FUNCTIONAL PROPERTIES OF ENGLISH DISCOURSE IN TERMS OF
LINGUOSYNERGETICS

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ABSTRACT
The paper gives a brief outline of linguosynergetics – a theory of
language/speech/discourse self-organization and the way it analyses discourse
functional (pragmasemantic) characteristics. The linguosynergetic methodology reveals
the conditions, mechanisms and ways of discourse self-regulation under which the
general sense of speech exceeds the semantic components being mechanically added up
(when, figuratively speaking, “2+2=5”). Discourse is considered as an integral open
non-linear system which exists in a non-linear environment (external medium), is
regulated by functional relations between utterances, directs its elements towards the
speaker’s/writer’s communicative purport, and ultimately forms new regular structures
(pragmasemantic components) based on the initial communicative program but adapted
to new evolving conditions of discourse functioning (the partner’s reaction, changes in
the communicative situation, other fluctuations in communication). The author comes to
the conclusion that linguosynergetics enhances methods of analyzing dynamic
(evolutionary) and stabilizing (systemic) properties of discourse in their close
interaction aimed at discourse functional development and self-preservation.

Keywords: functional linguistics, linguosynergetics, self-organization, discourse
functional properties, discourse dynamic systemity

INTRODUCTION
My 30 year University experience has proved that linguistic theories may be helpful in
teaching practical English, as they disclose the purposes and functions of language units
in social settings, reveal their pragmatic loading and effects on people’s feelings and
opinions, explain the language “life” proceeding from meaning and function to form [7],
[8], [12]. Therefore, working out theoretical issues of linguistics we lay ground for their
further practical implementation with special emphasis on speech communicative
effectiveness; and that is exactly what linguistics is about – how to enhance the role of
language as a tool of human (preferably positive) interaction.

On such premises, scholars develop different concepts and theories giving practical keys
to better harmonized communication, one of them being the so-called linguosynergetics,
i.e. the synergetic approach applied to language. Synergetics (from Greek συνέργεια –
cooperation, cooperative action) born within natural sciences (H. Haken, S.P.
Kurdyumov, D. Pines, I. Prigogine, R.F. Thom, etc.) has evolved into an
interdisciplinary approach whose methods prove to be fruitful for revealing self-
organization of flexible, dynamic properties of systems in interaction with systemic,
stabilizing ones. The central object of analysis make complex unstable open non-linear
systems and their inward and outward coherent processes aimed at the preservation of a system in its striving for self-regulation. The synergetic way of thinking is defined as evolutionary, nonlinear and holistic, and presents, in fact, a stage of the classical systems theory, but with some specificity: alongside the issues typical for the traditional theory (systems inner structure and stable functional state) synergetics is mostly focused on systems evolution and coherent advance to the ultimate goal of their existence. According to P.A. Corning, N.A. Coulter, R. Buckminster Fuller, H. Haken, E.N. Knyazeva, S.P. Kurdyumov, G. G. Malinetsky, E.V. Ponomarenko, W. Wildgen and others, the main idea of synergetics is the possibility of spontaneous ordering out of disorder in a system self-organization process, when the resulting whole exceeds the simple sum of its parts (figuratively speaking, “2+2=5”) [1], [2], [4], [5].

The purpose of this article is to give a brief outline of linguosynergetics as a theory of language/speech/discourse self-organization and the way it analyses discourse functional (pragmasemantic) characteristics. This knowledge is useful for forming people’s ability, on the one hand, to organize their speech in the most efficient way, on the other hand, to see the general and specific peculiarities of their partners’ rhetoric and thinking process in verbal communication.

SELF-ORGANIZATION IN SYNERGISTIC SYSTEMS

The general scheme of self-organization processes as viewed by synergetics may be presented as follows [4], [9], [10]. A complex open integral system is in the state of dynamic equilibrium and exchange with the environment (external medium). This state is defined by its inherent factors – order parameters. The system’s elements, subordinate to the order parameters, strive for the best regulated area called ‘attractor’. The attractor makes the purpose of the system’s existence, the most favourable regime for its functioning. Alongside the development of the system’s initial state, the inner dynamic processes and some signals from the external medium stimulate certain fluctuations inside the system, which cause such essential functional shifts that the system’s behaviour approaches the so-called bifurcation point(s) - the turning-point(s) in the system development. At that point chaotic processes are activated, and in order to oppose them and to preserve itself, the system has to mobilize all its elements for common, coordinated actions, and to dissipate extra matter, or information, or energy into the environment. Some so far stable structures come under destruction and the least fluctuation can give an impetus to the next stage of evolution. The dependence of the system’s behaviour on its inner processes and fluctuations is defined as non-linearity.

So, having overcome a disordered state of bifurcation, the system passes to a new, though not necessarily better, organizational level, at which the analogous scenario starts again.

Thus, the aim of the synergetic analysis is to reveal the order parameters and those cooperative processes which lead to self-organization of the system.

This approach has been widely implemented in physics, chemistry, biology, psychology, economics, management and other areas, as complex systems of different nature demonstrate analogous modes of behavior [4], [6], [9]. In respect to language and speech linguosynergetics discloses the evolution of the system as interchanging stages of order and disorder, equilibrium and non-equilibrium, the search of optimal way to the
desirable aim of evolution and deviation from the initial direction of the system development.

English makes a typical example of a complex self-organizing system [10], [11]. Its essential feature is the mutual influence and interaction of discourse units and components in speech process, their ability to dynamism and self-regulation. Systemic interdependence is observed on the levels of phonetics, grammar, spelling and others.

Thus, English grammar, being mostly analytical, gives a lot of examples of self-organization. For instance, the rules of the sequence of tenses stipulate the systemic use of tense forms; the same concerns the use of modal verbs, of English prepositions and post-positives, and many other grammatical phenomena. As some linguists say (half-jokingly), each lexical item has grammar of its own. So, the systemic grammatical wholeness of the language requires the mechanisms ensuring its stability, the latter being synergetic by nature.

Besides, the fact that English is a widely spread world language and that quite a good part of its users are non-native speakers, presumes that English inevitably suffers some chaotising, disordering fluctuations [11]. Therefore, for English an absolutely necessary condition of its self-preservation is the ability to maintain its systemic wholeness, using certain mechanisms of adaptation, functional modifications, and of course, some reciprocal influence on the medium.

**SYNERGETICS METHODS IN RELATION TO DISCOURSE ANALYSIS**

The application of synergetics methods to discourse leads to acknowledgement of the following postulates [5], [10], [11], [13]:

1. Discourse is qualified as a complex dynamic non-linear open hierarchal system. It means that discourse is a system of elements and their interrelations within which:
   - different components of lower levels (words, word combinations, etc.) are subordinate to those of higher levels (utterances, speech acts, etc.);
   - components are in constant movement and interaction (language units combine in various modes);
   - their combinations can not be confined to pure addition, but evolve into new structures;
   - the discourse system is in constant interchange of information with the environment (external medium).

2. Discourse exists in a non-linear external medium, which itself includes two subsystems – a macro-medium, i.e. the coherence and interaction of different external systems that provide speech functions realization (like the means of communication system, the mental processes system, the system of culture and ideology formation, etc.), and a micro-medium, i.e. the system of language and, generally, the communicants’ conceptual systems, on the one hand, and the communicative situation, on the other hand; discourse makes the area of their intersection.

3. The attractor of discourse is the communicative purport of the author of the given text, as the above mentioned ‘most favourable regime’ for discourse functioning
is the one realizing the purport of speech production. On the way to the attractor the system summons up the pragmatic and semantic potentials of all its elements for coherent and mutually intensifying (synergetic) functioning, when every element works as either a semantic “intensifier” or, on the contrary, “dimmer” of the system’s both previous and following states [13].

4. The necessary conditions for discourse development and adaptation as a dynamic system are:

- functional non-linearity of discourse (i.e. the dependence of its state and behaviour on any element and relationship). Russian academician L.V. Shcherba characterized this phenomenon (though with no reference to synergetics) as the process of sense ‘addition’ resulting not in a sense sum but in ‘new senses’ [15];

- the possibility of active cooperation between discourse and its medium (especially micro-medium). For example, in the course of speech certain deviations from the initial communicative program may arise due to some reactions of the partners, or to the necessity for additional information, or emotional influence, etc.; but the realization of the communicative intention is still possible if the speaker properly disguises or gets rid of those discourse elements that prevent from achieving the communicative purpose, and introduces (from the medium) or emphasizes those that promote it; so, the dissipation of the undesirable system components stabilizes order and self-organization in discourse;

- the possibility of forming new regular linguomental and functional structures. Any fluctuation in any element’s behavior can give rise to the whole system’s emergent properties, as a result of a strong self-preservation tendency; then the elements introducing destructive influence on discourse will be opposed and “forgotten” by the system, and it will return to its regular regime, under which discourse linguistic means are built up to achieve the purpose of communication, and the return will be marked by new structural and functional components based on the initial communicative program; otherwise, the systemity of the given communication episode will be ruined and the communicative purpose not achieved.

5. Functional relations between utterances act as order parameters of discourse. According to T. van Dijk [3], functional relations present the specific semantic role/function of utterances in respect to each other, which is based on semantic links between propositions and on relations between the described facts and their properties in ‘possible worlds’. So, in fact such relations are more precisely qualified as pragmasemantic ones, i.e. as semantic links acquiring pragmatic increments in the process of their linguistic actualization. They build up the systemic foundation of communication, because semantic structures reflect the mental pattern of the situation described. Considering that mental patterns have a more or less typical (though not exactly similar) character with human beings, it becomes clear that functional (pragmasemantic) relations perform a stabilizing role and make the appropriate criteria for discourse synergetic analysis.

6. The processes and mechanisms of discourse self-organization may be modeled due to the analogous, though not absolutely identical with different people, character of speech production and speech perception and to the typical character of functional links
between discourse components (like specification, generalization, explanation, gradation, expansion, contradiction, etc.).

In the final reckoning, discourse as a synergistic object is defined as a self-organizing system of senses formed in the text by an aggregate of all (oral and written) verbal means, which synergistically mobilizes their functional potential on the way to the author’s communicative purport. It is most important to understand that it is the functional (pragmasemantic) space of discourse that the notion of self-organization can be expediently applied to. Whether this notion per se can be attributed to structural aspects of speech seems a disputable question, as no doubt speech buildup is a voluntary process intended and performed by communicants. But as to the functional properties, their full rhetorical capacity definitely exceeds pure addition of successive components, and in this respect discourse self-organization is a completely adequate concept.

For instance, one of the US President’s Office mailouts contains the following paragraph:

Two weeks ago, President Obama asked you to write and tell him how you’re doing. And I can tell you, as one of the people who helps sort through the mail here at the White House, that a lot of you answered.

You told us how you’re feeling about your family, your community, and our country. You shared stories about what’s been going well, and what you wish was better. So if you were wondering if those letters actually get read, the answer is yes [14].

The occurrence of communication verbs in every sentence produces a demonstrative rhetorical impact: the message makes an impression of firm links between the country leader and the citizens, though the text itself never verbalizes the idea. Firstly, it emphasizes the President’s readiness for dialogue and consideration for the public opinion. Secondly, it reveals people’s active involvement in communication with him and trust in his commitment to social needs. Consequently, manifold and systemic use of the verbs of communication in the given discourse forms a persuasive pragmatic effect of the authorities’ and citizens’ constant interaction and shared interests. Thus the regulating semantic function of these verbs evolves into the pragmatic function of generating new sense components, whereas viewed from a simplistic linear position, this text will be perceived as a mere description of a number of speech acts performed by both sides of interaction, the implicit inferences being omitted.

**FUNCTIONAL PROPERTIES AS THE BASIS FOR DISCOURSE SYNERGISTICS ANALYSIS**

As stated above, discourse synergistics is evident from the standpoint of its functional plane. The algorithm of the synergetic analysis comprises determination of the following points [11]:

- the basic utterance which reflects the topic of narration,
- the discourse attractor (the communicative purport),
- the functional relations between utterances,
- the types of pragma-semantic interaction inside and outside the discourse
Thus the proposed analytical operations may be well demonstrated on the following extract from J. Archer’s book *As the Crow Flies*:

*Let’s consider a different way of doing things. Imagine one giant desk with all of the employees of our company sitting around this desk. In the centre of that desk are all of the folders, documents, spreadsheets, images that we need to do our work. When we need one of those, we just reach over and get it. If we want to talk to someone about something we just look across the table and talk. If we want to discuss something on a q.t, we pass the person a note.*

*This is how we should be working. This is cloud computing and it’s the wave of the future. What I am suggesting is a system that will allow us to work more efficiently, communicate more effectively and store information more sensibly. And what can be better than that [13].*

Here the speaker implements the strategy of persuading the audience to introduce a new, more efficient, system of document circulation, which makes the attractor (communicative purport) of his discourse. The basic (opening) utterance reflects the initial proposition which, in terms of synergetics, corresponds to the equilibrium state of the discourse semantic system – the speaker states the necessity for the company to find a better way of doing things. In the five following sentences (till the end of the first paragraph) the situation (the initial proposition) is disclosed through the description of its components. So, between the first sentence and the other five the pragmasemantic relationship of decoding is actualized, while the primary functional interaction between the following sentences is that of succession.

Besides, the discourse components directly embodying certain functional loading are incorporated. The expression *a different way* signals the additional pragmasemantic relation of opposition. This type of functional links usually enhances the pragmatic tension of discourse but such tension may be desirable; it encourages introduction of optimistic attitude (positive thinking) and, as a result, in this case the relation of opposition serves as an operator of the parties’ constructive interaction. The speaker illustrates the alternative solution by a vivid image of a fictitious scene (the tactic of metaphorical image construction) and with regard to previous utterances this passage clearly reveals the new stage of functional evolution. Here are activated the relations of decoding (enumerating the components of the general state of things called *different way*), specification (the relation of the general and the specific – in the description of the imaginary picture), succession (the description of successive actions). The simplicity of manipulations is stressed by adverb *just* (*just reach over and get it*).

Then the discourse functional plane transfers to the next stage (confirmation and insistence), which clearly demonstrates the inevitable interaction of the discourse with the external medium: knowing that generally innovations require some efforts and may displease the employees (in terms of linguosynergetics – threaten the attractor) the speaker proceeds to some reinforcement in order to prevent dilution of the main communicative effect (*This is how we should be working*). The advance of the sense system to the functional attractor brings to life new sense components – such arguments as well-coordinated work of the staff (*work more efficiently*), order in documents (*store information more sensibly*), introduction of new technologies (*it’s the wave of the*...
future), effective communication (communicate more effectively). As a whole they implement the tactic of creating a positive image of the new approach.

The speaker’s positive mood and confident tone testify to the promising development of the sense system – assertion of brilliant perspectives in place of acknowledgement of the former problems. Here several means function as intensifiers: syntactic parallelism (This is how...– This is cloud computing; more efficiently – more effectively – more sensibly), an emphatic construction (What I am suggesting is), a rhetorical question with adjective better (And what can be better than that?). Personal pronoun we/us stresses the unity of those present as a staff sharing common business interests. The expression the wave of the future adds pathos of indisputability and durability of the forthcoming success. The pragmasemantic system of arguments creates a cumulative effect of a persuasive impact. The rhetorical question at the end of the presentation is aimed at awakening the listeners’ reaction and, moreover, provoking acceptance of (instead of consideration for) the speaker’s reasons (And what can be better than that?). Implicitly the answer is suggested: “nothing can be better than cloud computing”.

Thus the semantic system of the presentation has evolved starting with the equilibrium state (statement of the company’s needs), through the bifurcation point (considering alternatives) to the functional attractor, with order parameters and a new functional state (pragmatics of persuasion) being formed.

CONCLUSION

To sum up, nonlinear functional, or pragmasemantic, properties enable the discourse system to resist self-destruction tendencies in case of emergence of new signals inside or outside the system. That means that systemity in the discourse buildup is inalienable from its dynamics on the way to the functional attractor. Discourse may come to a new level of evolution, even if linear – consequent – addition of its units meanings and functions does not result in the necessary combination of sense. Functional nonlinearity of discourse (when the general sense is not equal to the mechanical addition of components) is an endless source of sense combinations, manipulating which the system of discourse may restore the wholeness of its functional medium and reach the purport of communication.

Thus, we come to the conclusion that linguosynergetics enhances methods of analyzing dynamic (evolutionary) and stabilizing (systemic) properties of discourse in their close interaction aimed at discourse functional development and self-preservation. Teaching students to make out these phenomena in discourse promotes their more developed linguistic feeling, better analytical and communicative skills, more effective rhetorical impact on the partner(s) in communication. Using elements of some adapted form of linguosynergetic analysis they polish their own communicative skills alongside the ability to detect the partner’s attempts to produce a special influence or manipulate their consciousness.

REFERENCES


