Main tendencies of terminology (science of terminology)

Terminology (science of terminology) is a science that studies special, professional vocabulary from the point of view of its typology, origin, form, content, and functioning as well as use, regulation and formation.

The beginning of terminology formation is connected with the names of Australian scientist Eugen Wüster Nubasov and Russian scientist Dmitry Semenovich Lotte who published their first works in the thirties of the XX cent.

At present time in terminology there has been distinguished a row of independent research tendencies. Firstly, we have to mention **theoretical terminology** that studies regularities of development and functioning of special vocabulary and **applied terminology** that is aimed at development of practical principles and recommendations concerning formation of new terms and removal of defects of the already existing terms and term systems as well as concerning editing, regulation, translation and use of terms.

General terminology studies characteristics, problems and processes connected with special vocabulary; and **specialized terminology** studies special vocabulary of certain spheres and specific languages. **Typological terminology** conducts a comparative survey of peculiarities of certain terminologies with the purpose to establish general and individual (i.e. specified by a certain functioning sphere) characteristics of these terminologies. **Comparative terminology** works on establishment of general characteristics of specialized vocabulary in different languages (e.g. in Ukrainian and English). **Semasiological terminology** studies the problems connected with meaning (semantics) of special lexemes, with changes of meaning and different semantic phenomena – polysemy, homonymy, synonymy, antonymy, etc. Onomasiological terminology studies structural forms of special lexemes, processes of naming of different notions. **Historical terminology** studies history of terminology with the purpose to determine tendencies and to give recommendations concerning further terminological planning. **Functional terminology** is connected with the study of modern functions of terms in different texts and situations of professional communication and training of specialists; and with researches of peculiarities of terms use in speech and computer systems.

Closely connected with terminology is **terminography** – a science about compiling of dictionaries of special vocabulary (terminological dictionaries). Many problems studied by terminology scientists occur in the process of development of special dictionaries, and solution of these problems influences methods of their compiling. At the same time, study of any sphere of special vocabulary is closely connected with terminography as far as a result of work of development, research and regulation of terminology is formed in the form of a dictionary.

A term as a unit of a term system: definition and classification

Plan:
1. Definition of a term and a term system.
2. Main features of terms.
3. Classification of terms.

Definition of a term and a term system

A term as well as all other language universals is hard to define. As this task is very complicated and controversial in linguistics there exist many different attempts to define terms [13, p.10].

O.S. Akhmanova defines term as "a word or a word combination of a special (scientific, technical, etc.) language which is formed, received, or borrowed for precise expression of special notions and denotation of special subjects" [3, p.315].

V.I. Karaban defines a term as a language sign that represents the notion of special, professional field of science or technique. He says that scientific and technical terms constitute an essential part of scientific and technical texts. [18, p.315].

I.S. Kvytko grounds on different definitions and suggests the following definition: a term is a word or a word-complex that correlates with the notion of a certain organized cognition sphere (science, technology) that enter into systematical relations with other words and word-complexes and form together with them in every individual case and in a certain time a closed system which is characterized by a high informativity, monosemanticity, accuracy and expressive neutrality [19, p.21].

M.D. Stepanova and I.I. Chernyshova under terms understand special words that realize their meaning in professional communication. [35, p.154].

A small monolingual dictionary gives the following definition: a **term** (from Latin Terminus – a border, an end) is a special word or word combination accepted in a certain professional sphere and used in special conditions. A term represents a verbal denotation of a notion which is a part of a system of notions of a certain field of professional knowledge, which denotes a notion of a certain sphere of human knowledge or activity.[52, p.247].

A great monolingual dictionary of modern Ukrainian language in its turn suggests the following definition: a **term** is "a word or a word combination that denotes clearly defined special notion of any field of science, technology, art, social life, etc" [50, p.1241].

When speaking about **terminology** linguists as a rule distinguish:
a) a part of linguistics that studies terms (in this case more often is used "science of terminology");
b) professional vocabulary as a part of all words of a certain language (e.g. we say "German terminology");
c) special vocabulary or field terminology that serves a certain field of science or technology ("linguistic terminology", "building terminology", etc.);

Field terminologies are called **term systems**. Systemacy of terminology is conditioned by two types of connections that provide a lot of terms with a system character:
1) logical connections if between notions of a certain science exist system logical connections – and they are present in every science – the terms that denote these notions have to be system-connected);
2) language connections (though terms denote scientific notions they remain units of natural human language and, therefore, all those connections peculiar to generally used words – synonymic, antonymic, word-formative, polysemic, grammatical, genre-and-type, etc., are peculiar to them).

Thus, terminology is not a chaotic set of words but an organized on a logical and language levels system of special names. Systemacy is one of the most important conditions of a term existence. A term can exist only as an element of a **term system** if under the latter we understand an arranged totality of terms that adequately express a system of theory notions which describe a certain special sphere of human knowledge and activity. [13, p.11].

History of terminology development knows cases when a basis for creation a certain term system was originally a text.

Yes, the text of the Constitution of the USA appeared to be an actualizer and a verifier (verification is a check of validity, establishment of authenticity) of almost all modern American juridical terminology which at that time was not represented as a juridical term system. Accordingly, for interpretation of a meaning of this or that juridical term they consulted the text of the Constitution which absorbed terminology – semantics, functions and compatibility of terms – of constitutions of the states of New England. Further terminology of the USA Constitution served as a norm for all states as well as for other juridical documents. [26, p.60].

Main features of terms

With all differences and variety of modern fields of sciences and peculiar to them notions there exist a range of common features that define the essence of a term as a special language unit. Among main features of a term (or demand that are required from terms) we can observe the following:
1. **Systemacy.** As it was already mentioned a term is a part of a certain term system in which it has a terminological meaning. Beyond its term system a term can have a totally different meaning, e.g.: *price scissors* as "discrepancy of levels and price movement in the sphere of

international trade for different groups of goods" and the meaning of the generally used word "scissors"; the term *storage* denotes "memory" in computer engineering and in other spheres it is used in the meaning of "a storehouse", "depository", etc.

2. **Presence of definition.** Every scientific term has a definition that clearly outlines, borders its meaning. Yes, the definition of the term *audit conclusion* is an utterance "a document that includes results of an audit".

3. **Accuracy.** A term should convey the main point of the notion it denotes the most broadly, e.g.: *surface irrigation flow, short term credit*. Not accurate term may be a souse of misunderstandings between professionals that's why in some cases scientists first agree the terms they will use and only after that start their discussion.

4. **Conciseness.** It is very convenient to use short terms but it is not always possible to coin a short term which would be also accurate.

5. **Monosemanticity.** If most words of the common used language are polysemantic then most terms are monosemantic that is conditioned by their purpose. However, we should clarify: monosemanticity is present only within one term system because on the level of a few sublanguages the phenomenon of terms polysemy is quite widespread.

6. **Context independence.**

7. **Absence of synonyms.** Terminology should not be characterized by synonymy which prevents mutual understanding.

8. **Compliance with rules and norms of a certain language.**

9. **Expressive neutrality.** In its majority terms are devoid of emotionally-expressive colour. But the reasons for certain intensity of some semantic components of terms can be attempts to emphasize the elitism of an idea of the one who is speaking or attempts to hide one's intentions, e.g.: *a black hole, a black box, black humour* [13, p.12-13].

10. **Euphony.** A term should be euphonic (i.e. a demand of euphony) that is why we should not encourage coining of terms that come from dialecticisms, slang words, or barbarisms.

In modern German linguistic literature there are distinguished similar features of terms:

1. A term should have a clear definition. Within one scientific theory or technical filed terms are represented as notion-determined special words.

2. Definition of a term is a specific context mostly in the form of a sentence with a nominal predicate in which the term itself is a subject, e.g.: *Hermeneutic ist wissenschaftliches Verfahren oder Kunst der Auslesung und Erklärung von Texten, Kunstwerken oder Musikstücken. – Герменевтика – це науковий спосіб або мистецтво прочитання та та роз'яснення текстів, творів мистецтва або музичних творів.*

3. A term is an element of a certain term system. Essential criteria for a term within one term system are:
a) monosemanticity,
b) accuracy,
c) determination of its place in a certain term system.

4. Content of a term tends to the highest level of conceptual abstractness.

5. A term is characterized by a tendency to stylistic neutrality, connotations avoidance.

6. Today less popular becomes the thought that terms are or have to be monosemantic. A lot of terms are polysemantic, e.g. the German term *die Operation* (укр. *операція*) may have the meanings: 1. (general meaning) "execution, work process"; 2. (medicine) "surgical intervention"; 3. (military) "denotation of actions in strategy and tactics"; "shift of troops", etc.; 4. (mathematics) "a way of a problem solution, the process of solution"; 5. (computers) "type of a task performance".

7. By their origin many terms are international or coined as artificial words out of the elements of the ancient Greek and Latin languages, e.g.: *Biopsie, Bionik, Biologie, Biokybernetik* [29, p.192-193; 35, p.154-155].

Having enumerated the main features that modern terminology scientists assign to terms we should mention that these characteristics are desirable rather that obligatory for a great number of terminological units. There became popular the thought that accuracy and monosemanticity of

terms as well as existence of absolute equivalent terms in other languages is not a rule but rather an exception from it. [38, p.1].

Together with this many scientists consider that a terminological unit cannot be considered defective or unnecessary grounding only on the fact that it does not have a certain feature though it has been applied by users for a certain period of time. [13, p.13].

So, a term that functions in different spheres of science and technology may be considered polysemantic. A translator of scientific and technical literature who deals with texts of specific themes has to understand the character of behavior of scientific and technical terms in texts. The translator has a task to determine to what sphere belongs this or that term and find the corresponding translation of that term. For example, the technical term *frame* is translated as: *рама* (у будь-якому пристрої), *станина* (у верстаках), *каркас* (у будівництві), *кадр* (у кіно та на телебаченні), *конструкція, корпус, ферма* та ін.

Another phenomenon which contradicts the main demands that are required from terms but which has place in modern terminology is the phenomenon of synonymy. Sometimes one and the same notion (or subject) can be denoted by different words. For example: Engl. *cargo – freight*, Germ. *der Cargo/der Kargo – die Fracht, die Ladung, das Gut (вантаж)*; Engl. *radiation - emission*, Germ. *die Radiation – die Strahlung, die Ausstrahlung (радіація).* In those cases a translator is the one responsible for the choice of the correct translation of a term when describing a certain subject situation of a specific scientific and technical sphere.

Classification of terms

When analyzing terminology which is used by professionals of a certain field in scientific texts, verbal professional communication, which is added to dictionaries, etc. it will be discovered that a part of terms is used only in this sphere and another part – in other ones. This shows that terms are different by the level of specialization of their meaning.

Depending on the level of meaning specialization terms can be divided into three main groups:

1. **General scientific terms**, i.e. terms used almost in all field terminologies, e.g.: *system (система), tendency (тенденція), law (закон), conception (концепція), theory (теорія), etc.* It should be mentioned that such terms within certain terminology can make their meaning more concrete, let's compare: *monetary **system**, drain **system***. To this category is also included general technical terminology *(device, aggregate)*.
2. **Inter-branch terms** – terms used in some related or distant branches. Yes, economics has terminology related to other social, natural sciences, e.g.: *amortization, ecological expenses, private property.*
3. **Narrow-branch terms** – terms peculiar only to a certain branch, e.g.: *leasing, blind drain, chip.*

In professionals' speech, except terms, there are also broadly used other special units – professionalisms and nomenclatural names.

Professionalisms – words and utterances peculiar to language of people of a certain professional group. Professionalisms determine special notions, implements and products of labour, manufacturing processes, national handicrafts. They have clear local character and are characterized by some emotionality that was called by peculiarities of colloquial language. Considerable difference between terms and professionalisms consists in the fact that terms are official scientific names of a notion and professionalisms appear as colloquial, unofficial substitutes of terms *(платіжка – платіжне доручення, вишка – вища математика, пара – дві академічні години)* or when this or that profession, occupation does not have developed terminology (e.g.: fishing, pottery, etc.). Professionalisms can be used in unofficial professional communication, but they are substandard in professional documents, texts, in official verbal communication.

Nomenclature (from Latin *nomenclatura* – enumeration, list of manes) is a totality of names of specific objects of a certain field of science, technology, art, etc. they should be distinguished from terms that denote abstract scientific notions. Nomenclature consists of nouns and phrases that convey a system of names of objects of a certain science as well as a totality of names

of single objects (e.g.: in geographic nomenclature – *the Black Sea, the river Desna*), specific names (in botanic vocabulary names of trees: *oak, fir, spruce*). There also exists medical, linguistic, chemical, economical nomenclature (let's compare: the term *currency* and nomenclature names *dollar, Euro, peso, etc.*), technical (let's compare: the term *борознеробщілиноріз* and nomenclature names *ДЩН-1, ДЩН-2*).

A nomen (a unit of nomenclature) is a relatively free "label" of a subject which is conventionally "tagged" by representatives of a corresponding field of knowledge and which does not claim to be revealed or at least partially reflected in the form of a lexical meaning. Together with this, solution of the problem of normalization of nomenclature formations does not belong to the concept of linguistics in full. Norms in the sphere of original signs, nomenclatures do not have direct agreement with the language norms (spelling is not included) and are established not by linguists but exclusively by specialists of a given field of science and technology. [13, p.15].

Mostovyi M.I. distinguishes one more type of a term – **a trademark** or **a paronym** [28, p.192]. Under the conditions of mass production there was formed the whole science of a trademark formation. The use of the trademark is connected with the study of behavior of a potential buyer behavior. In the process of a paronym coining one should take into account psychological factors of suggestion, conviction and attraction as well as mnemonic, semantic, analogue and other features of a used word. When naming an object or a type of service there are considered combinative peculiarities of sounding and meaning of a form, mixed imitating processes.

Tasks and questions for self-testing

1. Analyze the following definition of the notion "term". Provide or form by yourself the most full and broad definition.
2. What is one of the most important conditions of a term existence?
3. By what types of connections is conditioned the systemacy of terminology?
4. Name the main demands that are required from terms. Provide your own examples of terms that do not correspond to certain demands.
5. To which demands listed above does not correspond the word "charge" when used in juridical terminology?
6. Do you think the differentiation of terms and professionalisms is reasonable? Provide your own examples of professionalisms and correspondent to them terms.
7. What is "nomenclature" and "trade mark"? What is the difference between these notions? Provide your own examples of nomens and paronyms.

Structural and semantic features of terms

Plan:
1. Structure of terms: word-formative types.
2. Validity of terms.
3. Role of translation in replenishment of terminological vocabulary.

Structure of terms: word-formative type

To word-formative architectonics of terminological units of most languages are peculiar the same principles that are peculiar to generally used units. Dyakov A.S., Kyiak T.R. and other suggest the following classification of word-formative types of terms (some examples are ours):
1. Terms - root words:
   1) Native not derivative vocabulary *(ніс, nose, der Druck)*;
   2) Borrowed not derivative vocabulary *(атом, atom, der Atom)*.
2. Derivative vocabulary:
   1) Terms coined with the help of suffixation *(жабка, explosion, die Füllung)*;
   2) Terms coined with the help of prefixion *(відбій, unemployment, das Verzinken)*.
3. Terms – compound words *(самоокупність, turbogenerator, das Videoband)*.

4. Terms – word combinations *(обчислювальна машинка, direct current, statische Symmetrie)*.
5. Terms – abbreviations *(РОЦ – регіональний обчислюваний центр, ZF – Zwischenfrequenz)*.
6. Lettered conventions *(g = Gramm, MHz = Megahertz)*.
7. Symbols (signs) – e.g. mathematical, chemical, astronomical and other *(% = Prozent)*.
8. Nomenclature [13, p.13-14].

There are other approaches to the classification of terms by their structure. Yes, Kovalenko A.Ya. divides all English terms into:

1) Simple that consist of one word: *circuit – ланцюг*;
2) Complex that consist of two words and are written together or through hyphen: *flywheel – маховик*;
3) Terms-phrases which consist of a few components: *circuit breaker – автоматичний вимикач* [21, p.258].

Terms-phrases in their turn can be divided into three types:
- To the first type belong terms-phrases the components of which are independent words that can be used separately and preserve their meaning, e.g.: *brake-gear – гальмова система*, where *brake – гальмо, gear – прилад*.
- To the second type belong the terms-phrases one component of which is technical and another one – generally used lexical unit. The components of such type of terms can be two nouns or a noun and an adjective. This way of coining scientific and technical terms is more productive that the first one where the two components are independent terms: *back coupling – зворотній зв'язок*.
- To the third type belong the terms-phrases the two components of which are words of generally used vocabulary and only a combination of these words is a term. Such way of coining scientific and technical terms is unproductive: *line wire – провід під напругою*.

Superanska O.V. and other divide terms into (some examples are ours):
1. Terms-words (they are expressed by one word: *ембріон, бетон, графіт, resin, marketing, das Dopen, der Generatorbetrieb*);
2. Terms-phrases that are divided into:
   a) Free phrases where each of the components can enter into bilateral connection: (*атомна електростанція, космічна швидкість, internal storage, shock lung, die elektrische Energie)*;
   b) Bound phrases where separately taken components may be not terms but in conjunction they form a term-phrase: (*мислячий робот, star system, live video, der jungfräuliche Zustand – нейтральний стан*).
3. Multicomponent terms (such terms can be of three, four and more components) and they are represented in a considerably smaller number than the previous types of terms: (відкритий розпад радіоактивних компонентів, рівняння руху машин, light absorption spectrometry, very large crude carrier, Fressen an den Kontaktflächen – корозія контактних поверхонь) [36, p.83].

Validity of terms
(by the publication of Kostenko L.M. [23, p.380-382])

To the number of insufficiently studied issues of terminology belongs determination of the relation of the notion of validity-invalidity to terms.

The phenomenon of validity of terms is studied in works of many scientists. Among them are: Blinova O.I., Dyakov A.S., Kyyak T.R., Kudelko Z.B., Kostenko L.M., Shmelyov D.M. and other.

Lotte D.S. (when meaning the phenomenon of validity) distinguished "well oriented, neutral and not well oriented terms" though he indicated that this criterion does not play a decisive role as a term has a definition anyway and takes a certain place in the system [quotation 23, p.380-382]. There is a thought that fully valid terms do not exist. It can be explained by the fact that each notion

is characterized by different features and in its name can be reflected only one (and not obligatory) main component.

Practical value of the issue of validity consists in establishment of advantages and disadvantages of motivated terms concerning development of national term systems from one side and concerning peculiarities of their translation from the other side.

When forming professional vocabulary the naming most often relies on some analogies, associations. Coined in such way (motivated) term is easier to remember, associative relations with other terms are established that is a positive factor during translation of such units.

An illustrative example of terms validity is Ukrainian terminology of gardening. For example, *шпорці – вкорочені пагони у сливи; списики – прямі однорічні плодові гілочки з гладенькою корою, за формою нагадують спис; кільчата – найкоротша гілочка з помітними кільцеподібними напливами.*

These terms appeared because of outer similarity to the already existing in a language notions. Terminology of gardening is mainly secondary in respect of general vocabulary. As far as a human was always in close relations with the world of plants, the building and physiology of plants was compared with a human body: *вічко, сердечко, трахеї, трахеїди, скелет, габітус.*

Associative thinking in language is a very wide spread phenomenon. Owing to this there exist polysemy, metaphor, metonymy, and other stylistic tropes. But terms coined for example by metaphorization lose their figurativeness very fast under the influence of an absolutely neutral context: *шкілка сіянців, плодушки, маточка, чашечка, шкірка, зачатковий корінець.*

Figurativeness can be used in terminology for more profound motivation in order to emphasize a certain feature of a denotatum or his/her relations with other notions. A metaphor conveys a meaning by similarity: *мертві посіви, одноплечий кордон, юнацький період розвитку рослини.*

In addition to the fact that metaphor motivates a term it also assists its understanding by nonspecialists and in many cases makes a translation much easier.

It is known that motivated words are words with underlying form as far as the underlying form itself determines validity of a word and a means of its realization in a word. O.I. Blinova under validity of a word understands a structural and semantic peculiarity of a word that assists understanding of connection of a meaning and a sonic frame of a word on the basis of its lexical and structural correlation [quotation 23, p.381].

For example, names of plants and fruits diseases: *кишеньковість плодів (pocketness), кучерявість листя (bushyness of leaves), червона плямистість (red blotch), дрібнолистість (small-leaveness), дуплистість (hollowness), карликовість* малини *(dwarfism)* of raspberries; *пухлість, зобуватість, махровість* смородини.

As we can observe the understanding of connection of a meaning and sounding is based not only on root morphemes but also on affixal ones.

For the underlying form of a term it is peculiar a unity of morphemic structure of a word and motivational meaning of a word. Motivational meaning of a word is a meaning expressed with the help of morphemic structure of a word. It is an individual meaning of a chosen word (as well as a lexical meaning) though it differs by generalization. Motivational meaning as if breaks a lexical meaning into gender and aspectual parts. For example, a fireworm: *leaf bud, timid, cancellated, lead-striped, bucculatricid, currents.*

Depending on the level of validity there are distinguished the following types of terms: **terms motivated** that have lexical and structural validity (sap flow, peduncle, sepal), **terms half-motivated** that have structural or lexical validity (trimming, rejuvenescence, pollination, grafting, transplantat, engraftment) and **terms unmotivated** (bark, flower, breed, root, crown, branch, bud).

Validity of the considered terms assists preservation of national character of the Ukrainian vocabulary of gardening. Originality of the Ukrainian terminology of gardening is determined by a great number of generally used, ordinary words: *tree (дерево), fruit (плід), apple tree (яблуня), leaf (листок), seeds (насіння).*

Dyakov A.S. and others consider that the notion of motivation belongs only to complex morphemic formations and is not peculiar to nonderivative words. Nonderivative lexical units, morphemes, can be motivated only through semantic conveyance or onomatopoeic associations.

More expressively validity appears in compound words because validity on the level of a word (either it is about a meaning of a derivative word or about a derived meaning) is always partial validity. Validity on the level of words combinativity is as a rule a complete validity and the essence of word combinations as such lies in this [13, p.78]. Terms-phrases of gardening are the confirmation of this: *округла крона, сплющена крона, плоска крона, розріджено-ярусна крона, малооб'ємна крона, кущоподібна крона.*

If speaking about validity of compound and derivative words we can note that all characteristics of motivation are peculiar to compound words as well: *пізньозимовий, скороплідний, високо зимостійкість, колоноподібний* (види сортів).

Thus, the underlying form of a term has important functions which should be taken into consideration by a translator. One has to use functional load of the underlying form of a term as much as possible, to treat a factor of its validity very thoroughly in order to choose the only one correct way of its translation.

Tasks and questions for self-testing

1. Analyze the provided classifications of terms and make a generalizing table of word-forming types of terms.
2. Provide your own examples of terms of all word-forming types from different term-systems of English/German.
3. Provide your own definition of the notion of terms validity. In what way is terms validity connected with their structure?
4. In what does the practical importance of the research results of the question of terms validity consist (including for the development of the translation science).
5. Provide your examples of motivated, half-motivated, and unmotivated terms in English/German.

Ways of terms coining on the example of computer English term-system
(by the publication of Yenikeyeva S.M. [17, p.144-146])

Let's consider ways of terms coining on the example of computer English term-system that has begun its formation in the second half of the XX cent.. Computer term-system is interesting by the fact that first of all its formation is based on the use of typical word-forming means of the English language, and second of all almost all computer terms acquired the status of internationalisms and are used in most European languages as well as in Ukrainian, Russian, etc..

A certain part of computer terms is coined by means of semantic derivation, for example: *file, controller, mouse, joystick, disk, virus, windows*, etc. New lexico-semantic variants of the existing in literary language units was formed on the basis of the semantic shift in new formations in the result of specialization or metaphorical conveyance of meanings of original lexemes. Yes, the word *notebook* in the literary language means "a record book, an organizer" and withing the limits of computer term-system functions another lexico-semantic variant of this word which means "portable personal computer". The basis for formation of semantic neologism was metaphorical conveyance of a meaning of an original lexeme as the purpose of an electronic device is similar to that of a record book.

Computer term-system became richer at the expense of migration of terms from languages of other spheres of science and technology, for example: *driver, cursor, printer, processor,* etc.. The basis for such transfer was similarity of actions performed by a computer with actions of other mechanisms and devices. Yes, the term *driver* had a meaning of "a mechanism that moves a film through film projectors, movie cameras, tape recorders"; similar function of performs a computer disk drive.

Together with resources of the native (English) language borrowings were also involved for formation of the computer vocabulary. A traditional way of forming scientific terms on the basis of morphemes borrowed from the Greek and Latin languages was applied only for formation of a

small number of computer terms. For example, at the end of 40's of the XX century in the English language there appeared the term *cybernetics* (from Greek *kybernetes – керівник; спрямовуючий*) for denotation of the computer engineering and the science of computers. After some time from the word *cybernetics* in the English language there were coined derivatives *cybernation* and *cybernated*.

The most productive way of coining computer terms is word composition: *computer-friendly, computer-czar, video-game, videotext, video-card*. Productivity of word composition is conditioned first of all by the analyticity of the English language and the tendency to express any thought by one word which, in the opinion of native speakers, is much more meaningful and has much more expressive possibilities than, for example, a word combination.

For satisfaction of the growing needs in nomination of new phenomena and processes within the frames of the computer language it was started the process of coining new word-forming means and word-forming models. In 80-90's of the XX century computer term-system enriched by a great number of units coined on the basis of already existing ones within the limits of this language of words. Yes, the term *software* – "a program that controls a computer" – was used as a model for coining computer terms that denote different types of programs: *cheapware, shareware, courseware, careware*.

Word-forming element *cyber-* that was coined in the result of a shortening of the word *cybernetics* and has the meaning "connected with informational, computer engineering" is considered by linguists highly productive [14, p.373]. With its help for the last decades there were coined more than a hundred computer neologisms, for example: *cybermail, cybermall, cyberspace, cyberskills, cyberdoctor, cyberspeech, cybersurfer, cybertraiding, cyberway, cyberworld and other*. The interesting fact is that the creation of international computer network - the Internet was a new impulse for coining neologisms with the element *cyber-*, for example: *cyberculture, cyberbanking, cybercommerse, cyberbusiness, cyberinvesting, etc.*. In scientists' point of view coining of neologisms connected with the notion of the "Internet" contributed to "additional narrowing of the meaning" of the element *cyber-* which in the structure of the above mentioned words means "connected with the computer network – the Internet, the one that is realized through the Internet" [14, p.374].

Except term-words the computer language enriched also with word combinations of terminological character. An example can be neologisms coined with the participation of the word digital that represents a new lexico-semantic variant with the meaning "connected with computers, computerized" (in Ukrainian also "цифровий"): *digital age, digital radio, digital video, digital videodisc, digital media*. The term *the Internet* became a basis for coining a range of word combinations, for example: *Internet Age* – "a period of active use of the Internet network", *Internet host* – "a computer permanently connected to the Internet network".

One more popular way of coining computer neologisms is abbreviation. The examples of popular abbreviations can be: *PC – personal computer, CD-ROM – compact disc – read only memory, WWW – world wide web, CAD – computer-aided design*. Richness of a computer text with abbreviations is a reflection of one of the means of information optimization of a message.

So, coining of computer terms is performed at the expense of resources of the English language by means of word composition, affixation, abbreviation, semantic derivation.

Tasks and questions for self-testing

1. Name the main means of coining new terms and analyze the most popular of them for the Ukrainian, English and German languages on different stages of languages development.
2. Number the ways of coining new terms at the expense of use of internal language resources. Which of them is the most productive today? Recall the material of the previous lectures.
3. Give examples of good and not very good use of terminological borrowings in Ukrainian.
4. Give examples of borrowings use in English and other terminologies.
5. Explain the difference between complete and partial borrowings. Give examples.
6. Which term according to the definition can be considered international? Give examples.
7. Analyze the ways of coining terms on the example of English computer term-system. Point out the most productive of them. Analyze Ukrainian computer term-system.

Ways of translation of terminological units
in scientific and technical text

When translating scientific and technical texts the main attention is paid to the translation of terms that can be the most complicated for a translator. Let's remember that the characteristic features of a term are its precise connection with a certain notion, phenomenon or process, its accuracy and aspiration for unambiguity.

Translation of terms requires the knowledge of that sphere to which the translation relates; it also requires understanding of content of terms in foreign language and the knowledge of terminology in native language. When translating scientific and technical literature an important role plays the interaction of a term with context and due to this interaction a word meaning is revealed. Kovalenko A.Ya. determins two stages in the process of a term translation: the first is to establish the meaning of a term in context, the second is to translate this meaning into native language [21, p.257].

From the point of view of practice of translation all elements of the denotative system of an original language (lexical and phraseological units) are divided into two groups: 1) those that already have analogs in the language into which the translation is made (for example: *equipment – устаткування*); 2) those that do not have analogs in the language of translation (yet) (for example: *flaming* in the Internet terminology). The first ones are called units that have equivalents in the language of translation the second ones are equivalentless units [18, p.279].

Equivalent units by the definition of Karaban V.I. are divided into single-equivalent (i.e. those that have only one analogue for translation (for example: *flange – фланець*); and multi-equivalent (i.e. those that have more than one analogues for translation (for example: *frame* can be translated as: *рама* (у будь-якому пристрої), *станина* (у верстатах), *каркас* (у будівництві), *кадр* (у кіно та на телебаченні), *конструкція, корпус, ферма* та ін.) [18, p.279].

The main way of single-equivalent terms translation is finding a lexical equivalent in the language of translation. An equivalent is a constant lexical correspondence in the language of translation and is fixed in a dictionary and precisely coincides with the meaning of a given word. Single-equivalent terminological units play an important role in translation of professional texts. The serve as supporting points on which depends the revelation of meaning of other words; they give the possibility to find out the subject-matter of a text. That is why a translator should know how to find a corresponding equivalent in native language and extend his/her knowledge of terms-equivalents.

Translation of multi-equivalent terms requires the ability to choose one alternative (варіантний) equivalent which fits the given context. Alternative equivalents can be fixed in translation dictionaries; in that case they are called dictionary alternative equivalents [18, p.280].

Translation equivalent is chosen grounding on correspondence between lexical and grammatical meanings of words of those languages that take part in translation, on the basis of context, situation and background knowledge [27, p.41].

In case when a dictionary does not provide an accurate equivalent of a terminological unit or when alternative equivalents of a certain term of original language are absent there are used different methods of interlanguage transformations. The task of a translator is to make a right choice of this or that method in the course of translation, i.e. to convey a meaning of each term the most accurately.

It is accepted to divide translation transformations into lexical, grammatical, and stylistic. Transformations can be combined and acquire the character of complex combined transformations.

Translation Transformations

Let's consider in detail the main types of transformation that are used during translation of equivalentless vocabulary, and some peculiarities of their use when translating terms.

Lexical transformations are applied during translation of scientific and technical texts in case when in the original text occur terms of this or that professional field which are (still) absent in

the target language or which have different structural and functional order in the professional target language.

The main type of lexical transformation is **transcoding** – such way of translation when a phonetic and/or a graphic form of a word of the source language is conveyed by means of the alphabet of the source language [18, p.282]. There are four types of transcoding: 1) **transcription** (when by the letters of the target language it is conveyed a phonetic form of a word of the source language, for example: Engl. *peak* – Ukr. *пік*, Germ. *Maßstab* – Ukr. *масштаб*); 2) **transliteration** (a word of the source language is conveyed by letters, for example: Engl. *laser* – Ukr. *лазер*, Germ. *Bunderstag* – Ukr. *бундестаг);* 3) **mixed transcoding** (transcription with the elements of transliteration, for example: Engl. *overlock* – Ukr.*оверлок*, Germ. *Megawatt* – Ukr. *мегават*); 4) **adaptive transcoding** (when a form of a word in the source language in some way adapts to phonetic and/or grammatical structure of the target language, for example: Engl. *pallet* – Ukr. *палета*, Engl. *platform* – Ukr. *платформа*,Germ. *Platzkarte* – Ukr. *плацкарта,* Germ. *Banknote* – Ukr. *банкнота).*

Transliteration and transcription is used first of all for translation of proper names, names of nations and tribes, geographic names, names of business establishments, companies, periodicals, sport teams, groups of musicians, cultural objects, etc. A lot of such names undergo transcription rather easy; more rarely they undergo transliteration.

But when translating by the method of transliteration one should not forget about "false friend of translator" (such as *data, academic, cabinet, die Lektion, der Lektor*, etc). The transliteration method of translation of these words leads to rude content distortion.

When translating terminological units it is also used another method of lexical transformations – calquing. **Calquing** is a conveyance of not phonetic but combinatorial word structure when the components of a word (morphemes) or a phrase (lexemes) are conveyed by the corresponding elements of the target language. The given method is applied during translation of the terms complex by their structure. For example: Engl. *a standard key-combination* – Ukr. *стандартна комбінація клавіш*, Engl. *wind rose format* – Ukr. *формат рози вітрів*, Germ. *die Hochfrequenzwellen* – Ukr. *високочастотні хвилі*, Germ. *interdisziplinär* – Ukr. *міждисциплінарний*.

Lexico-semantic transformations are the way of translation of foreign language lexical units by using the units of the target language that do not coincide by their meaning with the source units but can be concluded logically.

One of the types of lexico-semantic transformations is **concretization** – the process during which a unit of broader, more concrete content is conveyed in the target language by a unit of concrete content, for example: Germ. *Geld* is translated into Ukrainian not as *money* but as *долари* or *гривні* depending on the context, or Germ. *Gold* is translated into Ukrainian not as *золото* but as *прикраси із золота, золоті жіночі прикраси*, etc. During translation from the Ukrainian language one sometimes needs to make a substitution of a word or a phrase that have broader range of meanings by an equivalent that specifies a meaning in accordance with a context or by stylistic utterances. For example, the notion "*досліджувати*" in the Ukrainian language can be used in different situations and its concrete meaning to a large extent is ordered by a context; in a foreign language to this notion will correspond different, narrower by their meanings units (depending on a context), for example:

to explore – *досліджувати місцевість (to explore the environment);*
to investigate – *досліджувати ринок (to investigate the market);*
to research into – *досліджувати явище (to research into the classical literature).*

During translation of terms it is also possible to use the method of generalization.

Generalization of the source meaning takes place in that cases when the information order level (міра інформаційної упорядкованості) of a source unit is higher than the order level that corresponds to it by the content in the target language. For example: Ukr. *щілинний фільтр* – Engl. *edge-type filter*, Germ. *Postimplantationszustand* – Ukr. *післяопераційний стан*.

Modulation or notional (смисловий) development is the substitution of a word or a phrase of a foreign language, the meaning of which can be concluded logically from the source meaning. The method of notional development consists in substitution during translation of a

vocabulary analogue by a contextual one, logically connected with it. If we take into consideration the fact that all significant parts of speech are divided into three categories: subjects, processes and features, in the process of translation we will observe a striking variety of substitutions within each category as well as between different ones. For conveyance of one and the same content by means of another language it often does not matter by what form of a word this content will be expressed. A subject can be substituted by its feature, a process by a subject, a feature by a subject or a process, etc. The most typical example of notional development is cause-and-effect relation: for example: Engl. *to drop "випустити (щось з рук)"*, *to fall down "впасти (додолу)"* are connected by such relations: *He dropped his watch – Він впустив годинника, His watch fell down – Його годинник впав.* [18, p.289]; or when the products of activity are changed by the subjects of activity, for example: Germ. *In soziologischen Arbeiten findet das eine andere Darstellung.* – Ukr. *Соціологи дають цьому зовсім іншу інтерпретацію.* [20, p.548].

Grammatical transformations

Many difficulties that occur during translation of scientific and technical texts are connected not only with the translation of separate terms but also with the conveyance of the correct content of each phrase that not always can ensure a word-for-word translation [20, p.54]. That is why a translator has to apply grammatical transformations that consist in transformation of a sentence structure in the process of translation in compliance with the norms of the target language.

Sentence segmentation is a type of grammatical transformation during which the syntactic structure of a foreign language turn into two or more predicative structures of a target language. This method can be conditioned by grammatical reasons (for example, in case of the difference in admissibility of the set of syntactic clauses (звороти)) as well as by pragmatic ones (for example, if a sentence undergoes a range of transformations that lead to communicationally excessive or stylistically inadequate amount of additional syntactic clauses).

Sentences unification is a type of grammatical transformation opposite to segmentation. When using this type the syntactic structure in the original text turns into one sentence by unification of two or more simpler sentences [30, p.76].

Substitution of one part of speech into another one – the transformation which is applied when the preservation of the part-of-speech characteristic of the translating word leads to violation of grammatical norms of the target language and norms of words use. Such transformation may be applied to the words of almost all parts of speech and usually is accompanied by a partial or complete rebuilding of a translating sentence structure. [18, p.313].

Transposition is a change of speech elements positions in a target text in comparison with an original one. The most usual case in the process of translation is a change of words and word-combinations order in a sentence structure [30, p.101]. Yes, in an English sentence the order of parts of speech is determined by the rules of syntax: subject – predicate – object – adverbial modifier of place – adverbial modifier of time. In an Ukrainian sentence the last place takes a "new" by its meaning word that is used in the given sentence for the first time. A German sentence is built by a rule of the so called frame construction: predicate takes the second place, complex predicate – the second and the last one, etc.

Lexico-grammatical transformations

Antonymic translation – such type of transformation when the form of a word or a word-combination is substituted to an opposite one (positive to negative and vice versa) and the content of a unit remains generally similar [18, p.29]. The specified transformation is represented by three types: 1) negativation (a word or a word-combination without formally expressed by a suffix or a particle negative seme is changed in the translation by the word with prefix *не-* or a word-combination with particle *не-*), for example: Engl. *to continue*, Germ. *fortsetzen* – Ukr. *не зупинятися*; 2) positivation (a word or a word-combination with formally expressed negative seme is changed in the translation to the word or word-combination that does not have formally expressed negative component), for example: Engl. *unallowed*, Germ. *unerlaubt – заборонений*; 3) annulment of two negative sematic components present in a sentence, for example: Engl. *not impossible*, Germ. *nicht unmöglich – можливий.*

Explication or descriptive translation. During descriptive translation a lexical unit of a foreign language is changed by a word-combination that explicates its meaning (i.e. give an

explanation or a description of this word). To the descriptive translation there are advanced the following demands: 1) a translation should accurately reflect the main content of the marked by the term notion; 2) description should not be too detailed; 3) a syntactic structure of a word-combination should not be too detailed, for example: Engl. *outscriber – вихідний пристрій відтворення даних* [18, p.297].

Addition is a type of transformation during which in translation are used additional lexical units for conveyance the implicit elements of the content of the original. Rather often this method is used during translation to avoid distortion in the target language [30, p.84]. For example: Germ. *die Lagerfähigkeit –* Ukr. *стабільність (продукту) при зберіганні*.

Removal (вилучення) is a type of transformation directly opposite to the addition. During translation and further editing this type of transformation is used most of all in cases when a certain lexical unit is semantically superfluous, i.e. expresses the meaning which can be understood from the context [30, p.93]. To a similar transformation we can refer the elimination of the so called "double synonyms". For example: Germ. Neue Technik und Verfahren der Erzeugung und Weiterleitung der Energie. – Ukr. Нова технологія виробництва та передачі енергії [20, p.454].

Contextual substitution is such type of transformation in the result of which the translating analogue is a word or word-combination which is not a dictionary analogue and selected with consideration of a contextual meaning of a word and speech norms and traditions of the target language [18, p.288]. In fact, the given type of transformation is used in the cases when it is necessary to make specification (concretization), generalization, to change a negative construction into affirmative (antonymic translation) or to make complete reconsideration (for example, when translation idioms). The given type of transformation combines elements and uses methods of lexico-semantic as well as lexico-grammatical transformations.

The essence of all considered by us translation transformations consists in the fact that they assist the adaptation of an original text to the norms and traditions of the target language, the achievement of the maximum legibility of a translation not laden by unusual to the target language grammatical constructions and lexical structure.

Note for a translator of scientific and technical texts
(by the publication of Kyyak T.R., Naumenko A.M., Oguy O.D. [20, p.53-58])

Linguists are positive of the fact that the translation of professional texts requires as much efforts as the literary translation. The statement that in the process of a scientific and technical translation only a substitution of professional terms by using grammatical minimum is enough, is completely wrong.

As practice shows, a specialist with the knowledge of languages, for example, a Ukrainian physicist with profound knowledge of the German language is able to perform more professional translation than a specialist in Germanic studies without additional knowledge of physics. However, such a perfect chance (obtaining of two educations) as a rule is rare, so from the practical and economic points of view the knowledge of foreign language comes to the forefront.

To perform a qualitative translation of scientific and technical texts it is required the implementation of at least two conditions:
- A translator should be familiar, at least partially, with the theme of the text he or she has to translate. Such knowledge of different topics can be acquired with the experience of work;
- In the text of translation one should avoid misleading terms if in the given term system there are their synonyms with more motivated underlying forms.

Adequate scientific and technical translation has to precisely convey the content of the original, have generally accepted in the target language terminology and correspond with the norms of scientific and technical literature the translation of which is performed.

Traditional **recommendations to a translator** concerning terminological aspects of professional texts translation:
1) In translation one should use terms approved by the relative state standards;
2) A translator should take into consideration to which sphere of science and technology relates the translating term (especially foreign);

3) If in a text occurs a term which is not fixed in scientific and technical dictionaries a translator has to choose the equivalent for translation by himself by using ==reference literature (довідникова література)== or consulting a specialist; in extremis, a term can be translated by describing it.
4) In the target text one should avoid synonymic use of terminological units; all terms, symbols, shortening have to be unified;
5) If in an original text was found a semantic mistake connected with a term spelling a translator is to provide a translation correspondent with the original and in a footnote he or she should point out the mistake and give the correct variant;
6) Alien for the target language terms should be left in the translation and written in brackets;
7) Names in Latin are not translated and remain in their original form;
8) Arbitrary shortening of terms is not allowed;
9) Nomenclatures remain mostly in original;
10) Units of physical quantity, special signs have to correspond with technical standards.

Issues of terminological spelling deserve special attention during translation. One should remember that nowadays a certain number of terms preserve a double way of spelling, for example: *авто-* й *ауто-*, *нейро-* й *нерво-*, etc. A translator should take into consideration the degree of use of this or that variant in a specific term-system at the given stage which should be fixed in the newest dictionaries.

Peculiarities of translation of separate groups of names

Names of educational institutions, faculties, departments, laboratories. Names of educational institutions that contain names of states (the USA, Australia), provinces, (Canada), counties (Great Britain), lands (Germany), towns etc. are translated mostly in the following ways:
1) The word "state", "town" etc. is added to a name, for example: Engl. *University of Toledo* – Ukr. *Університет міста Толедо*, Germ. *Universitäten von Nordrhein-Westfalen* – Ukr. *університети федеральної землі Північний Рейн-Вестфалія*;
2) A toponym-noun changes into a corresponding adjective, for example: Engl. *University of California* – Ukr. *Каліфорнійський університет,* Germ. *Universität zu Berlin* – Ukr. Берлінський університет;
3) If the name of an educational institution has an antroponym then during translation the word "імені" or the forms of the Genitive of Nominative cases should be added to that name: *John Brown University – університет ім. Джона Брауна, університет Джона Брауна, університет «Джон Браун», die Humboldt-Universität – університет імені Гумбольдта.*

Names of faculties, departments, laboratories etc. are translated in the following way: Engl. *geophysics laboratory* – Ukr. *геофізична лабораторія*, Germ. *Fakultät für Fremdsprachen* – Ukr. *факультет іноземних мов.*

Names of magazines and newspapers are not translated but transcoded; with consideration of inquiries of a translation users, to the transcoded name of a magazine may be added in brackets its translation into Ukrainian, for example: Engl. *Journal of Applied Mathematics* – Ukr. *"Джорнел оф еплайд математикс" (Журнал з прикладної математики)*, Germ. *Frankfurter Allgemeine* – Ukr. *газета "Франкфуртер Альгемайне".*

Names of enterprises are not translated but transcoded, for example: Engl. *Sony Corporation* – Ukr. *"Соні Корпорейшн"*. Also in translation it is reasonable to provide characteristics of an enterprise, sometimes with an explanation of a sphere of activity: Engl. *General Electric* – Ukr. *електротехнічна компанія "Дженерал Електрик"*, Germ. *Waschmaschine von Bosch* – Ukr. *"пральна машина фірми Бош"*. Abbreviations in the names of companies usually are transcribed and not transliterated: Engl. *IK Marketing* – Ukr. *"компанія Ай-Кей Маркетинг"*, CNN – Ukr. *"Си-Ен-Ен"*, Germ. *Ruhrgas AG* – Ukr. *компанія "Рургаз АГ".*

Names of public, scientific and technical organizations, parties, etc. are translated in full, for example: Engl. *International Society of General Research* – Ukr. *Міжнародне товариство фундаментальних досліджень*, Engl. *Conservative Party* – Ukr. *Консервативна партія*, Germ. *CDU – Christlich-Demokratische Union* – Ukr. ХДС – *Християнсько-демократичний союз,*

Germ. *Technisches Hilfswerk (THW)* – Ukr. *організація "Технічна допомога" (аварійно-рятувальна служба Німеччини)*.

Geographical names that have traditional Ukrainian analogues, are fixed in translation dictionaries, for example: Engl. *Great Britain* – Germ. *Großbritannien* – Ukr. *Велика Британія*, Engl. *the Alps* – Germ. *die Alpen* – Ukr. *Альпи*, Engl. *Baltic Sea* – Germ. *die Ostsee* – Ukr. *Балтійське море*. Some geographical names are translated, for example: Engl. *the Pacific Ocean* – Germ. *der Pazifischer Ozean* – Ukr. *Тихий океан*, Engl. *Cape of New Hope* – Germ. *Kap der Guten Hoffnung* – Ukr. *Мис Доброї Надії*. A part of geographical names is transcribed: Engl. *Pearl Harbor* – Ukr. *Перл Харбор*, Germ. *Schleswig* – Ukr. *Шлезвіг*, Ukr. *Сімферополь* – Germ. *Simferopol*. When translating from English (also German) the names of foreign languages (Italian, French, etc.) a traditional form is preserved: Engl. Nice – Germ. Nizza – Ukr. Ніцца, Engl. Venice – Germ, Venedig – Ukr. Венеція, Engl. Munich – Germ. München – Ukr. Мюнхен.

Names of firms. By their structure they are divided into simple that consist of one word and are often coined by shortening of compound words or word-combinations, and complex that consist of two or more words, for example: *Toyota – "Тойота", Winterm (Windows terminal) – термінал "Вінтерм" для роботи з прикладними програмами Windows та глобальг=ною мережею Internet, Orbitest machine – машина Орбітест (для випробування якості сталевих труб), Tetra Pack – упаковка "тетрапак" термозварювальна картонна пачка у формі тетраєда для молока, соків тощо)*.

Names of firms usually are not translated but transcoded, i.e. transliterated of transcribed, for example: *Mercedes – Мерседес, Concord – Конкорд, fiberglass – фіберглас*. In case of translation of new or little known names of firms it is reasonable to give an explanation in brackets or as a <mark>left-side attribute (лівостороннє означення)</mark>: *Docryl – фотополімерний матеріал "Дікріл", або "Дікріл" (фотополімерний матеріал)*.

If a firm name has a Ukrainian corresponding term a translation should be applied: *Pyrex – пірексове скло*.

When it is necessary to convey the name of a firm maximally precisely it is reasonable to convey it in its original form into a Ukrainian text.

Conveyance of abbreviations and shortenings

In some types of scientific and technical texts shortenings sometimes make up 50 percent of all word usage and 15 percent of vocabulary composition [18, p.448]. A lot of shortenings used in English scientific and technical literature are homonymous: AD – attention device – пристрій сигналізації, avalanche diode – лавинний діод, average deviation – середнє відхилення. Sufficient number of homonyms can be observed among German shortenings, for example: Germ. Abs. – Absatz – абзац, Absender – відправник (адреса відправника); bez. – Bezahlung – оплата, bezüglich – стосовно, з приводу, щодо, Bezirk – район, округ; c – Lichtgeschwindigkeit – швидкість світла, Zenti-= санти- (десятковий префікс до одиниць виміру); Geh. – Geheimsache – таємна справа, секретний документ, Gehilfe – помічник, асистент.

If a shortening is fixed in dictionaries of shortenings than a translation should correspond with these shortenings: PC (personal computer) – ПК (персональний комп'ютер), DTL (diode transistor logic) – ДТЛ (діодно-транзисторна логіка), UNO – ООН, AIDS – СНІД, FIDE – ФІДЕ.

In case if in the target language a corresponding shortening is absent and for the translation it is needed to determine the full form of the shortening in the source language (according to a dictionary or an original text) the translation is performed with the corresponding full form of a word or a word-combination: Engl. deg (degree) – градус, Engl. REF (reference) – посилання, Engl. WCIP (World Climate Impact Studied Program) – всесвітня програма дослідження впливу клімату на діяльність людини; Germ. in BZ – в газеті «Берлінер Цайтунг», verh. (verheiratet) – одружений, заміжня.

The method of transcoding (transcribing or transliterating) is used for conveyance of English widely used shortenings that denote important international organizations, agencies, names etc. and are used in many languages, in particular in Ukrainian, German, and Russian. For example: in Engl. UPI (United Press International) – in Germ. UPI – in Ukr. Агенція ЮПІ; in Engl. Internet – in

Germ. Internet – in Ukr. Інтернет; in Engl. NATO (North Atlantic Treaty Organization) – in Germ. NATO – in Ukr. НАТО; in Engl. NASA (National Aeronautics and Space Administration) – in Germ. NATO – in Ukr. НАСА; in Engl. UNESCO (United Nations Educational, Scientific and Cultural Organizations) – in Germ. UNESCO – in Ukr. ЮНЕСКО.

Very rarely transcoding of the full form of a corresponding shortening is used in the case if in the target language there are no analogues of this shortening or a full form: CAT – Катерпіллар (американська компанія, що виробляє шляхобудівні машини та дизельні двигуни).

Tasks and questions for self-testing

1. Analyze given in the lecture systems of Ukrainian transliteration. Determine the letters that are the most "problematic" for reproduction. Give your point of view concerning the problem of fixing the Ukrainian Latin letters.
2. Name the main methods of names translation. Give your examples for each of the provided in the lecture group of names.
3. Name the main methids of abbreviations conveyance.
4. Give the examples of the reasonability of names conveyance in their original form into a Ukrainian text.
5. Familiarize yourself with the provided below "Normative transliteration table for reproduction of Ukrainian proper names". Analyze peculiarities of reproduction in the Latin letters such Ukrainian letters as Г, Ж, Є, Х, Щ, Ю, Я та ін..

Lexical Parallels and the Problem of "False Friends of Interpreters"

Lexical Parallels: types, forms and reasons for formation

Under lexical parallels they understand the presence of common elements (lexical, in particular) in two not obligatory related languages. Such lexical parallels can be accidental or regular. Accidental lexical parallels can be called up by accidental consonance of words of two not obligatory related languages like: Lat. habere, Germ. haben (though the words of both labguages coincide in their meaning the etymology is different); or Engl. tip and Ukr. тип (accidental consonance under complete absence of common features in the meaning). Regular lexical parallels are caused by conscious borrowing of lexical elements by one language from another.

Lexical parallels can be caused also by features of territorial community when within the limits of a certain area (territorial, cultural-historic, religious, etc.) there exists more or less common lexical fund.

P. Braun stated that in European languages is present the so-called pan-European element that consists in the fact that the majority of European languages have common lexical elements. P. Braun indicates such reasons for formation of common lexical fund: a) relativity (спорідненість) of Indo-European languages that reflects on the visual similarity of many lexical elements in different European languages; b) mutual borrowings from non-European languages; c) lexical standardization in international languages of science and technology; d) exchange of information through international news agencies; e) language agreements of supranational establishments (churches, official organizations).

Ideal international forms or lexical parallels have abstractly identical meanings in different languages. Such forms can be understandable to people who do not know foreign languages. However, in practice such ideal forms of internationalisms occur very rarely. During direct borrowing of any term element the native speakers of different recipient languages pay attention to different semantic features of the lexical unit they assimilate (засвоювати). This leads to semantic discrepancy of identical lexical units in different languages. There appear the so-called "false friends of interpreter" («фальшиві», «хибні», «ложные друзья переводчика» (Rus.), "misleading words" (Engl.)). The most dangerous they can be during technical translation by fooling a translator or just a reader with false associations with some terms of native language which are similar by their form but different by content.

"False Friends of Interpreters": Reasons for their Formatio

"False Friends of Interpreters" or pseudointernationalisms are the words or word-combinations that coincide by their form with Ukrainian internationalisms but have rather different content. Historically "false friends of interpreters" are a result of the mutual influence of languages (in some cases they occurred in the result of accidental coincidences) and in ==related== languages are based on common counterparts. In English and German such words in most cases are the result of direct and indirect borrowings from a general third source. The Ukrainian language in its turn perceived similar words mostly through intermediation of the Russian language.

In English, German and Ukrainian there are nearly a few thousand of the words that can be called "false friends of interpreters". These words can be found among four parts of speech: nouns, adjectives, adverbs, and verbs. Homonymy of parts of speech usually do not provokes misunderstandings, and the biggest difficulties can provoke words that belong to analogic or closely related semantic spheres and can be found in similar contexts.

In many languages, in English, German, Ukrainian and Russian in particular, such words can be conditionally divided into two groups:
1) Words that have similar spelling and pronunciation but a completely different meaning;
2) Words that only in one of the meanings coincide with a Ukrainian equivalent but differentiate in other meanings.

Words that belong to the first group are less "dangerous" for translators. To such words can belong, for example, in English:

accurate -*точный,* а не *акуратний;*
actual - *дійсний,* а не *актуальный;*
advocate - *прихильник,* а не *адвокат;*
aspirant - *претендент,* а не *аспірант;*
clay - *глина,* а не *клей;*
complexion - *колір обличчя,* а не *комплекція;*
corpse - *труп,* а не *корпус;*
decoration - *прикраса,* а не *декорація;*
fabric- *тканина,* а не *фабрика;*
familiar - *відомий, знайомий,* а не *фамільярний;*
physician - *лікар-терапевт,* а не *фізик;*
principle - *основний,* а не *принциповий;*
production — *виробництво,* а не *продукція;*
prospect – *перспектива, а не проспект;*
rapport – *добрі відносини а не рапорт;*

in German:
der Akademiker – *1) людина з вищою освітою, інтелігент; 2) художник (представник старої, класичної школи), а не академік;*
die Intelligenz – *розум, інтелект, кмітливість, а не інтелігенція;*
reklamieren – *1) вимагати чогось, претендувати на щось; 2) звільняти від військової служби, а не рекламувати;*
der Maler – *художник, живописець, а не маляр;*
das/der Mannequin – *манекенниця, а не манекен;*
die Marmelade – *повидло, джем, а не мармелад;*
das Paket – *посилка, пачка, упаковка, коробка, а не пакет;*
pulverisieren – *розтирати, здрібнювати (в порошок), а не розпилювати у повітрі;*
regulär – *правильний, звичайний, а не регулярний;*
die Robe – *вечірня сукня, мантія, а не роба (спецодяг);*
souverän – *зарозумілий; як прис. – впевнено, з великою перевагою, а не суверенний;*
die Trillion – *квінтильйон (10^{18}), а не трильйон;(до речі, укр. Трильйон 1012 буде в перекладі на німецьку –* **die Billion***);*
figural – *прикрашений фігурами, а не фігуральний;*

der Zentner – *одиниця виміру, дорівнює 50 кг, а не 100 кг; (до речі, укр. центнер буде в перекладі на німецьку – der Doppelzentner);*

elementar – *стихійний, природний, даний природою, а не елементарний.*

More difficulties arise during translation of words that belong to the second group. In this case a translator has to demonstrate his/her knowledge not only of languages used during translation but also of the theme of a text. To such words we can refer:

In the English language:

authority – влада, інколи авторитет;

aggressive – енергійний, настирливий, а не тільки агресивний;

balance – сальдо, а не тільки баланс;

cabinet – меблева секція, а якщо «кабінет», то «міністрів»;

camera – фотоапарат, інколи камера;

champion – борець, захисник, а не тільки чемпіон;

conductor – диригент, а не тільки кондуктор;

copy – екземпляр, а не тільки копія;

correspondence – відповідність, стаття в газету, а не тільки кореспонденція, листування;

credit – заслуга, а не тільки кредит;

department – факультет (США), міністерство (США), а не тільки департамент;

dramatic – вирішальний, а не тільки драматичний;

element – стихія, а не тільки елемент;

intelligence – розвідка, а не тільки розум, інтелект;

leader – керівник, а не тільки лідер;

legal – правовий, юридичний, а не тільки легальний;

liberal – гуманітарний (про освіту), а не тільки ліберальний;

minister – священик, а не тільки міністр;

momentum – інтенція, поштовх, а якщо момент, то важливий;

nation – країна, народ, інколи нація;

objective – мета, завдання, а не тільки об'єкт;

officer – чиновник, а не тільки офіцер;

panel – секція (на конференції), а не тільки панель;

partisan – прихильник, інколи партизан;

separate – окремий, інколи сепаратний;

session – зустріч, заняття, а не тільки сесія;

speculation – припущення (рідко – спекуляція).

In the German language:

die Bandage – сталеві шини для коліс залізничних вагонів, а не тільки туга пов'язка, бандаж;

die Bank – лава, ослін, лавка, парта, верстат та ін., а не тільки банк;

die Linie – лінійка, рядок; маршрут (міського трансп.); рубіж (військ.); ряд, шеренга (військ.) та ін., а не тільки лінія;

die Medizin – ліки, медикаменти, а не тільки медицина;

der Operateur – лікар-хірург; кіномеханік, дуже рідко – оператор;

die Plattform – майданчик (оглядовий); площадка, тамбур (у трамваї, вагоні) та ін., а не тільки платформа (залізн.);

der Platz – місце; посада; поле, майданчик (спорт.), а не тільки плац (майдан військ.);

die Rente – пенсія, а не тільки рента.

Divergence in pairs of "false friends of interpreters" can be found in non-coincidence of conceptual content, presence of realia, stylistic characteristics, lexical compatibility [1, p.256].

Specific attitude to the classification of phenomena, characteristics, relations of objective reality is peculiar to the semantics of all languages. Yes, the English word "artist" means general notion of a representative of art or some kinds of arts: 1) an artist – *a gifted/talented artist;* 2) an artist, an actor – *a dramatic artist;* 3) an expert – *an artist in words;* 4) a cheater, a swindler – *he is*

an artist with cards. In the Ukrainian language this notion is applied to *a professional actor (професійний актор)* (which in English is translated as *an actor* – a movie actor). On the second place is the meaning *artist, a representative of arts (художник, представник мистецтв)* (the English – *artist)* and the colloquial meaning *an expert (майстер своєї справи).*

Divergence in subject-logical content of foreign and Ukrainian "false friends of interpreters" is often connected with the differences in names or realia. Yes, a head of any higher educational institution in Ukrainian is denoted by the word *ректор (rector)* whereas in English this term (rector) is applied only to chiefs of some colleges in Oxford. English analogue of the term *ректор* can be *president, principal, and vice-chancellor.* Or another example: the German word *Dozent* marks any teacher of an institute or a university who is not a professor (i.e. does not have an academic degree) whereas in Ukrainian *доцент* – is an academic title or a position of a higher school teacher beside, for example, positions of an assistant or a senior teacher (lecturer).

One should also take into consideration a divergence in stylistic characteristics of words that are associated during translation. Words that have identical dictionary meanings can differ at the expense of functionally stylistic and expressively emotional colourings. These difficulties can occur not only during translation of belles-lettres (as it may seem from the first sight) but also durng translation of scientific and technical texts. For example, the English word *compilation* has the meaning of "compiling, assembling facts" and is stylistically neutral, whereas the Ukrainian analogue *компіляція* (as well as the German *die Kompilation*) has a negative shade because it means "dependent work built on somebody else's material".

Big difficulties are provoked also by different lexical compatibility of foreign and Ukrainian words. Characteristics of lexical compatibility of words not always are given or fully explained in two-language dictionaries, that is why a translator has to rely on his/her own intuition and knowledge of traditions. For example, the words *industry – індустрія* in the meaning of *промисловість* coincide but not always are translated by only one word. When we talk about *heavy (тяжка), engineering (машинобудівна), socialist (соціалістичну), capitalist (капіталістична), up-to-date (сучасна)* or *light (легка) industry* the analogues *промисловість* and *індустрія* are correct for the Ukrainian and English languages. But when we talk, for example, about *construction (будівельна), mining (гірнича), food (харчова) industry* in the Ukrainian language the word *індустрія* is not appropriate. Similar situation is with the German word *die Industrie (*also *індустрія* and *промисловість)* especially when it becomes a component of compound words, for example: *das Industriezentrum* can be translated as *індустріальний* as well as *промисловий цент* whereas *das Industriepotenzial, die Industrieabfälle, die Industrieeinrichtung, der Industriezweig* etc. are translated into Ukrainian as *промисловий потенціал, промислові відходи, промислове устаткування, галузь промисловості* etc.

The presence of semantic discrepancies of different kind, in the opinion of Bilodid I.K., can be explained by the fact that an international term acquired by the native speakers of this or that language falls under the influence of a national culture and adds to the original totality of meanings some new meanings [5, p.77].

Mistakes connected with incorrect use of "false friends of interpreter" can make not only people who start studying foreign languages and translate but also rather experienced specialists. Because of this appear many semantic calques and occur cases of violation of lexical compatibility and stylistic correspondence not only in the process of translation but also when using native language.

The influence of "false friends of interpreters" on a translation of scientific and technical texts can provoke considerable misunderstandings that is why the use of two-language, terminological, stylistic, realia dictionaries, dictionaries of "false friends of interpreter" and other manuals is not only advisable but also necessary in the process of translation of scientific and technical literature.

With the aim of getting rid of the problem of "false friends of interpreters" during the last years the more actual becomes a tendency to closing of meanings of international terms and gradual overcoming of semantic divergences. The International Organization for Standardization (ISO) have worked out a special document - International Unification of Concepts and Terms in which it is mentioned the necessity to assign to technical and scientific terms the same meaning in all

languages for making communication easier and increase of contacts in the spheres of scientific and technical activity. So, though we cannot get rid of "false friends of interpreters" completely because of the stability of some terms in term-systems of many fields of science and technology in different languages it is real to build new terms.

Tasks and questions for self-testing

1. What is "lexical parallels" and what are the reasons for their formation?
2. How pseudointernationalisms differ from internationalisms?
3. Into what two groups can be divided "false friends of interpreters"? Provide your own examples from each group.
4. Point out the main reasons of non-coincidence of meanings in pairs of "false friends of interpreters". What should an interpreter mind during his/her work with such lexical units?
5. Name meanings of the following English word-combinations in which "false friends of interpreters" are used: *banking officers, public debt, interest rate, legal matters, accurate data, title and position.*
6. Name meanings of the following German word-combinations in which "false friends of interpreters" are used: *das Bild eines alten Akademikers, als Mannequin arbeiten, reguläre Worte sagen, in Robe gekleidet sein, souverän handeln, figurale Fassale.*

A term in a fiction (художній) text: peculiarities of functioning and translation

Terminological units in a fiction text

Elements of terminology (words and word-combinations) can be found in almost all speech (мовний) styles (and not only in scientific) and in all genres: in the era of the scientific and technical revolution the science and technology became almost the main suppliers of new vocabulary for modern general-literary language. There is a lot of terminology in popular science and science-fiction works; it can be found also in journalistic literature, in belles-lettres and even in poetry. It should also be mentioned that owing to mass media even the terms of narrow spheres become generally used and become a part of writers' speech. As a result terms become an integral part of works of fiction literature which reflects the state of modern literary language [11, p.274].

However, the functions performed by a term in a fiction text considerably differ from those peculiar to it in a scientific text. In its natural environment, as a component of a certain term-system, a term performs exclusively nominative role, the role of a sign that indicates a precisely determined notion. As opposed to this in a fiction text a term first of all performs determined by an author stylistic function, though not loses its object meaning [11, p.275].

The most popular functions of terms in a fiction are: creation of a certain productive atmosphere, giving to a story the colouring of professionalism, increasing of the level of reality of the described events, characters description (including speech description), etc. In each specific case the translation of terms is preceded by determination of their stylistic functions and semantic significance. This can explain distinctions that occur during translation of such terminological units, when sometimes a translator has to ignore the main rule: to translate a term by a term, and to apply to different kinds of translation transformations and sometimes a zero translation.

Difficulties of terms identification in fiction texts

The first difficulties of translation of terms in a fiction text often occur on the stage of their identification among the elements of generally used vocabulary. These difficulties are conditioned first of all by the phenomenon of homonymy that is peculiar to a lexical structure of any language. Homonymy here can occur between two terms as well as between a term and a unit of literal language.

In a text of literary work it is always easier to distinguish borrowed terms because usually they are "alien" in reference to the rest vocabulary by its spelling or phonation. But such terms are also characterized by homonymy, for example: Engl. *cable* except кабель may mean in Ukrainian translation: *трос, якірний ланцюг, телеграма, кабельтов, каблограма, вищий орнамент* etc.

very often such borrowed terms are "false friends of interpreters", for example: Germ. *Kammerton* in a source language is *a main tone, sound, tuning tone,* and in the Ukrainian language *камертон – це інструмент для налаштування музичних інструментів (an instrument for tuning musical instruments)* and to this Ukrainian term in the German language corresponds the word *Stimmgabel*.

More problems appear with terms that are native as to the source language. Many of them (though they are elements of a corresponding term-system) have sufficiently transparent underlying form that can mislead a translator.

Yes, in a technical texts the words *a tooth (зуб), a finger (палець), a shoulder (плече), a fist (кулак),* and the more of it *a brush (щітка), a lobe (кулачок), a head (голівка)* are not likely to be translated in the meaning of the parts of the body with gentle colouring. So, if a translator happens to find the term *contact head (контактна голівка)* in a text of electrical engineering her/she will not translate it for example as *Köpfchen* (Germ. *голівка)* by analogy with "a child's head". Instead he/she will find an equivalent – *Kontaktkrone;* or, for example, German terms *Kopfschmierung and Kopfloch* in texts of fuel production topics will not be perceived by a translator as "мастило для голови" and "дірка в голові" but will be translated according to a dictionary as *мастило для верхньої частини циліндра та заглиблення (в траншеї) в місцях з'єднання труб.*[75, p.242].

Other situation is with a fiction text where a *shoulder (плече)* is first of all *the part of a body from the neck to the hand* and after that in an anatomic nomenclature – *an upper arm to the elbow joint* (unlike the forearm), or in physical terminology – *a part of a level from the pivot to the working point,* in railway terminology – *an area of a track served by the assigned to it machines, locomotives* etc. [50, p.796].

But there are cases when scientific and technical notions denoted in different languages by terms that coincide by their underlying form as well as by object meaning, for example: Engl. tooth, Germ. Zahn, French dent, Ukr. зуб, Rus. зуб, зубец, Bulg. зъб. But such cases unfortunately are not regular.

The above provided examples prove that the source of mistakes during identification (as well as during translation) of terms in a fiction text can be their too transparent underlying form or homonymy.

Translation of terms in a fiction text

During translation of terms in a fiction text one must keep to the main principle of translation of this category of words: a term should be translated by a term. For performing such translation a term-equivalent should exist in target language. In addition to that one should mind two conditions: 1) a term-equivalent in the target language must completely correspond with a term in the source language by its object content as well as by its use in the same meaning and in the same scientific sphere; 2) a term in the source language must be substituted by a term in the target language in its official, generally used, approved in the corresponding terminology form.

For example, Engl. *brown coal* and Germ. *Braunkohle* in Ukrainian translation will no sound like "коричневе вугілля" (regardless of the fact that the Engl. *brown* and Germ. *braun* = коричневий) but like *буре вугілля* (a term-equivalent); Engl. *electrical engineer* corresponds to the Ukrainian *інженер електрик* and not *електричний інженер*, and Germ. *Maschineningenieur –* *інженер механік* and not *машинний інженер,* etc.

Terms in a fiction text can perform different functions. There are literary works of certain industrial themes in which events on some enterprise, a ship, in a hospital etc. are described for example novels of A. Hailey "Airport", "Hotel", "The Final Diagnosis" and other. Texts of such kind are full of terminology of a relative field and terms here are not an alien element but an absolutely reasonable integral part of the general layer of vocabulary. Their main stylistic function is to create the colour of "professionalism" or "scientific character" and to give a story realism and truthfulness. In this case there is often no need to translate all terms by terms, especially if they are terms of narrow field, as it can lead to "overloading" of a text.

Sometimes, during translation, one should pay attention to a possible level of awareness of potential readers. For example, in the countries where are situated mountain resorts local people know the terms of skiing and winter tourism very well while for people who live near coasts these terms are mostly unfamiliar unlike terminology of fishing and shipping. So, it is possible that for

creation in a text the ski resort atmosphere it will be enough to translate only a few the most popular terms as in this case the important thing will be the reproduction of terminology of an original text and not the translation of terminological units. But at the same time a translator has to preserve the level of "professionalism" created by an author – not to exceed and not to lose it.

A translator usually does not have problems if a term in a source language has an equivalent in a target language. So, let's consider cases when an equivalent is absent.

A scientist for who a translation is made will not be satisfied with the describing translation of a term like: "a tree with white sweet-scented flowers and black berries"; he will not need a definition or an interpretation he will need an exact term, and the best will be a Latin name. So, if there is no equivalent a translator of a scientific and technical text either borrows it from the source language (transcription) or creates his/her own term (a calque, a neologism, a compound term and etc.) or gives the status of a term to a generally used language unit.

During fiction texts translation function other rules. The main tendency here is the same – to keep to terminological analogues but not always and not under all conditions.

If, for example, the word *черемха* does not have an equivalent in the Japanese language, appears in a botanist's story and is used by an author to create in a text the atmosphere of the blooming nature, during the translation into Japanese this term may be substituted "by the poetic image" into the closer for a reader *сакура.* Acceptability of such violations of fact accuracy can be explained by the difference in expressive means in a literary work and a research paper: in the latter it is a constant magnitude with the nominative function, and in the first one – a stylistic means of creation of a certain artistic image. That is why the "accuracy" of a term in both cases is not one and the same. If during translation of technical documents a name of one detail will be changed into another one by mistake it will spoil the translation; and in a belles-lettres work a well thought through substitution of such kind can become obligatory for an adequate translation.

But one should remember that if in a target language a term-equivalent is absent the least desirable are those methods peculiar to terminological translation. One should not enter into a fiction text a new, not existing in a relative sphere of science in a target language term. Word formation in the sphere of terminology should be performed by specialists – scientists, in cooperation with philologists; a translator of belles-lettres can apply to this only in emergencies and after consulting professionals.

During translation of a fiction text (unlike scientific one) other transformations are also acceptable: sometimes an aspectual concept can be changed into a generic one, for example *човен* instead of *шлюпка* or *ялик*; a descriptive translation is also possible – generally linguistic unit instead of a terminological one, approximate substitution by a synonym, and even a zero translation. And here the choice of the suitable method of translation depends on semantic significance of term and to what extent its meaning is revealed in a text etc.

For example, in the novel of P. Süskind "Perfume" it is used a great number of terms in the sphere of the perfume art: *lipstick, essence, civet, repellent, aromatization, maceration, cold enfleurage, distillation, rectification* etc. Most of them are unknown to many readers and a translator has to decide what to do in a certain separate case.

The most important terms from the point of view of general semantics and a story plot line an author (taking into consideration the possible unawareness of a reader) explains in a text himself. Yes, first he describes the process of perfume lipstick production and only after that he introduces the term by which this process is named in the perfume industry: Am kommenden Tag wurde *die Mazeration,* wie man diese Prozedur nannte, fortgesetzt (…) – Наступного дня мацерація, як називали цю процедуру, тривала (…) [16, p.199]; the same can be observed together with the introduction of the term *die Enfleurage* into the text – *холодний анфлераж* [16, p.204]. So, the translation of these terms from the source text by Ukrainian terms-equivalents is in the given case completely reasonable and correct method that provides the preservation of the stylistic function (demonstration of skills development and together with that preparation to the murders of the main character) and semantic significance of these two terms (they name processes by which Grenouille was getting an odor of the killed by him girls).

Translation of some other terms from the same novel by terms-equivalents is on the contrary not necessary, for example: *destillieren (дистилювати)* and *rektifizieren (ректикувати)* in the

sentence: Und Wein, von dem Grenouille einen Teil zu Alkohol *destillierte* und *rektifizierte* which in Ukrainian translation looks like: Було ще вино, частину якого Гренуй *дистилював* та *ректифікував* у спирт [16, p.206]. Translation of both terms through terms-equivalents (that would be very reasonable in a text of scientific style) in the given case is not irrelevant as it "overloads" the text of the novel. Besides, the meanings of these terms for an amateur in chemistry are rather close; let's compare: *to distil* – to purify liquid with the help of distillation [50, p.224], and *to rectify* – to purify alcohol and other boiling liquids from additions in special distillers [50, p.1024]. So, the most understandable is the translation of the Russian translator Ye.V. Vengerova, in particular: (…) и вино, часть которого Гренуй *перегонял в очищенный спирт* [15, p.227]. As we can see, in this sentence is preserved certain terminology and the level of "professionalism" foreseen by the author is not broken.

So, the choice of this or that method of terms translation in a fiction text is determined by a context, a stylistic role and a semantic meaning of each of these units.

When considering stylistic functions of a term and terminological or professional speech in belles-lettres it should be pointed out the use of a term by an author as an element of speech characteristic. For example, the speech of captain Cuttle from the novel of Charles Dickens "Dombey and Son" who says to Rob: "… twenty-four hours arter my loss, go you to Brig Place and whistle that 'ere tune near my old *moorings* … (= former apartment). If I answer in that tune, you *sheer off* (= go), my lad, and come back four-and-twenty hours arterwards; if I answer in another tune, *do you stand off and on* (=swerve from a straight course), and wait till I throw out further signals". («… через двадцять чотири години після мого зникнення рушай до Бриг-Плейс та насвистуй цю пісеньку біля моєї *старої пристані* (= колишньої квартири). Якщо я тобі не відповім тією ж пісенькою, ти, друже, *відчалюй* (= іди) й повертайся через двадцять чотири години; якщо я відповім іншою пісенькою, *відхилися від прямого курсу* (= відійди в бік) і тримайся на відстані»).

The term used in its direct meaning performs, together with this, the stylistic function and characterizes the main character not only from the professional side but also in relation to these or those features, and sometimes even in comic light. For example, other words of captain Cuttle: "…you know a angel, and are *chartered* a angel" («… ви знайомі з ангелом і ангел вас *зафрахтував*») in which the noun "angel" is used with a verb-term "charter" that violates the rules of semantic compatibility of words but together with this creates the necessary for the author comic contrast.

Translation of such text needs thorough preservation not of terminology but of this contrast. This can be achieved by the introduction of terms-equivalents or terms-synonyms.

In direct speech of the characters we can often find not separate terms but segments of a terminological text that imitate "professional language", and even more often - set phrases that by their origin belong to this or that branch of science but in the course of time obtained a figurative meaning. Such phrases were introduced into the generally literal language in the form of phraseological units but in a specific work, in lines of a certain character they (owing to their initial meaning) reveal a sailor, a technician, an accountant etc. in him. Yes, in the speech of captain Cuttle there are a lot of sea expressions: *поверни на три румба, тримай носа проти вітру, сісти на мілину, взяти на абортаж, etc.;* the captain does not "leave the house" he *weighs anchor*; does not "go somewhere" but *holds* or *changes the course* etc.

Such use of "professional language" can significantly complicate a translator's task: he/she needs not only find a term-equivalent and not just a good correspondence of a certain phraseological phrase (in another text a translation, as is known, can be performed also with the help of a phraseological unit built on a completely other image) – here one should search correspondence by two directions: terminological and phraseological; an idiomatic expression built on the basis of a former terminological phrase should be found. It should be mentioned that during translations from English and German into Ukrainian or Russian it is successfully realized owing to certain closeness of the sea terminology of the mentioned languages that coined close by their meanings phraseological units.

In the speech of Cuttle there is an example on which we can demonstrate the use of term in figurative meaning – in the form of metaphors, similes etc.. When he characterizes young Gay he

calls him a boy with «чудовим оснащенням». This biggest praise from the sailor would lose its figurativeness if it were translated as «хлопчик з прекрасними якостями» or «чудовий хлопчик». Very important are also the "sea elements" of extended metaphors of the captain: «Якби ви змогли побачити Соля Джилса, ви були б для мене більш бажані, ніж *попутний вітер для корабля, який потрапив у штиль*». ("If you could see Sol Gills, you'd be welcomer to me, than *a wind astern*, to a ship becalmed".

Memo for a Translator

The provided above prove that terms translation in a fiction text is not an easy task and requires from a translator the solution of a lot of tasks – from identification of terms on the background of generally used vocabulary, determination of semantic significance and stylistic role of term up to the choice of a suitable method of its translation.

So, when translating terms in a literary work one should mention the following:

1. The main rule of terms translation in a fiction text – a term should be translated by a term.
2. Unlike a scientific text terms in belles-lettres (especially native for a source language) are harder to identify; and the choice of methods of their translation is connected with their previous singling out of the layer of generally used vocabulary.
3. Deviations from the main principle of terms translation are allowed first of all in that cases when there is no equivalent in a target language and when a term in the given text does not have semantic loading and if it has lost connection with the relevant term system (used in a non-terminological meaning).

4. If in a scientific text a term-equivalent is absent in the target language this term should be borrowed or a new one should be created; in a fiction text other methods are preferred by trying not to violate "terminology" of a text, in particular: a term is substituted by another one (usually close by meaning and sometimes far not an equivalent), a generic concept is compensated by a gender one or a synonym of different level of proximity, or approximate equivalent (a simple word), or even a zero translation is used.

5. An underlying form of a term which is not taken into consideration during translation of scientific literature may have the meaning in a fiction translation, but only in cases when this form plays an analogical role in the original text. A transparent underlying form on the other side may become a source of a translator's mistakes – in the result of misidentification of a term or inability to combine terminological and figurative meanings during translation [11, p.285-286].

Tasks and questions for self-testing

1. Define a place and role of terminology of general literary language.
2. Name the main stylistic functions of terms in belles-lettres works.
3. Explain a translator's difficulties called by homonymy of terms used in a fiction text. Provide your own examples.
4. Tell about the specificity of terminological units translation in text of literary works. Provide your own examples.
5. Formulate the main rules of terms translation in belles-lettres works.

Terminological Planning in Ukraine

Principles of Selection of Outer and Underlying Forms of New Terms

Grounding on the positive experience of terms-formation in developed countries as well as in the countries of the Third World, and the positive experience of the Soviet terminological school and the positive experience of terms-formation in Ukraine, grounding on thoughts of leading home and world terminology scientists those international documents that ouch the questions of terminological planning, there were formulated the following principals of selection of outer and underlying forms of new terms:

1. Terms-root words should be conveyed depending on to which vocabulary of the source language they belong – primordial or borrowed. In the first case such terms can be conveyed

literally, as for example: Engl. *mouse* – Ukr. *миша* – Germ. *Maus* (as a computer example); besides, in this case one should not be afraid of polysemy because this polysemy will bear international character that will make it closer to a calque which also has an international element. If a given term is built on the basis of borrowed elements and it is not motivated in a source language then one should apply to its etymology. It should be conveyed in that form in which it appeared in the ==producer language== (especially in relates to elements of the Greek-Latin origin). And, of course, one should take into consideration how it looks in other languages.

2. Derivative terms (coined with help of affixes with a derivative meaning) are desired to be conveyed grounding on etymology (i.e. if the given term consists of Greek-Latin elements it is advisable to preserve them). It is not always possible to convey such terms by a calque that is why they should be translated descriptively.
3. Terms coined with the help of stems combining also may be translated by a calque but sometimes it can lead to formation of too bulky term-monsters. In such case the translation by a word-combination or preservation of the primary form will be better (again with consideration of etymology).
4. Terms-phrases should to be translated by calque.
5. Terms-abbreviations also should be translated and one's own abbreviations should be formed. Only in the case when this or that abbreviation will look identical in many languages – in the Ukrainian language it should also be preserved and convey with the help of the reverse transliteration.

In addition, to the new terms (regardless their structure) should be put forward the same demands that are put to any already existing terms, i.e. one should keep to the principles of euphony etc.

Terms Codification

Terminology can perform its main functions – denote scientific notions and satisfy specialists' communication needs – in that case if it will be generally accepted, regulated and will meet the requirements to terms.

Terms codification is the systematization of terms in dictionaries and reference books that direct speakers toward their correct use.

Nowadays in Ukraine a lot of dictionaries in different spheres of knowledge are issued. They are mostly dictionaries of such types: translation, encyclopedic, interpretation-translation dictionaries.

Translation dictionaries are the most popular type of modern terminological dictionaries. And most of them are Russian-Ukrainian publications which is conditioned by objective needs of professional communication as well as by a dependency syndrome produced formed in previous centuries: an attempt to prove that the Ukrainian language is able to name all scientific notions not worse than any other one (in different historical periods – Russian, German or Polish). The number of Russian-Ukrainian dictionaries is now much smaller.

Among bilingual terminological dictionaries, together with Russian-Ukrainian ones, the most popular are English-Ukrainian, Latin-Ukrainian etc.. Terminological dictionaries can be trilingual, more rarely – four- or sevenlingual.

Encyclopedic dictionaries provide explanations of scientific notions and no only fix terms. A dictionary article in lexicographical works of such kind consists of two parts – name of a notion and its definition. For example:

Import is bringing in from abroad on commercial grounds of goods, services, securities, capitals, technologies (in the form of foreign credits and investments) for realization on the home market of a country. Being a result of international division of labor import contributes to work time economy, more complete satisfaction of needs of the national economy and people.

Interpretation-translation dictionaries are works of the mixed type that translate a term into a foreign language (or a few languages) and provide its interpretation.

Standardization of Terminology

Standardization of terminology is creation of terms-models, terms-samples, normalization of terminology within one country (if it's a national standard) or within a group of countries (if it's an international standard). Standardized terminology is obligatory to use in official, scientific, business, industrial texts.

Fundamentals of terms standardization were established in Germany in the end of XIX – at the beginning of XX cent when many term systems needed their accumulated terminology to be organized, it was necessary to define the limits of field terminologies, to specify the meaning of each term. Theoretical basis of terms standardization were developed by the German scientist W. Wüster.

In the Soviet Union it was created a powerful scientific terminological school under the direction of Lotte D.S. which studied problems of terminology normalization. This process was under the vigilant state control: on the establishment of standards worked the Committee of Scientific-and-Technica Work (CSTW), Committee of standardization of measures and measuring devices, All-Union Research Institute of Information, Classification and Coding. The accepted State standards (Rus. ГОСТ) had the power of law.

The Soviet system of regulating documents withdrew the Ukrainian language from the sphere of scientific and technical activity. Over 20 thousand State standards (Rus. ГОСТ), 47 thousand Field standards (Rus. ОСТ), 80 thousand of Technical Conditions (ТУ) were Russian speaking. Even 600 republican standards of the USSR that were established and issued by the State Planning Committee of the USSR were also written in Russian.

In Ukrainian history the first regulatory terminological center can be considered Taras Shevchenko Scientific Association (the end of XIX – beginning of XX cent.). Around this association grouped leading terminology specialists of that time, authors or scientific works and textbooks listened to its resolutions. After some time the coercive authority in the Ukrainian terminology had the Institute of the Ukrainian Language (twenties – early thirties of the XX cent.). But these both structures did not issue state standards in the present-day understanding of this notion.

Today in Ukraine terminology standardization became a state concern. As is known, the rate of the state forming processes depends on the solution of linguistic issues (in particular terminological). Education, science, and especially production require a single, convenient, logical Ukrainian terminology.

Of course, such strict centralization as in the USSR is not observed but the necessity of state approach to creation of a single terminology for the whole country is obvious.

Grounding on these conditions in the State Standard of Ukraine it was developed the Conception of state systems of standardization, metrology and certification which was approved by the government. In July 1992 by the mutual Order of the Ministry of Defence and State Standard of Ukraine it was created a Technical Committee of Standardization of Scientific and Technical Terminology.

For terms standardization in many countries there were established relative institutes: in the USA it is the American Standards Association, in Germany - German Standards Committee, in France - French Association for Standardization etc.. Together with nation-wide associations function also company standardization groups and specialized scientific and technical societies of separate fields of science and manufacture.

National terminological committees in Europe and America are mostly out-the-state structures. Terms become normative after approvals of terminological meetings and conferences.

At present, in Ukraine there are developed over 600 state standards. Every five years they are reviewed and refined.

Terminological standard is set by the following **algorithm**:
1) Systematization of notions of a certain field of science or technology; their breakdown into categories (subjects, processes, qualities, quantities etc.); differentiation of aspectual and generic concepts;
2) Selection of all terms of the field taken for standardization (terms are selected from dictionaries of different issue years, articles, textbooks, periodicals, manuscripts and other sources);

3) Division of terms into the groups: a) narrow-field terms; b) interfiled terms; c) general scientific; only the narrow-field terms should undergo standardization;
4) Selection out of the group of terms-synonyms of a normative term (other terms are also presented but with the note "not recommended");
5) Selecting equivalents in English, German, French, Russian from the relevant international standards;
6) Formulation in the Ukrainian language a definition of a notion;
7) Standards reviewing by a professional and a linguist.

A final article of standard has the following structure:
- Name of a notion in Ukrainian;
- A short form of a term;
- Not recommended synonym;
- Generic concept;
- Aspectual concept;
- Equivalents in English, German, Russian, French;
- Definition;
- A formula or a scheme.

Tasks and questions for self-testing

1. Number the main principles of selection of underlying and outer forms of new terms and remember general requirements that are advanced to terms.
2. To what extent are terms-internationalisms desirable in comparison with proper terms? Say you opinion grounding on the material of previous lectures.
3. What is the difference between codification and standardization of terms?
4. What institution in Ukraine is responsible for establishment of state standards? In what does the work of this institution consist?

Test No.1

1. Branch of terminology aimed at the development of practical principles and recommendations concerning the formation of new terms and liquidation of drawbacks of already existing terms and term-systems, editing, regulation, translation and the use of terms is called:
   a) typological terminology;
   b) applied terminology;
   c) general terminology.
2. The science about compiling of special vocabulary dictionaries is called:
   a) onomasiological terminology;
   b) terminology;
   c) terminography,
3. Onomasiological terminology studies:
   a) modern functions of terms;
   b) different semantic phenomena peculiar to terms;
   c) structural forms of terms.
4. Terminology scientists-adherents of which approach support the preservation of the Ukrainian scientific and technical terminology in the form it acquired in the Soviet Union?
   a) moderate;
   b) conservative;
   c) ethnographic.
5. Total russification of the Ukrainian language started at the beginning of …
   a) 20s of the XX cent.;
   b) 30s of the XX cent.;
   c) 40s of the XX cent..
6. Terms within one term-system should not be characterized by:
   a) homonymy;
   b) antonymy;
   c) synonymy;

7. Terms are characterized by the tendency to:
    a) connotations;
    b) stylistic coloring;
    c) stylistic neutrality.
8. Systemacy of terminology is conditioned by (cross out unnecessary):
    a) logical connections;
    b) grammatical connections;
    c) language connections.
9. Substandard in documents, texts, in official speech is:
    a) professionalisms;
    b) terms;
    c) nomenclature name.
10. Certain emotionality evoked by characteristics of colloquial language is peculiar to:
    a) nomen;
    b) professionalisms;
    c) terms.
11. Which of the numbered types of terms is represented in the Ukrainian language in the least amount?
    a) terms-words;
    b) terms-phrases;
    c) multicomponent terms.
12. Letter-by-letter of phoneme-by-phoneme transfer of an original lexical unit with the help of the alphabet of a target language is called:
    a) calque;
    b) transcoding;
    c) concretization.
13. The type of transformation in the result of which a translated analogue becomes a word or a word-combination which is not a dictionary analogue and was selected with the consideration of the meanings of surrounding units and speech norms and traditions of a target language is called:
    a) generalization;
    b) contextual substitution;
    c) grammatical transformation.
14. By how many principle methods can be coined new terms?
    a) four principle methods;
    b) three principle methods;
    c) five principle methods.
15. Derivation belongs to the method of new terms coining at the expense of:
    a) use of borrowings;
    b) making out artificial words;
    c) use of a language internal resources.
16. Borrowing only of an outer form of a terminological unit takes place:
    a) almost never;
    b) under a complete borrowing;
    c) under a partial borrowing.
17. The main method of a partial borrowing transfer from a language-producer to a language-recipient is:
    a) transliteration;
    b) calquing;
    c) transcoding.
18. The Latin spelling of all proper names should coincide with:
    a) original spelling in a language-producer;
    b) pronunciation in a language- recipient;
    c) pronunciation in a language-producer.

19. "The Cyrillic alphabet" and "the Roman alphabet" are two phonological systems that serve almost all (cross out unnecessary):
   a) Asia;
   b) America;
   c) Europe.

20. Which of the given systems of conveyance of Ukrainian proper names with Latin letters is the most oriented to the English language?
   a) ТКПН;
   b) ТШКД;
   c) УКППТ.

21. Names of magazines in most cases are:
   a) transferred in the original form into a Ukrainian text;
   b) transcoded;
   c) conveyed with the help of a descriptive translation.

22. Language parallels can be (cross out unnecessary):
   a) regular;
   b) chance;
   c) borrowed.

23. Terms -"false friends of interpreters" can be found among (cross out unnecessary):
   a) adjectives;
   b) adverbs;
   c) preposition.

24. Divergence in the subject-and-logical content in "false friends of interpreters" is connected with the divergence of:
   a) neologisms;
   b) realia;
   c) means of translation.

25. Terms-phrases in most cases should be translated:
   a) descriptively;
   b) as a calque;
   c) by transcription.

26. Systematization of terms in dictionaries, reference books that orient speakers to their correct use is called:
   a) terms coining;
   b) terms standardization;
   c) terms codification.

27. Dictionaries that provide an explanation of scientific notions and not just fix terms are called:
   a) encyclopedic;
   b) interpretation-translation;
   c) translation.

28. Production of terms-models and terms-samples, standardization of terminology within one country or within a group of countries is called:
   a) terminology standardization;
   b) terms codification;
   c) terms coining.

29. When speaking of terminology linguists distinguish (cross out unnecessary):
   a) a branch of linguistics that studies terms;
   b) professionalisms;
   c) professional vocabulary in the structure of all words of a certain language.

30. In a fiction text a term first of all performs a determined by an author:
   a) stylistic function;
   b) lexical function;
   c) grammatical function;

31. The main principle of terms translation in a fiction text is:
   a) translation by a term;
   b) translation by a made up nonce word.
   c) coining of a new term.
32. In scientific and technical texts the names written in Latin are:
   a) transcribed;
   b) translated;
   c) remain in their original form.
33. In scientific and technical texts the nomenclatures mostly are:
   a) transcribed;
   b) remain in the original form;
   c) translated.
34. During translation of scientific and technical texts one should avoid:
   a) antonymic use of terms;
   b) synonymic use of terms;
   c) use of professional language.
35. During translation of scientific and technical texts, if in an original text it was found a semantic mistake connected with a term writing, a translator has to:
   a) provide a corresponding to an original translation;
   b) provide a zero translation.
   c) change a term.