

CLASS LOGIC : SENSE AND SENSE RELATIONS

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Abstract

The paper delves into the semantic field to establish sense as an important category within the domain of conceptual or cognitive meaning. Various sense-relationships that hold between lexical items are linguistically explored. The system of these relationships, as the paper shows, categorically reveals itself in terms of synonymy, antonymy, homonymy, hyponymy, polysemy and colour terms, in this paper. Despite some overlapping, each of these items announces its distinctive feature. The paper ends with a conclusion that reveals the merits of a linguistic treatment of these refined semantic aspects.

1. Introductory Remarks

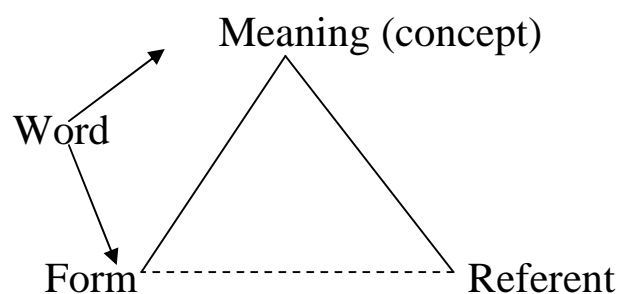
The Greek word *Semantikos* means "significant" (Langendoen, 1970, p.6). Semantics, is the study of meaning which is suggested to be "central to the study of communication" and to "the study of the human mind" (Leech, 1974, p.viii). Sense is a distinction that is made when semantists try to define or determine meaning. But it is within this semantic domain that problems are often faced. These problems blur the defining line between two semantic categories.

We often face a long list in the realm of meaning, a list that often covers paired semantic terms such as "sense" and "meaning", "meaning" and "reference", "conceptual" and "associative" meanings "significance" and "signification", "form" and "meaning", etc.

There has been until recently a heated debate between exponents of exclusions in terms of "form" versus meaning, between those who advocate an entirely formal approach that excludes meaning from their

grammatical analysis and those who entirely rely on meaning when explaining grammatical items. We have also the "triangle of significance", occasionally referred to as "the semiotic triangle" which represents the traditional view of the relation between the terms of "meaning", "word", "form" and "referent" (Lyons, 1971, p.405).

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(F.G.1.The relation between "meaning" ,"word" and "form")

However, recently some insightful work concerning these perplexing issues has been developed. Langacker (1973, p.24) suggests that "the relation between a word and its meaning is ... arbitrary" and that "it is a matter of convention". Robins (p.24) admits that preoccupation with reference and denotation has troubled semantic theory in the sense of "putting an excessive importance on that part of meaning which can be ... treated either as a two-term relation between the word and referent ... or as a three-term

relation between word, speaker or hearer and referent.

Lyons suggests that the meaning of a lexical item is ... "specified...by the set of all the meaning postulates in which it occurs" (1970, pp.168-169).

Palmer, on the other hand, lashes at those who ignore meaning altogether in their grammatical analysis and advocates a balanced treatment in connection with "form" versus "meaning" (1974, p.7).

In an earlier work, he points out that

"to say an analysis is formal is not to say that meaning has not been used in any sense at all in arriving at the analysis".

Valin and La Polla (2002, p.389) argue that "the more universal aspects of this area of grammar [ie *Linking*] are semantically motivated".

Linguists have also tried to define *sentence - meaning*, *lexical meaning*, *grammatical meaning* and *utterance meaning*.

Lyons recognizes grammatical meaning as "a further component of sentence meaning" and utterance-meaning as falling "within the field of *pragmatics*" (1981, pp.139 -140).

Scott et al (1968, p.9) speak of *contextual meaning*: " It [= contextual meaning] has something to do with the relation between a piece of language and the situation it refers to ".

Leech (1974, pp.10-27) has further particularized and discussed some other meanings such as :

Conceptual or Cognitive Meaning, Connotative Meaning, Stylistic and Affective Meaning, Reflected and Collocative Meaning, Associative Meaning, Thematic Meaning and Intended and Interpreted Meaning.

Leech considers "conceptual" or "cognitive" meaning "to be integral to the essential functioning of language in a way that other types of meaning are not" (p.10). He also suggests that this kind of meaning seems to be based, in its organization, on the linguistic ground of contrastive features (p.11).

It is within this linguistic awareness that the researcher intends to explore an immensely important term in the realm of cognitive meaning ie *sense*. The purpose of this paper is to dispel some confusion about this term by pinning down precisely what “sense” really means and how sense-relations operate.

2. Sense and Sense – relationships

2.1 Sense

By the sense of a word, we mean its place in a system of relationships which it contracts with other words in the vocabulary (Lyons, 1971, p.427).

Lyons suggests that these relationships holding between vocabulary items do not carry with them presuppositions “about the existence of objects and properties outside the vocabulary of the language in question” (Lyons, *ibid*, p.427).

2.2 Sense – relationships

In order to refine sense-relation, we have to differentiate here between sense - related and denotation - related lexemes.

Lyons enunciates the point by saying that

“a lexeme which is related to other lexemes is related to them in sense and that a lexeme which is related ... to the outside world is related by means of denotation .

(Lyons, 1981, p.152).

The coinage of certain lexical items may be dictated by reasons other than linguistic. Palmer, thus , shows that alongside *lamb*, *ewe* and *ram* , English has *elephant cow* and *elephant bull*. “The [cultural] reason for the difference is obvious, we are less familiar in our culture with elephants than with sheep”(Palmer, 1971, p.45).

2.2.1 Synonymy

Lyons argues that since sameness of meaning ie *synonymy* enacts a relation holding between two or more vocabulary items, it is a matter of sense, not reference. He recognizes that two items may have the same reference but differ in sense and that if items have no reference, they may be synonymous. He assumes that “for items which have reference, identical reference is a necessary but not sufficient, condition of synonymy”.

Substitution, in this respect, is shown to be a valid test for recognizing synonymous sentences. It is suggested that two items are synonymous if the sentences resulting from substituting one for the other have the same meaning. The relation of synonymy is realized to be holding between lexical items and not between their senses. " The synonymy of lexical items is part of their sense" (Lyons, 1971, pp.427-428).

When speaking of synonymy, Bolinger (1968, p.233) defines the conditions necessary for the application of the term: "The term synonymy is not applied unless (1) the overlap is almost complete and / or (2) the area outside the overlap is ...unimportant."

Leech, who tries to illustrate the different implications of the rules of

subordination and identification gives the following two *synonymous* sentences:

a- Paris is beautiful to an extent greater than the extent to which London is beautiful.

b- London is beautiful to an extent less than the extent to which Paris is beautiful.

He, thus, shows the different implications:

The slight semantic difference between (a) and (b) resides in the assumption in (a) that the degree of beauty of London is known, and the opposite assumption in (b) that the beauty of Paris is known

(pp.276-277)

More than any other sense relations, synonymy is context-dependent. Lyons (1971, p.452) shows that we have this category when the distinction between two lexical items is neutralized. He recognizes that the difference between the marked term *bitch* and the unmarked term *dog* is neutralized in context. He exemplifies the difference by the sentence *My — has just had pups* where the animal referred to is determined to be *female*, ie *bitch*. He concludes that “all sense relations are in principle context – dependent, but contextually dependent synonymy is of particular importance”.

2.2.2 Antonymy

Antonyms, like synonyms, are sense relations. They stand for lexicals that have opposing names. Bolinger admits the difficulty of defining the oppositeness of these words: “It is as hard to pin down the “oppositions” of antonyms as the “sameness” of synonyms, but ...the opposition is ... enclosed within sameness.”(Bolinger, 1968, pp.233-234).

Lyons (1971,pp.460-462) recognizes that the first relation of “oppositness” between such pairs of words as *single*, *male*, *female*,etc., is that of *complementarity*.This means that the denial of the one implies the assertion of the other and that the assertion of the one implies the denial of the other. Thus, saying *John isn't married*, implies that *John is single*.

But with *good*, *bad*, *high*, *low*, only the second of these implications holds. Thus *John is good* implies the denial of *John is bad*, but *John is not good* does not imply that John is bad. Lyons considers *complementarity* as a special case of incompatibility holding over two-term sets. Lyons proceeds to argue that the assertion of the member of a set of incompatible terms implies the denial of each of the other members in the set taken separately (red implies (minus *blue*, minus *green* etc.) .The denial asserts the disjunction of all other members (minus *red* implies either *green* or *blue* or ...).

Moreover, the use of the dichotomous terms *married* and *single* presupposes “the applicability of ... the culturally accepted criteria of “marriageability” ” Lyons also notices a further point in connection with complimentary terms. He suggests that it is possible to cancel either or both of these implications and that in such cases “the implications can be regarded as “normally” and not “absolutely” analytic. But this principle holds for sense-relations in general.”

2.2.3 Homonymy

Synonymy is the association of two or more forms assumed to have the same meaning (as may be exemplified by *hide* and *conceal*).But the association of two or more meanings with the same form produces *homonyms* which may be exemplified by *bank* that (a) of a river and (b) a

place where money is deposited. When the orthographic form is unrelated to phonology, then Lyons argues (1971, p.405) that we have homography (e.g. *lead*, in (i) *a dog's lead* and (ii) *made of lead*) and *homophony* (e.g. *meat, meet; sow, sew*). Lyons (ibid) notices that homonymies are traditionally distinct words and that homonymy is not difference of meaning within one word. "In principle, the association of two or more meanings with one form is sufficient to justify the recognition of two or more words."

2.2.4 Polysemy

Traditional semantics likes to speak of, say, the word *mouth* (*mouth of a river, mouth as a part of body*) as one word having two related meanings. They call this relation multiple meaning or *polysemy*. Traditional lexicographers classify homonyms as different words whereas they list multiple meanings or polysemy under one entry in their dictionaries. However, the distinction between *homonymy* and *polysemy* remains to be indeterminate and arbitrary. It depends

on the lexicographer's historical knowledge.

2.2.5 Hyponyms

Hyponymy which may be defined as the inclusion of the meaning in a lexical item is a fundamental sense relation. Classes of lexical items are established according to the relationship they hold between them. By paraphrasing and implication you will arrive at marked and unmarked members of a certain class. Thus, one of the semantic relationships that is derived by *paraphrasing* is called *hyponymy*.

Leech conditions this relationship as existing between two meanings "if one componential formula contains all the features present in the other formula." He shows that "woman" is hyponymous to "grown – up", because the two features make up the definition "grown up" (ibid.p.100).

Lyons (1971,p.454) suggests that hyponymy applies to non-referring and referring terms:

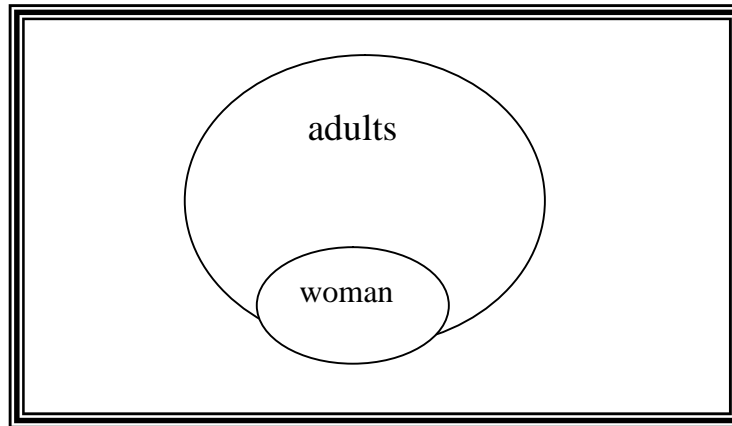
It is important to realize that hyponyms as a relation of sense which holds between lexical items applies to non-referring terms in precisely the same way as it applies to terms that have no reference.

However, he contributes his preference of *hyponymy* as an alternative term to "*inclusion*" to the notion that

"*inclusion*" is "*somewhat ambiguous*" and problematic:

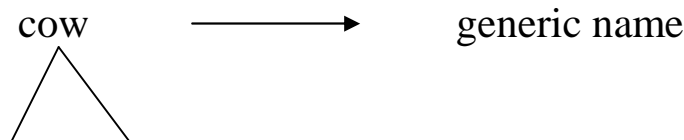
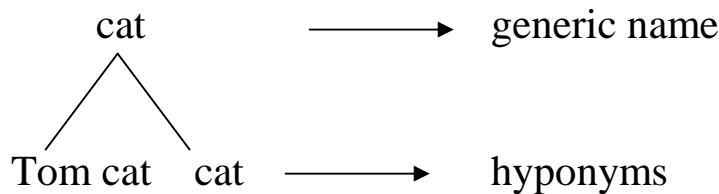
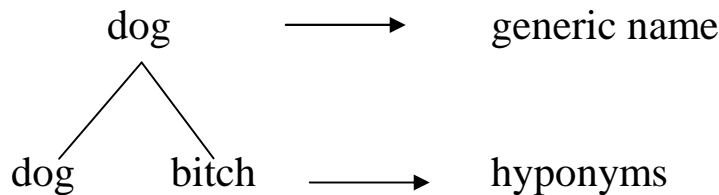
From one point of view, a more general term is more "inclusive" than a more specific term- *flower* is more inclusive than *tulip* since it refers to a wider class of things. But from another point of view ,the more specific term is more "inclusive" -*tulip* is more "inclusive" than *flower* since it carries more "bits" of information , more "components" of "meaning". (Lyons ,ibid, p. 454).

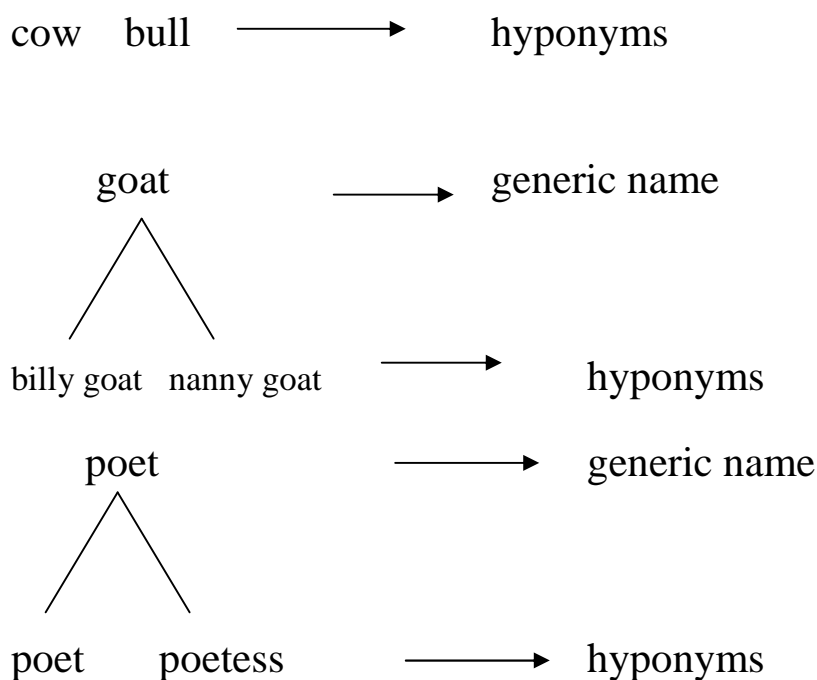
Leech (1974, pp100-101) also seems to disapprove of “inclusion”:
“Inclusion” is a confusing word to use ... because while in one respect ... “woman” includes “grown-up”, in another respect, the opposite is the case; “grown-up” includes “woman” in the sense that a general term might be said to include the meaning of the more specific term:



(F.G.2 Overlapping in hyponyms)

Hyponyms are specific terms covered in the group by the generic name. A term may be used as a generic name for species, whereas other terms can be used more specifically. Thus, *dog* in English is a generic name. The unmarked (category) *dog* (masculine) and the marked *bitch* (feminine) are hyponymous as shown in the following diagrams:



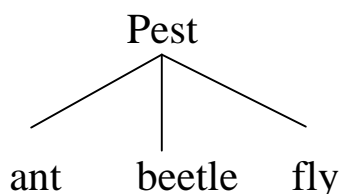


(Fig. 3 Un marked and marked hyponyms)

In certain cases, we have only the hyponymous category as suggested by “bachelor” and “spinister”. Sometimes the reason for this lack of terms is a cultural one. Different languages choose to have differing numbers of words for various specifications. Arabic has more words for *camel* than English which has only just one. Palmer (1971, p.44) shows as suggested earlier that English has no masculine or feminine words for elephant: “Alongside, *lamb, ewe, ram,* we have *elephant calf, elephant cow* and *elephant bull.*” He contributes this phenomenon of having two words to describe the *baby, the female* or the *male* of any species to cultural reasons. In the case of *elephant*, he suggests that “we are less familiar in our culture ... with elephants than with sheep” (ibid, p.45). *Snow* in Eskimo has more lexicalized items or “hyponyms” than English which tends to make distinctions through “fine snow” “dry snow” , “soft snow” etc. On the other hand, English lexicalizes words

denoting *specific types of sheep (ram, ewe, lamb).*The tendency of “lexicalization” in English may be viewed as belonging to a past period. This reveals that a lexically developed field in one language (Arabic *camel,* for instance) may be a lexically undeveloped field in another.

Aristotle considered that all vocabulary items could be considered as coming under a hierarchy so that a *lamb* is a *sheep*, which is an animal, which is a mammal, etc.This view was believed for a long time until quite recently. However, it is not feasible to force vocabulary items into categories of a hierarchy, a thing which can only be done with great feeling of artificiality as in a Thesaurus. There are other factual , non-linguistic (referential) relationships functioning between words. “Pest”, for instance, can include a lot of things , but it does not follow that these sub-elements are always “pests” .In the end , it is a matter of opinion.



(Fig.4 Relational nouns)

In the field of relational nouns, Langendoen (1971, p.51) proposes that like other kinship terms, *family* may be used to designate not only a particular group of humans but also such things as animals, nations and languages. The range of kinship system covers those terms that are not customarily employed. Thus ancient Greek could be called an *aunt* of French and Spanish and English could be designated as *cousin* languages.

Relational nouns also do not fit the hierarchy pattern. To capture the meaning of relational nouns, you have to paraphrase them into "is something of something" or "is something to something" - verb to BE is involved. For example, "aunt" which belongs to family relationship, is paraphrased into "someone who is a sister of a parent of someone". Thus a paraphrase has a follow on. It ends with a link, with another noun, passively indicated by "of someone". [This does not occur in *ewe*, a sheep which is female]. But if you want to define it in terms of non-relational paraphrase, you have to resort to introducing some rather artificial, non-everyday speech terms.

"Aunt is a relative, a female, a co-linear and of old generation". Thus it is impossible to define words containing generation differences without giving relative data in relational terms.

Kin terms are usually within the relational nouns field. Some nouns (such as *child*) have polysemy indicating in one sense the age scale and in another the family relation. These pairings have no word referent.

Relationally, "child" can be used for someone of any age.

Semantically, relational nouns do not only involve polysemy, hyponymy, paraphrase but also *conversity*. "If he is her brother" then "she is his sister". Thus, conversity relationship can be stated in two different ways parent/child, aunt/nephew, brother / sister etc. *Converse* terms are loosely called (by many people) opposites.

Lyons (1971, p.p. 468-469) suggests that the vocabulary of kinship and social status provides instances of what he labels as symmetry and converseness. NP₁ is NP₂'s cousin implies, and is implied by NP₂ is NP₁'s *cousin*, but NP₁ is NP₂'s *husband* implies and is implied by NP₂ is NP₁'s *wife*.

"Opposites" is a topic that may contain types of relationship.

Conversity is typical of verbs, adjectives and nouns such as "*big-small*", "*length-width*", "*buy-sell*", each of which implies the other but a change of theme is involved. The same thing holds with the passive.

Consider the following converse terms:

1. *Tall - short* (involving a scale other than two fixed qualities - regularly gradable and relative) tall means taller than the average). This sense relation (antonym) is labelled as "opposites par excellence".

2. *Male - Female* (binary taxonomic, non-gradable, absolute) complementarity relationship)

3. *Go - Come* (the relationship involving a place relative to the speaker)

4. *Go -Stay* (involving double negative property .

He *stayed* here = He didn't go to somewhere not here (ie there).

5. *Ask - Answer* (involving one following the other in sequence. "Ask" does not imply "answer" but "answer" does imply a previous question.

6. *Love- Hate* (a relation described in terms of oppositeness).

Semantically nouns may be classified as agentive (with *er*), stative, non-stative etc.

In the colour field, the English terms *red, orange, yellow, green* and *blue* as referentially imprecise but as a set covering the visible spectrum, their relative position in the lexical system is

fixed (*orange* lies between *red* and *yellow*, etc.).It is part of the sense of these lexical items that they belong to a particular system (in English) and they hold relationships of "betweenness" relative to one another.

Robins shows that *colour terms* exemplify naturally delimited fields. He argues (p.67) that we know the meaning of *red* when we also know the colour words bordering on it in various directions (*pink, purple, orange, brown*, etc.) and the principal words for colour being comprised within the class designated by *red* (e.g. *vermillion, scarlet, rose*, etc.) .

Robins points out that colours constitute a naturally separate field of reference or semantic field :

Lyons (1971, p.59) recognizes the affinity between kinship-words and colour terms:

Colour –words (like kinship-words),... constitute an organized system of words which are related to one another in a certain way.

He shows (ibid.p.429-430) that each of the terms *red, orange, yellow, green* and *blue* is referentially imprecise but that they have a fixed position in the lexical system .He ,thus, shows that *orange* lies between *red* and *yellow* , *yellow* between *orange* and *green* and so on. Part of the sense of each of these terms is that they belong to this particular lexical system in English and that they contract relationships of "betweenness" in relation to one another in the system. Lyons recognizes that the relationship between colour-terms and their meaning is not straightforward. "The difference in the reference of *red, orange, yellow, green* and *blue* can be described in terms of their variation in *hue*."

The main advantage of hierarchical presentation is that it brings out facts which tend to be

2.2.6 Paradigmatic and Syntagmatic relationships

Apart from the categories, already mentioned there are other sense relations, one of which is that of paradigmatic and syntagmatic categories. The first category (ie paradigmatic) suggests the "vertical" relationship between forms which might occupy the same, particular place in a structure. Each lexical item in a language is in paradigmatic relationship with the whole set of possible items. The second category realizes a "horizontal" relationship between linguistic elements forming linear sequences.

Hockett recognizes the advantage of these relationships:

concealed by a mere listing of eight or ten smaller stem-classes all on a par (p.222).

One has to suggest that paradigmatic relations are usually established through paraphrase and implication criteria. Lyons, enlarging (pp.428-429) on these paradigmatic and syntagmatic sense relations, suggests that terms may be related pragmatically (all the members of the sets of semantically-related terms occurring in the same context) as exemplified by *husband* and *wife*, *knock* and *bang*, *tap* and *rap*. Lyons also suggests (ibid) that terms may be related to one another *syntagmatically* such sense-relation may be exemplified by *blond* and *hair*; *bark* and *dog*; *kick* and *foot* etc. These sense relations may be viewed in the light of the assumption that “some vocabulary items fall into *lexical systems*, and that the *semantic structure* of these systems is to be described in terms of the sense-relations holding between the lexical items”.

3. Conclusion

The paper has shown that sense and sense relationships are complex semantic issues that have to be pinned down and linguistically handled. People tend to mix things in the semantic domain and to treat what is potentially non-linguistic as being linguistic. They do not realize that when particular semantic aspects occur, they do so by forging various relationships that hold between lexical items. It emphatically transpires that sense relationships interact and intersect to produce interpretations peculiar to the context in which they occur. People tend to take things as they are. For instance, they often look at antonyms as clear-cut linguistic entities where, in reality, one of their *distinctive features* is that they *overlap*.

The paper has given a lot of space to the sense – relation of hyponymy because it poses problems of implications and of structure. Hyponomous relational nouns, for example, fail to fit the hierarchical pattern. They do not only involve polysemy, hyponymy and paraphrases but also symmetry and converseness.

The paper has interestingly shown that the pedagogical value of sense as a thematic concern is somewhat limited. Yet, sense and sense-relationships are increasingly relevant to lexicographers and curriculum designers. However, the importance of this paper emanates from the fact that these refined semantic aspects can be linguistically handled, hence the insights gained from this process.

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منطق الصنف : المعنى وصلات المعنى

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الخلاصة

يغوص هذا البحث في الحقل المتصل بالمعنى ليؤسس "المعنى" بوصفه صنفاً مهماً ضمن حقل المعنى ذي الصلة بالمفهوم او الادراك. ويستكشف البحث، لغوياً، صلات المعنى المختلفة التي تنشأ بين

الالفاظ . كما ان نظام هذه الصلات ، كما يظهره البحث، يفصح عن نفسه، على نحو قاطع، في هيئة الترادف والتضاد والهيئة ذات المعاني المتعددة وتضمين المعنى في المفردات وتعدد المعنى، ومفاهيم اللون. وعلى الرغم من شيء من التداخل بين هذه، فان كلاً من هذه المواد (الدلالية) تعلن عن ناحيتها المميزة. وينتهي البحث باستنتاج يبين مزايا التعامل اللغوي مع نواحي المعنى الدقيقة هذه.