

Jurij D. Apresjan, Institute for Information Transmission problems,  
Russian Academy of Sciences, Moscow

## Systemic lexicography

*ABSTRACT: In this paper I propose that in order to be systemic an explanatory dictionary should meet the following requirements: 1) to reflect the naive picture of the world inherent in the given language; 2) to describe lexical items in conjunction with grammatical rules within the framework of an integrated theory of language; 3) to use a unified metalanguage throughout the whole linguistic description; in particular, to reduce complex meanings, by gradually decomposing them, to the set of semantic primitives; 4) to present lexical items as members of lexicographic types; 5) to delineate their lexicographic portraits.*

### 0. The rise of systemic lexicography

The supertask of any explanatory dictionary consists in presenting the vocabulary of a language as a system, that is, as a set of lexemes structured on the basis of shared properties. By a lexeme here and elsewhere I shall mean a word taken in one of its senses. Lexemes thus understood display a number of quite non-trivial recurrent features which extend over the senses of a polysemous word and over the vocabulary of a language at large. Those recurrent features pertain to the semantic, pragmatic, communicative (theme-rheme, or topic-comment), syntactic, selectional, prosodic and some other properties of lexemes. By systemic lexicography I shall mean theoretical research and practical dictionary making that set out to capture the maximum of such recurrent features and to record them in a strictly unified way in the dictionary entries of the respective lexemes and in all the other parts of linguistic description where the need to mention them may arise, including grammar.

Over the preceding two or three decades it has become customary to complain of the gap between pure linguistics and practical dictionary making. This gap is still unbridged, or, to use a more familiar lexicographic term, unabridged. Yet never in the history of our field have the conditions for the rapprochement of those two branches of philology and their mutual fertilization been more favourable than now. Systemic lexicography, not yet come into full view but already looming large on the horizon, will doubtless fill in this gap. I shall name three main influences that, to my mind, are certain to bring it about: 1) some new trends in modern theoretical linguistics; 2) the advent of formal models of language, with computer linguistics as their natural outgrowth; 3) the emergence of learner's lexicography, with its emphasis on active dictionaries designed to facilitate not so much text understanding but rather the production of speech.

Unfortunately, in today's lecture I shall have time to consider only one factor of these three, – the impact of theoretical linguistics on lexicography.

There are three developments in modern theoretical linguistics that are of immediate relevance for systemic lexicography: 1) the search for the “naive” picture of the world, or the pattern of conceptualizations underlying lexical and grammatical meanings of the given language and obligatory for all its speakers; 2) the breakthrough into linguistic macrocosm as manifested in the shift from the study of separate words to the study of lexicographic types, on the one hand, and the study of large text units such as propositions and paragraphs, on the other; 3) the breakthrough into linguistic microcosm as manifested in the shift from the study of whole words in some of their aspects to what may be called lexicographic portrayal, that is, meticulous studies of separate word senses in all of their linguistically relevant aspects.

## 1. The naive picture of the world

The first development is concerned with reconstructing the so-called naive picture of the world, or the “world-view”, underlying the partly universal and partly language specific pattern of conceptualizations inherent in any natural language. This naive picture of the world can be fragmented into naive geometry, naive physics of time and space, naive psychology and so on. In many important respects they differ from the corresponding fragments of the scientific picture of the world and display a number of sufficiently general features cross-linguistically or across some specific part of lexicon within a single language. So the first use to which such a reconstruction may be put lexicographically is extracting a general scheme for a uniform description of a certain class of words. But the point of reconstructing the naive picture of the world is not confined to that alone. An important outgrowth of this trend was the search for a set of semantic primitives for representing lexical and grammatical meanings.

I shall try to substantiate these claims by analyzing a small portion of the naive psychology of emotions as reflected in lexicon and try to bring out its lexicographic relevance. Besides my own findings I shall rely on Wierzbicka (1972) and Iordanskaja (1970). In unambiguous contexts, for the sake of brevity, I shall use the term ‘emotion’ to refer to the respective emotion word.

The basic pattern of the naive psychology of emotions may be summed up as follows.

1) Emotions belong among the most complex states accessible to human beings because in most cases experiencing a certain emotion involves triggering into action nearly all the other basic systems of the human being. There are at least six such systems: physical perception, bodily activity, intellect, will, emotions, and speech.

In the majority of languages there are semantic primitives or rather near primitives to describe the basic concept of each system: ‘to perceive’ for perception, ‘to do’ for bodily activity, ‘to think (that)’ for intellect, ‘to want’ for will, ‘to feel’ for emotions, and ‘to say’ for speech. Let me note in parenthesis that most of these senses are listed as primitives in Anna Wierzbicka’s pioneering work on the semantics of diverse natural languages and on cross-cultural semantics. My suggestion that they should be called near primitives is based on the observation that they are not the simplest semantic constituents imaginable and are really not cross-cultural. Indeed, the English verb *to want*, presumably a primitive, shares a common semantic component with *to wish*. Yet this common component cannot be verbalized within English. So *to want* may be considered a primitive only in the

sense that it cannot be further decomposed. The same is true of the respective Russian verbs *hotet'* and *želat'*. What is still more interesting, the semantic relation of *want* to *wish* is different from the semantic relation of *hotet'* to *želat'*. *Want* suggests the idea of need whereas *hotet'* suggests the idea of intention. In point of fact such Russian phrases as *A teper' ja hoču spať* are ambiguous between the readings 'I want to sleep' and 'I intend to sleep'. If pursued to their logical end such considerations constitute a proof that universal semantics is unattainable and that the utmost we can do is to write language specific semantic descriptions and look for some universal features in the ways the world is visualized in different languages.

To go back to the main subject at issue, in the naive picture of the world perception, bodily activity, intellect, and will (but not speech) are treated as more or less autonomous systems. This is borne out by the fact that at a specified point in time one can know or think something without perceiving anything, without experiencing any emotions or desires and with no bodily activity involved. Likewise one can perceive, want or even do something without any emotional or intellectual motivation.

With emotions the situation is radically different. In the development of emotions as they are conceptualized in language the following five phases can be singled out:

a) The source of emotion – as a rule, physical perception or mental contemplation of a certain state of things; note that in order to *get mad at somebody* it is normally necessary to immediately perceive the offender, while for *feeling indignation over something* (for instance, *over the outrages of the police against the students*) it is sufficient to learn the relevant facts at second-hand.

b) The rational evaluation of the factor at issue as something probable or improbable, desirable or undesirable for the subject (cf. *hope, joy, love, happiness, admiration* as against *despair, sorrow, hatred, grief, indignation*; the role of intellectual assessment of the stimulus in the rise of emotions was first noted by B. Spinoza and has been repeatedly pointed out in subsequent literature on the subject.

c) Emotion proper, or the state of the soul conditioned by what one perceives or contemplates and by how one evaluates it; A. Wierzbicka describes this by means of the semantic components 'feeling good' or 'feeling bad'.

d) A desire to prolong or to check the action of the stimulus upon the subject motivated by the type of feeling and the type of rational evaluation of the stimulus; for example, in the state of *fear* the subject is prone to check the action of the stimulus by hiding himself somewhere and trying to occupy as little room as possible while in the state of *joy* he is prone to prolong the action of the stimulus and his whole being is prone to expand.

e) Physical or speech reactions of the subject motivated by this desire, his feeling or his rational evaluation of the stimulus.

To sum up the five points with one synthetic example, one feels *hatred* when one feels very bad due to perceiving or at least mentally contemplating an object or a situation which one evaluates as strongly unpleasant or hostile and which one might want to eliminate by destroying it. A similar emotion denoted by the word *aversion* presupposes the evaluation of some object or situation as utterly unpleasant but not necessarily hostile. One more point of difference is that this evaluation produces an impulse to discontinue contact with the object rather than to destroy it.

The hierarchical structure of the human psyche delineated above should be borne in mind in writing dictionary entries for emotion words. The general scheme should be the same for all of them. In particular, to be able to write systemic dictionary entries for emotion words the lexicographer should specify for each such word the type of factor causing the emotion, the type of feeling the subject experiences, the type of rational evaluation of the stimulus, the ways in which the emotion is manifested outwardly, including typical movements, speech acts, gesticulation or mimicry, and some other things.

2) Various systems of the human being are not on a par. The key role is played by the mind which controls the emotional states and behaviour of human beings by means of will. The crucial role assigned in the naive conceptualization of emotions to the mind and will as the ultimate controllers of emotional behaviour can be demonstrated by such word pairs as *ecstasy* and *joy*, *panic* and *fear*, *frenzy* and *excitement*. Currently the semantic difference between the members of such pairs is reduced to that of degree: *ecstasy* = 'great joy', *frenzy* = 'violent excitement'. (Oxford Advanced 1980). Such definitions fail to do justice to a more important aspect of their semantics. The left-hand nouns in every pair differ from their right-hand counterparts in suggesting so strong an emotion that the subject's mind and will can no longer control his behaviour. The relevance of this "loss-of control" principle is manifest in the domain of "symptomatic" emotional vocabulary as well; cf. the Russian verb *zameret'* 'to stop dead, to stand still' which denotes the cessation of any movement under a full control of one's mind, and its near synonyms *ocepenet'* 'to freeze (with fear etc)', *ostolbenet'* 'to be petrified (with fear, amazement etc)' which denote cessation of all movement as a result of total loss of control over one's behaviour.

3) Depending on the ratio of feeling proper and intellectual evaluation emotions are conceptualized as more or less primitive, primordial, elementary. Primitive, or elementary emotions, such as *joy*, *fury*, *fear*, presuppose not so much an intellectual evaluation of a certain state of things as desirable or undesirable but rather sensing that something is good or bad for the subject. Therefore primitive emotions are accessible not only to people but to higher animals as well. There are, however, more cultivated or more subtle emotions, such as *hope*, *anger*, *indignation*, *despair* and so on. They suggest a good share of intellectual evaluation of the situation and are therefore normally ascribed only to human beings. The difference between primordial and cultivated emotions is quite systematic and should be taken into account in their dictionary definitions.

The above opposition underlies one more division of emotions in the naive picture of the world. Emotions are conceived of as more or less elemental depending on the relative weight of intellectual evaluation and sheer feeling in their composition. Especially interesting in this respect is the fact that more elemental emotions such as *fear*, *panic*, *worry*, *terror*, *envy*, *jealousy* and so on, are conceived of as an alien force invading the subject from without. This bit of conceptualization is responsible for many combinatorial properties of the respective nouns. Note, in particular, that *fear overcomes a person, seizes or grips him, creeps over him*. People are said to be *consumed with envy, terror-stricken, possessed by jealousy*. In striking contrast to this is the combinatorial potential of names for less elemental, more rational emotions, such as *delight, admiration, surprise, amazement*. All of the above verbal collocations are absolutely ruled out for them, notwithstanding the fact that some of the more rational emotions are quite strong and, logically speaking, could be thought

of as fighting for the possession of someone's soul. This difference is also quite systematic and should be reflected in the dictionary.

4) The next two axes along which emotions are regularly conceptualized are depth and intensity. I shall abstain from commenting on the apparent difference between intensity and depth (cf. the pair *love* and *passion*, with the first member denoting a deeper but less intense emotion) and concentrate on intensity. For my subsequent discussion it will be sufficient to note that weaker emotions (*surprise, dislike, fear, sadness, anger, admiration*) are considered to be closer to the the prototype than their stronger counterparts (*amazement, hatred, horror, grief, fury, rapture*).

It seems obvious that the indication of greater intensity should be treated as a semantic constant to be regularly included in the dictionary definitions of the stronger emotions. Yet current dictionary practise is inconsistent in that respect. Whenever there is a minimal pair composed of a stronger emotion and its prototypical counterpart (*amazement – surprise, fury – anger, horror – fear, rapture – admiration*) the stronger emotion is defined as 'intense X', or 'great X' where X stands for the prototype. However, when there is no such pair, as is the case with *despair*, the specification is missing. That leaves the lexicographer with no tools to supply semantic motivation for the fact that *despair* is subject to the same selectional constraints as are *amazement, fury, horror, rapture*. Indeed, all the stronger emotions, including *despair*, can be normally graded by means of full or extreme degree epithets such as *unbridled fury, total <utter> amazement, indescribable <unspeakable> horror, complete <total, utter> rapture, utter despair*. On the other hand, collocations with usual great or small degree adjectives are ruled out for them; cf. the ungrammaticalness of *\*slight <strong> fury <amazement, horror, rapture>, \*slight <strong> despair*. To account for this fact systematically the dictionary maker should assign the same semantic component to the definition of *despair* as well.

5) As has already been stated emotions can be expressed outwardly and can therefore differ from one another by the type of outer manifestation. Such emotions as *jubilation, amazement, rapture* and *fury* require that they should be vented in speech, movement, gesticulation or mimicry to a much greater extent than do *joy, surprise, admiration*, and *anger*. As a matter of fact we can experience *joy, admiration, surprise* and *anger* without in the least betraying what we feel.

The importance attached in the naive picture of human psyche to the possibility of outer manifestation of emotions is emphasized by the fact that languages are prone to develop two sets of expressions to denote emotions per se and their outer manifestations. Cf. such adverbial phrases as *in anger, in despair, in amazement, in rapture*, on the one hand, and *with anger, with amazement, with rapture*, on the other. The *in*-phrases denote just 'being in a certain emotional state' whereas the *with*-phrases can suggest that the inner state of the subject shows in his outward behaviour. Consider, for instance, the semantic contrast in the pair *Look back in anger* and *Look back with anger*. In Russian this contrast is further upheld by formally distinct derivative descendents of the same root. Cf. *Emu bylo styd-no <bojaz-no>* 'He was ashamed <frightened>' (predicative) and *On styd-livo <bojaz-livo> posmotrel na menja* 'He looked at me shamefacedly <apprehensively>'. As these examples show, predicative adverbs *stydno* and *bojazno* denote just being in a certain emotional state, without any suggestion that it surfaces in any way, whereas pure adverbials *stydливо* and *bojazливо* clearly denote its outer manifestation. Needless to say that such distinctions should be retained in the dictionary.

6) One more important point about the naive conceptualization of emotions is their relation to the idea of light. By and large positive emotions, such as *love, joy, happiness*, are conceptualized as light, while negative emotions, such as *hatred, grief, despair, anger, fury, fear, horror*, are conceptualized as dark. The consistency with which English and Russian implement those two ideas is really amazing. We say *the light of love, His eyes beamed <were lit> with love <with joy>, Love <joy> lit up his face* but *His eyes were dark <darkened> with anger, He was dark with grief*. One cannot say *\*His face darkened with joy <love>* or *\*His face lit up with anger*. In the domain of colour metaphor even a slight suggestion of dark precludes the word from being used for a description of a positive emotion. One can be *pink with pleasure* and *livid with rage*, but not the other way about; *\*livid with pleasure* is ungrammatical while *?pink with rage* is more readily interpreted as intending a joke.

Curiously enough, in all these cases what we have to deal with is pure conceptualization, with next to none tangible physical reality behind it. The actual colour of the face may be the same for pleasure and anger, because the physiological processes of the blood rising to one's face are presumably identical. They are just conceptualized as different. By contrast, there are symptomatic expressions reflecting quite objective changes in the appearance of a human being under the stress of a certain emotion. Cf. *Her eyes opened wide with astonishment <narrowed with anger>*.

The naive pictures of the world are in many instances language specific, that is, nationally coloured. Yet they display a number of coincident traits featuring the universal ways in which human mind conceptualizes the world. The latter are definitely predominant. Therefore the first priority of systemic lexicography with regard to the naive picture of the world should be to capture those systematic features of lexicon which tend to be cross-linguistic.

## 2. Macrolinguistic research: lexicographic types

Up till the sixties synchronic theoretical linguistics was mostly definitional and classificational. The main object of study in all the branches of linguistics except syntax was the word, and the main concern of a theoretician was to define and classify various language units derivable from it (phonemes, morphemes, inflections, derivative suffixes, tenses, aspects and so on).

The basic linguistic knowledge that could be obtained in this way had been obtained by the middle of the century. To dig up something really new it became necessary to cross the borders of the familiar linguistic universe.

The focus of attention has started shifting from the word to ever larger units of language and text, such as lexicographic types, sentences, propositions, or whole paragraphs, thus effecting a breakthrough into what might be called language **macrocosm**. In this gradual movement from smaller to ever larger units a number of important linguistic discoveries have been made. I mean the discovery of combinatorial properties of words, especially of lexical functions and syntactic features in the sense of Mel'čuk (1974); see also Mel'čuk-Pertsov (1987); of periphrastic relations among phrases and sentences formulated by the same author within his "Meaning-Text" linguistic theory; of the multilayer structure of language meanings, both lexical and grammatical, that have come to be regarded as divisible into such logically distinct parts as assertions, presuppositions, modal frames, frames of reference (or observation); of the inner structure of assertions

within which strong and weak (deletable) semantic components have been singled out; of the laws of meaning interaction as evidenced in semantic amalgamation rules, especially rules of scope; of linguistic pragmatics; and so on. Below I shall illustrate the implications for systemic lexicography of the concept of lexicographic types proposed in Apresjan (1990).

This concept is distinct from the more familiar notion of a semantic class. Similarities and differences between lexemes pertain not only to their meaning but to their prosodic, morphological, syntactic, pragmatic, cooccurrence and other properties. All such properties constitute part of the linguistic competence of speakers. They become lexicographically relevant whenever they are sufficiently lexicalized, i.e. not automatically deducible by simple rules from any other stated properties of the respective items.

By a lexicographic type I mean a more or less closed group of lexemes which have a number of such linguistically relevant properties in common and require therefore a unified description in the dictionary and a unified set of rules for their grammatical treatment. The greater the number of such properties and of the rules referring to them the more interesting the lexicographic type.

To illustrate the concept I shall consider the Russian verb *vyjti* 'to go out'. Classifying its lexemes poses a really thorny problem because almost every lexeme belongs, by virtue of its various properties, to two or even more types.

*Vyjti* in its primary sense is, above all, a verb of locomotion. As such it has the valencies of the point of departure (*vyjti iz doma* 'to go out of the house'), the point of arrival (*vyjti vo dvor* 'to go out into the yard') and the route of locomotion (*vyjti čerez zadnjuju dver'* 'to go out through the back door'). Like any other verb of locomotion it freely combines with nominal groups and infinitives denoting the goal of action (*vyjti za gazetami* 'to go out for papers', *vyjti poguljat'* 'to go out to get some fresh air'). Like most other derivatives of the verb *idti* 'to walk, to go' it preserves the ability to denote the locomotion of trains, vessels and other transport means.

Secondly, *vyjti* contains the prefix *vy-* 'from'. When integrated in a locomotion verb this prefix features a unique meaning which up till now has been utterly ignored in explanatory dictionaries and theoretical work on Russian verbal derivation. A phrase like *A vyšel iz B v C* 'A went out from B (in) to C' means, among other things, that A moved from a more closed space B into a more open space C. One can say *Sobaka vyšla iz komnaty v koridor* 'The dog went out from the room into the corridor', but not *\*Sobaka vyšla iz koridora v komnatu* 'The dog went out from the corridor into the room'.

Interestingly enough, the differences between more and less closed spaces are treated in Russian as rather objective. They are not a matter of the speaker's or observer's conceptualization. In the more closed spaces there are fewer possibilities of entry or exit and more obstacles for moving about. Neither are they a matter of size. Characteristically, we say *Mal'čik vyšel iz lesa na poljanu* 'The boy came to a clearing in the forest', and not *\*Mal'čik vyšel s poljany v les* 'The boy came to the forest from the clearing', although a clearing in the forest must surely be smaller than the forest itself.

The prefix *vy-* in the meaning at issue is antonymous to the prefix *v-*; in particular, *A vošel v B iz C* 'A came into B from C' means, apart from some other things, that A moved into a more closed space B from a more open space C. Therefore one can say *vojti v komnatu iz koridora* 'to step into the room from the corridor', but not *vojti v koridor iz komnaty* 'to enter the corridor from the room'.

This distinction is characteristic of all locomotion verbs in *vy-* and *v-*, including causatives. Lexicographically this is as much as to say that the type “*vy-* + a verb of locomotion” should be handled against the background of the type “*v-* + a verb of locomotion”, and that the treatment of both types should be consistent all the way through. But it would be rash to expect absolute structural similarity between them. The lexicographer should be on the alert for a situation where the two types diverge, and make allowances for certain gaps in one or the other of them. Note, for instance, that some *vy-*verbs of locomotion may have the meanings of removal or dispatch for which the opposition of closed and open spaces is irrelevant; cf. *Vsju mebel' uže vyvezli* ‘All the furniture has been removed already’, *Zavtra my vyezžаем za granicu* ‘Tomorrow we are going abroad’. The *v-*verbs have no counterparts of these meanings.

The fourth lexicographic type to be taken into account in writing dictionary entries for *vy-*verbs of locomotion is far less apparent. Let me start by stating that there are relatively simple ideas of position in space, property or state, and existence underlying various lexical meanings of the overwhelming majority of physical action verbs. They form the semantic foundation of verbal lexicon in a great many languages because they model the most elementary situations in which real world objects occur and are thought of by the speakers. Dynamic physical action verbs add to them the ideas of change or causation of change. Cf. *vyjti* ‘to walk out’ = ‘to change one’s position in space by walking’, *vyvesti kogo-l. na ulicu* ‘to walk smb. out into the street’ = ‘to make somebody change his/her position in space by walking’, *Iz vašej dočeri vyjdet horošaja žena* ‘Your daughter will make a good wife’ = ‘... will change her state or properties to those of a good wife’, *Vyšla neprijatnost'* ‘An unpleasantness was brought about’ = ‘There started to exist an unpleasantness’.

One more point to be made in this connection is that the combination of meanings ‘to find oneself somewhere’ (locative), ‘to be in a state’ (classifying copular), and ‘to exist’ (existential) is the most salient feature of copulas, above all the verb *byt'* ‘to be’, in a number of languages.

The upshot of the above considerations is that in tackling a locomotion verb the lexicographer should look for the “*byt'*-combination” of meanings in its semantic structure. Should he find such a combination, the semantic structure of the verb in question must be patterned after that of the verb *byt'* to the extent compatible with facts. With regard to the verb *vyjti* it amounts to classifying and ordering such meanings as *vyjti iz bol'nicy* ‘to cease being treated in hospital’, *vyjti na rabotu* ‘to start going to work again (after an illness etc)’ (locative meanings); *vyjti iz sostava komissii* ‘to cease being member of the commission’, *vyjti zamuž* ‘to start being somebody’s wife’ (copular meanings); *Vyšlo okolo kubometra drov* ‘About a cubic metre of logs ceased to exist as a result of having been used up’, *Vyšla krupnaja neprijatnost'* ‘A lot of unpleasantness was brought about [= started to exist]’ (existential meanings), etc.

It turns out then that in elaborating the semantic structure (and the dictionary entry) of the verb *vyjti* one should take into account the requirements of at least four related but not necessarily parallel (in fact, sometimes sufficiently divergent) lexicographic types.

The individual properties of the verb should also be taken into account; cf. the systematic alternation of the senses ‘to cease’ and ‘to start’ in every group of meanings: ‘to cease / to start being somewhere’ (*vyjti iz bol'nicy* – *vyjti na rabotu*); ‘to cease / to start

being something' (*vyjti iz sostava komissii – vyjti замуž*); 'to cease / to start to exist' (*Vyšlo okolo kubometra drov – Vyšla neprijatnost'*).

In view of all these facts one can never hope to produce a purely scientific and systematic picture of the vocabulary under consideration, i.e., to arrange the whole of it in absolutely consistent lexicographic types. Yet, although ideals are by definition unattainable, to get as close to them as possible should be a must for the lexicographer.

It has been stated at the close of section 1 that the naive pictures of the world are partly universal and partly language specific, with the priority of the former over the latter. Lexicographic types are also partly universal and partly language specific, but in this case language specificity (cf. the ideas of the Russian prefixes *vy-* and *v-*) takes precedence over universality (cf. the typically copular combination of core meanings underlying the semantic structure of locomotion verbs in various languages). Therefore the first priority of systematic lexicography with regard to lexicographic types should be to capture those systematic features of lexicon which tend to be language specific.

### 3. Microlinguistic research: lexicographic portraits

As has been stated above, at the turn of the fifties there was a change of bias in theoretical linguistics. The focus of attention has started shifting from the word to ever larger units of language and text, such as sentences, propositions, or whole paragraphs, resulting in a breakthrough into language macrocosm.

On the other hand, the focus of attention has shifted from the word to a smaller, probably the elementary vocabulary unit, namely a word-meaning, thus bringing about a breakthrough into what might be called language microcosm. It has given rise to an entirely new branch of linguistics that has a pronounced lexicographic bias and has aptly been termed linguistic portrayal.

The term "portrayal" with respect to lexical description was first employed by Žolkovskij (1964, 9). However, what he had in mind was the portrayal of sense alone. No other properties of words were seriously taken into account. On the other hand, even in sense explication it was not deemed necessary to follow a unified procedure: lexicographic portraits were not required to fit lexicographic types.

Later the conception of what is lexicographically relevant was considerably broadened. In particular, a much fuller description of semantic and selectional properties of words was undertaken in Mel'čuk-Žolkovskij (1984), followed up by a series of similar publications on French and English. Note in particular Mel'čuk (1984).

Over the seventies and eighties such studies expanded into a thriving new domain of theoretical linguistics. Separate lexemes have become the objects of full-fledged investigations. One might easily recall hundreds of lexemes that have called forth dozens of investigations; cf. such lexemes as *cause, aim, event, soul, destiny, love, hatred, be, have, know, believe, kill, high, tall, long, short, alone, every, each, all, any, few, many, now, then, how, here, this, that, in front of, behind, only, even, also, almost, and, or, not*, to mention but a few (cf. Iordanskaja 1970, Wierzbicka 1972, 1985, 1987 and other books by the same author, Fillmore 1973, Padučeva 1974, Mel'čuk 1985, Boguslavskij 1985, Zaliznjak 1986, Sannikov 1989, Apresjan 1990, Semiotika i informatika 1992 and similar work).

Within this domain, every lexeme is meticulously examined in all of its linguistically relevant aspects, which include semantics, pragmatics, communicative (thematic or rhe-

matic) values, style, syntactic properties, selectional restrictions, morphology, prosody (phrasal stresses) and the like. This analysis purports to do the following three things: to explain how the semantics of a lexeme motivates all the other of its relevant properties; to uncover its systemic relations with other lexemes within the polysemous word it belongs to and the lexicon at large; and to formulate the rules of the lexeme's interaction with the lexical and grammatical material of the utterance it occurs in.

The last principle requires, among other things, that every lexeme in the dictionary should be explicitly assigned all the properties that linguistic rules may refer to. The list of such rules includes not only grammatical rules proper, but semantic, pragmatic, and some other rules as well.

Once the given lexeme is viewed against the whole set of linguistic rules, an entirely novel point of observation is created. It highlights absolutely new facets of lexemes and helps to uncover a number of their lexicographically relevant properties that could hardly be guessed at otherwise.

By a lexicographic portrait I shall mean a maximally exhaustive characterization of all the linguistically relevant properties of a lexeme carried out within the framework of a unified, or integrated description of dictionary and grammar. It differs in a number of important ways from a lexical entry in the current type of explanatory dictionary.

The first point of difference between a lexicographic portrait and a traditional explanatory dictionary entry consists precisely in the fact that the former is much richer in the types of information included.

Among the types customarily ignored in the current explanatory dictionaries one can list pragmatic, communicative and prosodic information. All these types of information should be characterized from two points of view. On the one hand, they are important paradigmatically as constituent parts of the lexeme itself. On the other hand, they may be projected upon its combinatory, or cooccurrence properties. Up till now it has been customary to describe only lexical and semantic cooccurrence properties of lexemes. Recently prosodic, pragmatic, and communicative cooccurrence properties, not to speak of morphological and syntactic, have been shown to be equally important for dictionary making.

I shall illustrate the point by a Russian example of prosodic differences and similarities between synonyms. Consider the phrase *Sam Aleksandr Vasil'evič Suhovo-Kobylin, živja v svoem imenii v Kobylinke, vyhodil k stolu vo frake i v belom galstuke daže togda, kogda ne bylo ni edinogo gostja* 'As for Aleksandr Vasil'evič Suhovo-Kobylin, who lived in his family estate in Kobylinka, he came down for dinner dressed in a tail-coat and wearing a necktie even when there was not a single guest in the house' (S. Rassadin). With respect to the intended meaning this phrase should be pronounced with a logical (contrastive) stress on the first word: ↓↓*Sam Suhovo-Kobylin*. This is the thematizing *sam* (call it *sam 1*), which is synonymous to such set phrases as *čto kasaetsa* 'as regards' *čto do* 'as to, as for' and so on. It marks off the syntactically dominant substantive group to its right as the (contrasted) theme (topic) of the proposition: some other people or, probably, any other person, living in the country in complete isolation, would have sunk into total degradation, whereas Suhovo-Kobylin kept up his dignity notwithstanding the untoward circumstances. *Sam 1* differs from most of its synonyms which have the same thematizing function and the same linear position with respect to the noun group in that it bears a logical stress. The synonyms quoted above are themselves phrasally unstressed. How-

ever they have an interesting cooccurrence prosodic property: they induce a logical stress on the head node of the substantive group to which they refer: *Čto kasaetsja < čto do> Suhovo-↓Kobylina, to on vyhodil k stolu vo frake i belom galstuke* 'As for Suhovo-Kobylin, he came down for dinner dressed in his tail-coat and wearing a necktie'.

Remarkably interesting in this respect is another lexical meaning of the word *sam* (call it *sam 2*) in which it is synonymous to the adverb *lično* 'personally, in person'. Consider the phrase *Sam Suhovo-↓Kobylin vyhodil k gostjam v takie dni* 'Suhovo-Kobylin himself came down to his guests on such days'; cf. *Suhovo-Kobylin ↓lično vyhodil k gostjam v takie dni* 'Suhovo-Kobylin personally came down to his guests on such days'. The meaning of *sam 2* and *lično* may be approximately formulated as 'You should know that even such an important person as NN, did this and that'. *sam 2* fulfils the rhematizing function: it marks off the syntactically dominant substantive group to its right as the rheme (focus) of the proposition. What is most remarkable about it is the fact that while the thematizing *sam1* bears the logical stress, the rhematizing *sam2* is phrasally unstressed, that is, pronounced without any prosodic emphasis. Yet it induces the main phrasal stress to fall upon the head node (in our example, on the word *Kobylin*) of the substantive group it singles out. That is its co-occurrence prosodic property. Another remarkable thing is that the adverb *lično* which is a close synonym of *sam 2* is prosodically opposed to the latter: *lično* itself normally bears the main phrasal stress.

To sum up, the distribution of phrasal stresses in the synonymic groups *sam 1* and *sam 2* is diametrically opposite. In the former, *sam 1* is logically stressed while its synonyms are phrasally unstressed. Yet they possess an interesting co-occurrence prosodic function of calling forth the same kind of logical stress on the head word of the substantive group to which they refer. In the latter, *sam 2* is phrasally unstressed while its synonyms bear the main phrasal stress. Yet *sam 2* has the co-occurrence prosodic function of calling forth the main phrasal stress on the head word of the substantive group to which it refers. Although the prosodic properties of synonyms are thus different, their communicative (thematizing or rhematizing) functions within the given group remain identical.

The knowledge of such prosodic properties is an important part of the linguistic competence of speakers and should be stated somewhere in the linguistic description of Russian. I suggest that irrespective of whether they are generalizable or not they should be mentioned in the dictionary entries of the lexemes at issue because the latter form a closed and rather small class. It goes without saying that a suitable lexicographic notation for recording such properties should be devised.

The second peculiarity of the lexicographic portrait consists in the manner of organizing lexicographic information. Formerly even the best dictionaries confined themselves to listing separately various properties of a lexeme. The principles of lexicographic portrayal require that every lexical entry should give a more insightful picture of how various facets of a lexeme interact with one another. It is obvious, for example, that the lexeme's government pattern, if there is any, should be deducible from its meaning. The same is true of the greater part of prosodic information. Since it has been utterly neglected in dictionaries, I shall adduce one more prosodic example to illustrate its importance.

There are well known semantic and syntactic differences between factive and putative verbs. 1) Factives, like *to know*, *to understand*, *to see* (in the meaning of 'to understand') presuppose the truth of the subordinate clause: from *I didn't know that he had arrived it*

follows that he had arrived. Putatives, like *to believe*, *to consider*, *to think* (that) have no such presupposition: from *I didn't think that he had arrived* it does not follow that he had arrived. 2) Knowledge is transitive: from *I know that he knows that John has arrived* it follows that John has arrived. Opinion is not transitive: from *I think that he thinks that John has arrived* it does not follow that John has arrived. 3) Factives easily combine not only with that-clauses but also with relative clauses: *I know where <with whom, why> he has arrived*. With putatives the latter constructions are ruled out: *\*I think where <with whom, why> he has arrived*.

What has been neglected even in theoretical studies of factives and putatives are their prosodic distinctions. The most important of them is that factives can bear the main phrasal stress whereas putatives cannot; cf. *I knew <↓understood> he was in trouble*, *I ↓see what you are driving at*, but not *\*I ↓considered <↓believed> he was in trouble*. The only possible type of phrasal stress for the putatives is the logical, or contrasted stress: *Do you ↓believe <↓think> he is in trouble or do you know it?*

If a verb has two meanings, a factive and a putative, it is only in the former that it can be normally phrasally stressed. Note the difference in the interpretation of the verb *to understand* in such sentences as *I ↓understand he is in trouble* ('He is in trouble') and *I understand he is in ↓trouble* (I am doubtful about whether he is in trouble or not and am asking for information rather than asserting anything).

These differences carry over to all sorts of factives and putatives, in particular, to factive and putative adjectives and adverbs. The adjective *real* deserves a special comment in this connection. It has two distinct meanings, factive and putative, which feature quite interesting prosodic differences in the syntactic construction *X is a real Y*. The factive meaning of *real* can be formulated as 'belonging to the class of Y's and having all the essential properties of this class'. The putative meaning of *real* can be formulated as 'resembling an object belonging to the class of Y's but devoid of the most essential property of Y'. When used in the predicative construction mentioned above *real* bears the main phrasal stress in the factive meaning and is left unstressed in the milder putative meaning. So one should be very careful of one's phrasal stresses in making a statement like *Your son is a real gangster*: there is a world of difference between *Your son is a real ↓gangster* (naughty, disorderly, misbehaving) and *Your son is a ↓real gangster* (robs people and engages in all sorts of criminal activities).

Prosodic distinctions in this case are semantically quite well motivated: it is natural and cooperative to call attention to what you know for sure by prosodically emphasizing it. So there must be a rule in the linguistic description of English (and many other languages) to that effect. Yet it seems a good provision to have this information duplicated in the dictionary entries of the respective lexemes. First of all there may be some prosodic niceties associated with a particular lexeme. Secondly, to make their products sufficiently autonomous lexicographers use the device of duplication even in far less interesting cases.

The third distinctive feature of a lexicographic portrait has to do with the treatment of lexical meaning. Current dictionary definitions are one-layer structures in the sense that all the meaning components included in them are, so to say, on a par with one another. Yet in the semantic research of the last two or three decades lexical meaning has been demonstrated to be a complex multilayer structure, with such logically distinct layers of meaning as presuppositions and assertions, modal frames and frames of reference (ob-

servation), strong and weak (optional, implicational) elements in the assertive parts, motivations of speech acts and so on. They are different in that they react differently to other semantic units occurring in the same proposition, for example, to negation and antonyms, to quantifiers and evaluative words and so on. All these layers of meaning should be done full justice to in the lexicographic portrait of a lexeme.

Up till now I have been considering what might be called linguistic requirements proper that a lexicographic portrait should meet. There are some metalinguistic requirements as well, the most important of them being the requirement of conforming to a certain lexicographic type. This concept has been discussed above and need not be further elaborated.

#### 4. Conclusion.

I have considered three seemingly heterogeneous factors operative in contemporary lexicography whose joint effect is surprizingly homogeneous in that it stimulates the rise of systemic lexicography.

The key requirements for a systemic treatment of lexicon are 1) to incorporate in the dictionary the naive picture of the world reflected in the given language, 2) to describe lexical items in conjunction with grammatical rules within the framework of an integrated theory of language, 3) to reduce complex meanings, by gradually decomposing them, to the set of semantic primitives underlying naive conceptualizations, 4) to present lexical items as members of lexicographic types, 5) to delineate their lexicographic portraits.

Observance of these requirements provides the foundation for a principled solution of two main problems confronting any dictionary maker – the problem of a unified treatment of the recurrent properties of lexemes and the problem of identifying their individual properties. On the other hand, observance of these requirements allows to specify all the knowledge which is presumed to constitute the linguistic competence of speakers.

It is precisely this kind of dictionary that may have a claim to a theoretical status comparable to that of grammar, because it gives a systemic description of lexicon. On the other hand, it is precisely this kind of dictionary that may claim maximal practical usefulness because it teaches to speak.

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