконливості технічного вмісту. Розпізнаючи найбільш відповідні модальні вирази, технічні автори можуть адаптувати свої тексти відповідно до конкретних інформаційних потреб цільової аудиторії, зберігаючи при цьому баланс між авторитетністю та доступністю.

Ключові слова: модальність, технічні тексти, модальні дієслова, лінгвістичні стратегії, комунікація, контекстне використання

Problem statement. Science as a sphere of human activity produces knowledge necessary for the material and spiritual development of society, for the enrichment of human creative abilities, for the

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improvement of living conditions and the development of civilization. Scientific information, reflected in textbooks, articles, monographs, reference books, etc. and reproduced in a foreign language, needs a scientific and technical translation, thanks to which scientific works and researches become common human property. Such translations are used not only for the further development of science and the exchange of information between specialists in various fields of science, technology, and production, but also in the educational process.

The issue of scientific and technical translation is gaining particular importance today, since inaccurate translation causes the appearance of typical errors, callous words, which, unfortunately, clog the language, lower the level of speech culture and translation work, so the more students compare different forms and language means, the more they will be more attentive to their professional and everyday speech. Analysis of research and publications on the topic. In modern linguistic science and translation studies, there is an increased interest in the category of modality in its multifunctional manifestations. Modal relations and means of their implementation increasingly attract the attention of linguists and become the object of study at the formal-syntactic, semantic-syntactic, communicative-functional and textual levels.

Analysis of research and publications on the topic. Innovative approaches in the study of this category can be seen in the works of I. R. Vyhovanets (1993), A. P. Hryshchenko (1997), N. V. Guyvanyuk (1997), G. P. Nemets (1999), B. E. Aram (1995), E. A. Popova (2000) and others. However, the phenomenon of modality remains the object of research by many linguists and it is always relevant. After all, it is difficult to convey any language means without expressing the modality in them.

O. O. Selivanova defines the category of modality as "the representation of various emotional and evaluative signals modeled by the author's consciousness; the reality/irreality of the simulated reference, which plays a significant role in the actualization of the content-continuous organization of the text" (Selivanova, 2000).

According to Poutsma's definition, "modality is a personal form of a verb, a verbal phrase or a modal adverb, with the help of which the speaker expresses his point of view on the degree of performance of the action or state indicated by the predicate" (Poutsma, 2022). On the other hand, S. Bally states: "Modality is the soul of a sentence. There are no statements without modality" (Bally, 1955).

As for the **relevance** of this study, it is related to the widespread use of modal verbs and other means of expressing modality as phenomena of the modern English language in scientific and technical literature, the importance of knowledge of the means of expressing modality, their meanings and the order of application, as well as the need for a scientific approach to the study of the peculiarities of the translation of words with a modal meaning in scientific and technical literature on the material of the instructions.

The object of research is modality as a functional-semantic category in technical literature. **The subject of the research** is the peculiarities of means of expression of modality when translating from English to Ukrainian in technical literature on the material of instructions.

The aim of the work is to investigate the means of expressing modality in scientific and technical texts based on the material of the instructions when translated from English to Ukrainian.

To achieve the goal, the following **tasks** were set: to clarify the concept of modality; to give classifications of means of expression of modality; to establish the role of modality in the translation of technical texts; to identify the peculiarities of the use of means of expression of modality in English technical literature and their translation from English to Ukrainian.

The presentation of the main material. The first definition of modality is found in 1969 in the dictionary of linguistic terms, which considers modality as a conceptual category with the meaning of the relation of the speaker to the content of the utterance and the relationship of the content of the utterance to reality, expressed by various lexical and grammatical means, such as form and manner, modal verbs, etc. Modality can have the meaning of assertion, order, wish, assumption, authenticity, unreality, etc. The dictionary of linguistic terms also gives the division of modality by types: *hypothetical modality* (suppositional modality), which involves presenting the content of the statement as possible; *verbal modality*, modality expressed by a verb; *unreal modality* – presentation of the content of the statement as impossible, unrealizable; *negative modality* – presentation of the content of the statement as inconsistent with reality (Skybytska, 2004).

Firstly, modality is expressed by means of different levels of language, secondly, it is indicated that the category of objective modality is correlated with the category of predicativeness, thirdly, the circle of phenomena related to the phenomena of modality is outlined:

1) *the meaning of reality – unreality*: reality is denoted by a syntactic indicative (real, past, future time); unreality – in unreal ways (conditional, conditional, desirable, persuasive);

2) *subjective-modal meaning* – the speaker's attitude to information;

3) *the field of modality includes words* (verbs, adjectives, predicatives) *that express possibility, desire, obligation by their lexical meanings.*

Modality is considered as a functional-semantic category, a linguistic universal that manifests itself in the main categories of language. This language category acts as an important element of communication, expressing the relationship of the speaker to the statement, and is an integral property of the text, containing the author's relationship to reality, is the main component of the pragmatic component of the text; one of the main properties of the psyche is the ability to contrast "I" with "not I" within the framework of the statement.

The concept of modality, which was applied to the logic of judgment by Aristotle and was further explored in the works of I. Kant, later began to be used in linguistics and mathematical logic. In logic, modality is the most essential feature of judgment as a form of thinking, which is defined as a category that classifies judgments depending on the nature of the relationship between the subject of the judgment and its feature, that is, depending on the nature of the objective relationships that are reflected in the judgment, or as a degree credibility of the opinion conveyed in the judgment (Skybytska, 2004).

In linguistics, modality is one of the most essential characteristics of a sentence and is interpreted as a category that expresses the connection between an utterance and reality. Different researchers define modality as a grammatical, syntactic or semantic category.

Fundamental linguistic studies of modality require a comprehensive consideration of speech flow in close relationship with all branches of linguistics. The specificity of modality is that modal values are not always represented by markers belonging to the same level. The seven modalities are expressed using means described in morphology, syntax, phonetics, linguistics of the text.

In an encyclopedic dictionary of language and languages, *modality* (from the Latin *modus* – measure, way) is considered as a functional-semantic category that expresses different types of relation of the statement to reality, as well as different types of subjective qualification of the message (Crystal, 1992). The field of modality includes:

1) opposition of the expressed by the nature of their communicative attitude (assertion – question – encouragement);

2) opposition on the basis of "assertion – denial";

3) gradations of values in the range "reality – unreality" (reality – hypothetical – unreality), different degrees of the speaker's confidence in the reliability of the opinion about reality that is formed in him;

4) various modifications of the connection between the subject and the predicate, expressed by lexical means ("want", "can", "must", "need").

Thus, the specificity of internal modality is that this type does not give a modal characteristic of the entire sentence, but only gives a modal characteristic of the relations inside the sentence (that is, "internal modality"). Modal verbs are the main means of expressing the modal relationship between the subject of the action and the action in the English language. In a sentence, they are part of a compound verb modal predicate and show the speaker's attitude to the action of the sentence . Type I external modality refers to the relation of the content of the sentence to reality in terms of reality – unreality.

With the help of modality, we can express our thoughts freely, expressively, because it is impossible to convey the necessary information without demonstrating our attitude to what we are communicating. Therefore, modality plays an important role in texts of any style, any genre.

It has already become traditional to divide modality into two types: objective and subjective. The first is understood as the relation of the statement to the non-speech reality, formalized grammatically, the second – as the expression of the relation of the speaker (writer) to what he communicates. Researchers note that objective modality is mandatory for any statement, subjective modality is optional. This is a completely fair statement. Moreover, the two types of modality being described are so different that we are advised to rationally differentiate the two terms.

By objective modality, judgments are divided into judgments of necessity, reality, and possibility. Subjective modality expresses the speaker's attitude to what is communicated. It is based on the understanding of assessment in the broadest sense of the word, including not only logical qualification, but also various types of emotional response. The introduction of a submodal meaning into the general category of modality is a bridge from a sentence to an utterance and a text and creates prerequisites for its division into phrasal and text (Skybytska, 2004).

Language means of this type of modality are word order, intonation, lexical repetitions, modal words and verbs, exclamations, interjections and word combinations, interjections, order of words in a sentence. The semantic basis of the subjective modality is formed by the concept of evaluation in the broad sense of the word, including not only the logic

of the qualification of the message, but also various types of emotional reaction.

Modal words convey the speaker's subjective attitude to the statement, express the speaker's assessment, the relationship between the statement in the sentence and reality. This assessment can be represented by a different degree of confidence, doubt, desirability of the action expressed in the sentence (Skybytska, 2004).

Semantically, modal words are divided into three groups:

1) *affirmative words*: certainly, of course, indeed, surely, decidedly, really, definitely, naturally, no doubt, etc.;

2) *modal words-assumptions*: perhaps, maybe, probably, obviously, possibly, evidently, apparently, etc.;

3) *modal words that evaluate the statement* in terms of desirability or undesirability: luckily, fortunately, happily, unfortunately, unluckily, etc.

In English, modal verbs in a sentence act as a complex modal predicate in combination with the main verb in the infinitive form.

In some cases, some verbs, which are not essentially modal, can act as modals, receiving the function of modality. They include shall, will, care, need.

In modern English, there are 12 verbs that are modal, or have the meaning of modal: *can, may, must, should, ought, shall, will, would, need, dare, to be, to have* (to have got). According to their morphological qualities, 10 of them are insufficient verbs: in the third person singular, they do not acquire the ending -s; the infinitive, which takes place after these verbs, is used without the particle to (the only exception is ought); modal verbs do not have impersonal forms – infinitive, adverb, participle and gerund; interrogative and negative forms of modal verbs, except for the verb have (to), form without the auxiliary verb do; the negative form is formed using the particle not, which is placed directly after the modal verb.

It is important to classify English modal verbs, taking into account the frequency of their use in the language corpus. On this basis, *formal-grammatical, formal-structural, semantic, stylistic, and functional criteria* are distinguished.

Traditionally, the <u>*formal-grammatical criterion*</u> for the classification of English modal verbs involves dividing them into two groups: those that do not attach the particle to (*can, could, may, might, must, shall, should, will, would*) and those that attach this particle (*dare, need, ought and modal equivalents be to, have to, be able to, etc.*).

The classification of modal verbs according to the <u>*formal-structural criterion*</u> involves their division

by the number of constituent elements: *one-word modals* (can, could, may, might, must, shall, should, will, would, dare, need), *multi-word modals* (to be to, be able to, have to, ought to) and *multiple modal combinations* (double modals).

<u>*Semantic features of modal verbs*</u> represent significant difficulties in the process of their study, since the entire spectrum of nuances of the meaning of this or that verb is often not realized. Thus, when studying modal verbs, it is important not only to memorize all their possible meanings, but also to consider them as a system of words, the meaning of which can change depending on the situation.

At the lexical-grammatical level, the following modal verbs c*an/could, may/might, should/ought to, must, need, will/would* serve as means of expressing modality. They express the relationship to the action and mean the possibility, ability, probability and necessity of the action expressed by the main verb. Modal verbs are functional parts of speech and are not used as separate members of a sentence.

At the lexical level, modality values are expressed by modal words, which include maybe, perhaps, possibly, probably, and others. They express confidence or doubt, as well as a subjective assessment of what is reported. Syntactically, they perform the function of an interjection, which usually refers to the entire sentence. Modal words can be at the beginning, middle or end of a sentence.

In terms of frequency of use, modal verbs as means of expressing modality are significantly more common than modal words. With the help of modal words and modal verbs, the same meanings of modality can be expressed, although there are certain meanings that are expressed only by modal words (possibility / lack of possibility, obligation / necessity and lack of necessity) or modal verbs (reliability / certainty, approval / disapproval, intensity) (Kliuchnyk, 2013).

The style of modern English scientific and technical literature is based on the norms of the English written language with certain specific characteristics, namely:

1. *Vocabulary*. A large number of special terms and words of non-Anglo-Saxon origin are used. Words are chosen with great care to convey the thought as accurately as possible. Service (functional) words (prepositions and conjunctions) and words that provide logical connections between separate elements of statements (adverbs) are of great importance.

2. *Grammar*. Only fixed grammatical norms are used. Widespread passive, impersonal and indefinite-personal constructions. Mostly complex and complex sentences are used, in which nouns, adjectives and impersonal forms of the verb prevail. Logical

selection is often achieved by deviating from direct word order (inversion).

3. *Method of presenting the material.* The main task of scientific and technical literature is to clearly and accurately convey certain information to the readers. This is achieved by a logically based exposition of factual material, without the use of emotionally colored words, expressions and grammatical constructions. This method of presentation can be called formal-logical (Karaban, 1997).

Conclusion. In the course of the study, it was established that the most common means of expressing modality in English in technical literature are modal verbs. The methods of translating the means of expressing modality in modern English into Ukrainian were determined on the basis of the studied material.

In technical literature, the modal meaning of possibility, which is expressed mainly by modal verbs, prevails. The main modal verb expressing possibility is *can*, although the verb *may* is more commonly used

in this field. The modal meaning of assumption/doubt can be expressed by both modal words and modal verbs, and the cases of use of both are approximately equal. The modal meaning of reliability/certainty can be expressed both by modal words and verbs (*course, sure, surely, to be sure, sure enough, evidently, obviously, no doubt, naturally, really*), but they are not widely used in technical literature.

Translation of modal words and verbs is not difficult. The most common way of translating modality units is *tracing* and *grammatical replacement*, less common is *modulation* and *contextual replacement*. Sometimes modal words are completely taken out of context.

So, the category of modality in English and Ukrainian languages is expressed by modal words and modal verbs, which express the same or different meanings of modality. Modal verbs with more modality meanings have become more widely used in scientific and technical texts.

BIBLIOGRAPHY

1. Селіванова О. О. Принципи сучасних лінгвістичних досліджень. Лінгвогеографія Черкащини. К. : Знання, 2000. С. 39–41.

2. Скибицька Н. В. Епістемічна модальність в англійській мові (діахронічний аспект). Автореф. дис. канд. філол. наук. К., 2004. 21 с.

3. Карабан В. І. Посібник-довідник з перекладу англійської наукової та технічної літератури на українську мову – I частина. К. : «Політична думка», 1997. 299 с.

4. Ключник О. Труднощі науково-технічного перекладу. К., 2013. Режим доступу : http://conferences.neasmo.org.ua/node/1408

5. *A comprehensive reference dictionary of linguistics: Concepts, notions, and terms*. Apostolos Publishing, 2016.

6. Bally Sh. General linguistics and questions of the French language. Publishing house of foreign literature, 1955. 416 p.

7. Crystal D. *An encyclopedic dictionary of language and languages*. Blackwell, 1992.

8. Poutsma H. *A grammar of late modern English*. Legare Street Press, 2022.

REFERENCES

1. Selivanova, O. O. (2000). Pryntsypy suchasnykh linhvistychnykh doslidzhen. [the principles of modern linguistic reserchers]. *Linhvoheohrafiia Cherkashchyny.* K. : Znannia. [in Ukrainian].

2. Skybytska, N. V. (2004). *Epistemichna modalnist v anhliiskii movi* (diakhronichnyi aspekt). [Epistemic modality in the English language]. Avtoref. dys. kand. filol. nauk. K. [in Ukrainian].

3. Karaban, V. I. (1997). *Posibnyk-dovidnyk z perekladu anhliiskoi naukovoi ta tekhnichnoi literatury na ukrainsku movu* – I chastyna. [Manual in translation of English of scientific and technical literature into Ukrainian languages]. K. : "Politychna dumka". [in Ukrainian].

4. Kliuchnyk, O. (2013). *Trudnoshchi naukovo-tekhnichnoho perekladu.* [Difficulties of scientific and technical translation]. K. Rezhym dostupu : http://conferences.neasmo.org.ua/node/1408 [in Ukrainian].

5. *A comprehensive reference dictionary of linguistics: Concepts, notions, and terms*. (2016). Apostolos Publishing.

6. Crystal, D. (1992). *An encyclopedic dictionary of language and languages*. Blackwell.

7. Bally, Sh. (1955). General linguistics and questions of the French language. Publishing house of foreign literature, 1955.

8. Poutsma, H. (2022). *A grammar of late modern English*. Legare Street Press.