SEMANTICS AS A SCIENCE

Language is the amber in which a thousand precious and subtle thoughts have been safely embedded and preserved.
(From Word and Phrase by J. Fitzgerald)

As it has already been said, the internal structure of the word is its meaning or semantics.
The linguistic science at present is not able to put forward a definition of meaning which is conclusive. However, there are certain facts of which we can be reasonably sure, and one of them is that the very function of the word as a unit of communication is made possible by its possessing a meaning. Therefore, among various characteristics of the word, meaning is certainly the most important.

Generally speaking, meaning can be more or less described as a component of the word through which a concept is communicated, in this way endowing the word with the ability of denoting real objects, qualities, actions and abstract notions. The complex and somewhat mysterious relationships between referent (object, etc. denoted by the word), concept and word are traditionally represented by the following triangle [Fig. 1].

By the symbol here the word is meant; by thought or reference stands the concept. The dotted line suggests that there is no immediate relation between the word and the referent: it is established only through the concept: in different languages one and the same referent is designed with the help of different signs.

The concept is a mental image of a certain object, action, phenomenon, etc., which may and may not be implemented verbally, i.e. in the language. The mechanism by which concepts (i.e. mental phenomena) are converted into words (i.e. linguistic phenomena) and the reverse process by which a heard or a printed word is converted into a kind of mental picture are not yet understood or described.

The branch of linguistics, which deals with in the study of meaning is called semantics.

The modern approach to semantics is based on the assumption that the inner form of the word (i.e. its meaning) presents a structure, which is called the semantic structure of the word.

Yet, before going deeper into this problem, it is necessary to make a brief survey of another semantic phenomenon, which is closely connected with it.

POLYSEMY. SEMANTIC STRUCTURE OF THE WORD. PRINCIPLES OF SEMANTIC ANALYSIS

Semantic structure of the word does not comprise an indissoluble unity (that is, actually, why it is referred to as "structure"), nor does it necessarily stand for one concept. It is generally known that most words implement several concepts and thus possess the corresponding number of meanings. A word having several meanings is called polysemantic, and the ability of words to have more than one meaning is described by the term polysemy.

Two somewhat naive but frequently asked questions may arise in connection with polysemy:
1. Is polysemy an anomaly or a general rule in English vocabulary?
2. Is polysemy an advantage or a disadvantage so far as the process of communication is concerned?

Let us deal with both these questions together.

Polysemy is certainly not an anomaly. Most English words are polysemantic. It should be noted that the wealth of expressive resources of a language largely depends on the degree to which polysemy has developed in the language. Sometimes it is claimed that a language lacks words if the need arises for the same word to name different phenomena. Actually, it is exactly the opposite: if each word is found to be capable of conveying at least two concepts instead of one, the expressive potential of the whole vocabulary increases twofold. Hence, a well-developed polysemy is not a drawback but a great advantage in a
language.

On the other hand, it should be pointed out that the number of sound combinations that human speech organs can produce is limited. Therefore at a certain stage of language development the production of new words by morphological means becomes limited, and polysemy becomes increasingly important in providing the means for enriching the vocabulary. Hence, the process of enriching the vocabulary does not consist merely in adding new words to it, but, also, in the constant development of polysemy.

The system of meanings of any polysemantic word develops gradually, mostly over the centuries, as more and more new meanings are either added to old ones, or oust some of them. So the complicated processes of polysemy development involve both the appearance of new meanings and the loss of old ones. Yet, the general tendency with English vocabulary at the modern stage of its history is to increase the total number of its meanings and in this way to provide for a quantitative and qualitative growth of the language expressive resources.

When analysing the semantic structure of a polysemantic word, it is necessary to distinguish between two levels of analysis.

At the first level semantic structure of a word is treated as a system of meanings. For example, semantic structure of the noun fire could be roughly presented by this scheme (only the most frequent meanings are given) [Fig.2].

The above scheme suggests that meaning I holds a kind of dominance over the other meanings conveying the concept in the most general way whereas meanings II—V are associated with special circumstances, aspects and instances of the same phenomenon.

Meaning I (generally referred to as the main meaning) presents the centre of the semantic structure of the word holding it together. It is mainly through meaning I that meanings II—V (they are called secondary meanings) can be associated with one another, some of them exclusively through meaning I, as, for instance, meanings IV and V.

It would hardly be possible to establish any logical associations between some of the meanings of the noun bar except through the main meaning. (Only a fragment of the semantic structure of bar is presented so as to illustrate the point) [Fig.3].

Meanings II and III have no logical links with one another whereas each separately is easily associated with meaning I: meaning II due to the traditional barrier dividing a court-room into two parts; meaning III due to the counter serving as a kind of barrier between the customers of a pub and the barman.

Yet, it is not in every polysemantic word where such a centre can be found. Some semantic structures are arranged according to a different principle. In the following list of meanings of the adjective dull one can hardly hope to find a generalized meaning covering and folding together the rest of the semantic structure [Fig.4].

One distinctly feels, however, that there is something that all these seemingly miscellaneous meanings have in common, and that is the implication of deficiency, be it of colour (m. III), wits (m. II), interest (m. I), sharpness (m. V), etc. The implication of insufficient quality, of something lacking, can be clearly distinguished in each separate meaning.

In fact, each explanation of the meaning in the given scheme can be transformed to prove the point [Fig.5]. The transformed scheme of the semantic structure of dull clearly shows that the centre holding together the complex semantic structure of this word is not one of the meanings but a certain component that can be easily singled out within each separate meaning.

This brings us to the second level of analysis of the semantic structure of a word. The transformational operation with the meaning definitions of dull reveals something very significant: the semantic structure of the word is "divisible", as it were, not only at the level of different meanings but, also, at a deeper level.

Each separate meaning seems to be subject to structural analysis in which it may be represented as sets of semantic components. In terms of componential analysis, one of the modern methods of semantic research, the meaning of a word is defined as a set of elements of meaning (semes) which are not part of the vocabulary of the language itself. The basic quality of a seme is an ability to combine in various ways with other similar elements (semes) in the meaning of different words: seme ‘inferior’ pay be present not only in the meanings of the word dull but also in that of other words: bonehead (vulg.)
Thus, the scheme of the semantic structure of dull shows that the semantic structure of a word is not a mere system of meanings, for each separate meaning is subject to further subdivision and possesses an inner structure of its own.

Therefore, the semantic structure of a word should be investigated at both these levels: a) of different meanings, b) of semantic components within each separate meaning. For a monosemantic word (i.e. a word with one meaning) the first level is naturally excluded.

**TYPES OF SEMANTIC COMPONENTS**

The leading semantic component in the semantic structure of a word is usually termed denotative component (also, the term referential component may be used). The denotative component expresses the conceptual content of a word. It conceptualizes and classifies our experience, that is designates that a certain named phenomenon refers to this or that class of objects.

The following list presents denotative components of some English adjectives and verbs. [Fig.6].

It is quite obvious that the definitions given in the right column only partially and incompletely describe the meanings of their corresponding words. To give a more or less full picture of the meaning of a word, it is necessary to include in the scheme of analysis an additional semantic component, which is called connotation or connotative component. Connotation may be defined as pragmatic communicative value the word receives by virtue of where, when, how, by whom, for what purpose and in what context it is or may be used.

Look at the complete semantic structures of the words given above introducing connotative components into the schemes of their semantic structures [Fig.7]. The examples show how by singling out denotative and connotative components one can get a sufficiently clear picture of what the word really means. The schemes presenting the semantic structures of glare, shiver, shudder also show that a meaning can have two or more connotative components.

Connotative components are classified into stylistic (poetic, learned, vulgar, etc.): stupid, fool, bonehead, retarded; emotional or affective: aggravate – spoil, kill; evaluative: patriot – nationalist; ideological: communist.

**MEANING AND CONTEXT**

Discussing polysemy we touched upon the advantages and disadvantages of this linguistic phenomenon. One of the most important "drawbacks" of polysemantic words is that there is sometimes danger of misunderstanding when the word is used in one meaning but understood by the listener or reader in another. It is only natural that such cases provide stuff for jokes like the following:

Customer. I would like a book, please.
Bookseller. Something light?
Customer. That doesn't matter. I have my car with me.

In this conversation the customer is honestly misled by the polysemy of the adjective light taking it in the literal sense whereas the bookseller uses the word in its figurative meaning "not serious; entertaining".

In the following joke one of the speakers pretends to misunderstand his interlocutor motivating his angry retort by the polysemy of the noun kick:

The critic started to leave in the middle of the second act of the play.
"Don't go," said the manager. "I promise there's a terrific kick in the next act."
"Fine," was the retort, "give it to the author."

Generally speaking, it is common knowledge that context is a powerful preventative against any misunderstanding of meanings. For instance, the adjective dull, if used out of context, would mean different things to different people or nothing at all. It is only in combination with other words that it reveals its actual meaning: a dull pupil, a dull play, a dull razor-blade, dull weather, etc. Sometimes, however, such a minimum context fails to reveal the meaning of the word, and it may be correctly interpreted only through what Professor N. Amosova termed a second-degree context, as in the following example: The man was large, but his wife was even fatter. The word fatter here serves as a kind of indicator pointing that large describes a stout man and not a tall one.
These observations give ground for so called *contextual analysis*, which concentrates on determining the minimal stretch of speech and the conditions necessary and sufficient to reveal in which of its individual meaning the word in question is used.
LEXICOGRAPHY

Lexicography, that is the theory and practice of compiling dictionaries, is an important branch of applied linguistics. Lexicography has a common object of study with lexicology, both describe the vocabulary of a language. The essential difference between the two lies in the degree of systematization and completeness each of them is able to achieve. Lexicology aims at systematization revealing characteristic features of words. It cannot, however, claim any completeness as regards the units themselves, because the number of these units being very great, systematization and completeness could not be achieved simultaneously. The province of lexicography, on the other hand, is the semantic, formal, and functional description of all individual words. Dictionaries aim at a more or less complete description, but in so doing cannot attain systematic treatment, so that every dictionary entry presents, as it were, an independent problem. Lexicologists sort and present their material in a sequence depending upon their views concerning the vocabulary system, whereas lexicographers have to arrange it most often according to a purely external characteristic, namely alphabetically.

TYPES OF DICTIONARIES

It goes without saying that neither of these branches of linguistics could develop successfully without the other, their relationship being essentially that of theory and practice dealing with the same objects of reality. The term dictionary is used to denote a book listing words of a language with their meanings and often with data regarding pronunciation, usage and/or origin. There are also dictionaries that concentrate their attention upon only one of these aspects: pronouncing (phonetical) dictionaries and etymological dictionaries.

For dictionaries in which the words and their definitions belong to the same language the term unilingual or explanatory is used, whereas bilingual or translation dictionaries are those that explain words by giving their equivalents in another language. Multilingual or polyglot dictionaries are not numerous, they serve chiefly the purpose of comparing synonyms and terminology in various languages.

Unilingual dictionaries are further subdivided with regard to the time. Diachronic dictionaries reflect the development of the English vocabulary by recording the history of form and meaning for every word registered. They may be contrasted to synchronic or descriptive dictionaries of current English concerned with present-day meaning and usage of words. The boundary between the two is, however, not very rigid: that is to say, few dictionaries are consistently synchronic, chiefly, perhaps, because their methodology is not developed as yet, so that in many cases the two principles are combined. Some synchronic dictionaries are at the same time historical when they represent the state of vocabulary at some past stage of its development.

Both bilingual and unilingual dictionaries can be general and special. General dictionaries represent the vocabulary as a whole with a degree of completeness depending upon the scope and bulk of the book in question. Some general dictionaries may have very specific aims and still be considered general due to their coverage. They include, for instance, frequency dictionaries, i.e. lists of words, each of which is followed by a record of its frequency of occurrence in one or several sets of reading material. A rhyming dictionary is also a general dictionary, though arranged in inverse order, and so is a thesaurus in spite of its unusual arrangement. General dictionaries are contrasted to special dictionaries whose stated aim is to cover only a certain specific part of the vocabulary.

Special dictionaries may be further subdivided depending on whether the words are chosen according to the 1) sphere of human activity in which they are used (technical dictionaries), 2) the type of the units themselves (e.g. phraseological dictionaries) or 3) the relationships existing between them (e.g. dictionaries of synonyms).

The first subgroup embraces highly specialized dictionaries of limited scope, which may appeal to a particular kind of reader. They register and explain technical terms for various branches of knowledge, art and trade: linguistic, medical, technical, economic terms, etc. Unilingual books of this type giving
definitions of terms are called *glossaries*. They are often prepared by boards or commissions specially appointed for the task of improving technical terminology.

The *second subgroup* deals with specific language units, i.e. with phraseology, abbreviations, neologisms, borrowings, surnames, toponyms, proverbs and sayings, etc.

The *third subgroup* contains a formidable range of synonymic dictionaries. *Dictionaries recording the complete vocabulary of some author are called concordances*, they should be distinguished from those that deal only with difficult words, i.e. glossaries. Taking up territorial considerations one comes across *dialect dictionaries* and *dictionaries of Americanisms*. The main types of dictionaries are classified in the accompanying table.

**Types of Dictionaries**

<table>
<thead>
<tr>
<th></th>
<th>Unilingual</th>
<th>Bilingual or multilingual</th>
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<tbody>
<tr>
<td><strong>General</strong></td>
<td>Explanatory dictionaries irrespective of their bulk</td>
<td>English-Ukrainian, Ukrainian-English, etc. and multilingual</td>
</tr>
<tr>
<td></td>
<td>Etymological, frequency, phonetical, rhyming and thesaurus type</td>
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<td></td>
<td><strong>Special</strong></td>
<td></td>
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<td></td>
<td>Glossaries of scientific and other special terms; concord-ances</td>
<td>Dictionaries of scientific and other special terms</td>
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<tr>
<td></td>
<td>(no)</td>
<td>Dictionaries of abbreviations, phraseology, proverbs, synonyms,</td>
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<tr>
<td></td>
<td></td>
<td>etc.</td>
</tr>
<tr>
<td></td>
<td>Dictionaries of American English, dialect and slang dictionaries</td>
<td>Dictionaries of Old English and Middle English with explanations in Modern English</td>
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</tbody>
</table>

Finally, dictionaries may be classified into *linguistic* and *non-linguistic*. The latter are dictionaries giving information on all branches of knowledge, the *encyclopaedias*. They deal not with words, but with facts and concepts. The best known encyclopaedias of the English-speaking world are "The Encyclopaedia Britannica" and "The Encyclopaedia Americana". There exist also biographical dictionaries and many minor encyclopaedias.

Nowadays a lot of referential materials may be used on-line, from the Internet, which makes them much more comfortable and accessible. For example, all big British publishing houses on the sites have on-line dictionaries: Oxford University Press, Cambridge University Press, Pearson Educations (Longman), McMillan Heinemann, etc. One of the best known on-line encyclopaedias is Wikipedia looked up by an enormous number of the Internet users.
Fig. 1. C.K. Ogden and I.A. Richards basic semantic triangle.

Fig. 2. Semantic structure of the noun *fire*.
Fig. 3. Logical associations among some of the meanings of the noun *bar*.

**Dull, adj.**

I. Uninteresting, monotonous, boring; e. g. *a dull book, a dull film*.

II. Slow in understanding, stupid; e. g. *a dull student*.

III. Not clear or bright; e. g. *dull weather, a dull day, a dull colour*.

IV. Not loud or distinct; e. g. *a dull sound*.

V. Not sharp; e. g. *a dull knife*.

VI. Not active; e. g. *Trade is dull*.

VII. Seeing badly; e. g. *dull eyes (arch.)*.

VIII. Hearing badly; e. g. *dull ears (arch.)*.

Fig. 4. The list of meanings of the adjective *dull*. 
Dull, *adj.*

I. Uninteresting $\rightarrow$ deficient in interest or excitement.
II. ... Stupid $\rightarrow$ deficient in intellect.
III. Not bright $\rightarrow$ deficient in light or colour.
IV. Not loud $\rightarrow$ deficient in sound.
V. Not sharp $\rightarrow$ deficient in sharpness.
VI. Not active $\rightarrow$ deficient in activity.
VII. Seeing badly $\rightarrow$ deficient in eyesight.
VIII. Hearing badly $\rightarrow$ deficient in hearing.

Fig. 5. Component analysis of the adjective *dull*.

<table>
<thead>
<tr>
<th>Verb/Adjective</th>
<th>Denotative components</th>
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</thead>
<tbody>
<tr>
<td>lonely, <em>adj.</em></td>
<td>alone, without company</td>
</tr>
<tr>
<td>notorious, <em>adj.</em></td>
<td>widely known</td>
</tr>
<tr>
<td>celebrated, <em>adj.</em></td>
<td>widely known</td>
</tr>
<tr>
<td>to glare, <em>v.</em></td>
<td>to look</td>
</tr>
<tr>
<td>to glance, <em>v.</em></td>
<td>to look</td>
</tr>
<tr>
<td>to shiver, <em>v.</em></td>
<td>to tremble</td>
</tr>
<tr>
<td>to shudder, <em>v.</em></td>
<td>to tremble</td>
</tr>
</tbody>
</table>

Fig. 6. Denotative components of some English adjectives and verbs
<table>
<thead>
<tr>
<th>Adjective/Verb</th>
<th>Denotative Components</th>
<th>Connotative Components</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>lonely</em>, adj.</td>
<td>alone, without company</td>
<td>melancholy, sad</td>
</tr>
<tr>
<td><em>notorious</em>, adj.</td>
<td>widely known</td>
<td>for criminal acts or bad traits of character</td>
</tr>
<tr>
<td><em>celebrated</em>, adj.</td>
<td>widely known</td>
<td>for special achievement in science, art, etc.</td>
</tr>
<tr>
<td><em>to glare</em>, v.</td>
<td>to look</td>
<td>steadily, lastingly, in anger, rage, etc.</td>
</tr>
<tr>
<td><em>to glance</em>, v.</td>
<td>to look</td>
<td>briefly, passingly</td>
</tr>
<tr>
<td><em>to shiver</em>, v.</td>
<td>to tremble</td>
<td>(usu) with the cold, briefly</td>
</tr>
<tr>
<td><em>to shudder</em>, v.</td>
<td>to tremble</td>
<td>with horror, disgust, etc.</td>
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</table>

Fig. 7. Complete semantic structure of some English adjectives and verbs