3. Explanation of Santanca meaning

3.0 The unit of communication is a sentence and not a word. The sets of words, the constituents of sentences are limited in number in the body of sentences while the sets of sentences in a language are potentially unlimited. Every sentence is conventionally associated with at least one meaning. The meanings of words generally contribute to the total meaning of the entire sentence, but sometimes the meanings of words in association with other words deviate and designate even different meanings as in idioms (Vide 12) and in various figurative speches which however are outside the domain of our discussion.

It is noteworthy that the meaning of a sentence is actually not the aggregate of the meanings of words which constitute it. We cannot accept the following sentences as homosemous although the individual meanings of words are the same.

1(a). /manuh marl bagh gol /
   'Killing a man the tiger left.'

1(b). /bagh marl manuh gol. /
   'Killing a tiger the man left.'
2(a). /bagh manuh mari gol. /
'The tiger left killing a man.'

2(b). /manuh bagh mari gol. /
'The man left killing a tiger.'

The sentences 1(a), 1(b), and 2(a), 2(b) are not homogeneous, though all four sentences are constituted by the same string of words (but in different orders.)

3(a) /boga manuh mari bagh gol. /
'Killing a white man the tiger left.'

3(b) /manuh mari boga bagh gol. /
'Killing a man the white tiger left.'

4(a) /boga bagh mari manuh gol. /
'Killing a white tiger, the man left.'

4(b) /bagh mari boga manuh gol. /
'Killing a tiger, the white man left.'

Thus the individual meanings of the words used in the sentences 3(a), 3(b), 4(a) and 4(b) are the same, but when the words are stringed to sentences in altered orders, they constitute no homosemy.

3.0.1. Since sentences are used to describe or express events, beliefs, opinions, information etc. it is imperative that nature of the relation between sentences and the state of affairs those sentences describing or expressing be explained. The interpretations of sentences are thus captured in terms of truth and
falsehood. The truth value of words, the constituents of a sentence, contributes to the truth-condition of the sentence in which they occur. (Vide 3.1). Thus the truth-based semantics provides the basis for a systematic account of the relation of sentence-meaning and word-meaning. Different theories have been enunciated to explain the integral and reciprocal relations between sentence-meaning and word-meaning (vide 3.5, 3.6, 3.7) in terms of truth and falsehood.

3.0.2. Since the very basic function of language is to serve as a vehicle of communication, some linguists (Bloomfield and his school) who tried to establish Linguistics as an empirical science, suggest that the meaning of a linguistic form has to be analysed in terms of the important factors of the situation in which the process of communication takes place. The efficacy of such and similar other views has been discussed in the sections 3.2.1, 3.2.2., 3.2.3., and 3.2.4 of this chapter.

3.0.3. The interdependence between meaning and truth can provide one with a good starting point for a theory of meaning. But there are number of areas of meaning which cannot be incorporated within a truth conditional account of meaning. (vide 3.1). The declarative sentences which are necessarily based on truth (rather analytic truth) can be analysed in terms of truth and falsehood. (Vide 3.1.1.). But in our day to day communication, we generally use several other sentences which are non-indicative or non-declarative - such as interrogatives,
imperatives and utterances which are used for performative utterances (vide 3.3). Such non-declaratives and performatives utterances cannot be analysed in terms of truth or falsehood and they fall outside the domain of a truth-based theory of meaning. Such utterances, instead of providing factual or truth-based information, transmit senses of command, warning, request, suggestion, agreement, denials and so on. It can be argued that these can not be accounted for by the truth-conditional theories of meaning.

Sentences, grammatically declarative, donot always 'constate' or report something and hence cannot be well accounted for by the truth-conditional theories of meaning. The Oxford Philosopher, J.L. Austin\(^1\) was the first to point this out. Such sentences, he designated performatives and not constatives. Performatives as opposed to constatives, donot convey descriptions of events, but express actions. The semantics of performatives in the process of communication are briefly discussed in the sections of speech-act semantics (vide 3.3.) and pragmatics(vide 3.4).

3.1. TRUTH CONDITIONS AND SENTENCE-MEANING.

3.1.1. In the preceding sections an attempt has been made to explain the basis of meaning of a contentive in terms of the relationship between a contentive and the object of external

\(^1\)Austin J.L. : How To Do Things With Words, 1962.
world. But a group of philosophers advocate that the meaning of a sentence, the unit of communication, is necessarily based on truth conditions. The suggestion is that to know the meaning of sentence is to know under what conditions the sentence is true. For this truth-definition, Tarski's formula for a theory of truth from the domain of Logic has been applied in the exposition of a theory of meaning for natural languages.

Tarski's rule constructed for formal languages of logic has been extended to the infinite number of sentences in natural languages.

\[ S \text{ is true if and only if } P \]

where \( S \) is the sentence and \( P \) represents the conditions responsible for the truth of that sentence. This theory provides us with pairing of sentences as an expression of meaning in the name of guaranteeing the truth conditions. Tarski's classic example is taken to illustrate the formula for a theory of truth:

\[ \text{Tarski, A.: 1943, 'The semantic conception of truth', Philosophy and phenomological Research. 4, pp 341-75.} \]

\[ 1956, Logic, Semantics, and Metamathematics \]

\[ \text{also vide Davidson, D.: 1967a, 'Truth and Meaning', syntheses. 17. pp 303-23.} \]


'Snow is white' is true if and only if snow is white.

Thus the formula is exemplified by a sentence with a string of words, and the conditions constitute the meaning of the sentence itself by guaranteeing the truth of it.

The application of this theory of truth in semantics is not whole-heartedly accepted by many linguists. Some linguists1 revised the Tarskian model in order to employ the insight, that, to give the meaning of a sentence is to give the set of conditions which are both necessary and sufficient for the truth of the sentence. Here in the revised theory the additional qualifications that are necessary and sufficient, are introduced and explicated thus 2:

'The boy is hurrying home.'
is necessarily true if and only if the male child (the specific +HUM, +MALE, -ADULT) is running (a movement faster than walking) to the place where he lives.

Thus this theory explicated a pairing of sentences, between the uninterpreted sentence (characterised as \( S \)) and the interpretation, the set of truth conditions of the corresponding sentence (characterised as \( P \)).

3.1.2. Since the sentence is the unit of communication, sentence-meaning plays the most crucial role in the process of communication. The meanings of words which are the constituents of a sentence, can be explained only in terms of their contributions to sentence-meaning. The interpretations assigned to words contribute in a systematic way to the necessary truth conditions of sentences in which the words occur. e.g.

1. /tai kandise./ 'She is crying.'
2. /tai usupise.' 'She is weeping.'

Here the condition necessary for the truth of §.1 differs from that necessary for the truth of §.2 solely in respect of meaning difference as /kandise/ 'is crying' in §.1. differs from the meaning of 'usupise' 'is weeping' in §.2 which carries no suggestion of articulated sound.

It is not our primary task to have a detailed and analytic account of necessary truth and validity thereof in semantics. This is more of controversy involving logicians concerned with the concept of necessity.

3.1.3. It is to be noted that the distinction between the inferences pertaining to logical truth and the inferences pertaining to analytic truth is not one of great importance to linguists and hence deserves no detailed statement. For the specification of a sentence, we can draw some inferences whether or not pertaining to logical truth or analytic truth.
3. /ram ezo_borga./ 'Ram is a bachelor.'

The following inferences, among others, can be derived from 3.:

(I) Ram is an adult.
(II) Ram is a male.
(III) Ram is human-being.
(IV) Ram has never been married.

These inferences from the sentence 3 are conditions necessary for the truth of it. So the truth values of these conditions are necessary and sufficient to assert the truth of the sentence that Ram has never been married.

The terms 'true' and 'false' are employed primarily in terms of what is expressed by predicates of sentences in the declarative form. The notions of 'true' and 'false' are employed in connection with the non-referential aspects of utterances of the declarative type. The interpretation of a sentence in terms of truth-based semantics requires the positing of its point-of-reference (or index). But this condition is not easy to satisfy - it may be possible for only a small part of the complexity of natural languages.

Truth-based study of meaning is however, liable to criticism because of its inherent insufficiency, encompass various other sentence-types like interrogatives and imperatives and so on.

Declarative indicative sentences are well accounted for by truth-conditional semantics. Moreover, in natural languages, there is no one-to-one correspondence. Thus any condition or conditions necessary and sufficient for the truth of a sentence will simultaneously constitute an inference concerning that sentence. This analysis leads linguists to postulate the category of entailment (vide 4.7) which has been used in place of inference. It is known that the relation of entailment is said to hold between two sentences $S_1$ and $S_2$. If $S_1$ is true, $S_2$ must be true. In other words $S_2$ is a necessary condition for the truth of $S_1$. For instance

4. /'ram ezon borola/ 'Ram is a bachelor.' entails
4. /rame ketijau bija koruwa naj/ 'Ram has never been married.'

So the inferences derived from the sentence provide the necessary and sufficient conditions for the truth of that sentence thereby characterising the relation of entailment, between the grammatical structure of a sentence and the kind of communicative act that is performed in particular situations. The following is a sentence grammatically declarative in form - but neither a description of an event nor a question, nor a command:

5. /moi mod numu buli hopot k'aisa./

'I promise that I will not drink wine.'

The Oxford philosopher J.L. Austin pointed out the weakness of truth-based semantics for its failure to account for a sentence like above 35 (his examples being from his language -
English) declarative in form but embodying no description of events. The result was the emergence of 'speech-act Semantics' - under the leadership of Austin (vide sections 3.3 and 3.4 of this chapter.)
3.2. MEANING : BEHAVIOURISM and CONTEXT OF SITUATION.

3.2.1. Two theories of meaning that deserve mention are associated with Leonard Bloomfield\(^1\) in the United States and J.R. Firth\(^2\) in England. This section discusses the two theories in that order.

Bloomfield in thought and practice united empiricist philosophy (logical positivism of the Vienna circle), behaviourist psychology and descriptive linguistics. In the study of language he advocated the application of behaviourism, mechanism, operationalism and physicalism. (Bloomfield, 1939, p. 13). He defined the meaning of a linguistic form as 'the situation in which the speaker utters it, and the response which it calls forth in the hearer'. (Bloomfield, Language, 1962, p. 139). This he illustrated by a situation in which Jack and Jill are involved:

'Jack and Jill are walking down a lane. Jill is hungry. She sees an apple in a tree. She makes a noise with her larynx, tongue, and lips. Jack vaults the fence, climbs the tree, takes the apple, brings it to Jill and places it in her hand. Jill eats the apple.'\(^3\)

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1 Bloomfield, L. : (a) Language, 1933, New York.
   (b) Linguistic Aspects of Science, 1939 (in International Encyclopaedia of Unified Science).


Bloomfield interpreted the whole situation in stimulus-response terms as follows:

$$S \rightarrow r \ldots \ldots s \rightarrow R$$

where $S$ and $R$ stand for external stimulus/response, and $r$ and $s$ for verbal stimulus/response. This summarizes Bloomfield's notion of meaning—that analysis of meaning in a language comprises enumeration of stimuli evoke—given utterances as responses evoked by given spoken stimuli. Thus he tried to evolve a methodology to explain meaning of linguistic elements in terms of the situation which is wholly definable empirically (empiricism) or in physical terms (physicalism). This is the type behaviourism associated first in linguistics with Bloomfield (subsequently modified by Skinner and others.) For phonology, morphology and syntax (in the American Descriptive tradition) the methodological aspect of behaviourism was more relevant than for meaning.

(1.) Behaviourist theory of meaning cannot deal plausibly with more than a small fraction of the utterances of everyday life. Bloomfield himself was aware of it and cautioned linguists in treating meaning scientifically as follows:

"The situations which prompt people to utter speech, include every object and happening in their universe. In order to give a scientifically accurate definition of meaning for every form of a language, we should have to have a scientifically accurate knowledge of everything in the speakers world."\(^1\)

(2.) Behaviourism is fully geared to explaining meaning only in terms of observables and fails badly to account for words or utterances denoting unobservable things or ideas or abstract properties.

(3.) The stimulus-response assumption of relation between words and observables fail to take notice of the fact of particular stimulus does not necessarily produce a specific response, but may produce a whole variety of responses. Responses might differ from man to man\(^1\). As behaviourism holds that responses are predictable from the stimuli - the theory collapses as experience shows that in practice it is the other way round.

To account for utterances without observables and immediate stimuli, Bloomfield introduced the notion of 'displaced speech\(^2\)' and ascribed such speech '... to some observe internal stimuli...' and this covertly negates his anti-mentalism stance.

That Bloomfield was aware of the weaknesses of the Behaviouristic approach to meaning is evident from his statement: "The statement of meanings is therefore the weak point in language-study, and will remain so until human knowledge advances very far beyond its present state."\(^3\)


\(^3\) ibid. : 140 .
3.2.2. The 'Context of Situation' theory of Meaning

3.2.2. The Context of Situation theory of meaning (pertaining to the London School of Linguistics) is ascribed to B. Malinowski, an anthropologist, and to J.R. Firth, a linguist. It must be pointed out that their treatment of meaning had different orientations and goals.

Malinowski's interest in meaning arose out of his difficulties in effectively translating the texts he recorded from the exotic languages of the South Pacific islands and led him to postulate that living languages can neither be analysed nor translated without recourse to the context of situation and that language is not a 'mirror of reflected thought', but 'a mode of action' and not a 'countersign of thought'. (vide 1(b)

1Malinowski, B.: (a) The Problem of Meaning in Primitive Languages, Supplement to Ogden and Richards, 1923.
(b) Coral Gardens and their Magic II. 1935.

2Firth, J.R.: (a) The Technique of Semantics, 1935.
(b) Sounds and Prosodies, 1948.
(c) Modes of Meaning, 1951.

2(a), (b) and (c) reprinted in Papers in Linguistics, 1957.
(d) Linguistic Analysis as a Study of Meaning.
(e) Ethnographic analysis and language with reference to Malinowski's views;
(f) A synopsis of Linguistic Theory, 1930-35.

2(d), (e) and (f) reprinted in selected papers of J.R. Firth 1952-59 edited by F.R. Palmer 1968, Longmans.
below). This even led him to dismiss the linguistic unit word as a 'figment of imagination' (Malinowski; The Problem of Meaning in Primitive Languages, 1923). Malinowski's conclusion is based on a partial view of language he held by correlating the language of the people he was studying with their everyday activities and not as a 'means of transfusing ideas from the head of the speaker to that of the listener' (Malinowski; Coral Gardens and their Magic II, 1935).

But the problem arises when one takes into account language not related to activities in which people are not collectively engaged. People do talk about so many things (Weather, politics, jokes etc) not at all inspired by speaker-hearer's active participation. Malinowski accounts for such acts of speech also involves doing something and as such constitutes 'phatic communication' — a social function of language.

Malinowski's hypothesis does not provide the basis for a comprehensive semantic theory. His defining of language as a mode of action entails the rejection of the existence of unobservable thought-processes, which Bloomfield's treatment of meaning failed to encompass. Moreover his thesis of context of situation in comprehending meaning and analyzing it, is not well elaborated in that it does not constitute a well-defined component of a theory concerning human language.

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1 Malinowski, B. : The Problem of Meaning in Primitive Languages, (in The Meaning of Meaning by Ogden and Richards, 1923, p.315.)
3.2.3. J.R.Firth accepted and adopted some of Malinowski's views including the term 'context of situation'. But Firthian views on meaning have different orientations. Firth unequivocally stated his notion of meaning 'as situational relations in a context of situation'¹ and that he rejected the idea of Ogden and Richards 'in regarding meaning as relations in a hidden mental process.'² This is the only common aspect of the views of both Malinowski and Firth. But Firth pointed out that Malinowski's theory of meaning 'contributed very little ... for the statement of linguistic facts in terms of phonetics, phonology, the various branches of grammar or stylistics'.³ He incorporated context of situation as part of a complete linguistic theory. The following are the constituents, according to him, in the spectrum of the context of situation⁴.

1. The participants: persons, personalities and relevant features of these.
   (a) The verbal action of the participants
   (b) The non-verbal action of the participants
2. The relevant objects and non-verbal and non-personal events.

¹ Firth, J.R.: The Technique of Semantics. (reprinted in papers in Linguistics, 1964, p. 19)
² Ogden and Richards: The Meaning of Meaning, 1923
⁴ Firth, J.R.: A Synopsis of Linguistic Theory, 1930-55 (reprinted in Selected Papers)
3. The effect of the verbal situation.

The linguistic analysis of a language would thus necessitate setting up of 'exhaustive systems of contexts of situation' with consequent grounding and classification.

Firth's view of meaning is thus to be interpreted as appropriateness in a specific context. But this leads to the problem of interpretation of meaning of perfectly acceptable and meaningful sentences, whether or not these are likely to be uttered in practice not correlatable to specific contexts. There is a partial approximation to the notion of significance in his contextual attitude towards meaning — although it must be pointed out his use of the term is not free from equivocation. He employed the context of situation to deal with meaning in the semantic sense, while his notion of meaning in relation to grammar, phonology and phonetics, denotes formal meaning and the two cannot be equated.

Thus it is obvious that Firth’s theory of meaning is equipped to make only partial statements of meaning.

3.2.4. Collocation and Distributional Theory of Meaning:

3.2.4. Another important contribution of Firth to the overall study of meaning is collocation. Collocations of a given word are statements of the habitual or customary places of that word in collocational order but not in any other contextual order and emphatically not in any grammatical order. Collocability is thus a part of the meaning of a word in addition to those discoverable from the context of situation and other levels of analysis like grammar. Firth, unlike Harris, rejected the notion of totality of contexts in establishing collocability. He pointed out the fact that particular collocations attribute specific meanings to words. Subsequent researches revealed that collocability is determined by individual meanings of words and by conventions. This explains the different collocability of polysemous and homosemous words.

The distributional theory of meaning, on the other hand, asserts that two words (lexemes) will have the same meaning if they have the same distribution. But the distribution of words is not fully dependent on their sense and denotation. And this fact invalidates the distributional theory of meaning.

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1 Firth, J.R.: (a) Modes of Meaning (reprinted in Papers in Linguistics, p. 197)
   (b) A Synopsis of Linguistic Theory 1930-35 (reprinted in selected papers of J.R. Firth, pp 180-183)

3.2.5. Geoffrey Leech\(^1\) designates the semantic theories of Bloomfield and other behaviourists and of Firth as contextualism while discussing the strengths and weaknesses of their theories. He pointed out the following positive aspects of specification of contexts:

- a) Context resolves ambiguities.
- b) Context contributes definite meanings to deictics and nouns in displaced speeches.
- c) Context covers gaps in information left through ellipsis. [vide 416]

\(^1\) Leech, G.: Semantics, 1974, pp 71-81, Penguin
3.3. SPEECH ACT SEMANTICS

3.3.1. Speech Act Semantics is oriented towards characterization of the nature and meaning of language not in terms of referential meaning and the truth-based statements. J.L. Austin reacted against these and suggested the Speech Act approach to meaning which provides insights into the use of language (vide 3.0.3) not in terms of "what do sentences mean", but in terms of "what sort of act do we perform when we utter a sentence". This led him to postulate his thesis of three different forces involved while a sentence is being articulated by a speaker resulting variously as:

1. the locutionary act, (the locution),
2. the illocutionary act, (the illocution), and
3. the perlocutionary act, (the perlocution).

3.3.2. The locutionary act can be equated with referential or cognitive meaning. In other words a sentence with a certain meaning is a locutionary act.

/rame m\uk b'al paj./ 'Ram loves me.'

The intention of the speaker is to report or inform or constate that Ram loves him, which is the specific meaning of the senten-

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1 Austin, J.L. : How To Do Things With Words. 1962.
3.3.3. The illocutionary act constitutes an act of praise, criticism, agreement or disagreement etc. - thus distinguishing it from a locutionary act. Moreover, an illocutionary act is invested with a particular intention or force befitting the situation.

The same utterance may involve locutionary or illocutionary act on the part of the speaker.

/moi b'at nak'hau. 'I do/will not take my meal.'

The utterance above involves the locutionary act if it is a mere statement of the speaker's attitude. The same utterance may convey a veiled threat in protest against something by stating the speaker's refusal to eat - and this is an illocutionary act.

3.3.4. An utterance eliciting or intended to elicit certain consequent response as fulfilment of intention is a perlocutionary act. As opposed to an illocutionary act, the perlocutionary act comprises resultant effect on the hearer which is the speaker's expectation conveyed through the utterance.

3.3.5. The illocutionary act is the focal point of Austin's interest and the term speech act almost exclusively refers to it. Locutionary and illocutionary acts are detachable and semantics of these two acts are independent of each other. But the distinction between illocutionary and perlocutionary acts get
blurred, as will be evident from the example below:

/ tumi kamtu koribo nuwara. / 'You cannot do the job.'

This utterance is characterized by both illocutionary force of protesting or urging or advising and perlocutionary effect of persuading, forcing or frightening the hearer. Austin is aware of this and suggests that the problem can be resolved by an operational test - if one can paraphrase the illocutionary force of an utterance as an explicit performative (vide 3.3.6 below), the speech act is an illocutionary and, otherwise, it is a perlocutionary act.

3.3.6. The illocutionary force is in some sentences, are made plain. These sentences are characterized by Austin as performative utterances:

/moi zam buli kotha disu. / 'I promise that I will go.'

This utterance is not a description of anything - but an indication of some action - hence, according to Austin, cannot be semantically analysed as per Tarskian truth-falsehood hypothesis.¹

The assessment of such sentences can be possible not in terms of truth and falsehood - but in terms of appropriateness

only and thus can be characterized in terms of sets of conditions presupposing their appropriate use. The conditions are the felicity conditions\(^1\) (also designated appropriacy conditions and happiness conditions). The felicity condition can be extended from performative utterances to all other utterances involving locutionary, illocutionary and perlocutionary acts.

One integral aspect of the Speech Act Theory about meaning is the use of the notion of speaker - presupposition which enables one to correlate it to felicity conditions underlying utterances. This is particularly useful in dealing with different sentence types as different felicity conditions characterize different sentence types like interrogatives, imperatives, declaratives and so on.

3.3.7. But Speech Act Theory does not distinguish different sentence-types - it can only characterize different sentence forms. It cannot resolve the problem of interpreting declaratives which are not descriptive statements, interrogatives not necessarily eliciting information and imperatives not motivating actions. The three sentence types alone cannot typify different ranges of illocutionary force.

3.3.8. This problem prompted Searle\(^2\) to make a four-fold


classification of felicity conditions, so that a comparison made on these dimensions should make the typology clear. These are propositional content, preparatory preconditions, conditions on sincerity and the essential condition.

But Searle subsequently realised the inadequacy of the classification above and suggested a more abstract and elaborate scheme based on felicity conditions. He postulated five basic kinds of action that one can perform in speaking, by means of the following five types of utterance\(^1\).

1. **representsitives**: committing the speaker to the truth of the expressed proposition (eg. assertions, conclusions, etc.);
2. **directives**: attempts by the speaker to get the hearer to do something (eg. requests, questions etc.)
3. **commissives**: committing the speaker to some future course of action (eg. promises, threats, offers etc)
4. **expressives**: expressing a psychological state (eg. thanks, apologies, welcomes, congratulations, etc)
5. **declarations**: effecting immediate changes in the institutional state of affairs and having extra-linguistic implications (eg. excommunications, christening etc.).

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This typology—an improvement on Austin's⁴ is not satisfactory in that it is not postulated in a systematic way on felicity conditions, and it is neither definitive nor exhaustive. More exhaustive classificatory schemes have been suggested. Within the categories postulated finer categories have been established—indicating thereby non-exhaustiveness of Searle's categorization.

3.3.9. Linguists attempted at synthesis of Truth-conditional Semantics and Speech Act Semantics but without any agreed conclusion. The former is capable of capturing the required predictions of an interpretation for each sentence of the language (of the declarative type only), of homosemy, ambiguity, entailment, etc. But this theory cannot handle non-declaratives and what are designated by Austin, performatives. The problems faced by Speech Act Semantics are again different. Categorization of speech acts into locutionary, illocutionary and perlocutionary accounts for the way in which language is used—but it fails to distinguish the felicity conditions relevant to the analysis of words and sentences from those. No one-to-one correlation can be established between sentence-type and range of illocutionary act. The distinctions between locution and illocution and between illocution and perlocution often get neutralized, if not in one language, certainly in other language—what is a

perlocution in one language may be an illocution in another. Thus non-declaratives elude analysis in terms of both Truth-conditional Semantics and Speech Act Semantics.

An adequate semantic theory must fulfil the following conditions: (1) it has to be capable of explaining the nature of word meaning and sentence meaning and of explaining the underlying relation between them; (ii) it must be able to resolve ambiguities - both word level and sentence level, and (iii) it has to be equipped well enough to characterise and explain the systematic relations between words and between sentences of a language. It must explicitly account for homosemy, logical inclusion, entailment, contradiction etc. Speech Act Semantics does not satisfy these criteria - whereas Truth-conditional semantics does and that too, more satisfactorily. The study that follows encompasses the basic tenets of truth-conditional semantics within the framework of structural semantics.

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2 Austin's theory, although speech act utterance oriented and not sentence oriented (vide his subtle distinction between utterance and sentence) has laterly been extended to account for problems concerning word meaning and sentence meaning by Fillmore. He has tried to apply felicity conditions at both the levels of meaning - the utterance level and the level comprising units sentence and word (vide Fillmore, C.J.: Verbs of Judging; an Exercise in Semantic Description; in Linguistic Semantics edited by Fillmore, C.J. and Langendoen, D.T.; 1971, Holt, Rinehart and Winston, New York.
3.4. Pragmatics

3.4.1. The term 'pragmatics' in the study of human language, was first introduced by the philosopher Charles Morris\(^1\), whose science of signs—Semiotics (or Semiotics as he preferred) comprised three distinct branches—(1) Syntax (or Syntax): the study of "the formal relation of signs to one another"; (2) Semantics: the study of "the relations of sign to the objects to which the signs are applicable"; and (3) Pragmatics: the study of "the relation of signs to interpreters."

3.4.2. The term 'Pragmatics' was subsequently redefined according to distinct usages by different schools, the following being relatively more widely known: (1) The study of the psychological and sociological aspects of sign systems, (2) the study of certain abstract concepts referring to agents; (3) the study of deictic categories; and (4) the study of how speakers of a language use sentences.

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of that language to signal messages not necessarily correlatable to linguistic contents of the sentences used.

The discussion that follows explores the implications of the last sense of the term in the study of meaning. Pragmatics in this sense constitutes one component of the study of meaning, the other being semantics and the two are inseparable for an integrated theory of meaning.

3.4.3. This notion concerning pragmatics is ultimately traceable to H.P. Grice who pointed out discrepancies between speaker-meaning (meaning-on) and sentence meaning. Thus, said ironically the following utterance / ohomija manuh bgu budhijok /

'Assamese people are very intelligent' may very well communicate 'Assamese people are very dull. Thus the meaning of the utterance is fully realised not only by the meaning of the form - but by the recognition of the mechanism of veiled irony.

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(ii) Logic and Conversation, 1967; Harvard University.


3.4.4. Adoption of Grice's Theory necessitates the postulation of a dichotomy - between utterance and sentence. Semantics studies sentence-meaning while pragmatics deals with utterance-meaning. A sentence is thus accorded the status of an abstract theoretical entity to be studied as per the tenets of a theory of grammar. On the other hand an utterance is the issuance of a sentence; a sentence-analogue, or sentence-fragment articulated in an actual context. But in actual practice it is very difficult to maintain this distinction at all times. The two terms get mixed-up while assigning notions like presupposition, illocutionary force, truth-condition etc. to sentences or utterances. This difficulty led Lyons\(^1\) to postulate text-sentences, system sentences, sentence-type, sentence-tokens, utterance-types, utterance-tokens, utterance acts and utterance-products. This study does not claim to have maintained the distinction between sentence and utterance all throughout.

3.4.5. The aim of this school of Pragmatism is to accord a complementary role to Pragmatics in the study of meaning - pragmatics studying aspects not covered in semantics. This led Grice\(^2\) to distinguish between "natural meaning" and "non-natural meaning" or "meaning-\(\)n\(\)" characterised as below:

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\(^2\) Grice, H.P. : Meaning, 1957, Philosophical Review, 67 (reprinted in Steinberg and Jakobovits)
S meant Z by uttering u if and only if:

(i) $S \not= \text{intended } u \text{ to cause some effect } Z \text{ in recipient } H$

(ii) $S \not= \text{intended } (i) \text{ To be achieved simply by } H \text{ recognizing that intention } (i)$;

where $S$ = speaker (or sender or communicator);

$H$ = hearer (the intended recipient)

uttering $u$ = utterance of a linguistic token

(a sentence part, sentence or strings
of sentences or sentence parts.)

$Z$ = belief or volition involved in $H$.

(Here = to be read as 'stands for')

Thus, according to Grice, the process of communication necessitates the communicative intention of $S$ becoming the mutual knowledge to $S$ and $H$. Only then the process of communication attains its goal. Paul Grice's definition of communication incorporates non-verbal aspects prompting communication processes (meaning). Adoption of meaning as the range of meaning facilitates the explanations of irony, metaphor and indirect implications.

Grice's theory of meaning thus resolves the problem of autonomy of semantics with respect to pragmatics and prompts (though he did not spell it out) linguists to accord pragmatics the status of a component or level prior to semantics in an overall integrated theory.

3.4.6. The notion of conversational implicature constitutes the second major aspect of pragmatics, propounded by Grice in
the William James Lecture delivered at Harvard in 1967. The theory of conversational implicature has a logical with his theory of meaning-nn. The theory of meaning-nn gives an account of how communication might be achieved in the absence of any conventional means for expressing the intended message. It provides the hints as to how more can be said than what the actual utterance conveys. One can make a number of inferences from any given utterance. All of them are not communicative in Grice's sense. But some are "intended to be recognised as having been intended" (Grice, 1967). These special kind of inferences are what are Grice's "conversational implicatures" which can be conveyed while fulfilling the criterion of communicated messages as outlined in the theory of meaning-nn.

3.4.7. The theory of conversational implicature is concerned with use of language. The assumption is that there is a set of principles guiding the conduct of efficient and effective conversation. Grice postulates four basic maxims of conversation which collectively express a general co-operative principle. These are as below:

The co-operative principle: make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.

1. The maxim of quality: try to make your contribution one that is true, specifically:
a) donot say what you believe to be false,
b) donot say that for which you lack adequate evidence.

(2) The maxim of quantity:
a) make your contribution as informative as is required for the current purposes of exchange,
b) donot make your contribution more informative than is required.

(3) The maxim of Relevance:
make your contributions relevant.

(4) The maxim of Manner:
  a) avoid obscurity
  b) avoid ambiguity,
  c) be brief
  d) be orderly

These maxims underlie maximally efficient, rational and co-operative modes of conversation, with participants speaking sincerely, relevantly and clearly and providing sufficient information.

But it must be pointed out that people do not always follow the maxims to the letter. Grice's point is that people may not adhere to the maxims on a superficial level - but the hearer will interpret what the speaker says as conforming to the maxims on at least some level.
3.4.8. The maxims generate inferences beyond the semantic content of the utterances, and these are what have been referred to as conversational implicatures based on both the content of the utterance and assumptions about the co-operative principle. Grice distinguished between generalised conversational implicatures (which do not require specific contexts) from particularised conversational implicatures (which do require specific contexts).

The characteristics of conversational implicature are as below:

i) They are dependent on the recognition of the Co-operative principle and its maxims at some level.

ii) They are not part of the meaning of the lexical items in sentences since their interpretation is dependent on a prior understanding of the meaning of the sentences.

iii) The conversational implicature of an utterance does not constitute the sole interpretation of that utterance. In the event of a breakage of the co-operative principle there may be more than one possible assumption which are indeterminate because of being non-explicit.

iv) Conversational implicatures depend on assumptions about the world which the speaker and the hearer share and hence are not predictable independently.

v) Conversational implicatures are cancellable. An interpretation not based on conventional meaning of an utterance can be explicitly denied without contradiction.

Conversational implicatures again belong to either generalised conversational implicatures that arise without any particular context or to particularised implicatures which do require specific contexts.

3.4.9. Grice extended the notion of conversational implicatures (which are truth-conditional) to non-truth conditional inferences by postulating conventional implicatures which are non-cancellable and detachable. Postulation of conventional implicatures was prompted by the inadequacy of truth-conditional semantics and has given rise to debates as to its efficacy as a sub-component of a theory of meaning. This study does not aim at discovering the strengths and weaknesses of different theories. The idea is to give synoptic accounts of the various widely known theories of semantics.

3.4.10. There have been attempts by linguists at an integrated theory of meaning by incorporating semantics and pragmatics as two independent components according a priori status to the former. The situation has however been fluid till now. Pragmatics has its own merits and demerits. Its strength lies

(c) Ziff, P. On H.P. Grice's Account of Meaning, reprinted in Semantics : Steinberg and Jakobovits.
in adequate explanations of the semantics of figures of speech like irony, metaphor and so on. But these aspects of language are clearly outside the scope of this study which is exclusively concerned with a narrower range of phenomena - explanation of cognitive meaning (reference and significance) prompted by truth-conditional tenets within the framework of structural semantics. Primary has been accorded to exploration of semantic relations of homosemy, entailment, hyponymy and so on. These can be adequately dealt with by truth-conditional semantics within the framework of the model adopted without contradictions. No attempts would therefore be made to incorporate pragmatics with structural semantics.
3.5. INTERPRETIVE AND GENERATIVE SEMANTICS

3.5.0. Interpretive and Generative semantics constitute two very influential trends in the study of meaning in recent times. It is however debatable whether two distinct schools of thought are involved or whether they are competing variants of the same school. The adherents of the former school are Chomsky, Katz, Fodor, Jackendoff and others while those of the latter are Lakoff, McCawley, Ross and others. The following is a very brief synopsis of the Interpretive and Generative models in that order.

3.5.1. Noam Chomsky in his *Syntactic Structures* (1957) restricted his attention to the formal aspects of language, that is, syntax. The assumption that syntax was completely autonomous and separate from semantics, was an acceptable part of his methodology. The first attempt to construct a theory of semantics was that of Katz and Fodor\(^1\) and it was compatible with the outline of the grammar suggested by Chomsky, Lees, Klima and others. The aim of this theory was to explain "... the interpretive ability of speakers; by accounting for their performance in determining the number and content of the readings (meanings) of a sentence; by detecting semantic anomalies; by

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deciding upon paraphrase relations between sentences; and by marking every other semantic property or relation that plays a role in this ability.\textsuperscript{1} The methodological requirements pertaining to status of levels in the comprehensive theory led them to propose the formula: "Linguistic description minus grammar equals Semantics."\textsuperscript{2}

3.5.2. Katz and Fodor posited two interrelated components for their semantic theory to explain the native speaker's ability to determine the meaning of a sentence in terms of the meanings of its constituent lexical items. The first component is the dictionary, which contained for each lexical item, a characterization of the role it plays in the interpretation of the sentence. The second component comprised a set of rules called 'projection rules'. These rules characterize how the structured combinations of lexical items assign a meaning to the sentence as a whole.

A lexical entry according to this theory would be characterized by: (a) Phonological markers; (b) Syntactic markers; (c) Semantic markers.

The phonological markers determined the pronunciation of the word while syntactic and semantic markers specify syntactic category to which the word belongs and the meaning(s) of the word respectively.

\textsuperscript{2} ibid.
The basic assumption is that for every language there exists a finite set of semantic markers that contained items like the following:

1. + Human
2. ♦ Female
3. ♦ Physical object

In case of lexical ambiguity, the lexical item in question would be found in the lexicon with a series of conjunctions of the semantic markers as in the following schema:

Word [Phonological markers]
       [Syntactic markers]
       [SM_A SM_B ... SM_K]V[SM_C SM_D ... SM_n]

Where SM stands for some Semantic Marker and the Symbol V stands for 'word for'. Thus a single entry will be characterized by as many conjunctions of semantic markers as required.

3.5.3. Within the set of semantic markers, Katz and Fodor posited special markers - 'the distinguishers'. The marker-distinguisher distinction is maintained by them as follows:

'If the semantic markers assigned to a lexical item in a dictionary entry are intended to reflect whatever systematic semantic relations hold between that item and the rest of the vocabulary of the language. On the other hand, the distinguishers assigned to a lexical item are intended to reflect what is idiosyncratic about its meaning ... a change in a distinguisher
merely alters the relation between one item and its synonyms." (Katz and Fodor, 1963) Distinguishers, thus specify the semantic environments in which the particular meaning of a word can occur.

3.5.4. Katz and Fodor posited the mechanism of projection rules which make use of the information contained in the lexican and of the structure specified by the syntax and which can associate meanings of individual words with sequences of words. Projection rules apply upward from the bottom of the tree, amalgamating the readings (meanings) of adjacent nodes to specify the reading of the node immediately dominating them. The end result represents an Amalgamated Path.

3.5.5. The subsections above represent the outline of the first semantic theory designed to be compatible with the early transformational model of grammar (as outlined in Syntactic Structures by Chomsky). In 1964 Katz and Postal published An Integrated Theory of Linguistic Description. This work had as its objective the task of providing "an adequate means of incorporating the grammatical and the semantic descriptions of a language into one integrated description."¹ The two noteworthy conclusions of this monograph are:

(1) Transformations are meaning preserving; and (2)

Semantic interpretation is determined exclusively by deep structures (referred to as 'Katz–Costal Hypothesis' or 'KP Hypothesis').

As per rule (1) of the Hypothesis all optional singulary transformations are removed from the grammar. These are the rules of interrogation (wh-, and yes/no), imperativeization and negation. These were meaning-changing rules in Syntactic Structures. The application of these rules is made contingent on the presence of such formatives as wh-, Q; Imp, and Neg in deep structure. Since these formatives determine the semantic interpretation of the sentences in which they occur, all singulary transformations are meaning-preserving.

The KP Hypothesis anticipated Chomsky's Aspects¹ model of grammar (also referred to as the Standard Theory) which unlike the SS model posited three components - the syntactic component, (with two sub-components - the base component and the transformational component), the semantic component and the phonological component. Of these, the semantic and phonological components are the interpretive components.

3.5.6. The Aspects model, 1965 (also referred to as the Standard Theory) suggested the following changes from the earlier model (the SS model):

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(1) The recursive property of the grammar is accounted for in the PS - rules;

(2) There are no generalized T-rules. T-rules operate cyclically on generalised P-markers. The concept of 'Transformation-marker' is removed from the theory;

(3) Kernel sentences have no independent status in the grammar;

(4) The Katz-Postal hypothesis is adopted.

The organization of the Aspects model is as below:

A. Syntactic Component,
   (i) The Base,
      (a) PSG rules
      (b) Lexicon, with rules of lexical insertion,
   (ii) The Transformational Component,

B. Semantic Component,

C. Phonological Component.

The syntactic component is generative in the sense that it enumerates the set of tree representations or deep structures that serve as input to the other two components. The semantic and phonological components have interpretive functions in that they interpret the output of the syntactic component. The semantic component gives meanings to its output while the phonological component gives correct pronunciation to it.

The function of the base is to specify fully developed tree structures with the set of words and abstract markers for
the semantic component to interpret—that is, to give the Amalga­
mated Path that specified the meaning of the tree. The fully specified

trees are the Deep Structures. The transformational component maps
trees into trees, beginning with the Deep Structures and terminating
with the final derived tree—the Surface structure.

3.5.7. The Aspects model is the first full attempt to specify the
form of a grammar the task of which is to state in a principled way
the regularities (which the native speaker can identify) of both w
well-formed semantic representations and surface sequences. The
postulation of two interpretive components makes explicit the arbi­
trary relation between sound and meaning.

The diagram below depicts the form of the Aspects model:

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Base Component

PSG rules Lexicon

Lexical insertion rules

Deep Structures

Semantic Interpretive Component

Projection rules Set of Semantic markers

Amalgamated Paths

Semantic representations

Transformational Component

Transformations Tree Structures

Surface Structures

Phonological components

Sound sequences
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3.5.8. This theory maintains the principle of separation of levels. According to it, it is the deep structure where syntax and semantics converge. The basic assumption is that syntax is autonomous in that addition or deletion of some or all of the mechanisms in the semantic interpretive component would have no repercussions on the semantic component — and this is the central point of controversy between the Chomskyan theory and the theory called Generative Semantics (ascribed to Lakoff, Ross, McCawley and others).

The Aspects theory is now often referred to as classical. It must however be pointed out that Interpretive Semantics or the Extended Standard theory (of Chomsky, Jackendoff and others) and Generative Semantics — both developed out of the Aspects or the Standard or the classical theory of Transformational — Generative grammar.

3.5.9. The post-Aspects period was marked by the emergence of Generative Semantics¹ and the Extended Standard Theory² (the term used by Chomsky himself) which latterly came to be known as Interpretive Semantics.

¹ McCawley, J.D.: The role of Semantics in Grammar. In Universals in Linguistic Theory (eds) Bach and Harns, 1968, Holt, Rinehart


Generative Semantics and Interpretive Semantics, regarded by many linguists as two variants of the same school, refer to the alternative conceptions of the relationship between semantics and syntax.

3.5.10. The development of Interpretive Semantics was an inevitable consequence of the Standard Theory. For the Standard Theory to function properly, it was necessary to justify the Katz-Postal Hypothesis (that transformations are meaning-preserving). It was equally imperative to retain the transformation \textsc{passive} in a grammar of English (or of any language having the active-passive opposition). However, the following active and passive sentences do not exhibit homosemy:

1. Many men read few books.
2. Few books are read by many men.

It is not possible to posit the same deep structure for both the sentences. Such and many counter examples negate the Katz-Postal Hypothesis that no transformation changes meaning. The other alternative is to reject the \textsc{passive} as a transformation in English grammar which is neither feasible nor desirable.

3.5.11. Chomsky and other proponents of Interpretive semantics responded to this and other problems by (1) giving up the

Katz-Postal Hypothesis, and (2) by proposing an additional set of projection rules called the rules of Surface Interpretation. Semantic interpretation is determined not by deep structure alone, but by these new projection rules defined on post-transformational derived structure. The revised picture looks like the following:

Chomsky\(^1\) and Jackendoff\(^2\) and others observed that some aspects of meaning (like negation, quantification and information

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\(^2\) Jackendoff, R.S. : (a) Quantifier in English, 1968, Foundations of Languages, 4, D.Reader.

(b) Semantic Interpretation in Generative Grammar, M.I.T. Cambridge Press.
focus) are more directly relatable to the surface structure than to deep structure. This led them to posit a set of projection rules specifying meaning to operate on the surface structure rather than on the deep structure alone. And this amounts to saying by the interpretivists that all sentences with the same deep structures may not be characterised by the same meaning.

3.5.12. Generative Semantics has arisen as a reaction against the standard theory (regarded by many as self-destructive\(^1\)). The gist of the Generative semantic Thesis is that underlying structures and semantic representations are identical — that is, if there is a deep structure, it is not syntactic but Semantic. This prompted Lakoff, Ross, McCawley\(^2\) and other Generative

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   (b) On Generative Semantics, in Semantics, An Interdisciplinary Reader, 1971 (eds) Steinberg and Jakobovits.
   (c) English as a VSO Language, in Language, 46, 1970.
Semanticists to deepen the deep structure so that it represents the meaning of a sentence. This resulted in the lengthening of the transformational process of derivation from deep to surface structure and also rejection of projection rules for semantic interpretation of deep structure. The structure of a grammar, according to the generative semanticist position, is roughly as follows:

3.5.13. The major theoretical distinction underlying Interpretive Semantics and Generative Semantics is in the handling of Deep structure trees. In Interpretive Semantics the base component enumerates the Deep Structure trees the semantic interpretation of which is partially given by the projection rules in the interpretive semantic component. Full meaning is realized by the projection rules that operate on derived structure. The Generative Semantics model simplifies the approach.
on the assumption that deep structure trees constitute an adequate notation for the semantic relations involved in the meaning component of languages. Hence projection rules are redundant. This amounts to identifying deep structure with semantic representation. Interpretive Semantics maintains a strict separation of syntactic and semantic components. Generative semantics perceives no difference underlying the set of objects representing semantic and syntactic structures.

3.5.14. Generative Semantics characterized the defining criteria for the level of deep structure by the following properties:

1. The base of the simplest syntactic component.
2. The place where co-occurrence and selectional restrictions are defined.
3. The place where basic grammatical relations are defined.
4. The place where lexical items are inserted from the lexicon.

As properties, 1.2.3. above constitute semantic representation—any intermediate or shallow deep structure cannot have these properties. So far as property 4 is concerned, some transformations have to apply before lexical items enter the derivation.¹

3.5.15. Generative Semantics retains the Katz-Postal hypothesis that transformational rules do not change meaning. Consequently, the semantic differences between sentences "Many students did not come to the lecture" and "Not many students came to the lecture" are explicated in terms of remote structure.

The problem of non-homosemy between active and passive forms of sentences like "Many students admire few lecturers," and "Few lecturers are admired by many students" is handled by Generative Semantics rules of derivational constraint (proposed by Lakoff) which keep track of the derivation. In this particular case, the constraint specifies the condition of well formedness that holds between the remote and surface structures and presents transformations from changing the meaning. Thus, the derivational constraints will prevent the remote underlying structure of "Many students admire few lecturers" to generate 'Few lecturers are admired by many students.'

Thus Generative Semantics sets up abstract underlying structures and postulate transformational rules and constraints on rules. On the other hand Interpretive Semantics posit deep structures, intermediate or shallow deep structures. Projection rules operate on deep, shallow deep and surface structures.

3.5.16. One basic point of disagreement between Interpretive Semantics and Generative Semantics relates to the structure of lexical items. The basic assumption of the Standard Theory is that lexical items are inserted en bloc prior to the operation of the cyclic rules and that lexical items constitute the entities in which semantic features are clustered. These serve as the input to the projection rules which in turn derive the semantic representation of the sentence as per the grammatical relations defined by the base.

Against this Generative Semantics maintains that lexical items are inserted at various points during a transformational derivation and not at a point before the transformational derivation starts. Moreover, the meaning of a lexical item is to be stated in syntactic terms since it is an integral part of the underlying remote structure — the semantic representation of the sentence. This approach shows that meaning ingredients of some lexical items occur in non-adjacent positions in remote structure and they are brought together by the operation of transformational rules prior to lexical insertion.

Occurrence of meaning ingredients of verbs in non-adjacent positions in remote structure has been shown by Postal\(^1\) and McCawley\(^2\) in the treatment of the English verbs "remind" and "kill."

\(^1\)Postal, Paul: On the surface verb "Remind". Linguistic Inquiry 1, 1970

respectively. Postal posited the following underlying structure for a sentence like "John reminds me of Peter."

\[
\begin{array}{c}
S \\
| \\
| \\
P & NP \\
| \\
| \\
STRIKE & me \\
| \\
| \\
\end{array} \quad \begin{array}{c}
S \\
| \\
| \\
NP & NP \\
| \\
| \\
SIMILAR & John & Peter \\
\end{array}
\]

in which STRIKE and SIMILAR are Semantic primes or atomic predicates of the meaning of "remind". The meaning of "remind" is scattered among the constituents defining the semantic representation of the sentence. As there is no single node under which "remind" could be inserted, this precludes lexical insertion at the point of derivation. A number of transformations like subject-to-object raising, predicate raising must operate before "remind" can be inserted.

Generative Semantics suggests the same type of analysis for nouns as well. But linguists have established beyond doubt that lexical items are best treated in the lexicon and not in the grammar. Lexical items are susceptible to historical influences and idiosyncrasies making the lexicon an inventory of partly unrelated items.

3.5.17 Another theory which rejected Chomsky's notion of
syntactic deep structure is Charles Fillmore's Case Grammar. The basic assumption of this model of grammar is that a sentence, at the deepest level, consists of a verb and an unordered series of semantic cases, drawn from a universal vocabulary, so that the underlying structure would look like this:

1. $S \rightarrow M + \text{Prop}$
2. $\text{Prop} \rightarrow \text{Predicate} + C_1 \ldots C_n$
3. $\text{Pred} \rightarrow \{V_{\text{Adj}}\}$
4. $C \rightarrow K + \text{NP}$
5. $\text{NP} \rightarrow \text{Det} + N$

where $M$ = modality which includes tense, aspect, negation, question etc.; $\text{Prop}$ = Proposition, the proposition comprises a predicate and a number of cases ($C_1 \ldots C_n$). The cases are (Fillmore)

1 Fillmore, C.J.: (1) A Proposal Concerning English Prepositions; Monograph Series on Languages and Linguistics, P 166
1968 and 1971) - 

1. **Agent (A)**, the instigator of the event;

2. **Counteragent (C)**, the force or resistance against which

   the action is carried out;

3. **Object (O)**, the entity that moves or changes or whose position or existence is in consideration;

4. **Result (R)**, the entity that comes into existence as a result

   of the action;

5. **Instrument (I)**, the stimulus or immediate cause of an event;

6. **Source (S)**, the place from which something moves.

7. **Goal (G)**, the place to which something moves;

8. **Experiencer (E)**, the entity which receives or accepts or experiences or undergoes the effect of an action (earlier called Dative).

9. **Locative (L)**, the case which identifies the location or spatial orientation of the state or action identified by the verb.

   C above is expanded into K + NP where K is a case-marker.

The underlying structures undergo transformations which

place NPs in surface subject and object positions. Thus the surface order of categories is the result of mapping between remote and surface structure.

3.3.18 Fillmore claimed a number of benefits accruing from the case Grammar model as opposed to the Aspects model. He rejected
the Aspects claim that the deep structure is the adequate base for semantic interpretation. He repudiated this claim with the help of the following sentences:

a) The door opened.

b) John opened the door.

c) The wind opened the door.

d) John opened the door with a chisel.

The Aspects model would give 'the door' in (a), 'John' in (b) and (d) and 'the wind' in (c) deep structure subject status. But these are characterised by different semantic relations with the verb. Moreover, the Noun phrases 'the door' in (a) would get deep structure subject status while the same Noun phrase in (b), (c) and (d) would get the deep object status according to the Aspects model, although it bears the same semantic relation with the verb. The Case-Grammar treatment of such problems involves arguments concerning the verbs whereby these semantic relations characterised. 'Open' according to Fillmore, is a verb with an obligatory object, with an optional Agent and/or Instrument. Hence the semantic relationship is pinpointed without difficulty.

Fillmore claims syntactic and lexical benefits as well, which, however, will not be discussed here.
The preceding sections presented a synoptic description of the attitudes and approaches to the study of meaning by different 'schools of Linguistics'. The survey is rather superficial. It is not feasible to do justice to such highly technical theories and subjects within the body of a single chapter, while at the same time, one cannot ignore these schools because of the far reaching influence of each of them in contemporary Linguistic studies.
3.6. STRUCTURAL SEMANTICS

3.6.1. Undoubtedly, the founder of modern structural linguistics is Monign-Ferdinand de Saussure, a Swiss linguist. His 'Cours de Linguistique Générale' (1916) published posthumously embodies the structural principles underlying linguistic studies and much of the standard terminology of structuralism.

3.6.2. The term structuralism is also associated with the post-Bloomfieldian School of American Linguistics (Z. S. Harris's Methods of Structural Linguistics\(^1\) being the most widely known work pertaining to this school.) Noam Chomsky reacted against the tenets and methodology of this school\(^2\). The five principal characteristics underlying American structuralism has been enumerated by Lyons\(^3\) as below:

1. It is corpus-based and hence rejected Saussure's langue-parole dichotomy (vide 3.6.7(3) following); 2. It is taxonomic or classificatory rather than explanatory in handling data; 3. It rejects the claim of semantics as a component of language study; 4. It is exclusively concerned with surface realization.

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\(^2\) Chomsky N. A. : Syntactic Structures. 1957, Mouton and Co.

of speech and (5) its aim and orientation are to posit discovery procedures for language analysis. The very term 'Structural Semantics' is a contradiction to post-Bloomfieldian American Structuralism. In this study of the term structural linguistics has Saussurean connotation only and not, post-Bloomfieldian and this necessitates the enumeration of the underlying characteristics of the latter in this section.

3.6.3. The guiding canon of Saussurean structuralism is that every language is characterized by a unique pattern i.e. relational structure or system and the units postulated as theoretical constructs at different levels of analysis are identifiable only in terms of their relationships with other units at the same level in the same language or else there is no basis for individuating units. This precludes the identification of units at first to be followed by subsequent postulation of combinatorial rules or relations with other units. Identification of the units and their interrelations constitute a simultaneity. Thus postulation of a unit is valid only in terms of a network of relations with other units in which it functions. A language is characterized by a unique relational structure and all the

units postulated (at different levels) - sounds, phonemes, words, lexemes, etc. - are specific points in the structure or network of relations thereby acquiring linguistic value.

3.6.4 This central thesis of Saussurean Structuralism can be illustrated and substantiated with reference to the phonological and grammatical levels.

In phonology the conspectus of phonological units, the phonemes or significant sounds in a language is postulated by taking into consideration whether phonetic features attributed to a phoneme are in functional contrast with those attributed to any other phonemes or phonemes or not. According to the Structuralist thesis, each language exploits somewhat different but unique distinctions from the potentially unlimited within the grammatical structure of a language. Any one term in a grammatical category is in a relation of contrast with other terms in the same category in the same language. Grammaticalization varies from language to language. Thus the term past in the English category of tense cannot be equated with the term past in Assamese in the Assamese category of tense just as the English /P/ phoneme is not identifiable with the Assamese /P/ phoneme. A language makes a unique selection of distinctions in terms of various categories as tense, number, person, gender, case, degree, deixis and so on and groups words into word-classes or parts of speech in terms of the places they occupy in their relational network. These categories human phonetic possibilities and makes them functional or linguistically
relevant. Thereby such forms as /sap/ 'pressure' and /sapʰ/ 'clean', /pat/ 'leaf', /pʰat/ 'slit' in Assamese are kept distinct. Thus the phonological units, the phonemes constitute the terminals of the relations of functional contrast which are prior to the units postulated and which have no independent existence. The same principle holds good for other phonological units like tones, stresses, intonations and so on.

3.6.5 This cardinal principle of structuralism applies equally well to the grammatical structure of a language. The postulation of grammatical units is valid only in terms of the functional relations of contrast and equivalence with other units and word-classes are manifested in syntactic structures like sentences as per rules unique to the language concerned and these rules vary from one language to another. Thus the linguistic validity of grammatical units is to be established in terms of the places they occupy in the network of functional relations — relations of contrast and equivalence. The phonological and grammatical structures are in fact relationships of functional contrast and combinatorial aspects.

3.6.6 Each language is characterized by its own semantic structure just as it is characterized by its own phonological
and grammatical structure. The theoretical significance of this is that the meaning of a word is a function of its relationship with other words in the same language. Meanings of words (i.e. their senses and denotations or reference) are not independent of the language. One language may lexicalize a meaning which another language may not. Equivalence of words in two different languages often breaks down making thereby one-to-one correlation impossible. If the meaning of a word is changed radically or if the word is dropped out of the language altogether other words reshuffle their meanings to fill up the empty slot.

3.6.7 Four dichotomies constitute the back-bone of Saussurean structuralism.

1. The first dichotomy is that between substance and form. The Saussurean notion of substance is that it is the substratum of variation and individuality. Substance is brought to existence or actuality by form (or structure). It gets morphosed into one thing rather than another because of the imposition of one

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(b) Ullmann, S.: The Principles of Semantics, 1957, Glasgow
(c) Öhman, S.: Theories of the Linguistic field, Word, 9, 1953.
(II) Semantics I, 1977, C.U.P.
form rather than another. According to Saussure languages comprise two kinds of substance — sound and thought and the imposition of structure renders these to constitute language in the true sense of the term. The phonological composition of a word (the significant) is a complex of phonemes given linguistic validity by the form imposed by the language upon substance of sound.

The meaning of a word (the signifié) likewise owes its existence to the form imposed by the language on the continuum of thought. The union of a significant with a signifié constitutes a linguistic sign and a language, according to Saussure, is a depository of signs. Individual signs must not be considered in isolation, since both their pronunciation and their meaning are defined by their contrasts with the other signs of the system — without the system there is no basis for individuating phonemes or meanings.

2. The second dichotomy envisages the relationships holding between signs and which according to Saussure are of two kinds — syntagmatic and paradigmatic. (The term 'paradigmatic' was suggested by Hjelmslev in place of Saussure's term 'associative'). Syntagmatic relations signify relations which a linguistic unit contrasts with the preceding and/or succeeding units of the same level while constituting a syntagma or construction. In the Assamese expression /hokot manuh ezon/ 'a fat man', the word or lexeme /manuh/ 'man' is syntagmatically related to the attributive adjective /hokot/ 'fat' and the predicative
numeral /ezon/ 'one'. Similarly in the word /pat/ 'leaf' the vowel phoneme /a/ is in syntagmatic relation with the preceding and following phonemes /p/ and /t/. The underlying language system controls the combinatorial possibilities at all the levels rendering thereby /hokgt manuh ezon/ and /pat/ as perfectly well-formed Assamese utterances. Paradigmatic relations signify substitutability of units in a given system by other units. The unit /hokgt/ in the system /hokgt manuh ezon/ is interchangeable by /khin/ 'lean', /kripqon/ 'miserly' and so on and hence all these are in paradigmatic relation. Similarly the phonological unit /a/ is in paradigmatic relation with /ə/, /ʊ/, /y/ in the context /p-t/. An adequate description of a language necessitates both the membership of the paradigmatic sets and the combinatorial aspects along the syntagmatic axis.

3. The third Saussurean dichotomy is that of langue and parole. The linguists' task is to describe the Language-system (langue) and not actual language-behaviour (parole). The language system is structured in terms of paradigmatic and syntagmatic relations of units at various levels and the language-behaviour of any one individual is recognized in society in terms of these relations. The concrete data of parole are produced by individual speakers, but langue is not complete in any speaker it exists only within a collectivity. A language according to Saussure is

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a social fact — a view related to Emile Durkheim's (Saussure's French contemporary). But langue or language-system has also a psychological aspect in that it is stored in the brain of every member of the language-community. Chomsky\(^2\) has drawn a distinction between linguistic competence and performance although no parallelism should be drawn between this and the Saussurean distinction of langue versus parole. There are crucial differences underlying both—the basic difference being Saussure's assignment of syntax to parole rather than to langue.

4. The fourth Saussurean dichotomy is that of synchronic and diachronic aspects of languages. According to him there is essentially a systematic character of the synchronic aspects of language which are lacking in diachrony. Diachronic treatment very often describes one isolated event after another. But synchronic linguistic presupposes the complete description of état de langue and permits no partial delimitation of the network of relationships with no extension along the time dimension. Thus the etymology of a word or lexeme is irrelevant in synchronic semantic study. Because the linguist while investigating the meaning of a lexeme must take into consideration the meaning associated with it by

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\(^2\) Chomsky, N. : (a) Syntactic Structures, 1957, Mouton
(b) Aspects of a Theory of Syntax, 1965, M.I.T.
(c) Current Issues in Linguistic Theory, 1964, Mouton.
the language community belonging to the time of the investigation or else there would be a violation of the network of semantic relations.

3.6.8. Two schools of linguistics representing special developments deserve mention in the context of Saussurean structuralism. These are (1) the Sapir-Whorf hypothesis\(^1\) (also referred to as Linguistic Relativism\(^2\)) and (2) the theory of Semantic Fields the best known proponent of which is J. Trier\(^3\).

The Sapir-Whorf hypothesis holds that a man's language moulds his perception of reality. In other words the world a man inhabits is a linguistic construct. Sapir declares individuals being at the mercy of their language, which exerts a tyrannical hold over their mind\(^4\) (Sapir: Language, p. 218) and Whorf writes of speakers being in absolutely obligatory agreement with their languages to conceptualize the world in a certain way (Whorf: Science and Linguistics, 1956, reprinted in J. B. Carroll.) Whorf's writing discusses the world view exemplified by various features of Hopi Grammar and contrasts it with that of what he collectively referred to as 'Standard Average European'. But such a view is

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not above criticism in that French, a European language has words for inanimate objects belonging to the female cryptotype while others behave like the words for males. But the French are not animists and this very fact invalidates the Sapir-Whorf hypothesis.

It has been argued in the context of Hopi notion of time as described by Whorf that the difference underlying Hopi and English (or any European language) ways of expressing matters concerning time is merely a difference in formal modes of expressing a common range of ideas. All languages are perfectly capable of effective description of all observable phenomena of the universe. Whorf's claim of contrasts in world-view has some substance pertaining to conceptual schemes of different languages which influence perception. Franz Boas already pointed out that as against the single English word snow Eskimo has separate words for snow falling, snow on the ground, and drifting snow while there is no word for snow in a language of Equatorial Africa. It can thus be established people's perceptions of their surrounding are dependent on the conceptual categories of their languages — thereby corroborating part of Whorf's claim.

Colour-terms to some extent justify the Sapir-Whorf hypothesis. But there have been attempts (by Berlin and Kay) to refute

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the claims of linguistic relativism on the basis of evidence culled from terminologies pertaining to colour in different languages and the Berlin and Kay hypothesis has been extended to other areas of the vocabulary by linguists.

The hypothesis maintains that there are eleven definable focal points within the continuum of colour and that six of these focal points constituting a hierarchy determine their lexicalization in any language. Thereby the notion of linguistic relativism is negated — since widely separated and unrelated cultures exhibit such semantic constancies in the perception of colours it is unlikely that people's world-views would really differ in other areas. The main point of the Berlin-Kay hypothesis which constitutes a contradiction to structuralism is that it distinguishes between the total extension (denotation) of a lexeme and its focal extension. Any two languages might draw different boundaries in a denotational continuum while remaining in agreement with respect to the focal denotation of lexemes roughly equivalent. Moreover the world as perceived by man is not an undifferentiated continuum — its conceptual and linguistic categorizations are many and varied. The main thesis of structuralism is that every language is characterized by a unique system and it is not incompatible with any form of universalism. Acceptance of the doctrine of linguistic relativism by structuralism is therefore ruled out.

3.6.9. The semantic field theory in different forms within the parameters of structuralism is attributable to many European linguists the most notable among which is that of Trier. "Fields
are living realities intermediate between individual words and the totality of the vocabulary; as parts of a whole they share with words the property of being integrated in a larger structure and with the vocabulary the property of being structured in terms of smaller units. "(Trier)¹. This is the most original aspect of Trier's theory. By extension, the part-whole relationship existing between individual lexemes and the lexical field within which they operate is similar to the relationship between various lexical fields and the total vocabulary of the language. In other words, Trier recognizes the fact that every lexeme operates in a network of semantic relations or fields, and the semantic value of the lexeme is to be assessed in terms of its position in the network as well as in terms of its relation with other lexemes in it. But this assumption based on Saussurean structuralism is tagged to an unstructured substance of meaning having a prior existence. This is the weak part of Trier's theory, and this has been variously criticized by linguists who reject conceptualism.

There is a diachronic aspect of Trier's theory of Semantic fields. He stated that the integrated systems of lexemes interrelated in sense are in a state of constant flux. Lexemes disappear from languages and new lexemes are being added. Disappearance of a lexeme caused the broadening of the senses of one or

more lexemes belonging to the system. Emergence of a new lexeme in the system caused the narrowing of senses of the neighbouring lexemes in the system.

There are other important contributions by linguists as per the tenets of Saussurean Structuralism (like Porzig's theory of semantic fields based upon relations of sense between lexemes functioning in grammatical syntagmas). These and other theories are not discussed here.

3.6.10. This study is prompted by the following assumptions:

(1) The semantic analysis of a language must follow a thorough grammatical analysis;

(2) the role of context in which words or units occur must not be minimised;

(3) Saussurean structuralism and predicate calculus (vide 3.7. below) have been synthesised in the handling of the data. It is felt that both are necessary for the total semantic theory which is truth-conditional in basis.
3.7. **Principles of Predicational Analysis**

3.7.1. Predicational analysis based on predicate calculus of formal logic has been adopted by linguists\(^1\) as components of total semantic theory. Predicate calculus has been described as characterized by a system for the representation of the internal structure of simple propositions. The major advantage of this approach as claimed by philosophers and linguists is that it can handle the underlying logical form of sentences of languages by correlating them with the structure of facts pertaining to the external world. It can adequately treat the semantic features of terms in terms of the relational features of the constituent units.

3.7.2. A predication which is a cover term for assertions, questions, commands and so on, corresponds roughly to a declarative sentence (to which concerning truth and falsehood aspects relate). A predication is thus identified as the meaning of a sentence and occupies the place at the top of the three tier system of units.

At the bottom of this system, there are the minimal differentiating factors of meaning, i.e. semantic features or components. Between the two tiers there is the third unit that corresponds roughly to a word or a phrase in syntax. This unit is termed a cluster which consists of features and may have either referring expressions or sense relations.

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also vide Lyons J. : Semantics I, 1977, C.U.P.
The unit 'cluster' is broken down into two (1) arguments and (2) predicates into which predications are immediately divisible.

3.7.3. The relational element which links the other elements and gives some information, is called a predicate, while the non-relational terms of the predication, are called arguments. Both the predicate and arguments of a predication match with the syntactic categories like the verb or verb-phrase with complements and the subject and object(s) respectively. The statement above can be reduced to the following linear formula:

\[ \text{Predication} = (\text{Argument}) \ast \text{Predicate} \ast (\text{Argument}) \]

The parentheses indicate optional presence.
Arguments and a predicate are expressed with the help of words in syntactic structures. The initial and final arguments which are known as 'terminal clusters' and the predicate as 'medical cluster', are also used in the predication analysis. In other words the applicability can be given to the following three-tier analysis of the meaning of sentences:

3.7.4. There are four types of predication identified according to the number of arguments within the grammatically delimited unit. These are designated and described below:

3.7.5. No-place predication:

A predication characterized by absence of arguments, is a no-place predication symbolized as $\emptyset : =$

eg. /etija gqrom/ '(It is) hot now.'
(also vide 4.1.1)

3.7.6. One-place predication:

A predication in which only one argument specially the subject of a verb is present, is known as one-place predication, its notation being $a : =$
eg. /ram hahohi/ 'Ram(is) brave.'
/gulap d'unija/ 'Rose(is) beautiful.'

3.7.7. Two-place predication:

A predication in which two arguments, the subject and an object are present, is called two-place predication; its notation being $a \rightarrow r. b$ or $a \leftarrow r. b$.

eg. /rame kitap pohe/ 'Ram reads books.'
/hinhte bpl khle/ 'They play football.'

3.7.8. Many place predication:

Many place predications are those having more than two arguments, the subject and more than one object. The notation for such a predication is $a \rightarrow r. (b. \rightarrow s. c.)$

eg. /mgi tak eta kolma diiy. / 'I gave him a pen.'
   'I made him to have a pen.'

3.7.9. The structural apparatus outlined here suffices for the semantic description of grammatically simple sentences. The complex sentences which have one or more embedded predications, are analysed in terms (a) rank-shifting and (b) downgrading$^1$.

$^1$The terms rank-shifting and downgrading are from Halliday's systemic grammar.
(vide Halliday, M.A.K.; McIntosh, A. and Strevens, P.D. 'The Linguistic Sciences and Language Teaching' 1964, Longman.)
3.7.10. **Rank-shifted predication:**

When a well-formed predication acts as an argument in the whole predication, such a subordinate predication which is equivalent to a subordinate clause within a principal clause, is designated rank-shifted predication.

*ef. /moi tak goi thoka dekhilū. 'I have seen him going.'*

*/hi bhal lore buli zany. 'I/We know that he is a good boy.'*

3.7.11. **Downgraded or Festurized predication:**

It is a component-like term of a predication. It relates or co-refers to the feature of an argument or a predicate and it has the structure of a predication. Down-grading occurs in the semantic specification of single lexical item or noun phrases illustrated below:

*/borgla/ 'bachelor'; the adult human-being who has not yet married.*

*/gawolija luk/ 'the villager', the human-being who lives in a village.*

*/haohi satsa/ 'the brave student' the human-being who is studying and is brave.*

3.7.12. **Besides these qualifying down-graded predications, there are modifying downgraded predications of the predicates consisting the adverbial modification of the verb.**
eg. /tai lahe lahe gol./ 'she went slowly.'

She went in a slow manner.

/mad hob be hokoluke b al logaboloi

git gaj./ ' Madhab sings only to please all.'

Madhab sings in order to make everyone to be pleased.