ELEMENTS OF THE GRAMMATICAL THEORY OF TRANSLATION

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Preamble

Armenian grammatical thought is rooted in millennia old development of the Armenian language. Since the times of St. Mesrop Mashtos and his disciples - St. Translators (5th c.) it accumulated the best traditions of the Armenian linguistics. N. Adontz noted: "Grammatical literature is one of the significant spheres of the ancient Armenian literature. As any other area of the spiritual life it has its problems the study of which has a definite interest. Although the grammatical research had separated long ago and became an independent subject; in ancient times it was studied by rhetorics and philosophy, generally considered to be an important link of conceptual system. This circumstance underscored the significance of grammatical knowledge assigning to it special significance"[1].

THE BEHAVIOR OF THE NOMINAL STRUCTURE OF VERB IN TRANSLATION

THE LINGUISTIC POSITIONS

Here is the definition of a linguist's objectives as given by Ch. Fries: "Being a scholar, the linguist seeks for pure knowledge. His purpose is to know the facts and to understand the processes taking place in the language. The issues of practical use of the knowledge that he has procured have to be resolved by others"[2].

In any case a linguist cannot embrace all problems of language, its theory and practice. According to Bloomfield, "The situations prompting people to talk embrace all objects and events of their world. In order to produce an exact definition of the meaning of each linguistic form, we have to possess a scientifically precise knowledge of all that makes part of the speaker's world".[3] Further in Bloomfield we read: "An operating system of signals, like a language, can have only a small number of signaling units, while the things denoted by the signals, in this case the whole content of the physical world, can be indefinitely variable. Thus, the signals (linguistic forms, the smallest signals whereof, the morphemes, are made up of various combinations of signaling units (phonemes), each of those combinations being arbitrarily assigned to some phenomenon of the physical world (a sememe). One can analyze the signals, rather than the things eliciting the signals. That is a corroboration of the principle that a

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[1] Նիկողայոս Ադոնց, Երկեր, հինգ հատորով, Գ. Հայագիտական ուսումնասիրություններ։ Հատորը հրատարակության պատրաստեց Պ.Հ.Հովհաննիսյանը, Երևան, 2008, էջ XV.

[2] Charles Fries, The Structure of English, New York, 1952, p. 4.

[3] L. Bloomfield, Language, New York, 1933, p. 139.

linguistic research should always begin with a phonetical form, rather than with a meaning. The phonetical forms, e.g., the complete stock of morphemes in a language, can be described in terms of phonemes and their sequences, which is the basis whereon they can be classified and arranged conveniently, say, alphabetically; analysis and systematic recording of the meanings – in our case of the language *sememes* – could have been done by some Omnipotent Observer".[4] As further on noted by L. Bloomfield: "…the meaning of a complete sentence is a somewhat "complete and new utterance", i.e., the speaker suggests that his utterance is an event or an indication that this utterance is in some way modifying the situation of the listener. The more measured is the flow of speech, the more probable it is for the sentence to be complete. The nature of the episememe of complete sentences has long been a subject of philosophical discussion: to precisely define this (or any other) meaning, one should go outside linguistics". What we see here is a definition of the sentence as a grammatical unit of speech, rather than as a semantic unit. L. Bloomfield writes: "Efforts to make use of this meaning (or any meaning), rather than the formal attributes, as a starting point for any linguistic discussion, is a serious mistake".

An interpretation of this statement will show that it is not the meaning itself that has to be ignored, but rather the initial system has to be constructed without reverting to meaning (as a starting point for any linguistic discussion). As also noted by L. Bloomfield in the preceding text: "The nature of the episememe of complete sentences has long been a subject of philosophical discussion: to precisely define this (or any other) meaning, one should go outside linguistics".[5] The thesis that can be perceived here is not the one that "the meaning has no meaning", but that the meaning is produced by a given linguistic material and does not comprise the work of a linguist. The attempts to define the sentence with regard to the meaning are classified as "philosophical dispute" by L. Bloomfield. This type of *dispute* has nothing to do with the linguistic work in principle. That will yield the provisionally adopted methodological concept on the relations between language and mind.

The linguist works with the data afforded to him by the language. Everything which lies beyond the direct data of linguistic material does not concern the linguist and is beyond the sphere of his interests. This issue has been very precisely commented upon by Charles Bally: «To vividly capture the actual relations between thought and speech, converting them into expressive colorations of phenomena, one has to possess a special feeling. That may involve a useful knowledge of the principles of psychology, very much like studying the social aspects of speech will include the concepts of basic rules governing the society. However, the study of auxiliary subjects should be done carefully lest they should be brought to the foreground, having a secondary significance,

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[4] Ibid.

[5] Ibid. p. 172.

for our research does not concern either psychology of speech, or, even less so, sociology . We should focus our efforts upon the exterior, rather than the interior of the speech acts, speech being for us the target, rather than the means».[6]

The linguist's objectives are defined by A. Martine in a similar way: "The linguist's objective is started at the moment when of all physical and psychological data we select the ones directly taking part in establishing communication. The selected elements are the elements that could not have appeared arbitrarily in their relevant context, i.e. the ones used by the speaker *intentionally*, and reacted to by the listener identifying them as a communicative effort on the part of his party in conversation. In other words, only those elements are relevant which are information carriers. If the initial analysis of the utterance *prends le livre* shows three units, that means he can see three options in this utterance: *prends* instead of *donne, jette, pose* etc., *le* instead of *un; livre* instead of cahier, canif, verre».[7]

Thus, a study of language is starting wherever there is a choice among the substituting elements. Hawkett, a US linguist, has given the following definition of the phonological system of the language: «not so much a set of sounds, but rather a network of differences among the sounds».[8] By Bloomfield, «the speaker is trained to react to units conveying the differences among linguistic elements while ignoring the total acoustic mass reaching his ears».[9] The problem per se on the relationships between language and thought[10] may be very interesting, however the language matter displays no data to resolve it. Therefore this problem has nothing to do with linguistic work. This calls for another quotation, the definition of language by Bloomfield: «In human speech different sounds have different meanings. To study a language is to study the coordination of certain sounds with certain meanings».[11]

An accurate interpretation of this definition regards language as coordination of certain sounds with certain meanings. To study language is not to study sounds or meanings. To study language is to study *coordination* between sounds and meanings. In other words, studied in a language is not the signs or what they signify, but rather the mechanism of operation of the signs.

The statement "man thinks using the language" contains very little scientific information. In a similar way one can say: "man can see using the electromagnetic waves". A native speaker exerts no great efforts to meditate over the grammatical model of utterances, although he may occasionally think with regard to their contents. It is thus easy to imagine that the grammatical model is an automatically operating

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[6] Ш. Балли, Французская стилистика, М., 1961.

[7] A. Martinet, Elements of General Linguistics, London, 1964, p. 41.

[8] See: E. I. Briere, An Investigation of Phonological Interference, – Language, Vol. 42, No. 4, Dec. 1961, p. 768.

[9] L. Bloomfield, op. cit., p. 79.

[10] См. Ш. Балли, ук. соч., с. 194, A. Martinet, op. cit., p. 18, Ф. Соссюр, Курс общей лингвистики, М., 1933, с. 113.

[11] L. Bloomfield, op. cit., p. 27.

mechanism given once and for all. Meanwhile, the contents are prompted by the situation and cannot be placed in a specified model (as viewed by the linguist). When effecting an act of speech, the contents seep through an automatic grammatical model assuming a form of data expressing knowledge. It is to be acknowledged that an assumption of this type is very distant from reality and can be adopted as a scholarly abstraction.

Long ago Dionysios Thrax (c.170 – c.90 BC) formulated: Γραμματικὴ ἐστίν ἐμπειρια τῶν πάρα ποιηταιs τε καί συγγραφευσιν ωs επι το πολυ λεγομενων[12] ("Grammar is an experimental knowledge of the usages of language as generally current among poets and prose writers")[13].

The contents can be imagined to have existed in an abstract sense prior to passing through the grammatical model in the form of language elements – words and root terms. Almost all these words have a wide-ranging ambiguity assuming a specific semantic indication when relevantly selected and correlated with the current situation. Thus, for purposes of scholarly analysis it can be assumed that a specific meaning and a grammatical model are two individual mechanisms existing autonomously. These two mechanisms are interconnected in the way that they operate simultaneously. This operation of the language can be roughly imagined as the following mechanical model: there is a sieve with multiple meshes of differing configurations. Passing through the sieve is a current of friable material, say stones . Each stone belongs to a certain group, all stones of the same configuration group can go through certain holes in the sieve having the relevant configuration . Let us fancy that mounted in the sieve holes are electric contacts which become closed in certain groups after a certain feed of stones has passed the sieve. A simultaneous closure of all contacts will produce a signal at the device output which will produce a certain response. The type of response and the mechanism triggered by this response will not affect the sieve operation . The sieve will operate independent of the external response, and the stones passing down are only those that can pass through the holes. The contacts close only in case a portion of stones passes simultaneously. Then the signal will appear on the output…[14]

While comparing this mechanical model with language, stones are roots of words, while the sieve is the grammatical model . Cogs and curvatures on the borders of apertures are grammatical endings and contingencies of word combinations, while the groups of contacts is a code for letting through only the correct models of sentences .

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[12] «Քերականութիւն է հմտութիւն որք ի քերդողաց եւ ի շարագրաց իբրեւ բազում անգամ ասացելոց» (Մեկնութիւն Դալթի Փիլիսոփայի. Արուեստ Դիոնիսեայ Քերականի. – Ն.Ադոնց, Երկեր, Գ, Երևան, 2008, էջ 1):

[13] Dionysios Thrax, The Grammar. Translated from the Greek by Thomas Davidson, St. Louis, 1874, p. 3. Cf. Grammatical Theory and Philosophy of Language in Antiquity, ed. by Pierre Swiggers and Alfons Wouters, Leuven, 2002, pp. 11, 68, 158.

[14] B. Delbruck, Grundlagen der neuhochdeutschen Satzlehre, Berlin und Leipzig 1920, S. 13; Andre Martinet, A Functional View of Language, Oxford 1965, p. viii.

The end signal is a fabricated utterance, while the reaction to the signal is the situational response by the receiver of the message. Assuming this pattern clearly shows that user response does not affect the operation of the "sieve-and-stones" device, i.e., the device operation is indifferent to its response to the signal.

If the output shows a certain signal, the operation of the device is regarded as satisfactory. This interpretation of the language explains the situation when an interpreter successfully translates a text with incomprehensible contents. Although the question on the unity of language and thought is not the subject of this presentation, it will be interesting to note the following. The thesis that the translator has to have a knowledge of the subject of translation is in contradiction to the thesis on the unity between language and mind . Given that language and mind are united, and the language provides a precise expression of thought, THERE IS NO THOUGHT BEYOND WHAT IS EXPRESSED BY LANGUAGE. The requirement to know the subject refers us to extralinguistic factors. If it is proven that the author of a text writes what he thinks, then the translation should restrict itself to translating what is written.

Meanwhile, to remain within the boundaries of the original text, an ambiguity whould be translated by an ambiguity, polisemantics by polisemantics, indeterminacy by indeterminacy, etc. Good results could be obtained by a possible amplification of ambiguity or indeterminacy in the target text as compared with the same phenomena in the source text. This type of operation can produce less reduction of meaning than the operation of reducing the ambiguity or indeterminacy. Maintaining the indeterminacy of text is a difficult task when translating from an abstract-type language, like French, into a concrete-type language, like German.[15] It is only natural that inversely, when translating into an abstract-type language, this difficulty becomes an advantage.

In the next example, the verb when translating from English into Russian having no unambiguous counterpart, is to be particularized using an adverb, while the direct object of the verb is translated using a comparative phrase:

Diamond belt backings consistently outlast the abrasive coatings[16].	Основа алмазных лент всегда служит дольше, чем абразивные покрытия.

A rational translation does not consist in narrowing the content of the text, but rather expanding it or attempting to leave it within the limits of the original, e.g.:

Abgesehen von den Fallen, bei dennen man auf Grund von Gegenfeldern die hohe Koerzitivfeldstarke dieses Werkstoffes ausnutzen kann, wird man ihn *fur magnete* verwenden konnen, deren	Кроме случаев, когда высокие коэрцитивные силы этого материала используются по принципу встречных полей, материал используется также *для магнитов*, размеры которых

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[15] Ст. Ульман. Дескриптивная семантика и лингвистическая типология, - Сборник «Новое в Лингвистике», с. 27- 28.

[16] Tooling, USA, May 1967, p . 54.

Abmessungen so gewalt sind, dass die   подобраны таким образом, что рабочая
Arbeitspunkte unterhalb des optimalen   точка лежит ниже оптимальной рабочей
Arbeitspunktes liegen[17].   точки.

The Russian translation here could have read … *материал используется также для изготовления магнитов*, however the word *изготовления* is not present in the German text. By introducing the new concept we reduce the text semantically, whereas to retain the original meaning, it will be safer to leave the meaning unmodified or even to expand it . Therefore *fur magnete* is translated as *для магнитов*, although stylistically this translation is hardly the best one.

The latest argument is of a character which is purely theoretical or fundamental . Reality does not leave any doubt that a good translation mostly results from the knowledge of the two languages plus the subject of the discourse . However, the operation of a live translator is not analyzable within a single discipline . Therefore, the purpose of the linguistic theory of translation is to provide an analysis of translator's activities within the framework and terminology of linguistics. This type of analysis may seem formal and dehumanized, however, it can provide a basis for building a theoretical system with elements generated by one another with no controversy.

The idea that a linguistic text should be studied based solely upon itself, is supported by the concise and elegant discourse from L. Bloomfield: "Grammatical forms are not an exclusion from the necessary principle, strictly speaking, it is an assumption, that language can convey only the meanings attached so some formal characteristics: speakers can signal only using signals"[18].

A very dissimilar view on methods of linguistic studies is expressed by G.V. Kolshansky: "…a distinguishing feature of natural language connected organically with its function, is its indissolule association with reasoning, with the content-related part, the association rulling out the possibility of a realistic employment of language in only one section of the language, be it formal or content-related". And a little further on: "A formal model of a living language is its more or less successful snapshot, not the whole language, for that matter, but only one of its aspects. A complete formalization of language is associated with a host of limiting conditions that are unfeasible, and would require the inclusion of semantic features like meaning or content, which are beyond the language per se, those conditions would require that the meaning of utterances be correlated with the existing objects, which is the domain of public practice. Linguistic operations therefore should be rather aimed at constructing the models approaching the functioning of the living language, rather than the formal (semiotic) systems"[19].

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[17] "Zeitschrift fur angewandte Physik", DDR, Marz 1963, S . 264.

[18] L. Bloomfield, op. cit., p. 168

[19] Г. В. Колшанский, Логика и структура языка, М., 1965, с. 52, 66. The idea to regard language from this vewpoint of public practice is very attractive, however it is not within the realm of the current presentation.

Let us return to the mechanical model of the language suggested earlier. It can be imagined that during the act of speech the mind is busy selecting the stones and correlating them with the reaction to be elicited. As to the screen and the contacts, those operate automatically.

For those who wish to study the whole mechanism, the most accessible object is the screen, i.e., the automatically operating grammatical model. The stones are too numerous, they are even difficult to list.[20] The number of possible responses is even more numerous, since the stones can be differently combined and ambiguous. As to the screen, it has limited sizes and contact combinations, and are estimated at a limited number. Therefore, it is sufficient to build a screen, and one can work with any stones and any reactions, for the stones will never end, and only a small part of them will pass through the screen.

Assuming that language is a complex system consisting of several simpler systems, it fits the following feature of a complex system: "No complex system of a higher level is reducible to simpler ones, since it is a regularized interaction of those simpler systems. Answering the question of what is a given complex system would mean to uncover the laws and properties of this interaction, rather than the laws and properties of the simpler systems participating in the interaction".[21]

The first to have posed an issue of the primacy of Syntax in linguistic analysis was F. Sossure: "… it would have been a great misjudgment to regard a linguistic element just as a combination of a certain sound with a certain concept. To determine it so would be to isolate it from the system wherein it is contained; that would yield a false idea as if it were possible to start building a system from the sum of linguistic units, while in actual fact it is needed to depart from a total entirety in order to reach the therein enclosed elements through analysis."[22]

Resume: Having studied the grammatical model of language, we once and for all aquire an automatic mechanism for fixing and transmitting any type of semantic information. The knowledge of word forms facilitates the construction of the grammatical model, but is not related to it in principle and makes no part in the model. For comprehending the mechanism of language operation, of greatest interest is the grammatical model of the language.

THE UNIT OF TRANSLATION IS THE SENTENCE

The language definition produced by L. L. Bloomfield clearly has an indirect character: "… to study language is to study coordination between certain sounds and certain meanings". We look here at what means to study language, rather than what

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[20] Ж. Вандриес, Язык, М., 1937, с. 177-178, cf. Г. Пауль, Принципы истории языка, М., 1960, с. 134-135.

[21] Л. Ительсон, статья «Дискуссия о мышлении», журнал Техника – молодежи №2 1967, с. 24.

[22] Ф. Соссюр, ук. соч., с. 113; см. тж. Ш. Балли, Французская стилистика, М., 1961, с. 295.

language is per se. This modest definition is quite natural: a scholar cannot take the liberty of defining what he knows deficiently.

Neither Charles Fries takes the risk of giving a definition of language in his book "The Structure of English". L. Tesnière, too, regards language as a directly given object of study. Having taken for granted the sentence as the unit of language, he states it in the following definition: "A phrase is an organized ensemble with words as the constituent elements"[23].

For the theory of translation the problem of defining the language and the sentence is of even less interest than for linguistics. Translation is a transfer of some meaning expressed in terms of one linguistic system, to terms of another linguistic system. This general definition contains no limitation of the amount of meaning, nor any hint at individual units. In translation, what is being translated into another sign system is just the currently available amount of meaning, so that the modern practice of translation being done in consecutive fragments or "sentenses" may come to be quite accidental. In real situations it oftentimes occurs that the actual sign systems resemble one another, and the written text is commonly translated sentence by sentence. Admitting this assumption opens the way to one of the many definitions of the sentence matching this occasion very precisely: "Sentence is a word or a group of words placed between the initial capital letter and the final punctuation sign or between the two terminal punctuation signs". This definition leaves underivable the concepts of *word, capital, letter* and *terminal, punctuation, sign*. Fortunately, these concepts are common for the available sign systems and as such can be taken for granted. Thus, it shall be adopted as a working statement that sentence is a text between two full stops, and since any practicing translator will attest to the translation being done sentence by sentence, it can be assumed that the unit of translation is one sentence. This assumption is done to delimit the theory. The contravening cases can be considered within another theory.

ON DEVELOPING THE GRAMMATICAL NOTIONS COMMON FOR THE LANGUAGES UNDER COMPARISON

The domain of the "Theory of Translation" is aimed at sorting out and listing the systemic phenomena occurring in translation and concerned with the two languages involved. Even more significant theoretically are phenomena which are common for more than two languages. The theory of translation also takes interest in phenomena characteristic for one language only, but needing to be explained and classified for translation. E.g., in Russian and in Armenian subordination of adverb to noun is possible:

только он знает об этом   միայն նա գիտէ այդ մասին

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[23] L. Tesnière, Elements de syntaxe structurale, Paris, 1966, p. 11.

The fact per se of adverb being subordinated to noun can be regarded as a certain violation of rules, for an adverb is known to modify a verb. For the theory of translation it is important to understand the true grammatical nature of the phenomenon of subordinating an adverb to a noun.

In the sentence *только он знает об этом* the nature of the adverb *только* can be clarified by translation:

Lui seul sait cela   He alone knows that

It is seen that in the English and French text the structure *noun – adjective* is formed with greater ease than *noun – adverb*. In the Russian text the adverbial form in this case can be treated as a morphological accident. This form can be regarded as a result of transformation "adverb – adjective", i.e., in the text *только он знает об этом* the word *только* may be regarded as an adjective, an attribute of the noun *он*.

All that also concerns the adverbial groups modifying the noun. Those adverbial groups can be regarded as a result of an adverb transformed into an adjective and are to be translated as adjectives, e.g.: *устройство для устранения дебаланса*

The adverbial group **для устранения дебаланса** is an adjective to the noun *устройство*, This sentence can be presented in translation as *балансировочное устройство* and translated into another language either by retaining the adverbial group, or using a pure adjective:

Vorrichtung zur   Auswuchtvorrichtung   Balancing device   հավասարակշռության
Beseitigung der   հարմարանք
    Unwucht

It is a frequent occurrence in translation that individual units of the source text and target text belong to different grammatical categories. While analyzing the substitutions occurring between the grammatical categories when representing the same semantic units, it can be noticed that the substitutions are being done within a single grammatical node, but a larger one and more generalized than the scrutinized categories being substituted.

Thus, when substituting a noun with an adjective

La grandeur du danger ne   Die grosse Gefahr   Большая опасность не
    le decourageait pas   entmutigte ihn nicht   пугала его

the individual categories like noun and adjective are subject to substitutions, however, a wider category, viz., a substantive node along with the attribute: *La grandeur*

du danger – Die grosse Gefahr, does not show whatever substitution, so that the units of both source and target have an unambiguous categorical content.

The same phenomenon takes place in substituting a modifier with a predication within a single verbal node:

SINCE THIS EFFECT IS COMPUTED WITH G… REPLACING G(K)…[24]	ТАК КАК ПРИ ВЫЧИСЛЕНИИ ЭТОГО ЭФФЕКТА ВЫРАЖЕНИЕ G(K)… БЫЛО ЗАМЕНЕНО ВЫРАЖЕНИЕМ G…

Here, as in the previous case, there is a change of places between a category and its attribute, not between a noun and an adjective, but rather between a predicate and a modifier, viz.:

PREDICATION	MODIFIER
...this effect is computed	...при вычислении этого эффекта
with G replacing G(k)	выражение G(k) было заменено выражением G

If in the indicated generalized categories one of the terms is distributed in source and target in the same function, but under differing morphological settings, then this term belongs to one and the same grammatical category, like the quoted case with an adjectival usage of the adverb *только*.

If analysis shows the replacements of sentence terms and other syntactic phenomena to be the manifestation of lexical or semantic compatibility, it does not contradict the principle of scrutinizing the translation for replacements and substitutions. This principle deals with observation and statement of the facts, however, in recording the facts, their origins may remain unexplained. The origins may, or may not come to light through classification of facts, at best. What is important in scholarly research is detecting and recording a fact, stating a certain development or occurrence. As to the cause-and-effect relations, they may come to be beyond the competence of the researcher. The truth of an interpretation cannot always be certain, while the truth of a fact is apparent.

In the present discourse, theoretical regulations are not invented, but rather derived from the available textual evidence, making use of the translation results which are correct beyond doubt. Thus, the truth or falsity of whatever sample of translation is not the subject of the theory. The theory of translation is in principle constructed only upon positive materials, upon correct versions.

Quoted herein are cases of translation which is deliberately simplified and adjusted to the original. That has been done to demonstrate with clarity the nominal structure of the verb which in case of a heavily edited translation can undergo many modifications and will be not readily comparable with the original.

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[24] Information and Control, Vol. 7, No. 3, Sept. 1964, p. 379.

When scrutinizing certain phenomena of translation, those phenomena are distinguished from a group of other phenomena so that it is sometimes needed to ignore the surrounding phenomena for a more distinct identification of the phenomenon in question. E.g., when considering the sentence:

Changes in wheel hardness and configuration AFFECT STOCK-REMOVAL CAPABILITY AND BELT LIFE.[25]	Изменение твердости и формы ролика СНИЖАЮТ РЕЖУЩЕЕ ДЕЙСТВИЕ И СРОК СЛУЖБЫ ЛЕНТЫ.

- In this English sentence we are interested in the operation of the verb *affect* and its second valency, i.e. in what way the verb *affect* governs its object.

The word *affect* has no equivalent with a similar meaning and valency, therefore, the translation of this verb can be facilitated by a semantically imprecise but structurally identical term *снижают* in order to regard one aspect of translation: the matching nominal structures of the verbs in both the source and target texts. In other words, translation is being tailored to the theory, resulting in a single phenomenon yielded from the complex process of translation. Other aspects of the process can be used by analyzing different versions of the translation, with an ever growing complexity of the theory as the individual phenomena attain more and more clarification.

Thus, in case of individual errors that might be encountered in the text herein do not modify the case under scrutiny, those errors may be assumed to be negligible, being irrelevant to the theory. Thus, in some cases the suggested translation may be not the best one possible, but rather the one most advantageously elucidating the given phenomenon. It may happen that some phenomenon will receive an interpretation to be understood when compared with a primitive version of translation. That interpretation, if compared with a polished idiomatic translation may come to be too simple. Analysis of highly idiomatic versions may require a more sophisticated procedure. In order to attain this level of analysis, it seems necessary to first develop a more primitive methodology, so as to retain the potential to proceed from a simple to a more sophisticated form of analysis.

Let us consider a sentence

Potentiometers 191 and 192 are provided to adjust the magnitude of the signal from transducer G TO CORRESPOND to the magnitude of the terms BS and CS in Equations Nos. 5 and 6.[26]	Потенциометры 191 и 192 регулируют амплитуду сигнала от преобразователя G С ТЕМ ЧТОБЫ ОНА СООТВЕТ-СТВОВАЛА значениям членов BS и CS в уравнениях №№ 5 и 6.

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[25] "Tool and Manufacturing Engineer, USA, March 1965, p. 112.

[26] US Patent #3044304, para. 14.

Here, the adverbial modifier of purpose expressed by the infinitive TO CORRESPOND is regarded as an adverbial term of a simple sentence, since the infinitive is assumed to be a non-verbal category, or, more precisely, it shows in this case nominal features. It is further suggested that this term of a simple sentence is to be translated into Russian using a subordinate clause. Here, the translation using a clause is done to illustrate the given phenomenon in the English sentence and to associate this material with other phenomena similarly interpreted as terms of a simple sentence in the source language while calling for a clause in the target language. What is being disregarded in this case is the capacity to translate the English sentence into Russian idiomatically, e.g.:

Potentiometers 191 and 192 are provided to adjust the magnitude of the signal from transducer G TO CORRESPOND to the magnitude of the terms BS and CS in Equations Nos. 5 and 6.	Потенциометры 191 и 192 регулируют амплитуду сигнала от преобразователя G до значения членов BS и CS в уравнениях №№5 и 6.

FORMAL ANALYSIS AND MEANING

A fundamental theoretical assumption herein is the primacy of syntax with regard to other sections of linguistics. Syntax is regarded as a complex system irreducible to its components. Moreover, syntax is of interest to the theory of translation due to its universal character.

As noted by O. Jespersen: "The issue of a universal morphology has never been raised; obviously, the existing formatives, as well as their functions and meanings, may be so different in different languages that all their related items have to be expounded in the grammars of the specific languages, perhaps with a minor exception of certain generalities on phrasal stress and intonation. It was only with regard to syntax that there has been a tendency to seek for something common for the human speech altogether, something that is resting directly upon the very nature of the human thinking, or logic, thus standing above the occasional forms populating whatever specific language". Setting hopes on formal classification, Jespersen still underscores the role of meaning in linguistic analysis: "I think that everything has to be taken into account: the form, the function, and the meaning. It however should be emphasized that the form, being the most evident criterion, can prompt us to recognize the categories of words which do not constitute individual categories in other languages, while the meaning, though being of crucial importance, defies analysis; so, the classification cannot be based upon brief and readily applicable definitions». When discussing the formal identification of linguistic categories, O. Jespersen invariably means the comparative syntactic analysis: «...while trying to avoid imposing upon a certain language the differences and categories of other

languages having no formal counterparts in this specific language, we have to be apprehensive of another error, viz.: denying the existing differences conveyed in the language in its entirety, only because in this specific case they lack a visually recognizable indication. The problem of how many and what categories are distinguished by a given language has to be resolved for the language in tote, or at least for the entire word classes; that will require definitions to be made of the functions having formal attributes, even if they should be unseen at times; the categories thus established will have to be applied to more or less singular cases, offering no exterior to serve as a guide».[27] Evidently, the cases with no outward appearance will have us to go to the meaning.

The importance of meaning for linguistic analysis is noted by F. Hiorth, a linguist of the extreme formal tendencies: "The fact that this work deals a lot with the formal characteristics of the sentence does not mean that the formal description of language is to be regarded as methodically proper. The formal description of language is only one type of language description amidst many other types. The advantages of a non-formal description of language are evident; attempting to describe language without making use of the meaning can be compared with exploring the world using no vision. Such an attempt may be interesting, but it is hardly rational".[28]

THE SYNTACTIC CONCEPT BY LUCIEN TESNIÈRE

The purpose of this work is to pose some basic issues of translating verbs along with their nominal structure into substantives and modifiers. It is without saying that it is not about listing all possible versions of translation. The task is focused to posing the basic issues and comprehending the methods of possible classification of cases. The method herein adopted is that of structural syntax by Lucien Tesnière, as described in his "Élements de syntaxe structural".

The terms used here are precisely those borrowed from Tesnière for the simple reason that no one has ever said it better.

SUMMARY OF THE METHOD OF SENTENCE ANALYSIS BY L. TESNIÈRE.

BASIC SYNTACTICAL OPERATIONS

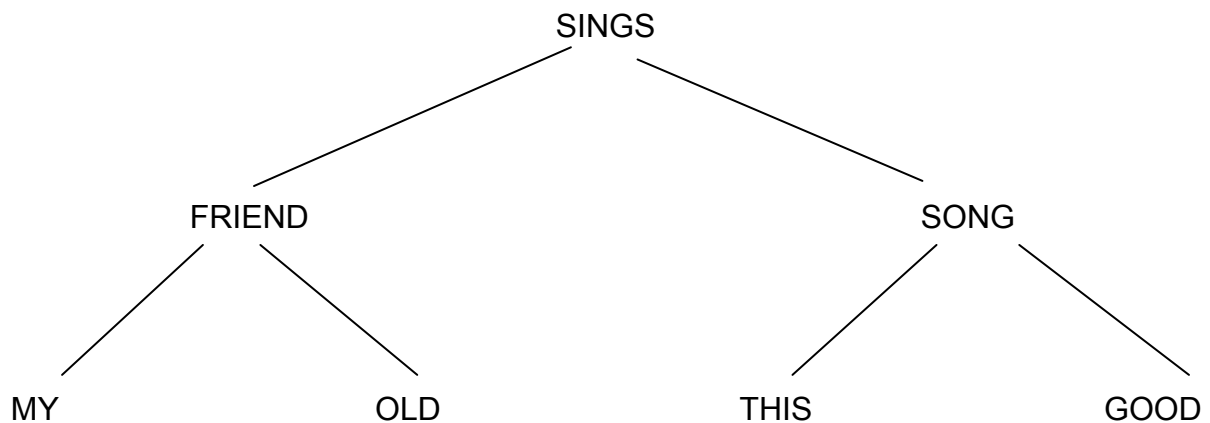Существует три вида основных синтаксических операций: связь, соединение, трансформация.

There are three types of basic syntactical operations: connection, conjunction, transformation.

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[27] О. Есперсен, Философия грамматики, М., 1958, с. 53, 55.

[28] F. Hiorth, Zur formalen Kharakterisierung des Satzes, Niederlande, 1962, S. 12.

CONNECTION

Connection is a meaningful interdependence of words in a sentence. Connection organizes words into sentences. In the sentence *they speak* there are three units of information: 1) *hey*, 2) *speak*, 3) connection between those two. Connection in a sentence takes place mainly between the main and the subordinate units. The main units are the two major categories of substance and process, i.e. the noun and the verb, while the subordinates are their attributes, respectively, i.e., the adjective and the adverb. The words or groups of words belonging to the class of nouns, verbs, adjectives or adverbs are called the *terms of the sentence* or simply *terms*. The most independent term of the sentence is the verb, which is subordinated to no other term. If a sentence contains several connections, then each connection integrates two terms: the higher and the lower. We shall call the higher or the governing term, while the lower will be the governed or the subordinated one. In the sentence *John speaks* he term *speaks* is the governing, while the term *John* is the governed. One term can be both the governing and the governed. In the sentence *my friend speaks* the term *friend* is the governing with regard to the term MY and the governed with regard to the term SPEAKS. One governed term can be dependent upon only one governing term. Inversely, one governing term can govern several subordinate terms, e.g.: *my old friend sings this good song*.

```
                          SINGS
                         /      \
                        /        \
                   FRIEND         SONG
                   /    \         /    \
                  /      \       /      \
                MY       OLD   THIS     GOOD
```

On this diagram the governing terms are placed above the subordinates. The terms placed at an equal level do not enter into mutual subordination. If there is one governing term subordinating several terms, which are homogeneous terms of a sentence, it is assumed that there is only one governing connection, e.g.:

A HIGH, STEEP, SANDY COAST

БЕРЕГ

ВЫСОКИЙ   КРУТОЙ   ПЕСЧАНЫЙ

THE STRUCTURE OF A SIMPLE SENTENCE

The traditional grammar makes a distinction between SUBJECT and PREDICATE in a sentence. SUBJECT is what is said in the sentence. PREDICATE is what is said about the subject.

Such are non-linguistic definitions. They are related to the semantic content of the sentence, rather than to the specific units of the language. The gap between subject and predicate does not match the gap between the words of the text, e.g.: SON LOVES FATHER

Here LOVES is the predicate, but it contains an element of subject S. On the other hand, it is difficult to evaluate the subject and the predicate as equal categories. The subject often contains only one word or can be incomplete, while the predicate must be there by all means, mostly counting a greater number of elements than the subject.[29]
Moreover, a predicate may contain elements having a character and internal structure incompatible with those of the subject. E.g., in the sentence VOTRE JEUNE AMI CONNAIT MON JEUNE COUSIN the element MON JEUNE COUSIN is a substantive unit of the same character as VOTRE JEUNE AMI.
The diagram of a sentence divided into the subject and the predicate:

AMI   CONNAIT

VOTRE   JEUNE   COUSIN

                                    MON   JEUNE

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[29] L. Tesnière, op. cit., p. 104, ср. тж. A Martinet, op. cit., p. 49

The diagram of a sentence not divided into subject and predicate:
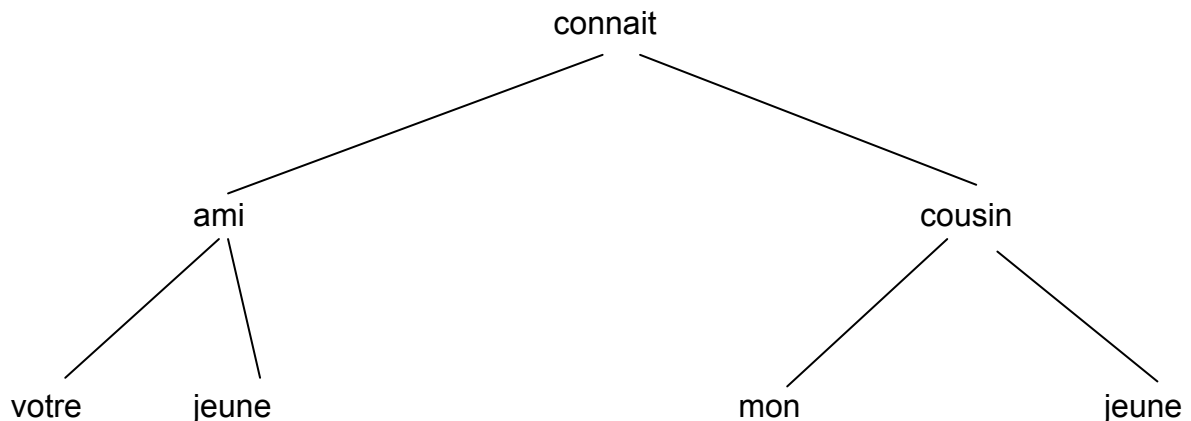
There is no evidence that those units have to be placed at different levels as when dividing into subject and predicate. This nuisance will disappear under the hypothesis of the central verbal unit. Meanwhile, this demonstrates the parallelism between the two substantive units.

Thus, setting off the subject against the predicate hinders the understanding of the sentence's structural balance, since this setting-off results in isolating one of the substantives as the subject, while the other substantives appear within the predicate and mix with the adverbial modifiers indiscriminately.

Counter-positioning the predicate to the subject conceals the interchangeable character of substantives, which is the basic mechanism of active and passive voices.

ACTANTS OF THE PROCESS

Actants are the substantives taking part in the process. Since the verb is the main term of a simple sentence, the actants, like the modifiers, are the terms subordinated to the verb.

The main factor determining a process is the number of acting actants. A verb can have a certain number of actants: thus, there are verbs with a zero number of actants, verbs with one, two and three actants. Verbs having no actants show a process going on by itself, with no one taking part. Those are mainly the verbs relating to natural phenomena: DAWNING, DRIZZLING, BLOWING. These verbs signify action with no actant. The diagram here is reduced to showing a verbal nucleus with no connections. The so-called formal subject in the sentence IT RAINS is not an actant. The element IT is not a substantive taking part in the process of rainfall. The element IT is an indicator of the third person, a personal index. IT is the same thing as the personal index ИТ in the word МОРОСИТ, indicating the third person with no indication of an actant. As shown on the diagram, IT forms no connection with the verb, but rather makes part of the verbal unit of the sentence: IT RAINS.

Verbs having one actant show a process involving only one person or an object. Thus, in the sentence ALFRED FALLS the action of falling involves only Alfred, this action needing no other participants. It may seem that the verb TO FALL has two actants in the sentence ALFRED AND ANTONY FALL. But it is not so. Here we have one role performed by two persons. In other words, ALFRED AND ANTONY FALL = ALFRED FALLS + ANTONY FALLS.

What is seen here is duplication of an actant. The phenomenon of duplication has nothing to do with determining the number of actants and does not change the structural pattern of a sentence.

ПАДАЕТ   ПАДАЮТ
   | |
АЛЬФРЕД   АЛЬФРЕД ————————И————————АНТОН
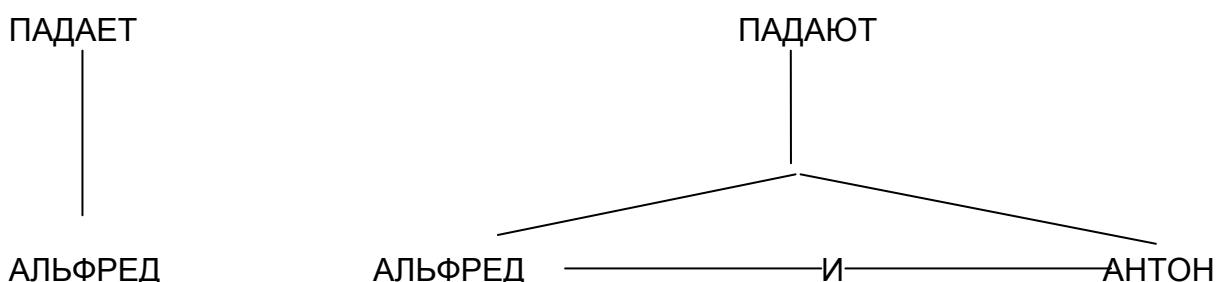
Verbs having two actants show a process involving two persons or objects. In the sentence ALFRED STRIKES PETER the action involves two persons ALFRED and PETER. The action represented by the verb STRIKES can be imagined only as having two actants, neither more nor less. Verbs having three actants show action involving three persons or objects. In the sentence ALFRED GIVES THE BOOK TO CHARLES there are three actants: actant one is ALFRED who gives the book, actant two is THE BOOK that is given to CHARLES, actant three is CHARLES who gets the book. An action with three actants can take place only if it involves all the three actants without exception, each in its role.

To be continued