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LANGUAGE THEORY AND THE PROBLEM OF LANGUAGE DEVELOPMENT

The term "semiotics" - the study of sign systems - apparently appears in linguistic literature for the first time in the "Course of General Linguistics" by Ferdinand de Saussure. Lately linguists are using it more and more often. The term is now used also in literary criticism, logic and psychology works which are involved one way or another with studying sign phenomena.

At the same time the term "semiotics" does not refer to a full-fledged discipline with a number of perfected and mutually connected scientific concepts.¹ It is more of a name for a topic and direction common to some prospective areas of research. What follows below will be just a prolegomenous attempt to trace the border line between linguistics and semiotics in the study of language.²

F. de Saussure, generally accepted to be the founding father of modern linguistics, postulated the systematic character of language and thus outlined the borders of linguistic method.

His course became the basis for the evolvement of a special discipline - the theory of linguistic method - which defines modern linguistics.³ Using this method linguists can now quickly, accurately and formally correctly capture languages in linguistic description.

Introducing the term "semiotics" F. De Saussure assumed the existence in society of other language-like phenomena constituting sign systems (for instance, flag signaling, telegraph code and the like) which can be described by a method similar to the linguistic one, and the possibility that the comparison of linguistic descriptions of language and language-like phenomena will help to discover broader laws of sign systems. Thus,

¹ Terminology in works concerning semiotics is arbitrary and unstructured. It is practically impossible to fall back on a tradition. Because of that we had to offer here a number of semiotic terms, listed in the attachment. The terms are connected in a deductive construction. Each term in the present article is followed by parenthesis with the number of its definition; e.g. creation (definition 1). We tried to develop the article in such a way that the content be clear even without the attachment.

² By language we mean here not "the language of art", "body language", "the language of maps and drawings", but the every-day communication using coherent sounds and letters corresponding to those sounds. The empirical material of this article is the same as the material of linguistics. Beside the purely linguistic presentation of this material there are other presentations, some of which are, in our opinion, semiotic.

³ See for instance L. Jelmslev "Prolegomen to the theory of language"; Chomsky "Syntactic structures"

continuing Saussure's idea, it may be said that semiotics is the study of sign systems by the linguistic method.

The idea of broad use of the linguistic method became highly attractive due to the formal exactness of modern linguistics. Many specialists in adjacent humanitarian disciplines attempt to borrow the linguistic method as a whole or in part.⁴ Sometimes linguists address other, non-language sign systems and study them linguistically.⁵

Signs have long been studied not just by linguistics, but by other disciplines (for instance, logic, psychology and aesthetics), each of which has its own method. Now there is more and more talk about developing a certain new approach to sign study which would be different from the linguistic, logical and psychological ones.⁶

For someone studying language it turns into a choice between the linguistic study of non-language sign systems and formulating some different approach. Thus the phrase "semiotics and linguistics as language sciences" is re-formulated into "Linguistics or semiotics?" To answer this question we must first determine if semiotic studies are at all needed.

The practical use of semiotic studies is usually given the following grounds: it is desirable to improve the means of accumulation, storage and processing of the growing stream of technical and economic information (thus it is desirable that various humanitarian disciplines have a common denominator, use some common research tools).

The improvement of information processing nowadays is mainly linked to computerized translation and to developing the technologies which would simplify calculations in planning and reporting. Much has been written about it. And it has always been assumed that such technologies are mutually tightly connected at least by the fact that all of them are computers using a number of principles of mathematics and dealing with the so-called natural language - essentially, in every case we are talking about "language processing by machines", i.e. we are facing the need of a technical solution to a number of humanitarian tasks.

In such a case the task itself falls into the technical problem of "how to do it" and the humanities problem of "what to do?", "what do we need to achieve as a result?". The humanities side is, apparently, the defining one.

It does not mean, however, that the technical side cannot lead the humanities one in some aspects: it is possible not only to adapt machines to language, but also to adapt language

⁴ See for instance Zholkovsky, Scheglov "On the possibility of constructing structural poetics"

⁵ See for instance Zaliznjak "Opus in analyzing one relatively simple sign system"

⁶ It should be noted that in such talks the long existing works are often overlooked. See for instance the excellent work by V. Voloshinov "Marxism and the philosophy of language - the main problems of sociological method in linguistics" Leningrad, 1925

to machines. The latter way may be more expedient. At least it is the more attractive one for linguists (humankind already has such experience: the printing press led to the evolvement of national languages). For language specialists it means a special *practical task* (definition 8) of *constructing* (definition 14) language.

Classical linguistics has never formulated this task for its theory (practice is a separate matter). Studying the history of language forms and reconstructing its proto-forms, the founders and followers of comparative historical method were especially proud of their difference from the universal grammar. Universal Grammar (especially Port-Royal) gave laws to language. The comparative historical method considered itself a natural science because it aspired not to the jurisdiction over language but to the discovery of its nature.

Structural linguistics, possessing an elaborate theory of systematic description method, offers multiple descriptions (models) of language but leaves the language itself, the subject of description, untouched.

Translator's comment: it should be kept in mind that Dr. Rozhdestvensky does not touch here upon sociolinguistics as a language science. However, what he says about descriptive, and not prognostic/constructive attitude towards language holds true in the realm of sociolinguistics as well: corpus planning and status planning are viewed as political tasks motivated by various agendas and ideologies; they are observed and described not as a linguistic, but as political processes.

Thus, linguistic theory in the latest one and a half hundred years is dominated by the view: *language may be variously described but any active intrusion in its life will and does lead to failure*. Thus, the task of constructing language is considered unrealizable and unnecessary.

This view is absolutely wrong in light of the real *history of language* (definition 4). We include *social language usage* (definition 5) and *language theory* (definition 6) in the concept of language history. The relationships between social language usage and language theory divide language history in several stages.

1. **The stage of genesis, establishment and evolvement of oral language.** This stage may be expediently called a *uniform glottogenic process*. There is no serious evidence that communication between non-relative groups was difficult at that time.

That stage coincides in time with primitive communal and tribal societies. *Supposition* (definition 17), which is in essence the planning of joint activities, and *teaching* (definition 16), i.e. the transfer of norms and knowledge, coincide with language genesis. Supposition and teaching use not only what we now call language sounds, but also singing, dance, depiction. All those means work jointly, syncretically. The *evolvement* (definition 1) of language takes places within such syncretic performances.

Translator's comment: the term "syncretic" is used here not in its grammatical meaning, but in the generally cultural sense: it refers to combining several different media in one act. It is presumed that at that early stage verbal signs were not numerous and developed enough to express complex notions without support from other sign systems, like dance or pictures.

The syncretic act differentiates teaching and supposition from a *message* (definition **15**), i.e. from the signals to start or stop an activity. Messages are not necessarily syncretic.

Messaging can take place solely through vocal apparatus. At the beginning any collective activity as a rule requires a voice signal to start or stop it. The number of actions seeks to coincide with the number of signals. As language is established with the help of the syncretic act and as words are singled out from it, communication begins to include more and more verbal-sign elements and becomes coherent speech.⁷

Language theory exists inside the syncretic act as the act of name-giving, or the act of *development* (definition **10**) of names.

Translator's comment: Dr. Rozhdestvensky invites the reader for the purposes of this article to understand the term "language theory" as any act leading to the growth or better understanding of language. Such an act does not have to be consciously "theoretical". The coining of new words, such as "Irangate" during a political crisis or "potassium permanganate" for a chemical substance, these days is an act of language theory in the same sense as our ancestors' coining words for fire and water.

A word is postulated to be an attribute of the object, inherent to the object's nature; it determines the object's behavior and the ways to treat it. Thus, language theory directly serves the task of constructing language. Let us call such language theory *development*.

At the first stage of language history *replication* (definition **3**) and *creation* (definition **2**) of language initially take place simultaneously inside the syncretic act. When communication assumes the form of coherent speech, the function of creation passes mainly to it, and the function of replication is allotted to the syncretic act.

⁷ We differentiate signals and signs. A signal requires an immediate response by action from a living being. Signal systems exist not only in human society, but among animals too. Signs, though originating from signals, are, unlike them, a cultural and historic formation, counterposed to the system of material production and servicing it. A sign does not require an immediate response by action. The difficulty in separating signals and signs in the society is that social signal systems are formed on the basis of the sign ones and partly preserve their features. For instance, the system of commands managing a military formation is a signal one; this is why it can be substituted by trumpet sounds, whistles, etc. But the commands themselves originate from verbal signs and partly preserve their sign meaning, though losing their language form when pronounced in the signal function (the phenomenon of so-called command voice).

2. **The stage of genesis, establishment and evolution of written language.**

Written languages are considered civilized, languages which have no writing systems - barbaric. This is why it is appropriate to name that period the stage of barbaric and civilized languages.

This stage coincides in time with the origin of state, formation of social classes, emergence of money. It corresponds to the slave-owning system in societies. Written language, invented because of the need to communicate at a distance (and consequently in time) - as required by the institute of the state - has three important qualities:

- a) it allows one person to communicate something to an unlimited number of people;
- b) the communication can be re-read by one person many times;
- c) it may include signs unavailable for oral language (drawings, pictures, symbols, etc).

These qualities expand the expressive potential of written language. It becomes the tool for creating cultural norms. Because of this and the character of its form, written language destroys the syncretic act. The syncretic act falls into a number of arts. Replication of cultural norms, earlier living in the syncretic act, now becomes imbedded in the written language, which leads to the rise of a special social institution - school, i.e. a professionally distinct education system.

The influence of written language on oral through school leads to the change in the corpus and structure of oral language. It now includes elements of the new knowledge and divides internally.

Translator's comment: such feed-back connection between a later and an earlier form of language exists throughout history. When at the stage of civilized languages rules were first formulated by ancient scholars, they turned around to the oral language from which they were extracted and led to the development of new rules in oral genres: from then on for the most part oratory (i.e. forensic, political, military speeches, sermons, presentations, lectures, etc.) often is built with the rules of written speech in mind, taking into account grammar, rhetoric, logic, stylistics and looking up to those arts. Similarly in modern time with the rise of mass media that new form of communication turned around to the previous stage and influenced literature: new compositional schemes of novels emerged in the 20th century - the characters may not meet in the space of the novel, the same character may exist in different times, the structure of novels is characterized by collage, is in effect borrowed from mass media (see the works of John Dos Pasos, Milorad Pavich, Boris Vian).

In school there is a division between the teacher and students. Teachers formulate new knowledge, and students absorb it as the norms regulating action. Thus ancient philosophy emerges as a joint research and educational activity.

Language theory exists as a collection of oral statements which form the study of the art of writing transmitted by demonstration and explanation of rules. The growth of

schools eventually leads to the accumulated abundance of written texts developed in different schools following different rules and containing different norms of culture, becoming mutually unintelligible. For the sake of successful reading and understanding of texts a need arises to develop language unification rules. Thus ancient *grammars* (definition 9), logic, rhetoric and stylistic treatises are created. Combined, those events lead to the idea of names being arbitrary. Language theory loses the right to construct language. This right goes to philosophy. And philosophy prefers not to bind itself by the rules of naming objects.

Thus language construction is deprived of its former rules. Language theory is engaged in reconciling oral and written language, both teaching the art of writing in schools and in teaching grammar. The second stage starts with the creation of written language and ends with replication of this language in language theory (grammar). During replication of oral language creation takes place in it - that of new elements associated with grammatical correctness.

3. The next stage may be appropriately called **the stage of regular and irregular languages**. With feudal division there arises a task of preserving civilization outside state bodies. Religion plays an important role in it. Under religious influence a number of cultural worlds are formed: Judaism, Catholicism, Orthodox Christianity, Buddhism, Confucianism, etc. The integrity of those worlds is supported by ideological, historical, moral, ethical and other texts. To preserve the integrity of content the texts are *canonized*. The canonical texts are considered *regular*, non-canonical - *irregular*.

Translator's comment: in this case *regular language* means 'processed' and 'adhering to rules'. Those are the languages which have classical texts written in them. Other languages are *irregular* because no text has been written in them yet which would be beautiful and rich enough to be accepted as a model to be studied in the classroom and thus to establish a precedent to follow. The history of linguistics shows that all regular (or classical, or canonical) languages received their grammar soon after a classical text appeared in them. This happened with the texts of the Vedas providing the basis for Panini's grammar, the texts of Confucianism becoming a basis of the first Chinese dictionary which remained the equivalent of grammar until the 19th century, the text of Koran becoming the basis of Sibawaihi's grammar of the classical Arabic language; the first grammar of Italian language appeared after "The Divine Comedy" and the grammar of Old Slavonic came out after the Bible was translated by St. Cyril. There are two exceptions to that rule: the grammars of Hebrew and Ancient Greek appeared not one or two centuries after the classical texts in those languages, but much later. It is explained by unique cultural situations of both nations.

Classical canonical texts go beyond the limits of one state; they aspire to encompass as many people as possible and to expand the territory of their use. The world ends up divided between canonical texts. Supporting the existence of those texts requires serious effort, firstly because every canonical language spontaneously develops, and secondly because the language of canonical texts by its origin is not native for most people comprising any given society.

The existence of canonical texts is supported through school. But for that end school must be separated from research and science. Scholastic curriculum appears, when what is taught is not modern scientific knowledge but "ancient authority". The function of the teacher is to re-create earlier statements.

Correspondingly, the role of language theory is to re-create canonical texts. Grammar, logic, rhetoric and poetics are borrowed from antiquity. They become the subjects of scholastic schools and are themselves canonized. Linguists are concentrating on canonizing texts and the rules of their composition. The main task of language theory is to reconcile a written text with a written text.

At the same time the irregular languages are spontaneously growing. They are used to write apocryphal texts, fiction and (sometimes) scientific and technical works. Irregular languages have the lead in common daily communication.

Language theory first tries to eradicate irregular languages, make them stay outside the society's culture. When that fails, language theory attempts to adapt those languages to creating texts by canonized rules. Thus there appear translations of canonical texts into irregular languages and description of irregular languages in canonical ones.

Given the bilingualism of the whole society, language theory aspires to unify language rules and to normalize both regular and irregular languages. Thus appears the universal grammar rooted in the invariantness of logic.

At the third stage canonical texts represent creation. Replication of those texts by definite rules leads to the evolvement of regular languages. As for grammar, it starts by repeating itself; later creation of grammars of irregular languages takes place.

4. **The stage of national languages.** This stage starts with the rapid evolvement of commodity-money relations and the establishment of capitalist economy.

Linguistically that stage begins with the invention of printing press using movable print and typographic alloy. Invention of printing is the result of a combined effort of a long row of generations in the East and in the West both in research and practical technology. Printing is the first machine processing of sign systems. It is fraught with a number of possibilities: a) standartization of education; b) impetuous growth of the language process in speed and volume (communication, teaching and planning), c) transformation of speech into commodity, formation of speech market (first and foremost the book market), evolvement of special professions of authors, book-sellers and publishes with corresponding legal institutions.

Implementing all those opportunities the society faces a choice - to use the existing and developed regular written languages or to create writing systems and grammars for irregular languages. The society, mainly book publishers and authors, select the latter way. It is called the spread of education.

This choice is related to machine manufacturing requiring a large number of educated workers capable of applying new scientific and technical knowledge. In terms of training a large number of people the spread of education can be conveniently performed in regular languages due to their elaborateness, uniformity and acceptance on broad territories.

However, printing press opens up new possibilities in increasing the speed of the language process and allows to shift towards spreading education in irregular languages. For that purpose irregular languages must be reformed and transformed into national ones. *The society opts for the change in language.*

The main feature of national languages formation is that it proceeds not as at earlier stages from oral language towards written, but vice versa, from written language towards oral through school and grammar.

The slogan of "the unity of speech and writing" is advanced. It means a revolution in irregular languages consisting in the following: 1) printing shifts to irregular languages; 2) irregular languages receive a literary norm counterposed to dialects as relicts of the past; 3) school shifts to those new literary languages; 4) science borrows all terminology from regular languages and introduces it in the new literary ones, then proceeding to create new terminology in the literary languages; 5) grammar and orthoepy (rules of pronunciation) are developed for literary languages.

Creation of national grammars changes the body of language theory. Language theory parts with logic: grammar in its principles becomes not universal but *formal*. Grammatical formalism needs substantiation. Linguists find such substantiation in the research approach - in comparative-historical and typological methods. Those methods discover the origins and peculiarities of language forms in their national differences and thus fix the national differentiation of languages.

At the fourth stage literary language becomes the most important creation; its replication forms the national language. The creation of a literary language leads to a row of creations in what was the heritage of previous stages - in the oral and written languages. Grammar, defining the creation of literary languages, is initially repeated as a re-creation of the previous stage, but then it begins to distinguish new spheres of knowledge, which represent creation.

Though commonly accepted, the division of language history into four stages has a number of inaccuracies, both chronologically and in that in various locations the process may skip stages or even go back to previous ones. But the model is more of an *ideal reconstruction of a general process* and is beneficial because it reveals certain regularities in the process.

1. The transition from stage to stage in each case is, so to speak, a triumph over a language crisis, achieved either by imparting a new medium on the language (writing,

printing) or by changing the ways of treating the language (in particular the change in education tools - school, literary language and grammar).

2. Transition from stage to stage does not mean setting aside the achievements of previous stages, but includes them in the new whole and reconstructs the whole (barbaric languages as related to the civilized ones, oral irregular languages as related to regular oral and written irregular ones, dialects which have no separate writing systems as related to the literary language and "dead" languages).

Translator's comment: according to (1) and (2) language history may be viewed as a sort of punctuated equilibrium. Quantative changes accumulate in the system until it achieves a qualitative boost, passes on to a next level and reaches equilibrium for a while.

3. Transition from stage to stage always includes conscious and purposeful influence of people on a segment of the language process, eventually changing and restructuring the process as a whole.
4. Such actions are perceived by people as language theory, different from practical actions but nonetheless exacting certain influence on social language usage.

Translator's comment: the overview of language social history formulated here by Dr. Rozhdestvensky may be presented by a table, where the last row is for the next, not yet described stage of language development:

Stage of development	Added Value (creation)	Absorbed from previous stages and repeated within the period (replication)	School; grammar
Uniform glottogenic process (evolvment of oral language)	Names of objects	(Inseparable from creation)	Within a syncretic performance
Barbaric vs. civilized languages (evolvment of written language)	Writing systems; rules of grammar Added materials to write on and to write with.	At the end of this period - Grammar, logic, rhetoric, stylistics are already formulated. What was created in the beginning of the period is replicated throughout it.	Scholars formulate rules during conversations with students. Education and research are one.
Regular vs. irregular languages (the stage of canonical texts)	Regularizing vulgar (irregular) languages through translation of canonical texts into them, through growth of folklore and literature in those languages and through creating grammars for those new literary languages	Scholastic curriculum: ancient grammars, logic, rhetoric and stylistics canonized and taught unaltered; canonical texts preserved unaltered due to their sanctity. Replication of new texts in irregular	School's objective is to repeat old truths; what is taught is ancient authority. Universal grammar is formulated, studying language as a tool of logical expression.

		languages.	
National languages	Growth of literary languages into national ones through science (terminology systems for different sciences are translated and invented in new languages), literature, politics, education Added material: printed books	Iteration of new texts, their spread through printing	Comparative historical linguistics: study the individuality of languages, formal scientific justification for separate languages.
?	?	?	?

Such a system has immense predictive power. For example, modern languages may be placed on that scale and their future may be discussed in the context of a general process of social development of human languages. In America one of the topical issues is the status and possible future of African American English Vernacular. In the context of Dr. Rozhdestvensky's system that dialect may be comfortably placed at stage 2: linguists and sociolinguists analyzing AAEV are in the process of formulating grammar rules; discovery often takes place in the classroom during professor's discussion with students; while folklore exists and a writing system is available, no classical written texts have been created in that dialect. Watching the current trends it is easy to see that the development is going in the direction of oral verbal art (rap songs, "emceeing"), while any written work reverts to Standard American English. At the same time, texts of many oral works are published (e.g. lyrics on compact discs). It may be concluded that until a written text in this dialect appears that is strong enough to become classical (as in studied in a classroom, like the Torah or Iliad or The Divine Comedy), the dialect will not progress to the next stage of social development. It will take a conscious effort to undertake a creation of such a text.

Knowing this, it may be stated that *language theory itself is a part of the language evolution process*. From this point of view we will try to explain the task of purely descriptive, and not constructive approach to language which exists in modern linguistics.

To this end we must distinguish the concepts of *language theory* and of *grammar*, and to review their objectives. Grammar is part of the language theory whose task is to describe the system of language. Linguistic theory is a broader discipline *including the rules of language development and grammar per se*.

Grammar appears at the end of the second stage and acts on stages three and four. It evolves independently from the rules of language development which underlie language genesis and exist almost unchanged until now (see, for instance, chemists' tendency to name new compounds by their components and synthesis rules). Grammar comes into being independently and separately from the rules of language development; initially it acts as the art of operating with language and only at the last stage acquires formal scientific substantiation.

Practical tasks (definition 8) of grammar change at every stage, but within limits: 2nd stage - to learn how to read (and understand);

3rd stage - to learn how to read and to write;
4th stage - to learn how to read, write and speak.

In each case those tasks are acting mostly within school. The general objective is: with the help of school to preserve relatively unchanged the *coordination* (definition 11) between written and oral languages.

This is why it is impossible to capture through grammar the spirit of language (the spirit of verbal creativity) and the trends of its evolvement. This is why, in spite of differences between languages, for two thousand and some years grammar has kept its main concepts: sound (phoneme), word, sentence, case, and the like.

The role of grammar in social language usage, namely the stabilization of language process, may be called regulation of social language usage, or simply *regulation* (definition 12).

Regulation is the task for replication, but not the task for the creation of language.

This means that if we apply linguistic descriptive methods to other sign systems with the view of their practical use, we will arrive only at the regulation of sign systems. We should in such case know beforehand that the linguistic method is excellent for regulating language but is completely unsuitable for constructing it.

The part of language theory designated for constructing language is by no means a mature discipline. Roughly speaking, it is at the stage of "mythological understandings". It does not mean, however, that language construction is not taking place in practice.

Practically, the language crisis in modern developed society has long ago been acknowledged. This crisis had three aspects:

- a) the existence of various national languages with all its benefits also presents a barrier to the effective exchange of scientific, technical, economic and political information.;
- b) modern developed languages contain so many terms and meanings that, as a rule, prevent understanding between representatives of different professions in discussing their special subjects;
- c) modern natural languages have forms that on occasion hinder description of objects and evolvement of thought.

Translator's comment: Another, even stronger aspect of the predictive power of Dr. Rozhdestvensky's system lies in its ability to foretell the qualities of the next stage of language development. It is clear that the languages of industrial societies are approaching the next stage. New material has been added: electronic media; new type of grammar is considered: the Universal Grammar in the Chomskian sense, uniting all humans again after two hundred years of comparative studies; volume of communication has grown dramatically; electronic media allow certain operations with language that have not been possible before - fast exchange of messages at huge distances, compressing large volumes in small spaces, computerized editing and proof-reading; new languages have

been created to serve the new medium - the languages of computer programming. The fifth stage, which started with computer processing of language, needs a name. It is up to modern sociolinguists to describe it and offer a constructive way to the new level of equilibrium.

The acknowledgement of the three aspects of the crisis is proved by the attempts to overcome it:

1. Esperanto has been created; more languages of that type are being created. A special discipline appeared - interlinguistics. The experience of interlinguistics has shown that a new language may well be created, so to say, artificially. Esperanto, existing side by side with national languages, is called for to overcome national language barriers. But Esperanto in its form copies natural languages, thus offering no new benefits for storage and processing of knowledge norms/rules of practice. On top of that, Esperanto turns out to be weaker than national languages because of the absence of scientific tradition in it.
2. The problem of the so-called formalized language has been formulated. Formalized languages, by the idea of their creators, should overcome the fundamental faultiness of natural languages - the polysemantic nature of its words and forms, their connotative implications begetting ambiguous expressions and equivocal interpretations. This is why formalized languages were supposed to be somewhat similar in form to the apparatus of logic.

The fact that formalized languages are not growing is explained, apparently, by their principle not taking into account the considerable connection that natural languages have with other semiotic systems, like art, geographic maps, drawings, models, mathematics, etc. It turns out that scientific thought cannot do without those connections and largely is relying on them.

3. The task of broad organized reform of existing languages was formulated. In science it is represented as "the problem of the language life in nations". Mostly it concerns the Japanese language. Japanese, the language of a nation developed in every respect, was formed at the crossroads of very different cultures: the Japanese one per se, Chinese and European. All those traditions have influenced the form of the Japanese language. Written Japanese, saturated with Chinese borrowings and hieroglyphics, becomes exactly understood in oral speech when the conversation is not on every-day common topics but on modern science, technology, sport, politics and society. The growth of oral mass communication media (radio, television, etc) leads to increasing the role of oral language and to expanding the areas of its use (political public speaking, school, the spread of scientific and technological information, advertising) through borrowing from the written language; then the true "throes of creation" begin, engulfing the whole nation (this is why the language crisis in Japan is especially acute). In this light Japanese linguists have to conduct special research and practical work selecting words, expressions, terms and written signs and promoting linguistic knowledge. Thus the language is being reformed in its different parts.

However successful the reform of oral and written language may be, it does not fundamentally solve the general language crisis itself. What happens in Japan is just the establishing of better contact between written and oral languages in their traditional forms.

So, three distinct attempts to solve the language crisis have not led to success.

Surveying those attempts some conclusions can be made.

1. Each of the attempts strives to overcome only one aspect of the crisis: interlinguistics - the aspect of national distinctions between languages; language life - the aspect of the differences between registers; formalized languages - the inconvenient structure of natural languages. *There are no projects working on all three aspects at the same time.*
2. Interlinguistics and formalized languages take the route parallel to natural languages, and not that of succession of the tradition of existing languages. Language Life only reforms the language and offers nothing new. Looking at the history of language it becomes clear that the basis of a triumph over crisis has always been *an introduction of a new form of language usage while preserving all previous achievements and including them in the new whole* (see above). If we assume that to be a law of language evolution, then *the failure of all attempts is explained by the neglect of this law.*
3. Interlinguistics and Language Life have their theoretical basis in grammar, and formalized languages - in logic. Grammar and logic have always been dealing with the "correctness" of language, i.e. were practically engaged in regulation, not in constructing language. Evidently, executed by the rules of regulation, an attempt to construct new languages can lead to success only by accident. It is obvious that the task of language construction can hardly be solved by practice alone without the help of theory. The processes of creation in languages have been going on spontaneously, beyond the attention of theory for so long and have become so complicated, that direct language construction is a doubtful enterprise.

Because of that a need in special theoretical study of language arises. The main task of such study is **prognosis** (definition 13). Prognosis is a **theoretical task** (definition 7), called upon to provide for the practical construction of language. Everything described above, without further detailing it based on numerous data that linguistics possesses, leads us to conclude that language study with the view of prognosis will include at least the following:

- a) the study of creation processes (i.e. the processes of name giving);
- b) the study of relationship between creation and replication in language;
- c) the study of precedence in successful solution of crisis situations in language history;
- d) the study of influence that linguistic theory has on the social language usage.

Translator's comment: thus this discipline will study the trajectory of language; this discipline's methods may be used in solution of practical tasks of constructing languages and other sign systems.

It is advisable to name all those studies, their parts, and research preceding those studies *language semiotics*. The practice of semiotics may include (and often is admitted to include) interlinguistics, formalized languages and Language Life. It is clear that semiotic studies will considerably change the relationship between linguistics and other sciences; that has been indicated on numerous occasions.

Going back to the question posed in the beginning of this article, the following answer may be given: the linguistic study of sign systems and the semiotics of language are equally possible.

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Definition 1. Evolvement of language - language process taken at any given moment.

Definition 2. Creation in language - emergence at any given moment of new forms, new meanings, or the change in the meaning of existing forms.

Definition 3. Replication in language - repetition in language at any given moment of old forms and old meanings and of old connections between meanings and forms. Evolvement of language consists of creation and replication.

Definition 4. Language History - language evolvement throughout the time of the existence of the language.

Definition 5. Social Language Usage - the part of language history when the content of the language process (the meanings being developed) is directed to matters outside language itself.

Definition 6. Language Theory - the part of language history when the content of the language process (the meanings being developed) is directed to language itself.

Thus social language usage is all the utterances concerning every-day life, science, morals, history, etc., i.e. the world outside and non-linguistic relations of people.

Language theory is all the utterances concerning language and linguistic relations between people.

Language theory includes first and foremost any description of languages in linguistics, logic, psychology, poetics, etc.

The term Language Theory does not necessarily mean a scientific discipline; it includes any utterance regarding language.

Both social language usage and language theory at any given moment consist of creation and replication of language and may be regarded as language evolvement.

The connection between language history and language evolvement is called **managing**.

Definition 7. The managing connection coming from social language usage to language theory is called **a theoretical task**.

Definition 8. The managing connection coming from language theory to social language usage is called a **practical task**.

Managing includes both theoretical and practical tasks.

Definition 9. **Grammar** is part of language theory performing the task of managing replication of language.

Definition 10. **Development** is the part of language theory performing the task of creation.

Definition 11. **Coordination** is the theoretical task of grammar.

Definition 12. **Regulation** is the practical task of grammar.

Definition 13. **Prognosis** is the theoretical task of creation.

Definition 14. **Construction** is the practical task of creation.

Functional registers of language are defined by their relationship to replication and creation, to grammar and development.

Definition 15. **Message** is the functional register always involving creation and never including replication, always involving development and never including grammar. Messages mostly include oral and written utterances which are followed by immediate action: commands, directions, work or study schedules, etc.

Definition 16. **Teaching** is the functional register always involving replication and never including creation, always involving grammar and never including development. The registers included in teaching are mostly text books, classes, didactic statements - namely, speech acts concerned with transmission of knowledge and cultural norms.

Definition 17. **Supposition** is the functional register involving equally replication and creation, development and grammar. The speech types included in it are those having no goal of repeating and transmitting knowledge and cultural norms, and not immediately followed by action; they are: discussion of actions, scientific treatises, fiction, etc.