Ludmila Minaeva, Moscow State University

Word and Word Combination in ESP

Abstract

The spread of English as a means of international intellective communication offers lexicographers a unique opportunity to make a dictionary which would be used by thousands of people involved in specialised discourse. The purpose of the present paper is to explore the ways in which the treatment of specialised discourse in learner's lexicography can be improved. The paper attempts to make some lexicographically significant generalisations concerning lexical stratification of this register and communicative relevance of the word and word-combination as units of discourse.

ESP, the subject of this paper, has been the heart of EFE methodology for several decades. By a strange quirk there have been only a few attempts to discuss it in terms of lexicography (see, for example, Hollosy 1990, Knowles, Roe 1994). True, there has been extensive coverage of the area of specialised discourse in terminography which naturally focused on metalinguistic units of various structural complexities. A conspicuous result has been the publication of a great number of terminological dictionaries. They provide the producers and processors of specialised knowledge with reliable "tools of their trade" which facilitate communication within certain fields.

But, due to the explosion of information enabled by advances of technology and dissemination techniques, interaction of scientists working in different fields has become crucial. The communication across disciplines requires a minute analysis, description and lexicographic presentation of both special vocabulary, or terms, and what is known as general scientific lexis (GSL), that is "words most naturally used to impart intellective information, irrespective of whether the information is strictly scientific and pertains to exact sciences, or whether the information is connected with findings, observations and generalizations in the broader field of the Humanities" (Akhmanova, Idzelis 1978:76).

Terminology and GSL are very closely connected, both historically and functionally. As far as Russian linguistics is concerned an important contribution to the investigation of terminology and GSL was made by N. Koshanskiy who in the 1850s formulated the basic tenet of discriminating between the two classes of words: the content of a specialised

discipline is first "shaped" by means of more abstract words, to be later specified and communicated by means of rigorously defined terms.

Lexical stratification of scientific text became obvious only in the 20th century, when some words of general language acquired contextual meanings different from those registered by dictionaries. Thus, GSL became different from terms, on the one hand, and words of general language, on the other.

GSL consists of two layers: words which are "semantically universal", that is their meaning does not change in texts on different subjects, and discipline variable words.

GSL of the first type can be conceptually organised following the principle of stages of research work: 1) Prospect, outlook (*adhere, assume, assumption, expect, intend, postulate,* etc.), 2) Acquiring knowledge (*adopt, borrow, collect, discover, investigate, observe,* etc.), 3) Organisation and systematization (*ascribe, classification, correspond, differ, include, restrict,* etc.), 4) Checking up (*check, clarify, clarity, correctness, exception, reconsider,* etc.), 5) Making conclusions (*abstract, assess, believe, conclude, deduce, generalize,* etc.), 6) Passing on knowledge (*advise, consult, expound, exemplify, repeat, review,* etc.) (Akhmanova, Idzelis 1978).

GSL of the second type comprises words like *system, element, structure,* etc. As has been mentioned above these words may have different meanings depending on the branch of knowledge (see the analysis of the word *structure* in Rozhdestvenski 1995). More than that, GSL of this type can be "author specific". A case in point is the use of "system" and "structure" by J. R. Firth (Firth 1957). Thus, the lexis of specialised discourse lends itself to the following stratification: 1) words of general language (function and common core words), 2) GSL of "universal semantics", 3) discipline variable GSL, 4) terms.

In spite of their semantic differences from each other, words of all layers share one essential functional feature: all of them rely heavily on pre-programmed structures and can thus be more easily understood by speakers once they have mastered the necessary repertoire of word combinations based on the above mentioned classes of words.

Recent investigations in the field of discourse analysis have shown that full lexical articulation of the flow of speech is observed only in the register of fiction where the word tries to emancipate itself from its immediate context. In specialised discourse, on the contrary, the word is apt to be engulfed by the word-combination (Minaeva 1986). The following two sentences borrowed from fiction (1) and scientific English (2) will suffice to show that the enthropy is far more favourable in specialised discourse: 1) *Together they had seen a forlorn man's figure in*

a melancholy overcoat. 2) *It follows from what has just been said that the study of syntactic bond is of paramount importance.* Psycholinguistic analysis has proved that in the second case one can leave out 50%, of speech material and nevertheless be understood because of the clichéd character specialised discourse.

It does not require a very close examination to see that word-combinations excerpted from the two registers clearly have much in common colligationally, but equally clearly they differ in certain collocational aspects. Thus, for instance, our linguistic intuitions make us expect to find that *melancholy* may be followed by nouns denoting people (*girl, man, person,* etc.), or emotions (*mood, feeling,* etc.) or sounds (*melody, song, tune,* etc.). These preconceptions are destroyed by the wordcombination *a melancholy overcoat* which can be described as "free" because the semantics of the adjective does not help to predict the noun it collocates with.

In this respect a *melancholy overcoat* differs from more or less stable collocations of specialised discourse. The latter, however, are not homogeneous either. For example, *syntactic bond* is a term whose collocational globality is determined by the cognitive value of the underlying notion, whereas *paramount importance* is part of a clichéd phrase *to be of paramount importance,* which is fairly common in formal English.

The evidence of the adduced examples suggests that some criteria are needed to discriminate between different kinds of word-combinations typical of specialised discourse. Taking as a starting point the work of Svetlana Ter-Minasova (1982) we can consider each colligationally acceptable word-combination in terms of the following categories: category of connotativeness, category of clichéd expression, category of idiomaticity, category of conceptual integrity, category of sociolinguistic determination. As specialised discourse abounds in terms which themselves consist of more than one word it is necessary to add to the above list the category of definability based on the principal of *genus proximum et differentia specifica.* The categorial method was applied to the analysis of a collection of examples from a corpus of published texts on linguistics, foreign language teaching methodology, physics, economics and mathematics (amounting to about 50,000 words). All functional concatnations of words were retrieved from the corpus. The patterns A+N, V+N and syntactically complex structures which function as text organizers provided the basis for the discussion below.

I should first point to the range and variety of wordcombinations based on the patterns A+N and V+N: 1) terms (e.g. *syntactic bond*), 2) nomenclature units (e.g. *natural monopoly; grammatical morpheme*); 3)

metalinguistic variable collocations (e.g. *to incur/to suffer/to sustain losses; to suffer losses/unemployment/inflation,* etc); 4) metalinguistic restricted collocations (e.g. *to depress the market, to coin words*); 5) general scientific variable collocations (e.g. *to advance/to advocate/to present/to propose/to suggest a theory; to propose a theory / a solution/ a scheme,* etc.); 6) general scientific restricted collocations (e.g. *to retrieve information*), 7) phraseological unit (e.g. *to make sense, to take part*), 8) idioms (e.g. *to gain ground, a closed book*); 9) general language variable collocations (e.g. *to help teachers/students/children* etc.); 10) general language restricted collocations (e.g. *to kill jokes*). The majority of wordcombinations under analysis are nonconnotative, clichéd and conceptually integral. Quite a few of them are characterised by lexical-phraseological idiomaticity, some – by definability and very few are sociolinguistically determined. The number of idioms and general language collocations is very small. The former are too connotative for specialised discourse and are used only as a rhetorical device. Words of general language function as components of metalinguistic and general scientific collocations, both variable and restricted. Only occasionally do we find general language collocations, mainly in illustrative material or in metaphoric language. Thus, we are justified in concluding that the texture of specialised discourse is created by nonconnotative, clichéd, conceptually integral wordcombinations, many of which are phrase-ologically idiomatic. One more point should be made in connection with the above analysis. It is now often observed that "in a rapidly shrinking world, many different cultures have come into close contact with one another, calling for a mutual understanding not only in terms of one's own culture but also in terms of the one encountered" (Iser 1995:30). International intellective communication, however, is culturally fairly homogeneous, because although various cultures differ in their commu-nicative strategies *most institutional discourse especially in specialised fields continues to reflect only the official strategies of monocultural written discourse* (Beaugrande 1995). This statement can be proved by numerous clichéd text organizers: *it is a well known fact that...; one point must be made at the outset...; it should be noted in this connnection that...; it follows from what has just been said...; it must be emphasized that...; if this is the case...; as has been mentioned above...* etc.

Now, how is all this connected with lexicography? A shift from the structural, formal approach to language to the communicative approach, on the one hand, and the emphasis on learner autonomy and in-dependence, on the other, stress the importance of a reference book which would be a cross between a defining dictionary of most essential terms and GSL, and a combinatory one. It is at this point where we

encounter an important question: what design features of this reference book may give particular help to users in guiding them to better proficiency. We might consider three versions of lexicographic presentation of ESP.

The first model is a modified entry in general purpose dictionaries. The label "LSP" could be used to draw the user's attention to meanings and collocations typical of specialised discourse. In this case the correlation of general language and ESP comes to the fore.

In the second case, emphasis remains very strongly on specialised discourse: GSL is included in dictionaries of scientific usage. This appears as the most logical model. The dictionary comprises GSL for multi-purpose use and discipline-specific terms concentrating on particular fields of knowledge.

Third, a new dictionary dealing with ESP may be added to the list of learner's reference books. It can be placed between general purpose and terminological dictionaries.

The dictionary of specialised discourse must combine semantic explanations of GSL with series of collocations. A special emphasis should be placed on phraseological units and text organizers which make academic discourse clear and coherent. Thus, the dictionary can satisfy both decoding and encoding needs of those who are involved in specialised communication. Here are two tentative entries of "Dictionary of Specialised Discourse for Russian Learners of English" which is at present under way (Minaeva, Chernova):

```
structure ·¹  noun                          [strʌktʃə]

1 строение, внутреннее устройство:          1~~ an
This structure of the course in            analogous,
economics is particularly complex.         artificial,
2  ling обобщенное обозначение              complex, well-
инвариантных особенностей звукового,        organized
фонологического, морфологического и        structure; econ
морфонологического составов языка в        a corporate,
плане их соотношения друг с другом;        economic,
внутренняя организованность языка          financial,
как семиологической системы,               price, tax, wage
ограничивающая свободу                     structure; ling
воспроизведения его элементов              a conceptual,
▲deep/surface structure  глубинная/         language,
поверхностная структура.                   sentence
3 math математическая структура –          structure; math
родовое название, объединяющее             an analytic,
понятия, общей чертой которых              differential,
```

241

является то, что они применяемы к множествам, природа элементов которых не определена. Чтобы определить структуру . задают отношения, в которых находятся элементы множества (типовая характеристика структуры), затем постулируют, что данные отношения удовлетворяют условиям - аксиомам структуры

▲structure space of a ring - структурное пространство кольца.

fact *noun*

обстоятельство, факт, событие: We cannot discuss this issue in the abstract, let us concentrate on the facts.

projective **structure**; *phys* a molecular **structure**; to analyse, consider, describe the **structure** of; the **structute** consists of

/fækt/
~~ a basic, different, essential, general, important, major, significant, various **fact**; an accepted,

established,
indisputable,
unquestionable,
well-known **fact**;
to check,
confirm, verify
a **fact**; to cite,
collect, gather,
present a **fact**;
to distort,
ignore, twist
(the) **facts** ◊
a   cold, dry,
hard **fact** ♦ as
a matter of
fact; in **fact**;
in point of
fact;   the ⬄
fact is that

Key to the entry:

~~   collocations
◊   restricted collocations
♦   phraseological units and idioms
⬄   text organizers
▲   specialised terms

References

Akhmanova, O., Idzelis, R. 1978. *What is the English We Use?* Moscow University Press, Moscow.

Beaugrande, R. de 1995. Access to Knowledge through Specialised Discourse: 'Dimension' as a Term and Concept in the 'New Physics'. Plenary paper at MAAL - 95 International Conference (in print).

Firth, J.R, 1957. A Synopsis of Linguistic Theory. In: Firth, J.R. et al. *Studies in Linguistic Analysis,* Oxford: Blackwell (Special Volume of the Philological Society).

Hollosy, B. 1990. On the Need of the Academic English. In: T. Magay, J. Zigany (eds). *BudaLEX'88 Proceedings. Papers from the Third International EURALEX Congress, Budapest, 4–9 September 1988,* Akademiai Kiado, Budapest.

Iser, W. 1995. On Translatability: Variables of the Interpretation. In: *The European English Messenger, IV, 1.*

Knowles, F., Roe, P. 1994. LSP and the Notion of Distribution as a Basis for Lexicography. In: Willy Martin et al (eds.) *EURALEX 1994 Proceedings. Papers submitted to the 6th EURALEX International Congress of Lexicography in Amsterdam.*

Minaeva, L.V. 1986. *Slovo v jazike i rechi.* Visshaja Shkola, Moskva.

Minaeva, L., Chernava. Learner's Dictionary of Specialised Discourse. (in print).

Rozhdestvenski, J. 1995. Otnoshenije obshchenauchnoj lexiki terminologii. In: Tatarinov, V.A. (ed.) *Terminovedenije* 2–3, Moskovskij Litsey, Moskva.

Ter-Minasova, S.G. 1982. *Sintagmatika: Ontologija i Euristica.* Moscow University Press, Moscow.