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**HIERARCHY OF THE ENGLISH VERBS
AND THE ALGORITHM OF THE PREDICATE SEARCH**

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Любой язык представляет собой систему, состоящую из определённых элементов. Устойчивые связи и отношения между элементами системы образуют её строение (структуру). В статье анализируется одна из составных частей английского языка – глаголы, когда они формируют сказуемое. Сказуемое является самой сложной частью английской грамматики. Для облегчения изучения английского сказуемого разработана последовательность изучения английских глаголов, которая соответствует их выявленной иерархии, начиная с самого важного глагола английского языка – глагола *to be*. Далее следуют глагол *to have*, модальные глаголы и глаголы действия. Для облегчения перевода английского текста разработан алгоритм поиска сказуемого. Данная последовательность лежит в основе учебника, написанного автором статьи. При обучении по данному пособию студенты воспринимают английский язык как более понятный для усвоения.

Ключевые слова: английский язык, английская грамматика, английское сказуемое, иерархия английских глаголов, алгоритм поиска английского сказуемого, последовательность изучения английских глаголов.

The hierarchy of the English verbs

While searching the optimum way of studying English distinct structure of English grammar was found out.

Analysis of English grammar carried out from the point of view of a person with higher technical education corresponds to the philosophical current of the XXth century by the name of structuralism which is closely connected with the development of the humanities cognition. «Before the appearance of philosophical structuralism there appeared the structuralism as the method of scientific analysis which got the name of the structural analysis. The main point of it consists in picking out and analyzing a structure as an aggregate of «latent relationships» between the elements of the whole. The main principle of the structural analysis is «the methodological primacy of relationships upon the elements in the system». Another methodological principle is «the primacy of synchronism upon diachronism». The structural analysis supposes distraction from the development of the system, from its interactions and changes at different moments of time (diachronism), it concentrates on studying of internal mechanisms of the static system, on internal interactions of elements existing at one and the same moment of time (synchronism) [1, p. 223–224].

Any language changes with time, it is a developing system. But at the same time it is a stable enough system. Though any language changes as a result of interactions with other languages it keeps

its main elements and interactions between them for centuries. That allows us to identify it among other languages. So the **structure** of a system is formed by not changing «stable connections and relationships between the elements of the system. In other words system is elements and their structure» [1, p. 366].

In our case we can see that any language is a system. The structure of the English language is shown on the figures and schemes in previous articles [2, cc. 178, 180; 3, c. 14] and there we can see the elements of this structure. Some elements of the structure have the same features. Such elements in philosophy are called as classes of material systems or levels of the substance organization. «The structure of a substance can be pictured as a certain hierarchy of these levels» [1, p. 366].

English grammar is in complete agreement with the above description. The previous analysis showed that in the English language it is a predicate that has the most complicated structure. A predicate can be analyzed as a substructure of English grammar. A predicate consists of verbs that can be called as classes or levels of the predicate structure. And the most common element of a predicate is the verb *to be*. What is it – the verb *to be*? What does the verb *to be* present by itself?

We know that with the help of the verb *to be* we can answer the following questions:

1. Who or what is the subject in this world?
2. What kind of thing is it?
3. Where is it?

From the philosophic point of view the verb *to be* reflects the **existence** of some thing, creature or phenomenon in this world. Once this thing, creature or phenomenon exists it **has** some characteristic **features** (the second question) and is situated **somewhere** (the third question). All these questions can be answered with the help of a universal verb *to be*. With its help we can describe everything in the Universe, which exists independently from a human being. That's why the author of this article calls it a «natural» verb. Thus the verb *to be* is the main verb of the English language.

The next most common element of the English predicate is the verb *to have*. What does it present by itself? From the philosophic point of view the verb *to have* just as the verb *to be* reflects a natural phenomenon, namely, that every object existing in the Universe possesses some characteristic features. For example: *The Earth has an atmosphere.*, *The man has upper and lower extremities.*, *The tree has a trunk and a crown.*, etc. At present time people instead of the verb *to have* mainly use the word combination *to have got* which strictly speaking has a different meaning from the verb *to have*. The word combination *to have got* has the meaning of «**to reach, to receive, to get**». This combination reflects a result of certain efforts towards the achievement of some purpose. For example, if a person speaks about his / her family, he / she may use two variants: 1. «**I have a family**» and 2. «**I have got a family**». The first variant must be used when a person speaks about his parents, brothers and sisters whom a person has naturally, independently of him- or herself. The second variant must be used by a person who had made some efforts and had married because marriage is not given by nature independently of a person.

So with the help of «natural» verbs *to be* and *to have* we can know **what**, with **its description** and **where** we have it in this world and **what features** it is characterized by.

From the philosophic point of view when studying nature we are interested in what we can expect from the described object, i. e. we ask questions: «What is this object capable of?», «How high is the probability of fulfilment of this or that action by it?», «What must necessarily occur?» We can see that the next «natural» verbs are modal verbs *must*, *can* and *may*. And in our grammatical analysis we have found out that after the verbs *to be* and *to have* there appear modal verbs which can be combined with all the verbs of action.

Modal verbs already appear when we study the simplest form of the verbs of action – the infinitive with the particle *to*. Then modal verbs combine with the infinitive of the verbs of action without the particle *to*. Modal verbs are very often used in spo-

ken English. While studying the tense-aspectual forms of the English verb we always see combination of modal verbs with the corresponding complex infinitive. It means that modal verbs follow the verbs *to be* and *to have* according to the level of their importance; because of that they must be studied just after the verbs *to be* and *to have* and that contradicts common practice. Usually modal verbs just like *Participle I* and *II* are studied last.

The level of importance of modal verbs is confirmed by the fixed frequency of their usage. In the English words frequency vocabulary of almost 3 000 words (compiled in Japan) where the frequency of the word usage is shown we can see that the verb form *be* is on the second place according to the frequency of its usage (the definite article *the* is on the first place), the verb form *have* is on the 9th place, the verb form *do* is on the 25th. And then modal verbs go: *would* is on the 31st place, *will* – on the 33rd, *can* – 39th, *could* – 54th, *may* – 73rd, *must* – 86th, *should* – 95th. The most frequently used verbs of action are: *say* – on the 35th place, *make* – 37th, *go* – on the 50th, *take* – on the 60th place. There are more verbs of action further. But we can see that modal verbs are among the first 100 most frequently used words.

The modal verb *must* shows what action occurs in nature without fail. In other words it says that the action we speak about is 100% fulfilled. This is true for nature laws, laws of the state, traffic rules, parent's orders, commands of superior, etc. For example: a change of day and night, of seasons in nature.

The modal verb *can* expresses ability, it shows what an object is able to do. It expresses 50% probability of fulfilment of action depending on the ability or inability of operating object. For example, a seed is able to sprout in a tree if it is healthy, and it is unable to do it if it is damaged.

The modal verb *may* as well as the verb *can* expresses 50% probability of fulfilment of an action. But, unlike the verb *can*, with the verb *may* probability of the action depends not on the operating object itself, but on its environment: the nature or people. For example, the birch *may* grow high and upright in favourable conditions, and it may grow dwarfed and crooked in the inhospitable conditions of the Far North.

So, as «natural» verbs we regard the verbs *to be*, *to have*, *must*, *can*, *may*. The equivalents of modal verbs *to be to*, *to have to*, *ought to*, *should* are more concerned with the world of people, because the verb *to be to* expresses the planned action, the verb *to have to* – the compelled action, the verb *should* – advice, the verb *ought to* – different degrees of obligation, as well as expressing reproach. All these actions are particular to the animal world and, specifically, apply to people.

Table 1

	to be	to have	to do	to ask	to write	to study
I	am	have	do	ask	write	study
He She It	is	has	does [dAz]	asks	writes	studies
We You They	are	have	do	ask	write	study

Table 2

	to be	to have	MV	to do	to ask	to write	to study
I	am	have	} must can may	do	ask	write	study
He She It	is	has		does [dAz]	asks	writes	studies
We You They	are	have		do	ask	write	study

We know that a little number of modal verbs combine with all the variety of the verbs of action. All the objects of the nature fulfil some action. For example: *The Sun shines.*, *A tree grows.*, *A dog barks.*, etc. But the principal among the verbs of action is the verb *to do*, which occupies an intermediate position between the modal verbs and the verbs of action. If modal verbs reflect a degree of probability of the action, the verb *to do* reflects a real action itself.

While explaining tense-aspectual forms of the English verb, we usually use a table. For the Present Indefinite Active Tense it looks like *Table 1*.

We see there the forms of the main verbs of the English language – *to be*, *to have*, *to do*, and of two regular verbs – *to ask*, *to study* (with specific ending -y) and of irregular verb *to write* in the Present Indefinite Active Tense.

In the full form this table must also contain modal verbs (see *Table 2*).

We can see from *Table 2* that in order to make a general interrogative sentence the verbs of the first three columns are taken out to the beginning of the affirmative sentence. In order to make an interrogative sentence with the verbs of action we use the verb *to do* at the beginning of the general interrogative sentence. In this case it is called an auxiliary verb. In practice it behaves itself as a modal verb because an emphasizing construction still exists: *I do read*. Like modal verbs, it forms a question and a negative answer: 1) *I must go.* – *Must I go?* – *I mustn't go.* 2) *I can go.* – *Can I go?* – *I can't go.* 3) *I may go.* – *May I go?* – *I may not go.* 4) *I do go.* (emphasizing construction) – *Do I go?* – *I don't go.* The difference is in the fact that the verb *to do* has two forms, depending on the person and the number: *do* and *does*.

All the other verbs never stand at the beginning of the interrogative sentence.

So we have revealed six levels of the English verbs:

1. The verb *to be* – it reflects the existence of an object in this world.
2. The verb *to have* – it reflect the characteristic features of the object.
3. The modal verbs *must*, *can*, *may* reflect the level of probability of fulfillment of some action by the object.
4. All the other modal verbs and their equivalents. – They refer more to the world of people and animals.
5. The dual verb *to do* which on the one hand behaves itself as a modal verb in the interrogative and negative sentences and on the other hand is a usual verb of action.
6. All the other verbs of action.

The enumerated six levels of the English verbs we have arranged according to the level of their importance beginning with the most important and ending with the least important. In such a way we have defined their **hierarchy**. It means that in full accordance with the conclusions of philosophic science we revealed that the English language is a strictly structured system which has hierarchy of its levels formed by verbs.

The algorithm of the predicate search

While translating from the English language into Russian students usually begin to translate from the first word till the last one in consecutive order. In this case students are not able to translate in a correct way because English words often represent different parts of speech and have different meanings, so students may choose the wrong variant of the word translation for the sentence meaning. The author of this article thinks that translating of a sen-

tence is equal to solving of a mathematical equation with several unknown quantities. That's why the algorithm of the predicate search has been developed. As in the English language the predominating role is played by the predicate, translation of a sentence must begin with search for the predicate. According to the formulas of tense-aspectual forms of the English verb we see that the verb *to be* is always either a predicate itself or begins some tense-aspectual form. Hence, first it must be found out if there is one of the forms of the verb *to be* in the sentence, namely, *am, is, are, was, were*. The subject of the sentence will always precede the verb *to be*. The found form of the verb *to be* shows the number (singular or plural) of the subject of the sentence. When the subject is found the student must translate only the subject and the predicate. If the verb *to be* is the predicate itself then the translation gives the description of the subject or shows where it is situated. If the verb *to be* is followed by other verbs or participles then the student consults the table of tense-aspectual forms and finds how to translate this particular construction of the predicate. Having translated the subject and the predicate the student translates the other parts of the sentence.

If there is no the verb *to be* in the sentence then we look for the verb *to have* but only in two forms: *has* and *had*. Just as the forms of the verb *to be* these forms may be an independent predicate or begin one of the tense-aspectual forms. The form *has* shows that the preceding subject is in singular and after the predicate there must be an object answering the question: What has the subject? Having found the subject and the predicate the students translates them, the object and then the other parts of the sentence. To translate the sentence with the form *had* it is more difficult because the number of the subject is not known but in other respects the construction of the sentence is the same. If the verb forms *has* and *had* are followed by participles then the student consults the table of tense-aspectual forms and finds how to translate this particular construction of the predicate.

If there are no forms of the verb *to be* or the forms of the verb *to have* – *has* and *had* then the student must search modal verbs and not the form

have because this form can be preceded by modal verbs and then it will not be an independent predicate. Modal verbs are combined with the infinitive of a verb or of a tense-aspectual form so again first the student finds the predicate then he finds the subject in front of it then he translates these main parts of the sentence and then all the others.

In front of the verb form *have* there also may be auxiliary verbs *shall* and *will* forming the Future Tense hence if there are no modal verbs in the sentence the student must search these verbs *shall* and *will*. Having found the predicate he finds the subject and translates the sentence as described above.

On the next stage the verb form *have* is searched as a predicate.

The last variant of a predicate is a verb of action. It is easier to find it if it has the verb endings – *s* or –*ed*. It is more difficult for a student to find it if it is an irregular verb in the Past Tense. The most difficult variant when the verb of action is in the Present Tense and in plural.

So the algorithm of search of the predicate looks as follows:

1. to be – *am, is, are, was, was, were*.
2. to have – *has, had*.
3. Modal verbs - *must, should, would, can, could, may, might*.
4. Indicators of the Future Tense – *shall, will*.
5. to have – *have*.
6. All the other verbs that may have endings –*s, -es* (in the Present Tense), –*ed* (in the Past Tense for regular verbs), including irregular verbs in the Past Tense.

We suppose that this algorithm may be also used for computerized translating.

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HIERARCHY OF ENGLISH VERBS AND THE ALGORITHM OF THE PREDICATE SEARCH*R.I. Kuryaeva*

Any language is a system consisting of some elements. Stable connections and relations between the elements of the system form its structure. In this article, we analyze verbs, one of the main parts of the English language, at the moment when they act as a predicate. The predicate is the most complicated part of English grammar. In order to facilitate the study of the English predicate, a particular sequence of studying English verbs has been developed. It corresponds to the revealed hierarchy of the English verbs beginning with the most important verb – *to be*, which is followed by the verb *to have*, then *modal verbs* and finally the *verbs of action*. To make the task of translating an English text easier, an algorithm of the predicate search is offered. The proposed sequence is the basis for the manual written by this article's author, which is intended to make English an easier language to learn and understand for the students.

Keywords: English language, English grammar, English predicate, hierarchy of English verbs, algorithm of the English predicate search, sequence of studying English verbs.

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