SYNTAGMATIC AND PARADIGMATIC RELATIONS IN LEXIS

Thesis for the Degree of M. A.

MICHIGAN STATE UNIVERSITY
DUMITRU I. CHITORAN

1967

SYNTAGMATIC AND PARADIGMATIC RELATIONS IN LEXIS

By

Dumitru I. Chitoran

A THESIS

Submitted to
Michigan State University
in partial fulfilment of the requirements
for the degree of

MASTER OF ARTS

Department of Linguistics and Oriental and
African Languages

1967

JH1165
6/10/61

TABLE OF CONTENTS

1. Introduction

1.1. The present situation of semantics as a branch of linguistics.

Recent developments in linguistic research prove that the crisis of semantics, the open neglect of meaning, is already a thing of the past. The increasing number of books and articles in specialized periodicals which deal with problems of semantics, as well as the diversity of semantic theories and approaches point to a state of effervescence, of constant searching, the result of which will undoubtedly be genuine progress in semantics, this still very young branch of linguistics.

Among the most important gains in modern semantics I would include the following:

a) It is becoming increasingly clear that the meaning of a linguistic form can no longer be regarded as an indivisible entity; on the contrary, it is desirable to consider meaning as a bundle of semantic distinctive features, not unlike the phonetic distinctive features used in phonology to denote the component elements of the phoneme.

b) Every serious semantic analysis along structural lines seems to indicate the existence of some complex interlocking and overlapping systems of interrelationships among the units of the lexicon. The nature of these relations is at present very difficult to grasp fully and consequently to formalize, but significant steps have already been made along these lines. Equally open is the question of whether the above

mentioned system of relationships extends over the entire lexicon, resulting in a systematic organization of the whole vocabulary.

c) There exists an isomorphism between the two levels of language defined in glossematics[1]: the Expression level and the Content level. This makes possible the application of similar methods and techniques of analysis, and furthermore ensures a unified character of the general linguistic theory.[2]

It would be very difficult to assess the value of each new theory of semantics that has been put forward in the last decade or so. Given the complex nature of meaning, it can hardly be the case that any one particular linguistic theory can lay claim to final truth. Indeed, it would be more plausible to believe that many of these theories put forward both valid and unvalid generalizations, both tenable and untenable assertions, thus contributing simultaneously both to clarifying and obscuring the problem of meaning - the most debated problem not only in linguistics but also in a whole range of related sciences.

1.2. The Problem of Meaning.

Any real progress in semantics is conditioned by an understanding of meaning, the object of its analysis. Given the very complex nature of meaning, it is very difficult and practically impossible to give a complete definition of meaning without reference to logic, psychology and the theory of knowledge, in addition to linguistics proper.

None of the various definitions that have been given to meaning is adequate for linguistics or for any other science dealing with meaning.

---

[1] Hjelmsev, L.: (1961)

[2] Saumjan, S. K.: (1962)

All of them are both too wide for the particular needs of a specific science and too narrow to cover the complexity of meaning, with its diversity of elements and variable factors. One way out of the difficulty might be to give separate definitions of meaning suitable for the needs of each particular science. This is in fact what is often done. Psychology, logic, anthropology, literary criticism, information theory, etc., give different accounts of meaning. What one discipline regards as disputable and in need of further exploration, other disciplines take for granted and use as a basis for their entire theoretical edifice. This situation is, to my mind, highly characteristic at present of a group of related disciplines which try, following their own methodologies and theoretical apparata, to account for one and the same phenomenon: human linguistic activity.

Linguistics however, unlike the other kindred sciences seems to have been concerned from the very beginning with matters which at closer analysis would seem to fall beyond its actual boundaries. Hence, the persistent concern of modern linguistics to limit itself to matters that are "properly" linguistic and leave other matters to the appropriate sciences. It has been discovered however, that the related sciences (psychology, logic, semiotics, etc.) are themselves reluctant or, even if willing, unable to cope with the complex problem of meaning. Linguistics in its turn faces a situation requiring either complete dismissal of meaning - which is what most of descriptive linguists did for a while - or, the continuation of the traditional concern for 'total' meaning.

Semiotics and information theory have brought a significant contribution to the clarification of many problems related to meaning, and linguistics has benefitted from it. The following ideas about

linguistic meaning seem to be common today in modern linguistics; of them, some are complementary, while others are mutually exclusive:[1]

- Meaning, as a property of linguistic signs, cannot be identified with the notion, the concept or the object for which linguistic signs stand; meaning is essentially a relation (Ogden, Richards, Stern, Smirnickij, Ullmann) between the physical (sound), and the ideal (mental) aspects of the linguistic sign; between the 'signifiant' and the 'signifié', to use de Saussure's terminology.

- The meaning of linguistic forms can be determined by the position they occupy in the syntagmatic chain. This notion, derived from Wittgenstein, has been applied to linguistics especially by Firth, Harris, Wells, Apresjan etc.

- The meaning of linguistic forms can be determined by the position they occupy in the system of equivalent linguistic forms - in the paradigmatic series to which they belong. The most ambitious theory that has ever been put forward to account for meaning in terms of paradigms, is Jost Trier's theory of the semantic field. The more recent approaches, such as Osgood's theory of semantic space, componential analysis, the thesaurus approach etc., are further developments of Trier's ideas.

- Meaning has to be conceived as a complex entity, decomposable into simpler elements. By performing such an operation, and also by taking into account the gnoseological, logical and psychological factors involved, the following aspects of meaning can be delimited: a) Structural meaning - the relation between a sign and other signs. The relation is a double one, as it extends along two axes:

---

[1] Apresjan, Ju: (1963)

- along the syntagmatic axis - accounting for syntactic meaning
- along the paradigmatic axis - accounting for differential meaning, for "la valeur" in Saussurean terms.

b) Significative meaning - the relation between signs and 'significata'.

c) Denotative meaning - the relation between signs and 'denotata'. (b) and (c) are studied extensively by philosophers (e.g. Carnap, Russel, Morris, Church). According to Charles Morris, significative meaning is identical with extensional meaning; denotative meaning is identical with intensional meaning. For linguistics, denotative and significative meaning represent together what is traditionally called lexical meaning.

d) Pragmatic meaning - the nonlinguistic reaction to a linguistic stimulus. It includes also the emotional and expressive (connotational) aspects of meaning.

1.3. Object and Aim of the Thesis.

In terms of the types of meaning discussed under (1.2.), this thesis will deal with structural meaning, which is considered to be the proper object of study of structural semantics.[1] Based on the underlying isomorphism of the two levels of language - Expression and Content - an attempt will be made to employ the two fundamental types of linguistic relations - syntagmatic and paradigmatic - as a starting point for constructing a general theory of lexis.[2]

---

[1] Apresjan, Ju: (1963)

[2] The isomorphism of the two levels of language is far from being unanimously accepted (cf. the reports and discussions at the 8th International Congress of Linguists in Oslo, on the topic "To what extent can meaning be said to be structured"); opinions differ from complete agreement: Šaumjan, S. K.: (1962), Prieto, L.: (1961), Coseriu, E. (1963), etc., to partial agreement: Lamb (1964, 1966), or total rejection: Wells (1958), etc.

In the first part of the thesis, examples are given to illustrate the manifestation of syntagmatic and paradigmatic relations within lexis, while the second part is devoted to an attempt to use them for the distributional analysis of meaning, the establishment of semantic fields according to objective criteria and the assessment of the possibilities that such an approach opens to a componential analysis of meaning.

2. The manifestation of syntagmatic and paradigmatic relations in lexis.

Following de Saussure, Hjelmslev and more recently Šaumjan and Lamb, the primary object of structural linguistics may be taken to be the network of language relations, while the terms of these relations are considered to be secondary.[1]

The relational frame of language has two axes - the syntagmatic and the paradigmatic. The linguistic elements situated on the syntagmatic axis find themselves in a 'both - and' relation; they coexist within the spoken or written chain; they find themselves - to use Martinet's terminology[2] in 'contrast' with one another. This type of relation is directly observable in the utterance.

On the paradigmatic axis, linguistic elements exclude each other in a given utterance, they are in an 'either - or' relation or, again in Martinet's terms, they are in 'opposition'. Unlike contrastive relations, the opposition relations are not directly observable in the utterance.

---

[1] Šaumjan, S. K.: (1962)

[2] Martinet, A.: (1961)

Any linguistic element situated in a certain position along the syntagmatic axis may then be described by means of a vector of two parameters - the syntagmatic and the paradigmatic. The nature of the two types of relations has been studied more extensively with relation to phonology and grammar. If there is indeed an isomorphism between expression and content, as postulated by glossematics, it is plausible to assume that the same fundamental types of relations manifest themselves in an identical manner in the lexicon as well.[1]

2.1. Collocation and Set

On the basis of these two types of relations one could postulate two theoretical categories necessary for the description of lexis. We could, of course, refer to them as "lexical syntagm" (for the first type) and "lexical paradigm" (for the second), the two terms revealing in this way the nature of the relations they are called on to define. However, both are overburdened terms in contemporary linguistics, with primarily grammatical pertinence, and consequently we are reluctant to use them as basic categories of a theory of lexis. Instead I shall use the terms suggested by M.A.K. Halliday: collocation and set. Collocation corresponds to syntagmatic relations; set corresponds to paradigmatic ones.

The term collocation - seemingly used only by British linguists - is not a new term in linguistics but the meanings given to it differ greatly. In most cases collocation has been understood as being synonymous

---

[1] The necessity for such studies has been repeatedly pointed out; suffice it to give the following quotation: "It is apparent...that syntagmatic and paradigmatic relations are nearly as important in dealing with the lexicon of a language as they are at the levels of grammar and phonology". Robins, R. H.: (1965) p. 73.

with syntagm (another undefined notion), or with any patterned grouping or arrangement of words.

Another meaning given to the term - to be found mostly among those who follow J. R. Firth's theory of language[1] - limits collocation to the selectivity displayed by certain lexical items in combining with certain other lexical items in order to form utterances. Hence the notion "expectation of collocation" and "collocability" which are used to denote the combinatory valences of lexical items. Thus for Mitchell[2] an element "ditch water" does not occur apart from "dull". Consequently "dull as ditch water" is a collocation. The idea is useful for the assessment of the real meanings of words. J. R. Firth asserted that one part of the meaning of lexical items is their collocability with certain other lexical items. "One of the meanings of 'night' is its collocability with 'dark', and of 'dark', of course, its collocability with 'night'."[3] There is nothing wrong with this assumption, based on the Wittgensteinean definition of meaning as the sum total of its uses in languages,[4] were it not for the practical impossibility of dealing with meaning in these terms exclusively.[5] But that the combinatory valences of words, their collocability with other words, is part of their meaning, cannot be doubted in any possible way. Thus in a dictionary[6] under the entry

---

[1]Firth, J. R.: (1957).

[2]Mitchell, T. F.: (1958) p. 103.

[3]Firth, J. R.: (1957)

[4]Wittgenstein, L.: (1961)

[5]Chomsky, N.: (1966)

[6]The following dictionaries were used in discussing various words in this thesis:

-The Shorter Oxford Dictionary (S O D) C. T. Onions ed, Oxford University Press, London 1961.

'maiden' whose basic, original meaning 'girl' is specified as obsolete and archaic, the item is said to be used almost exclusively in collocations such as:

a)	maiden aunt maiden lady maiden sister maiden name	where the general meaning is "unmarried" (maiden name = name of a woman before marriage)
b)	maiden ship maiden voyage maiden speech maiden horse	In all these collocations the general meaning of "maiden" is "inaugural".

Evidently the meanings of a) and b) are based on a metaphor, but the actual disappearance of the original meaning from colloquial use makes them part and parcel of the collocations rather than of the metaphorical extension.

2.2. Collocation and meaning.

One method of analysing meaning in terms of collocations is to present them as textually quantifiable by virtue of a law expressing the probability that "there will occur at 'n' removes (a distance of 'n' lexical items) from an item 'L x', the items a,b,c..."[1]

-Webster's New World Dictionary of the American Language, College Edition, The World Publishing Company, New York 1964.
-A. S. Hornby, et al : A Learner's Dictionary of Current English, Oxford University Press, London 1948.

[1] Halliday, M.A.K.: (1961) p. 276.

The items with which Lx may be collocated (a,b,c...) form a 'set', an open grouping of lexical items mutually exclusive in the given utterance. In a set we usually find members of the same grammatical class. Thus, from the class "adjective", all those designating colours can be used in the collocation:

"The ..... dress suits her best".

Similarly, from the class "noun" all those denoting 'food' can be used in the collocation:

"We had .... today at .... " (The last position can, in turn, be filled by any member of a set grouping together nouns denoting the meals of the day).

It does not follow of course, that members of other sets are not allowed in these collocations. The frame: 'We had .... today at lunch' allows equally well members of a very large lexical set including 'human' nouns:

We had	my sister	today at lunch
	the mayor	
	a musician	

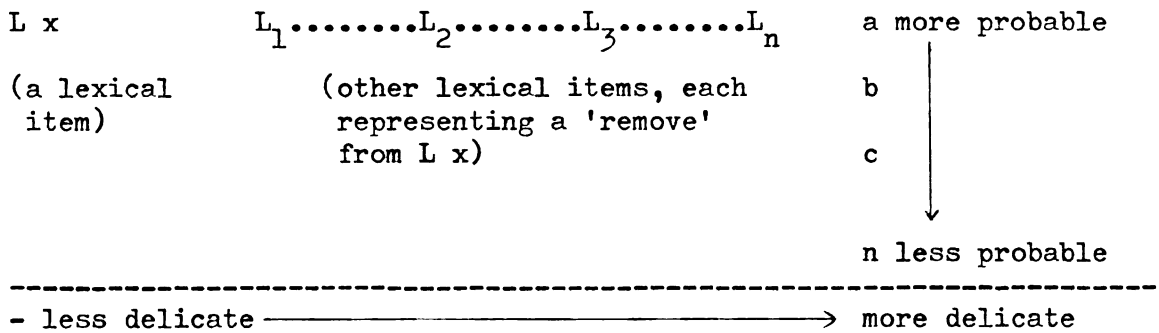
However, with elements of the new set, the verb 'have' acquires a different meaning than it has in: 'We had meat today at lunch'.

On the other hand, it is necessary to point out that sets are not arrived at entirely in a mechanical way. In (2.3.1.) and also in (4.1.) I describe the manner in which sets can be delimited by an interplay of semantic and grammatical factors.

Graphically, the collocation and the set can be represented in the following manner:[1]

---

[1]Halliday, M.A.K.: (1961) p. 276.



As can be seen from the chart the greater the number of removes from Lx to the collocated lexical item, the more 'delicate' is the collocation. In their turn, the terms of a set can be arranged in relation to a given collocation along a gradient from "more probable" to "less probable".

One very simple way of deciding on the appurtenance of various lexical items to one lexical set, has been pointed out by Firth: "In the study of vocabulary elements it is important to group together those forms which form a series. Such series for example might be kinship terms, parts of body, terms of orientation in time and space, numerals, calendrical terms, names of social units, proper names of persons as well as places, in short all lexical elements which exhibit structure".[1] His name for such sets was 'ordered series of words' and their relation to the various possible associations within lexis mentioned, by other linguists starting with Saussure is evident. One ultimate goal of such a grouping is to somehow reflect the way the elements of lexis are stored in our minds. In the second part of this thesis, a method will be suggested to delimit sets in an objective manner based on structural criteria.

---

[1]Firth, J. R.: (1957)

The other important thing about collocation is the close interrelationship which obtains between the collocated lexical items. This interrelationship manifests itself as the specification of the meaning of one lexical item by another lexical item. The two terms of a collocation may be called determining (d) and determined (D), in which case collocation appears as a larger linguistic unit, above the word, the primary function of which is to specify the various meanings of lexical items.

2.3. Collocation and Colligation.

Collocation can be described as the habitual association of a lexical item with certain other lexical items in utterances, so that a constant meaning relation obtains between the collocated lexical items. Both lexical items are considered in their individual capacity, no attention being paid to the grammatical classes to which they belong.

When grammatical factors are taken into consideration, a different type of structure will be revealed. The term collocation in lexis will be paired by another term 'colligation' in grammar. In the following incomplete utterance: "John + verb + Mary for...." colligationally we can fill in the blank with terms in several grammatical classes. The number of terms in any of these classes is potentially unlimited. Collocationally however, a choice of a member of the class 'verb' will limit considerably the choice of the items that can fill in the blank. If the verb 'take' is chosen for instance, we can have the blank filled in mainly with members of two sets of nominals:

'John takes Mary for Joan'

'John takes Mary for a walk'

'Joan' is a member of the subclass of human nouns (substitutable by 'he', 'she', 'they').

'Walk is a member in a more restricted set which includes nominals denoting human activities, related mainly to the kind of leisure implying movement (trip, holiday to Spain, etc.). As is only to be expected, when the lexical item 'take' is collocated with elements of the first set it has one meaning 'mistake for'; when it is collocated with elements in the second set, its meaning is 'to bring with, to cause to come with'.

2.3.1. We shall try to exemplify these assertions by means of a highly polysemantic word: "blind". In all combinations that follow, "blind" will be the determined part of the collocation the item surrounding it, being its determiners. The analysis will try to determine:

a) whether the meaning of 'blind' can be said to remain essentially the same when its determiners are members of the same set (or ordered series of words),

b) whether the change of meaning expected whenever we go from one set to another actually takes place,

c) whether there is a propensity for 'blind' to combine with some lexical items rather than with others, in short, whether there really exists an expectation of collocation.

The lexical item "blind" is combined with elements in 6 sets, each characterised by a common semantic feature:

(1) blind person
man
girl
boy
bird
wolf
horse

(2) blind hand
type
print
track
patch

(3) blind alley
tube
pipe
gut
shaft

(4) blind action
passion
procedure
choice
love
fury

(5) blind side
part

(6) blind poppy
daffodill

The elements in set (1) denote persons and beings possessing eyes with which they can see; those in set (2) denote objects which by their nature should be distinct, visible; and places which should be lighted and visible. Lexical items in set (3) stand for tubular or long linear objects which usually have two ends, while those in (4) stand for actions and emotions. Finally, the lexical items grouped under (5) denote components of human personality, and those under (6) are names of flowers and plants. With each of the six sets there is definitely a change in meaning of 'blind'. Thus in collocations with lexical items of the first set, the meaning of 'blind' can be defined as: 'not able to see, having completely or partially lost sight'. With terms in the second set it means 'invisible', 'dark', 'hardly visible'. With members of the third set, there is again a new meaning: 'filled at one of the

ends', 'lacking one of the orifices'. The same thing happens with set number four, where the new meaning is 'not well judged', 'unreasonable', 'the result of feeling or temper rather than of thought', while with the fifth set the meaning is 'weak, vulnerable', and the meaning for the sixth set is 'without buds or terminal flowers'.

We can see that at least points a) and b) seem to be corroborated by the evidence found in a dictionary. Moreover, the meaning seems to remain the same when we paraphrase grammatical transformation to various collocations. Thus there will be no change of meaning for 'blind' if we change: 'I saw a blind man' into 'The man I saw was blind'.

2.3.2. However, one major objection can be raised to the scheme. Such possible uses of the same lexical item in collocations such as: 'He is blind to his son's defects', or 'Help the blind', or 'blind man's buff' and 'The room had the blinds pulled down', etc., are left unaccounted for.

The way to analyse them is to turn to grammar, that is to make use of grammatical distinctions which will prove relevant to the meanings of 'blind'.

A sentence like 'He has always been blind to his son's defects' displays a different grammatical structure; it does not allow the passive transformation: 'His son's defects have always been blind to him'. One solution is to regard as a single lexical item the whole of 'be blind to' with a set of determining items naming generally 'qualities and defects in human character'. The lexical items in the set appear in utterances accompanied by various grammatical modifiers - this will not change the meaning of the lexical item 'be blind to'.

Ex: 'He has always been blind to faults

his faults

his son's faults

As in the case of paraphrase this seems to go against Halliday's assumption that the distance between two collocated lexical items is relevant in the sense that each additional remove means an increase in delicacy.[1]

The lexical item 'blind' in 'Help the blind', can be defined by means of colligation. It will be found in utterances such as:

'Help the blind.'

'The blind need our sympathy.'

The lexical item is invariably accompanied by a determiner. Now, we need no longer speak of sets, we define 'blind' with this particular meaning in terms of the new grammatical category to which it belongs. Its nominal nature is revealed both by function and position. We shall also incorporate here, the meaning of 'blind' in collocations such as:

blind hospital

asylum

alphabet

which can be paraphrased by the more explicit form:

hospital

asylum for the blind

alphabet

---

[1]In fact, the real distance between the collocated lexical items remains the same. I believe that in relation to the concept of 'delicacy' in lexis, a distinction should be made between 'linear ordering' and 'structural ordering' of lexical items.

The conversion into a noun of the lexical item 'blind' is complete (as indicated by the use of the plural marker) in utterances such as: "The room had the blinds pulled down." "There were no blinds at the windows of the house", etc. "The horse has blinds" (in British English) as shown by its making use of the plural sign. All such uses of the lexical item 'blind' can be covered by one general meaning: object that obstructs light or sight. Further distinctions: (a) 'blind' + 'room', 'house', 'castle', etc, and (b) 'blind' + 'horse' will reveal two more meanings: (a) 'screen for window made of woven material and mounted on a roller' and, (b) 'blinker'.

In analysing 'blind man's buff', we start from the definition of the entire collocation as it is found in a dictionary ('a game in which one player is blindfolded and tries to catch and identify any one of the others, who on their part push him about' (cf. The Shorter Oxford Dictionary). The meaning of 'blind' is of course 'not able to see' but its relevance for the utterance as a whole is lost. That is why the only possible way of analysing the entire collocation is to consider it as being a fixed one in which the interdependence between the component terms is total. The three items are related syntagmatically, but no sets correspond to any of them. Now, it is the whole of 'blind man' which is to be understood as the determined part (D) of the collocation; and 'buff' as the determining one (d). Graphically this can be represented as:

blind - man's	- buff
D	d

In a dictionary we find another meaning given to the same linguistic

form 'blind man': a post office official who deals with blind letters. (cf. The Shorter Oxford Dictionary). To solve the problem we have again to consider 'blind man' as one lexical item. Man, here, is a term in a restricted set, (including 'reader' and 'official'), but none of them operates as determiners, specifiers of 'blind' with the meaning postulated above. The determiners should be looked for in the immediate vicinity of the linguistic form namely lexical items forming a set denoting objects related to the postal service. Purely linguistic factors (items in the same text or chain of speech) will prove insufficient to reveal the exact meaning: 'Who's the blind man in the post office?' may be interpreted either 'Who's the official in this post office dealing with blind letters' or 'What is the name of this man who cannot see and who is now in this post office?'. In such situations it is the extra-textual factors, the actual speech situation which will intervene to make communication possible.[1]

Contextual factors do in fact intervene in all acts of speech confering the particular shade of meaning to linguistic forms or to utterances as a whole which corresponds best to the actual message to be communicated. There is however a difference between this latter function of context, when, to an already existing meaning, new shades are added, and the situation when context is the only element that acts as determiner of the meaning of a certain linguistic form. (see 2.3.3)

Another lexical item "sick" (as used in British English) may be said to have two general meanings, again identifiable by collocation and

---

[1]A distinction has been suggested between 'co-text', which is the linguistic context proper (items in the text), and 'context', which stands for the situational factors that prove to be linguistically relevant. cf. Catford, J. C.: (1965) p. 31.

colligation. Meaning one: 'suffering from illness of any kind' - 'ill', 'unwell' - is revealed in collocations of this type:

1) sick man (where the set is represented by lexical items denoting
person persons and beings or parts of their body)
child
finger

2) sick room (where the set is represented by lexical items denoting
bed spaces or objects occupied or used by ill persons)
berth
bay
cookery

3) sick allowance (where the set is represented by lexical items
leave denoting facilities created for the sick)
club

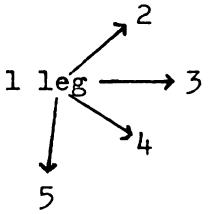
A fourth set will be represented by a limited number of verbs
to get sick
to report sick

Meaning two of the same lexical item: 'having an inclination to vomit' or 'actually vomiting' can be defined by means of colligation. Whenever 'sick' will be found in a predicative position after such verbs as: to be, to feel, to seem, etc., (verbs of state), it will have meaning number two. From the point of view of style, one could bring in additional information by specifying that, while meaning number one, although the primary, basic meanining of 'sick' is preserved only in official or special language and in the above mentioned collocation, which are very limited and almost fixed, meaning number two has become the most important

(in British English) and has subsequently developed another figurative meaning: 'mentally affected' or 'weak', as in the collocations: 'to be sick (and tired) of...' (The same can be said regarding the meanings of the derived verbal form 'to sicken').

2.3.3. This is one more example of the difficulties encountered in attempting to analyse meaning in the usual way: from a primary (basic) meaning, numberous 'secondary' meanings are developed by means of: radiation, concatenation, extension of meaning, narrowing of meaning, degradation of meaning, elevation of meaning, etc. Thus in his 'Course in English Lexicology' Leon Levitschi presents the meanings of the lexical item 'leg' by means of a graphical scheme:[1]

leg: meaning 1 (one of the parts of the body by means of which men and animals stand and walk)



meaning 2 (the part of the garment covering the leg)

meaning 3 (a bar or pole used as a support or prop)

meaning 4 (one of the supports of a piece of furniture)

meaning 5 (one of the branches of a fork or jointed objects)

All meanings are to be understood as having developed historically from the first basic meaning. Meaning four, for instance, is treated as a metaphor - a lexical metaphor. But if we are to consider the existance of a general (basic) meaning of the lexical item 'leg', why not consider it to be 'thing that supports body or objects' which will incorporate all meanings (except 2 and 5). In that way, meaning four will no longer be a metaphor. A lexical item, when taken in isolation may have a very vague meaning which will be clarified by its use in the

---

[1] Levitschi, L.: (1963) p. 72

utterance, and it is precisely the unclear character of the meaning of a lexical item that makes possible its varied use in language.[1]

Psycholinguists use the term 'nucleus meaning' to denote this vague meaning displayed by lexical items even when uttered in isolation. The various significations of a lexical item are organized around its nucleus meaning and form an inner system of the respective lexical item - its microstructure.[2] Thus the nucleus meaning of 'leg' is 'one of a set of supports on which a body (or object) can stand'; its various meanings (those to be found in the dictionary - including the meaning 'limb') are actualized by uses in various utterances. There are no well established criteria according to which we could class certain meanings as basic and others as secondary. A certain hierarchy could be established within the microstructure of a lexical item by taking into account the amount and importance of contextual or co-textual factors needed for the evocation of the respective meaning. The multiple meanings of a lexical item can be arranged along a gradient from meaning 1 - that meaning for whose evocation the least context is required - to meanings 2, 3, 4...n, each requiring an increasing degree of contextualization for their evocation. The meanings of a lexical item for whose evocation less context is required are also its most frequent ones. Thus for 'blind', the obvious meaning on top of the scale is, of course, 'unable to see'. According to the Thorndike semantic frequency count published in West's "General Service List of English Words" it is also the most frequent one covering 42% of its total uses. Second (25%) is the 'figurative' meaning

---

[1] Rossetti, A.: (1943) p. 34

[2] Slama-Cazacu, T.: (1957)

'not able to grasp, unreasonable'.

In the pair:

'You have a ladder on your right stocking'

'You have a ladder on your right',

it is the amount of context required by the lexical item 'ladder' that differentiates its meaning. The collocational spread of the lexical item 'ladder' when meaning 'a flaw in a stocking, due to one or more slipped threads' (in British English) is limited. Here the lexical item 'stocking' acts as a 'key' in revealing this particular meaning. On the contrary the collocational spread of the same lexical item with its other meaning is much wider. The more frequent meanings, those which need the least context for their evocation, have also a large collocational spread and the items with which they are collocated form very diverse sets. The lower down we go on the scale, the more limited is the number of terms of collocable sets, the closer the interrelationship between the determined and determining terms in the collocation until we reach the fixed ones, where one lexical item is collocated with one single other lexical item in order to reveal a specific meaning.

The meanings of a lexical item form a microstructure of the respective lexical item, and are incorporated as such into the general system of language. They are part of "la langue"; they are formally definable by means of the relations the respective lexical item enters into in the language. They have to be kept apart from the minute shades of meaning acquired in actual uses of the lexical item in various speech situations. These uses are, of course, based both on the nucleus meaning and on one of the multiple significations of the lexical item,

but they are no longer facts of "la langue"; they are facts of "la parole". It is again a point where language (la langue) and speech (la parole) should be kept apart in the analysis.[1]

Indeed, not unlike phonetic analysis, semantic analysis may result in an infinite number of distinctions, unless structural considerations are introduced to distinguish what is essential from what is not essential on the semantic plane of language.

There remains however, the problem of idiomatic meaning of lexical items. Their status as 'faits de langue' cannot be questioned. The collocational and the colligational approach to meaning as described in this thesis seems to encounter several difficulties in analyzing idiomatic meaning. For this reason, it is advisable to suggest that idiomatic meaning requires a separate level of analysis - the idiomatic or phraseological. However, this is not a final position. It may very well be that the refinement of the distributional technique of analysis (cf. 3.5.) and especially the introduction of the notion of "fixed collocation" (see p. 16) will cover idiomatic meaning too.

3. Distributional Analysis of Meaning

The analysis of syntagmatic and paradigmatic relations has been carried on at a low level of abstraction. Its main purpose has been to prove the existence of relations between individual lexical items. The technique of analysis has not differed markedly from what is known as contextual analysis which puts its main emphasis on the dependence of the meaning of linguistic forms on the environment in which they occur. It has been pointed out by many linguists however, that it would be

---

[1] Zvegincev, V. A.: (1962)

impossible to list the occurrances of a lexical item in all possible environments since they are practically unlimited.[1]

What is required is to perform the analysis at a higher level of abstraction. Consequently, we shall be concerned with lexical items not as individual units, but as members of grammatical classes. In other words, collocational considerations will be coupled with colligational ones.

In colligational terms, we shall be interested in distributional formulae, assuming that to each linguistic unit used in a given formula there corresponds a certain meaning of the respective unit. Once a distributional formula has been established, we next analyse the combinatory valences of a lexical item within such a formula, with various members of the grammatical classes characteristic of the respective formula.[2] This latter aspect of the analysis is reminiscent of the projection rules in the semantic theory of Katz and Fodor.

3.1. The relation between grammar and semantics.

The close interdependence between grammar and semantics is a characteristic principle of present day research in linguistics. Generative grammarians regard semantics as a component of the general theory of language which continues and completes syntax.[3]

---

[1] Ullmann, St: (1962)

[2] Apresjan, Ju. D: (1966)

[3] Chomsky, N: (1965)
Postal, P. and Katz, J. J.: (1963)

British linguists also adopt a similar position asserting that the analysis of lexis begins where grammar has exhausted its own possibilities of analysis.[1]

Understanding the real nature of the relation between grammar and semantics is one of the most important problems in linguistics today. By assigning mutually exclusive domains of language to grammar and semantics, most modern theories of language explicitly attempt to enlarge the task of grammar so as to account for as much of language as possible, and to leave as little as possible to semantic analysis.

An alternative approach has been suggested, among others, by U. Weinreich[2]. Characteristic of this latter approach is the emphasis laid on the simultaneous interaction and deep interpenetration between grammar and semantics. A similar approach is followed in this thesis. It is my opinion that while grammarians should exhaust the possibilities of grammatical analysis before turning to lexical analysis, it is also the task of the students of lexis to advance into grammar with their statements of meaning. This was done by many in the form of "Grammars of Words"[3]. Lexicographical practice has reached a similar conclusion and, indeed, many lexicographers have come to wonder where their task ends and the grammarian's begins.[4]

---

[1]Halliday, M.A.K.: (1961)
Lyons, J: (1963)

[2]Weinreich, U: (1966)

[3]Palmer, H. E: (1938)

[4]Levitschi, L: (1957)

3.2. Method of approach and terminology.

The principle adopted in this paper is the following: Starting from a grammatical description of language, it is possible to engage in a relevant analysis of lexis in distributional terms. Grammar will provide a list of patterns, of distributional models characteristic of a certain language. The task of the student of lexis is to establish some correlation between distributional models and the various meanings of lexical items.

This principle, originating with Harris, has been practiced quite extensively by Apresjan[1]. In fact, it has strong foundations in older lexicographic practice.[2]

The second task is to account for what I call (following Ollson and Firthian Linguistics) the combinatory valences of words. (This concept also resembles Chomsky's notions of complex symbols and strict subcategorization in generative grammar).[3]

The classes of words - the grammatical categories according to Chomsky, in terms of which the various distributional formulae will be set up, are the following:

N = noun or any nominal construction

V = verb or any verbal construction

A = adjective or any adjectival construction

Adv = adverb or any adverbial construction

Prep = preposition

---

[1]Apresjan, Ju. D: (1962 a) (1962 b) (1963)

[2]Hornby, A. S: (1948)

[3]Chomsky, N: (1965)

Det = determiner

Aux = auxiliary of modal verbs

In the course of the analysis (cf. 4.2.) it has been discovered that it is more significant to express distributional formulae in terms of functional categories, in which case the following terminology will be used:

Subj = subject

Pred = predicate

D. O. = direct object

Ind. O. = indirect object

Obj. Compl. = object complement

In order to account for combinatory valences nouns have been divided into structurally defined subclasses. The subclassification presented below has been found useful for the analysis of the combinatory valences of English verbs.

<table>
<tr><td colspan="2">A(animate)</td><td colspan="2">Non a(inanimate)</td></tr>
<tr><td>H(human)
(he, she, who)</td><td rowspan="2">Non H(nonhuman)
(it, what)</td><td>C(concrete)</td><td rowspan="2">Non C
(abstract)</td></tr>
<tr><td>M(male) F(female)
(he) (she)</td><td>Count
(countable)
(it, they)
Non Count
(non
countable)
(it)</td></tr>
</table>

Nouns are first of all divided into 'Animate' and 'Inanimate'; animate nouns are further subdivided into 'Human' (substitutable by : he, she, who) and 'Nonhuman' (substitutable by: it, what). Inanimate nouns are

in turn divided into 'concrete' and 'non-concrete' (abstract). There are further relevant distinctions of Human nouns into male and female, as well as of concrete nouns into Countable and Noncountable.

In order to arrive at distributional models which will prove significant for the specification of the various meanings of a lexical item it is necessary to analyse that item's occurance in various syntactic constructions. For a lexical item belonging to the class 'verb', for instance, such distributional formulae will have to be considered: 'N+V+N'; 'N+V+A'; 'N+V+V'; 'N+V+Prep+N'; 'N+V+adv'; etc.

3.3. Distribution and Meaning.

The analysis of polysemantic lexical items will reveal a biunique correlation between meaning and distribution.

Numerous examples can be supplied, from any dictionary of English:[1]

Lexical Item	Gram. Class	Distrib. Formula	Examples	Meaning.
fail	V	H+fail+H	John failed his parents	'disapoint'
			They failed us	
		H+fail+to+V	He failed to come	'not to succede'
			She never fails to tease him	
		NonC+fail+H	Luck failed him	'abandon' 'leave'
			Courage often fails them	

[1] Hornby, A. S: (1948) was used for these exemples.

entertain	V	H entertain H	We often entertain friends.	'play host to'
		H entertain NonC	She has entertained the idea for months.	'consider'
examine	V	H examine N	He examined my eyes. They are now examining the data.	'get information (knowledge) about'
		H examine H	The teacher examined the pupils.	'test knowledge of'
feel	V	An+feel+N	The boy felt the edge of the blade. The dog felt the hare.	'become aware through senses'
		H+feel+(that)+S	He felt that it was his duty to go.	'consider'
foster	V	H+foster+H	They fostered the child.	'nurse'
			The lady has always fostered the poor.	'care for'
		H+foster+NonC	He fosters high hopes.	'hold in mind'
			The nephew fostered revenge.	
frame	V	H+frame+NonC	He framed the theory. They framed the plan.	'make, form'
		H+frame+H	They framed him.	'plot against'
		H+frame+C	He framed the picture.	'enclose in a frame'
fire	V	H+fire+H	He fired the workers. She fired the servant.	'dismiss'

		H+fire+C	They fired the building.	'set fire to'
graduate	V	H+graduate+Prep N	He graduated at Cambridge.	'take a degree or diploma'
			Helen graduated from Yale.	
		N+graduate+H	The school graduates 100 students each year.	'give a degree'
			They graduated him with honors.	
		H+graduate+C	He graduated the stick.	'mark for purposes of measurement'
grasp	V	H+grasp+C	He grasped my hand.	'seize with hand firmly'
		H+grasp+NonC	He grasped the idea.	'understand'
greet	V	H+greet+H	He greeted us joyfully.	'show feelings at meeting somebody'
			The newcomers greeted them roughly.	
		NonA+greet+H	The sound greeted us from afar.	'impinge senses'
			The view greeted us magnificently.	
hang	V	H+hang+NonA	They hung their coats.	'suspend'
		H+hang+H	They hung him.	'put to death by hanging'
flat	A	C+Be+flat	The ground is flat.	'smooth, even and level'
			The table is flat.	

		H+V_t+N+flat	He struck him flat.	'to the ground'
			The whole forest was felled flat.	
		N V_i flat	Life seems flat.	'uninteresting'
			Beer tastes flat.	
grave	A	H+Be+grave	He is a grave man.	'serious, thoughtful'
		NonA+Be+grave	The situation is grave.	'important, serious'
			The patient's illness is grave.	
green	A	End products of plants+Be+green	The fruit is green.	'not ripe or seasoned'
		H+Be+green	He is still green.	'untrained, unexperienced'

The nature of semantic relation is such that not all semantic distinctions will manifest themselves in syntactic differences, although we can assume with greater certainty that to each syntactic difference corresponds an essential semantic one.[1]

It is for this reason that we need to introduce further and more refined methods of analysis.

As regards the distributional formulae it is necessary in the first place that the syntactic constructions we compare are really contrast. It is for instance futile to expect two different meanings from two distributional formulae of the kind:

---

[1] Apresjan, Ju. D.: (1963)

'N_1 V N_2' and 'N_2+Be+past+V+by N_1'

'He read the book' 'The book was read by him'

Since the two sentences are transformationally related, they will consequently belong to one single distributional formula in the set provided by grammar for the purposes of the distributional analysis of the structural meaning of lexical items.

Transformational considerations will also be useful for distinguishing more refined shades of meaning within the general meaning supplied by a certain distributional formula.

Similarly, to account for combinatory valences, often, more detailed divisions and subgroupings within a certain grammatical category will be required. In subgrouping the class "noun" we have used a fairly simple classification based on a structural criterion (substitution). However, for the specification of some restricted meanings, pure semantic criteria, not unlike the semantic features revealed by componential analysis will have to be used.

3.4. The Distributional Analysis of the Structural Meanings of the Verb 'Make'.

The way transformational and more refined semantic criteria are introduced into the distributional analysis of meaning can be better illustrated by an attempt to discern among the meanings of a highly polysemantic lexical item. The verb 'make' has been chosen for this purpose. What is required is, as mentioned above, to arrive at a set of relevant distributional formulae which specify the various meanings of 'make'.

We shall proceed to a detailed analysis of the syntactic constructions in which it can occur, and then select the significant ones from those that prove to be transformationally related and therefore nonsignificant for the purposes of meaning specification.

The various verbal syntactic constructions characteristic of English verbs have been mentioned earlier: 'N V N; 'N V N N'; 'N V A'; 'N V Prep'; 'N V Prep N'; 'N V V'; 'N V N Prep N'; 'N V Prep Prep N'; etc.

3.4.1. The sequence N V N , characteristic of English transitive verbs poses no problems as to its significance for the specification of one of the structural meanings of 'make'. It will pose problems, however, in further specifying of shades of meaning, and this will be discussed later. (See 3.5.) For the time being we shall simply postulate 'N make N' as the first distributional formula, without assigning any specific meaning of 'make' to it.

3.4.2. The syntactic pattern 'N V N N' will present two variants for the verb 'make':

a. N make N_1 N_2 - where N_1 and N_2 belong to different subclasses of the class N (We shall symbolize that by $N_1 \neq N_2$).

Ex. The father made his son a toy N_1 is animate; N_2 is inanimate.
The boy made the dog a leash

b. N made N_1 N_2 - where N_1 and N_2 belong to the same subclass of N, they are both animate or non-inanimate. (We shall symbolize it by $N_1 = N_2$).

Ex. The father made his son a teacher
War made John a brute
The boy made the stone a weapon.

Both constructions are transformationally related to constructions of the type:

'N make N_1 N_2' $\Longrightarrow$ N make N_2 Prep N_1

Ex. The father made his son a toy $\Longrightarrow$ The father made a toy for his son

The father made his son a teacher $\not\Rightarrow$ The father made a teacher of his son

Except for the fact that different prepositions are used in the transforms, the two patterns go together. However, a clearcut distinction will appear when further transformational relations are investigated:

N make N_1 N_2 $\Longrightarrow$ N_1 Be N_2

Ex. The father made his son a teacher $\not\Rightarrow$ His son is a teacher

The father made his son a toy $\Longrightarrow$ *His son is a toy

One further distinction appears when a deletion is applied:

N make N_1 N_2 $\Longrightarrow$ N make N_2

The father made his son a toy $\Longrightarrow$ The father made a toy

The father made his son a teacher $\Longrightarrow$ *The father made a teacher[1]

We can solve the problem by relegating the first variant 'N make N_1N_2' ($N_1 \neq N_2$) to the first pattern (N make N) since it allows the delition of N_1, and preserves only 'N make N_1N_2' ($N_1 = N_2$) as a second significant distributional formula for the meanings of 'make'.

3.4.3. Next sequence to be considered is 'N V N Adv. particle'[2]

Ex. Try to make matters up

You must make yourself over

---

[1]It is true that such transformations are possible with a limited set of the subgroup H.
The king made the warrior a knight The king made a knight, but a new meaning of 'make' is achieved here.

[2]Adverbial particle is an adverbial that can also be used as a preposition (cf. Hornby, A. S.: (1948) p. ix)

It is necessary to note the following things in relation to this distributional formula:

a) the presence of N in front of the adverbial particle is obligatory;

b) only a limited number of items ('out', 'up', 'over') can appear in the formula.

'N make V N Adv. Part', will be postulated as the third distributional formula for the specification of the meanings of 'make'.

3.4.4. In analyzing a sequence of the type 'N make N Prep N' in order to assess its significance for the meanings of make, we shall distinguish two variants:

a) Sequences that allow the transformation:

N make N_1 Prep N_2 $\Longrightarrow$ N make N_2 N_1

He made a man of you $\Longrightarrow$ He made you a man

He made a toy for the boy $\Longrightarrow$ He made the boy a toy

Frost makes ice from water $\Longrightarrow$ Frost makes water ice

which have been discussed earlier under (2)

b) Sequences that do not allow the above mentioned transformation:

Ex. He made a speech at the meeting

The minister made a statement to the press this morning

That they belong to a separate pattern is proved structurally by the fact that they allow the following transformation:

N make N P N $\Longrightarrow$ N $V_{(n)}$ P N ($N_{(n)}$ = verb derived from a noun)

He made a speech at the meeting. $\Longrightarrow$ He spoke at the meeting.

But for our particular purposes, namely the specification of the meanings of 'make', such sequences can be treated as extended 'N make N' sequences,

since the additional 'P N' does not prove to be relevant in most cases.[1]

On this basis, we can conclude that neither variant of 'N make NPN' can constitute a significant distributional formula relevant to the meaning of 'make', since both can be relegated either to the pattern 'N make N N (N_1=N_2)', or to the more general pattern 'N make N' which will be discussed in a more detailed manner under (3.5.).

3.4.5. The syntactic pattern 'N make N A'

Ex. He made her happy; The news made me sad ressembles in a way the 'N make N N' pattern (more specifically its variant that allows the 'N_1 Be N_2' transformation)

He made her a lady $\Longrightarrow$ She is a lady

He made her happy $\Longrightarrow$ She is happy

But for reasons to be explained below, it is not advisable to dismiss this pattern as irrelevant.

If we consider sequences of the type:

'N make N adj (that) S' - He made it clear that he will fight to the end

it can be noticed that the preadjectival N position is usually filled by the pronoun 'it' which 'anticipates' the post adjectival subordinate clause. The relation is 'it = (that) S'. On these grounds we can postulate that we are dealing here with a variant of the 'N make N A' pattern, and consequently will have to consider the latter an independent distrubutional formula for the meanings of make.

---

[1] To be more specific, this is true for all cases and all distributional formulae when the 'P N' sequence is an adverbial (of manner, substitution item: there; or time, substitution item: then).

In related extended sequences: 'N make N A P N' - 'He made that clear in the House' - it again appears, like with other syntactic patterns, that the 'P N' segment functioning as an adverbial, does not play a significant role in specifying the meanings of 'make'. All sequences discussed under 3.4.5. can therefore, be grouped together under one single basic type: 'N make N A'.

3.4.6. Of particular interest is the sequence 'N make N V'. This syntactic construction can not be reduced to the basic 'N make N', because a close interrelationship obtains between 'make' and the other verb in the sequence.

Ex: He made her cry

I found it difficult to make John accept it

You make my blood run cold

It follows that 'N make N V' (with possible additional sequences after V) should be considered a separate basic pattern constituting one of the general meanings of 'make'.

3.4.7. In the sequence 'N make A', the element A proves relevant for the specification of the meaning of 'make', so that the pattern will be considered a basic one:

Ex. He is sure to make good

To this pattern we shall add also sequences of the type 'N make APN' - I made certain about that: He made sure of her, since, as in other instances, the appended 'P N' sequence does not prove relevant for the meanings of 'make'.

3.4.8. The sequence of the type 'N make A N' will also be considered a separate pattern, including the variant 'N make A (that) S' (that is the replacements of a post adjectival noun by a nominalizing clause).

Ex. This attempt has made clear his real intentions.

3.4.9. Many of the uses of 'make' occur in the distributional formula 'N make Prep'.

One variant is represented by combinations of 'make' with spatial prepositions (off, away, in).

Ex: The travellers made in before dusk; He made away with the treasure.

The important thing about this pattern is the fact that the sequence 'make + Prep' is self-sufficient as far as the specification of the meanings of 'make' is concerned. On these grounds the sequence will be set as a basic pattern.

3.4.10. Sequences: 'N make Prep N' are of two kinds.

- Some allow the transformation:

N make P N N make N P (with a subsequent transformation which regulates the realization of 'N' as a pronoun):

He made up the story He made it up.

The prepositions are actually adverbial particles.

- Some others do not allow this transformation; moreover an immediate constituant analysis reveals a structure:

[N make | P N] as opposed to [N make P | N], characteristic of the other variant.[1]

---

[1]Again, P in the sequence 'N make P' is an adverbial particle (also in 3.4.11.)

Ex: She made quickly for the door.

We made into the forest.

This particular variant of the distribution 'N make P N' is another basic pattern specifying yet another general meaning of 'make'.

3.4.11. Sequences of the type 'N make P P N' also belong to two large groups:

- Some allow the immediate constituent analysis /⁻N make P_/ + /⁻P N_/ which leads to the pattern discussed under (3.4.9.).

Ex: He made away with the treasure.

- Some others do not allow this immediate constituant analysis, and moreover, display a closer interrelationship between the sequences 'make P+PN':

We must make up for the last time

He is trying to make up to me now.

It is necessary again to postulate this latter sequence as a separate basic pattern.

3.5. More Refined Meaning Distinctions Revealed by Grammatical Operations.

The patterns established thus far do not represent simple distributions but rather sets of distributions within a certain more general type. The meaning each of these patterns reveals is consequently very general, and unspecified. For instance, the only meaning we can specify at this stage for the first pattern 'N make N' is very wide and vague, actually it is akin to the general meaning of transitivity of verbs.

For the further specification of meaning within a certain pattern it is necessary to increase our accuracy of analysis by applying further possible grammatical operations to the postulated distributional formula.

In the following pages I shall discuss the basic pattern 'N make N' and attempt to arrive at more specific meanings of 'make' by testing the reaction of the pattern to various grammatical operations.

Let us consider first the transformations that are allowed by it:

(a) 'N_1 make N_2' $\Longrightarrow$ 'N_2 Be made by N_1' (the active-passive transformation)

Ex: The boy made a mistake $\Longrightarrow$ A mistake was made by the boy.

(b) 'N_1 make N_2' $\Longrightarrow$ $N_1V_{(N_2)}$' (a transformation which changes the 'make N_2' sequence into a verb derived from N_2)

Ex: He made an analysis of the situation $\Longrightarrow$ He analyzed the situation

(c) 'N_1 make N_2' $\Longrightarrow$ 'N_1 Be N_2' (a transformation that allows the replacement of 'make' by 'be')

Ex: She makes a good cook $\Longrightarrow$ She is a good cook

But there is no actual 'N make N' sequence which will allow all three transformations. Some will allow only one:

He will make a fine lawyer $\Longrightarrow$ He will be a fine lawyer (transformation c); others allow two:

John made an analysis of the situation $\Longrightarrow$ An analysis of the situation was made by John (transformation a) and $\Longrightarrow$ John analyzed the situation (transformation b), while still others will not allow any of the three transformations:

Ex: The argument made sense.

As a result the general basic pattern 'N make N' will be subdivided into several subgroupings according to their reaction to the set of

three transformations (a,b,c). Each subgrouping will be assigned a specific meaning of 'make'.

This will not exhaust the possibilities of analysis.

Each of these subgroups can be further analysed in terms of various semantic makers of N, by the technique of combinatorial analysis.

If we take one of the subgroups arrived at by virtue of the fact that it allows only the third transformation (N make N $\Longrightarrow$ N Be N), further distinctions can be made and consequently more specified meanings can be arrived at.

Similarly, all other subgroups can be differentiated further into more specified meanings by making use of the above mentioned criteria.

A more detailed analysis will eventually result in even finer delimitations of the meanings of 'make'. The question that arises now is, what is more important in meaning specifications: the distribution of the respective lexical item, the transformations the construction of which it is a part may undergo, or the semantic factors of the adjacent Ns?

There can be no doubt about the primary importance of the former two factors. This can be very easily proved by the fact that we get different meanings of 'make' by collocating it with one and the same N in various constructions:

"He made 60 dollars" - allows the passive transformations;

"Your award makes 60 dollars" - does not; it allows the N make N$\Longrightarrow$N Be N tranformation.

'Make' definitely displays different meanings in the two utterances and they are primarily the result of their characteristic distribution

formulae and their possible transformations rather than of the lexical items with which 'make' collocates in the two utterances.

This has been in no way an attempt to analyse exhaustively the distributional meanings of make, but rather an exemplification of the way one can postulate the relevant distributional formulae for a specific lexical item. But even if such an anlysis were pursued further, it could not cover all the meanings of 'make'. The possibilities of distributional analysis of meaning are limited, there is a number of very specific meanings which will probably be resolved at a different level - the idiomatic or phraseological.

4. Paradigmatic Relations.

4.1. Delimiting semantic fields.

The distributional analysis of meaning along the syntagmatic axis is completed by a similar analysis along the paradigmatic axis. In other words, instead of being interested in the distributional formulae of a given lexical item which prove relevant to its meanings, we shall direct our attention to the various lexical items that could fell one and the same position in a given distributional formula.

The claim is that the elements of a lexical set fill a certain position in a distributional formula primarily on account of the grammatical category to which they belong, but also because they share in common some semantic feature.

The substitutional occurrence of various lexical items in a certain distributional formula is regarded, therefore, as an indicator of some semantic relationship among them.

Following Halliday (1961) (i.e. his concept of lexical set) and especially Apresjan (1966), I propose to use distributional models as objective criteria for delimiting semantic fields. By suggesting an interplay between collocational and syntactic criteria in establishing semantic fields I attempt a synthesis of Halliday's and Apresjan's approaches.[1]

For the exemplification of structurally delimited semantic fields, I shall use again lexical items belonging to the grammatical class Verb. The reason for this choice is that English verbs seem easier to handle in terms of the nominal constructions with which they collocate.[2]

4.2. The Semantic Field of English Factitive Verbs.

Let us consider the semantic relations obtaining among various lexical items of the class verb that may occur in the following distributional formulae: 'N V N N'[3]

For reasons that will become immediately apparent, it is necessary at this stage to reformulate the distributional model in terms of functional categories.

Indeed, as already indicated when discussing the meaning of the verb 'make', a general distributional formula of the type: 'N V N N',

---

[1] Semantic fields isolated in this manner are of course, different from the conceptual fields proposed in the past by Trier, Bally, Wartburg.

[2] I have in mind, especially the notion of strict subcategorization, Chomsky, N (1965)

[3] It is given as verbal pattern no. 8 in Hornby, A.S: (1954). It is necessary to point out that the 25 verbal patterns postulated by Hornby are highly tentative and are accepted here as such. Also, there is a gross inconsistency in Hornby's use of grammatical and functional categories which has been avoided in my thesis.

if left at the level of grammatical categories, will not distinguish between the two types of structure exhibited in the following sentences:

We chose him a new suit.

We chose him our leader.

A rewriting of the formula in terms of functional categories will reveal two separate distributional patterns:

(a) 'Subj + Pred + Ind. O. + D. O.'

Ex: We chose him a new suit.

(b) 'Subj + Pred + D. O. + Object Complement'

Ex: We chose him our leader.

There are several structural considerations that lead to this distinction:

- A sequence Ind. O. + D. O. can be transformed into:

$$\text{'D. O. } \left\{\begin{matrix}\text{for}\\ \text{to}\end{matrix}\right\} \text{ Ind. O.'}$$

Ex: The boy left him a note $\Longrightarrow$ The boy left a note for him.

On the other hand the sequence Dir. O. + Be + Obj. Compl. (A secondary transformation will change the case of the N functioning as direct object into nominative).

Ex: We chose him our leader $\Longrightarrow$ He is our leader.

- A relation of complete agreement in number and gender obtains between 'D. O. and Obj. Compl.' which is not necessary for the sequence 'Ind.O. + D. O.':

Ex: We chose the boy our leader

(he) (he)

(sg) (sg)

We chose the boy two new suits

(he) (it, they)

(sg) (pl)

- A sentence including the Ind. O. + D. O. sequence allows two passive transformations:

We left the man a note 1. The man was left a note (by us)

2. A note was left for the man (by us)

while a sentence which includes the Dir. O+Obj.Compl. sequence allows a single transformation

We left the man a moral wreck The man was left a moral wreck

Similarly it would be impossible to differentiate between each type of the 'N V N N' constructions discussed above, and one exemplified by this sentence:

I saw my brother, the doctor. - in which the second noun serves as an appositional attribute for the direct object. There are structural criteria for this distinction too; namely the ability to replace the appositional noun (or noun phrase) by a relative clause:

I saw my brother, the doctor I saw my brother who is a doctor

By using functional categories and also by specifying the semantic markers of noun that account for the combinatorial valencies of the verbs to be discussed, the distributional formula can be finally represented as:

Subj + Predicate + D. O. + Obj. Compl.

(human) $\left\{\begin{matrix}\text{human}\\ \text{non human}\end{matrix}\right\}$

Ex: They christened the baby Mary.

We found the house a mess.

The class elected John chairman.

The boss appointed him sales-manager.

Let us consider in detail the verbs that can fill in the 'predicate' position in the formula: 'Subject+Predicate+D.O.+Object Complement' A list of such verbs is given below:

A	B	C	D
appoint	call	think	keep
designate	name	consider	find
nominate	nickname	see	leave
name	dub	fancy	
make	label	envisage	
crown	christen	imagine	
proclaim	baptize	judge	
entitle		prove	
style		prefer	
elect		like	
choose		want	
		find	

Such verbs are usually called 'factitive' and a dictionary definition will refer to them as 'making, calling or thinking something to be of a certain character' (Webster's New World Dictionary of the American Language, College Edition) in addition to defining them grammatically as 'verbs that take an object complement'. Such double definitions - semantic and grammatical - are not rare. They point out the real possibilities that exist to find structural criteria which define many semantic subgroupings within various grammatical classes.

There can be no doubt about the existence of a semantic feature shared by all factitive verbs, however vague and undefined it may seem to us at first sight. The term 'factitive' used to define the verbs seems to me as good as any other and will be preserved here to cover their common semantic feature.

4.3.1. Almost intuitively however, one can see the possibilities of making further distinctions within the established group of factitive verbs. I have divided them into four subgroups, of which three (A,B,C) are based on the dictionary definition mentioned above: "making (subgroup A), calling (subgroup B), or thinking (subgroup C) something to be of a certain character". Subgroup D is set aside on semantic grounds too. The division is only tentative; it can be maintained only if sufficient structural (or collocational, see 3.3.4) considerations support its validity.

Subgroup A is characterized by the fact that the noun that functions as object complement is not preceded by an article.

Ex: He appointed his brother manager.

We elected John chairman.

The court crowned the young prince king.

A second characteristic of verbs in subgroup A is the fact that they allow 'as' or 'for' (both meaning 'in the capacity of') to precede the object complement.

Ex: They will certainly choose a young man for chairman this time.

Their best move was to appoint John as general manager.

All verbs in subgroup A share in common an additional semantic feature (this time in opposition to verbs in the other subgroups). We can call

this semantic feature 'designation' (Human X acquires status Y) and call the verbs designative.

4.3.2. The verbs in subgroups B and C are opposed to the ones in subgroup A, by virtue of the fact that they demand the presence of an article in front of the object complement and do not allow 'as' or 'for' to precede it.

Ex: We call him a real friend

We labeled him a traitor.

(Note: when the object complement is a proper noun, no article is employed)

Ex: We called him Jack

The pastor christened the baby Helen.).

In order to distinguish subgroups B and C from one another, it is necessary to look for some other criteria. This can be done by testing the reaction of verbs in both subgroups to other grammatical operations. Thus, verbs in subgroup C allow the insertion of 'to be' in front of the object complement, while verbs in B do not.

Ex: We all thought John (to be) a real friend.

I find his conversation (to be) a delightful experience.

In addition to this, verbs in subgroup C are distinguished by the fact that they allow the substitution of the noun object complement by an adjective, or past participle.

Ex: I find his conversation delightful.

We proved him false.

Enough evidence has been gathered therefore to consider verbs in list C as a separate subgroup of the factitive verbs. The semantic

feature they share in common could be termed 'evaluation' and the verbs can be refered to an evaluative.

4.3.3. Verbs in list A appear now as defined negatively (by their negative reaction to the grammatical operations applied to verbs in subgroup C). Their common semantic feature could be termed 'appellation' and the verbs can be called 'appelative'.

4.3.4. Three verbs: 'keep', 'find' and 'leave' also appear in the distributional formula of factitive verbs.

Ex: They kept him prisoner for a long time.

We found the place a complete mess

Structurally, they partly belong together with the 'evaluative' group of factitive group of factitive verbs in that they allow a substitution of the noun-object complement by an adjective, for instance:

Ex: They kept it safe

We found the place dirty and left it very clean.

Two possibilities are open for their analysis:

-to stick to their structural classification within the subgroup of evaluative verbs (possibly as an even smaller subset), in utter disregard of the fact that they do not seem to possess the semantic feature 'evaluation';

-to apply collocational criteria (cf. 2) and establish them as a separate subgroup D of factitive verbs sharing in common a semantic feature which could be called 'situational'. I have chosen this second alternative.

It is in applying such additional criteria that I depart from Apresjan who finds it absolutely necessary to hold to syntactic considerations exclusively.

4.4.5. Further distinctions are possible within each of the four subgroups delimited thus far. It is possible for instance, to maintain that within designative verbs, 'crown', 'proclaim', entitle' form an even smaller subject, 'elect and choose' another one, etc. Similarly, within appelative verbs 'baptize and christen' are in many ways distinct from the others.

But the distinctions are no longer arrived at by the application of structural criteria; they are now a function of the "collocational range" of the respective verbs, as defined in part (2) of this thesis. That is, there is a propensity for collocation with a certain set of lexical items (christian names) that 'baptize' and 'christen' share, which differentiates them from the other appelative verbs.

It is possible that in this way we could fill the gap between structural meaning and significative and denotative meaning, since it seems to me that collocational considerations are more pertinent to the two latter aspects of meaning rather than to the first.

It seems, for instance, that further semantic features could be abstracted in such a manner: appoint, designate, make name, nominate (on the one hand) will be opposed to 'elect and choose' as being antonymous in meaning (inclusion vs exclusion of election process in Human X acquiring status Y).

5. Componential Analysis.

The operations performed under (3), appear as a successive delimitation of semantic features shared in common by increasingly more refined groups and subgroups of lexical items. This opens the way for a type of componential analysis both of the meaning of semantic fields as wholes, and of individual lexical items.

5.1. Semantic Components of a Lexical Item.

A lexical item 'designate', for instance, could be analysed into the following semantic components:

designate v / trans+ {human action+ /− factitive+(designative+lack of election procedure)/} /

which reads: the semantic characteristics of the verb designate are: transitive, human, factitive, designative, indicative of lack of election procedure.

With each grammatical operation employed to isolate a structural meaning of a lexical item we define also a semantic feature which it shares in common with some other lexical items of the same grammatical class.

The more general semantic features will be arrived at by means of grammatical operations, while more specific ones will be revealed by collocational considerations. This sort of division seems to correspond to an actual inner organization of meaning. Fodor and Katz too, in their semantic theory propose a distinction between semantic markers and distinguishers, although as it has been pointed out it is not always very clear within the framework of their theory how to draw a line between the two categories of semantic features.

5.2. Semantic Components of a Lexical Field.

It is of course possible to apply a componential analysis technique to whole semantic fields and thus arrive at what would appear as equivalents of "conceptual dictionaries" of the Roget Thesaurus type. The significant difference between the two lies in the fact that unlike conceptual dictionaries, they will be based on structural considerations, that is on the network of syntagmatic and paradigmatic relations that criss-cross the vocabulary of a language.

It is possible for instance to set up classes of verbs within larger classes of verbs until the whole grammatical class of English verbs will be exhausted.

The first division will be into transitive and intransitive verbs on the grounds of the reaction to the passive transformation in a distributional formula of the 'N V N' type.

Further, it is possible to distinguish within transitive verbs a comprehensive class of verbs indicating 'human actions'. Within this larger group, the semantic group of factitive verbs will occupy a certain position. In its turn the semantic field of factitive verbs is divisible into smaller subsets.

6. Conclusions.

It would be premature to draw any definitive conclusions regarding the approach to structural semantics outlined in this thesis, in view of such a limited analysis. There are many theoretical problems (i.e. the problem of idiomatic meaning, etc.) that still need to be clarified, and above all, there is the obvious task of applying the theoretical apparatus to a more comprehensive analysis of lexis.

Several strong arguments in favour of the approach can however be made even at this stage.

The first is of a theoretical nature. By postulating syntagmatic and paradigmatic relations as the basis for a theory of lexis, a unity within a general theory of language is achieved. The approach also insists upon the isomorphism between grammar and semantics, as well as their close interrelationship and deep interpenetration.

As for arguments of a practical nature, some have already been exemplified in this thesis. The relational approach to semantics proves very useful in analyzing the structural meanings of lexical items, in delimiting semantic fields, and on this basis it opens interesting possibilities for a componential analysis of meaning.

BIBLIOGRAPHY

Ahmanova, O. S., Nekotorje voprosy semantičekogo analiza slova (Problems of the Semantic Analysis of Word), Vestnik M.G.U., 2, 1957.

Ahmanova, O. S., Vinogradov, V.V., Ivanov, V.V., O nekotorje voprosax i zadačax lekcikologij. (Some Problems and Tasks of Lexicology), Voprosy Jazykoznanija, 3, 1956.

Apresjan, Ju. D., O ponjatiax i metodax structurnoj leksikologij. (Notions and Methods of Structural Linguistics) in Problemy strukturnoj lingvistiki, Moscow, 1962.

Apresjan, Ju. D., Sovremennye metody izucenija značenij i nekotorye problemy strukturnoj lingvistiki. (Present Methods of Meaning Analysis and Some Problems of Structural Linguistics) in Problemy strukturnoj lingvistiki, Moscow, 1963.

Apresian, Ju. D., Analyse distributionelle des significations et champs sémantiques structurés, Langages, 1, Paris, 1966.

Baldinger, K., Die Semasiologie. Berlin, 1957.

Bazell, C. E., Meaning and the Morpheme. Word, 8, 1962.

Bendix, H. E., Componential Analysis of General Vocabulary. The Semantic Structure of a Set of Verbs in English, Hindi and Japanese, International Journal of American Linguistics. Vol 32, No 2, April 1966 part II, publication 41.

Benveniste, E., Problemes sémantiques de la reconsrtuction, "Word", vol. 10, n.2-3, 1954.

Bloomfield, L., Language, New York, 1933.

Breal, M., Semantics: Studies in the science of Meaning, New York, 1964.

Budagov, R. A., Introducere in ştiinţa limbii (An Introduction to the study of language), Bucuresti, 1960.

Carnap, R., Bar-Hillel,Y., "Semantic Information", British Journal of the Philosophy of Science, 4, 1953.

Catford, J. C., A Linguistic Theory of Translation, Oxford Univ. Press, London 1965. 'Language et Contexte', La Structuralisme, Mouton, The Hague. 1968

Chitoran, D., Colocatie si sens - O contributie la studiul sensului elementelor lexicale, Studii si Cercetări de Linguistică, XVI, Bucuresti, 1965.

Chomsky, N., Syntactic Structures (J.L., Ser, Min., n.4), Mouton and Co. La Haye.

Chomsky, N., Aspects of the theory of Syntax, M.I.T. Press, Cambridge, Mass., 1965.

Chomsky, N., Topics in the Theory of Generative Grammar, in Current Trends in Linguistics, v.III, Thomas Sebeok ed; Mouton and Co., La Haye, 1966.

Coseriu, E., Pour une sémantique diachronique structurale, in Travaux de linguistique et de literature II, 1, Strassbourg, 1964.

Coteanu, I., In legatura cu sistemul vocabularului. Probleme de lingvistică generala, vol. II, Bucuresti, 1960.

Dixon, R., W., On Formal and Contextual Meaning, Acta Linguistica Academiae Scientarum Hungaricae, 14, 1964.

Dubois, J., Esquisse dun dictionnaire structural, Etudes de linguistique appliquée, 1, 1962.

Fodor, J. A., Katz, J. J., The Structure of Language, Readings in the Philosophy of Language, Prentice Hall, Inc. Englewood Cliffs, New Jersey, 1964.

Firth, J. R., Papers in Linguistics, London, 1957.

Fries, C. C., Meaning and Linguistic Analysis, Language, vol. 30, 1954.

Goodenough, W. H., Componential Analysis and the Study of Meaning, Language, 32, 1956.

Graur, A., Studii de lingvistica generala (varianta noua), Bucuresti, 1960.

Greimas, A. J., Sémantique structurale. Recherche de methode, Larousse, Paris, 1966.

Guiraud, P., Les Champs morpho-semantiques. Bulletin de la Societe de Languistique de Paris, III, 1956.

Guiraud, P., La Sémantique (Que sais-je? 655), Paris, 1962.

Halliday, M.A.K., Categories of the Theory of Grammar, "Word", vol. 17-3-1961.

Hallig, R. and Wartburg, W. von, Begriffsystem als Grundlage der Lexicographie, Berlin, 1952.

Harris, Z., Methods in Structural Linguistics, Chicago, 1951.

Hjelmslev, L., Dans quelle mesure les significations des mots peuvent-elles etre considerées comme formant une structure. Reports for the eighth International Congress of Linguistics vol. II. Oslo, 1957.

Hjelmslev, L., Prolegomena to a Theory of Language, The University of Wisconsin Press, Madison, 1961.

Hjelmslev, L., Some Reflections on Practice and Theory in Structural Semantics, in Language and Society, Copenhague, 1961.

Hocket, Ch. F., A Course in Modern Linguistics. New York, 1958.

Hornby, A. S., (et al): A Learner's Dictionary of Current English OUP, London, 1948

Hornby, A. S.: A Guide to patterns and usage in English, OUP, London, 1954

Jakobson, R., Essais de linguistique génèrale (Arguments, 14), Les Editions de Minuit, Paris, 1963.

Jakobson, R., Halle, M., Fundamentals of Language, Mouton and Co., The Hague, 1957.

Katz, J. J. and Fodor, J. A., The Structure of Semantic theory, Language, 39, 1963.

Katz, J. J. and Postal, P. MP., Semantic Interpretation of Idioms and Sentences Containing Them, Quarterly Progress Report (M.I.T.), 70, 1963.

Katz, J. J. and Postal, P. M., An Integrated Theory of Linguistic Description, The M.I.T. Press, Cambridge, Mass., 1964.

Kurylowicz, E., La notion de l'isomorphisme. Copenhague, 1949.

Kurylowicz, J., Zametki o Znachenij slova, (Notes on Word Meaning), Voprosy jazykoznanija, 3, 1955.

Lamb, Sydney M., Outline of Stratificational Grammar, Georgetown Univ. Press, Washington D. C., 1966

Lamb, Sydney M., The Sememic Approach to Structural Semantics, in Transcultural Studies in Cognition, American Anthropologist 66, n.3.

Levitzki, L., Bilingual Dictionaries: Suggestions, Melanges linguistiques, Bucarest, 1957.

Levitzki, L., A Course in English Lexicology, Bucharest, 1963.

Longacre, R. E., Items in Context, Their Bearing on Translation Theory - Language vol 34 no 4, 1958.

Lounsbury, E. G., The Structural Analysis of Kinship Semantics, Proceedings of the IXth International Congress of Linguists, The Hague, Mouton, 1963.

Luria, A. R. and Vinogradova, O. S., An Objective Investigation of the Dynamics of Semantic Systems, British Journal of Psychology 50, 1959.

Lyons, J., Structural Semantics. An Analysis of part of the Vocabulary of Plato. Publications of the Philological Society, 20, Oxford, 1963.

Martinet, A., Elèments de linguistique générale, Paris, 1961.

Meillet, A., Review of J. Trier "Der deutsche Wortschatz", in Bulletin de la Societe de linguistique de Paris, vol. 32, f.2, 1931.

Mitchell, T. F., Syntagmatic Relations in Linguistic Analysis, in Translations of the Philological Society, 1958.

Nida E. A., A System for the Description of Semantic Elements, Word 7, 1951.

Nida E, A., Towards a theory of Translation, Leiden, Brill, 1964.

Ohman, S., Theories of the Linguistic Field. "Word", vol. 9.n.2, 1953.

Ollson, Yngre, On the Syntax of the English Verb Göteborg, 1961.

Odgood, Ch., Suci, G. J., Tannembaum, P. M., The Measurement of Meaning, Urbana, 1957. (Univ. of Illinois Press).

Palmer, H. E., A Grammar of English Words, London, 1938.

Pottier, B., Recherches sur l'analyse sémantique en linguistique et en traduction automatique, Universite de Nancy, 1963.

Pottier, B., Vers une sémantique moderne, Travaux de linguistique et de litterature, 1, 1964.

Prieto, L. J., Rapport paradigmatique et rapport syntagmatique sur le plan du contenu, "Omagiu lui I.Iorjan", Bucuresti, 1958.

Prieto, L. J., Principes de Noologic, Mouton and Co., The Hague, 1964.

Problems in Lexicography, ed. by F. Householder and Sol Saporta (IJAL, 28, 2; publ. n.21, Baltimore, 1962.

Problemy formalizacij semantiki, Ier MGPIIJ, Moscow, 1964.

Proceedings of the IXth International Congress of Linguists, Mouton and Co., The Hague, 1964.

Quine, W. V., Word and Object, Cambridge, Mass., 1960.

Quirk, R., The Use of English, London, 1962.

Riffaterre, M., Stylistic Contxt, Word, 16, 1960.

Robins, R. H., General Linguistics: An Introductory Survey, London, 1964.

Rosetti, A., Le mot. Copenhague - Bucuresti, 1943.

Sapir, E., Language, New York, 1921.

Shaumjan, K., Strukturnaja lingvistika kak immanentaja teorija jazyka. Moskva, 1962.

The Shorter Oxford Dictionary, C. T. Onions ed., London, 1961

Saussure, F. de, Cours de linguistique generale, II edition, Paris, 1922.

Schaff, A., Introduction to Semantics, Pergamon Press, New York, 1962.

Slama- Cazacu, T., La "structuration" dynamique des significations, in Mellanges linguistiques, Bucarest, 1957

Slama-Cazacu, T., Langage et Contexte, Mouton and Co, La Haye, 1961.

Smirnickij, A. I., Značenije slova, Voprosy iazykoznanija, n.2, 1955.

Smirnickij, A. I., Leksikologija anglijskogo jazyka, Moskva, 1956.

Stati, S., Contenu et expression, symetrie et assymetrie, Cahiers de linguistique appliquée, Bucarest, 1962.

Stern, G., Meaning and Change of Meaning, Goteborg, 1931.

Tabory, R., Semantics, Generative Grammar and Computers, Linguistics, 16, 1965.

Trier, J., Der deutsche Wortschatz im Sinnbezirk des Verstands, Heidelberg, 1931.

Ullmann, St., Historical Semantics and the Structure of the Vocabulary, "Miscelanea Homenaje a A. Martinet", I, La Laguna Univers. Press, 1957.

Ullmann, St., Semantics: An Introduction to the Science of Meaning, Oxford, 1962.

Vinogradov, V. V., Slovo i znacenije kak predmet leksikologičeskogo izucenija, (Word and Meaning as Objects of Lexicological Analysis), Leningrad, 1945.

Vinogradov, V. V., Osnovnije tipy leksičeskix znacenij slova (Basic Types of Lexical Meanings of Words), Voprosy jazjkoznanija, 5, 1953.

Wartburg, W. von, Problemes et Methodes de la linguistique. Zeitschrift fur deutsch Philologie, n. 57.

Webster's New World Dictionary of the American Language, College Edition, New York, 1964.

Weinreich, U., Travels through Semantis Space. "Word", vol. 14, n.2, 3, 1958.

Weinreich, U., Lexicographic Definition in Descriptive Semantics, in Problems in Lexicography, 1962.

Weinreich, U., On the Semantic Structure of Language, in Universals of Language ed. by J. Greenberg, Cambridge, Mass., 1963.

Weinreich, U., Explorations in Semantic Theory, in, Current Trends in Linguistics, vol.III, 1966.

Weisgerber, L., Die Sprachfelder in der geistigen Erschliessung der Welt., in "Festschrift fur J. Trier", Meisenheim, 1954.

Weisgerber, L., Der Begriff des Wortens. "Corolla Linguistica. Festschrift fur F. Sommer", Wiesbaden, 1955.

Wells, R., Meaning and Use. "Word", vol.10, n.2-5, 1954.

Wells, R., To What Extent Can Meaning Be Said to Be Structured? Proceedings of the Eighth International Congress of Linguists, Oslo, 1958.

West, Michael, A General Service List of English Words with Semantic Frequencies and a Supplementary Word-List for the Writing of Popular Science and Technology, New York, 1953.

Wittgenstein, L., Investigations philosophiques, Gallimard, Paris, 1961.

Whorf, B. L., Language, Thought and Reality, New York, 1956.

Ziff, P., Semantic Analysis, Cornell Univ. Press., Ithaca, New York, 1960.

Zveginčev, V. A., Semasiologija, Moskva, 1957.

Zveginčev, V. A., Meaning as a Fact of "Langue" and as a Fact of "Parole", Proceedings of the 9th International Congress of Linguistics, Massachuetts, U.S.A., 1962.