THE TECHNIQUE OF SEMANTICS. By J. R. FIRTH, M.A.

[*Read at a meeting of the Philological Society on Friday, 1st February, 1935.*]

THE origins of this paper are: first, practical experience of linguistic problems in India and Africa as well as more recently in England; secondly, the prevailing uncertainty reflected in such titles as "What is a Phoneme?" "The Problem of Grammar," "What is a Sentence?" "What is Syntax?" "The Meaning of Meaning," and countless other signs of the overhauling of our apparatus; and lastly and perhaps most important of all, a discussion on linguistic theory held by the Society on 1st December, 1933, led by my friend, Dr. Alan Gardiner.

The first and earliest entry for the adjective semantic in the Society's Dictionary is most discouraging. It was used in 1665 in J. Spencer's *Prodigies*: "'Twere easy to shew how much this Semantic Philosophy was studied." This related to the signs of the weather, and after all, Semantics is rather like Meteorology, only it has nothing so permanent as the "depression from Iceland".

The fundamentals of what is properly, because usually, called Semantics can be dealt with in connection with lexicography, phonetics, and descriptive grammar, and although the most important recent contributions to the study of meaning have been made in such fields as philosophy, general linguistics, psychology, logic, sociology, and criticism, they can be touched upon or implied in the discussion of the branches of linguistic technique above mentioned.

As a first approach, therefore, to this study of the meaning or *use* of words, let us consider the Society's Dictionary, and more especially the bearing of certain canons of lexicography which it lays down on the technique under examination. Before the Philological Age England had already produced a great lexicographer, and in two of the three main guiding principles laid down for the new work the Dictionary was to follow Dr. Johnson—firstly, in being general and registering all sorts of words, even the commonest; secondly, it was to follow him in making

systematic use of quotations or context; but the third principle was new—the Historical Principle.

All three principles have important bearings on Semantics. The first principle is that a certain component of the meaning of a word is described when you say what sort of a word it is, that is when you identify it morphologically, and give it what the Dictionary calls a Grammatical Designation.

Secondly, the complete meaning of a word is always contextual, and no study of meaning apart from a complete context can be taken seriously.

But what made the Society's Dictionary different was the third member of the trinity—the Historical Principle. The application of the historical principle has, until quite recently, been the characteristic of most linguistic techniques, including what is properly called Semantics.

By the year 1857, the Golden Age of what was called at the time Modern Philological Science had begun, and Furnivall, Trench, Coleridge, Murray, and their colleagues on the Committees constantly re-affirmed the Historical Principle, and on the fly-leaf of each of the ten volumes there is the guarantee—"On Historical Principles." That explains the N in N.E.D.

From Trench through Mayhew and Skeat, Littré, Darmesteter, Bréal to de Saussure, la sémantique, *semantike techne*, the "science of significations", as the French describe it, deals with changes of meaning classified in such categories as enlargement, restriction, generalization, specialization, transference, metaphor, radiation, irradiation, and many others of the same kind.[1]

Throughout the nineteenth century, before Bréal's book was published in English in 1900 under the title of *Semantics*, the English word for the historical study of change of meanings was Semasiology.[2]

[1] Categories of this kind, supplemented by "Associationist" categories mentioned on p. 43, are used in a recent book by Edmond Huguet, *L'Évolution du sens des Mots depuis le* XVI*me siècle*, 1934.

[2] The introduction to the first volume of the Dictionary uses Sematology, and J. A. H. Murray much later also used it—perhaps rather ignorantly—as the word had been previously used of the study of the use of signs in practice, what Smart called Practicology.

In German, Bedeutungslehre as a linguistic discipline has also been chiefly concerned with the problems of Bedeutungswandel, Bedeutungsverschiebung, Bedeutungsänderung, Bedeutungsübergang, Bedeutungsvarianten, and so on. There also you will meet " Spezialisierung ", " Erweiterung ", " pars pro toto ", and similar categories.

The main point is that this study of meanings was a study of change. And change implies something permanent which changes, the permanent persisting in and through the change. Usually the change is regarded either as development or decay, and is viewed with reference to some essential or original nature or zenith.

Thus Skeat in stating his canons for Etymology wrote : " We can sum up the whole matter by saying that our pursuit is Etymology, by which we seek to give an account of the *true* origin of a word. The real object is in due time to arrive at a perfect knowledge of the whole, the living and the eternal truth." [1]

You may smile at this. You may say the etymology of " etymology " has nothing to do with its present meaning. That is what Greenough and Kittredge say in their well-known book with the somewhat misleading title, *Words and their Ways in English Speech*. " The word ' etymology ' has quite changed its sense," they say. And yet in the same chapter [2] they also say : " We often speak of ' the proper or essential meaning ' of a word. The term is convenient, and one could not well dispense with it in etymological study." If you must see permanence in change, at least two categories of meaning are methodologically necessary, as we shall see over and over again. To make this clearer let us turn to one of the fathers of the Dictionary. We find in the writings of Trench,[3] upon which high value has recently

[1] *Principles of English Etymology*, 2nd series (1891), p. 462.

[2] Chapter xvi.

[3] In addition to covering most of the routine technique to be found in much later works on semasiology, Trench touches on many fundamental questions of linguistic theory. Much has been written in recent years on *Innere Sprachform*, e.g. in Vossler's *The Spirit of Language in Civilization* (Kegan Paul, 1932).

been placed in the preface to the 1933 Supplement of the Dictionary, a statement of the principles involved in this study of change. He writes [1] : " This tracing of that which is common to, and connects, all the many meanings of a word, can of course only be done by getting to its heart, to the *seminal* meaning, from which, as from a fruitful seed, all the others unfold themselves." That is to say, a word has a sort of true origin and originally one meaning, and " all the others may be brought back and affiliated upon it ". He adds significantly, and this we must notice later : " The non-recognition of this is *the* great fault in Johnson's Dictionary." A further explanation of the N in N.E.D.

Trench takes the word " post " and finds that throughout all its meanings there is an active association with an idea of " that which is placed ", and also that etymology takes it back to the Latin *positus* which has the same meaning. So that what he calls the seminal meaning might be expressed either in the equation " post = *positus* ", or by saying that " post " both in form and seminal meaning comes from *positus*. In his *English Past and Present* [2] he adds to this concept of central or seminal meaning, which is a sort of greatest common measure of all the uses of a word, supported by a unity of ultimate origin, a second kind of meaning that a word may have, what he calls " domain of meaning ", or as he says later " range of application ".

Similarly, Greenough and Kittredge, after listing ten applied meanings of " head " as illustrating Darmesteter's principle of radiation, conclude that each meaning proceeds " in a direct line from the central or primary meaning of head ". Even Meillet, whose work shows him to be something of a sociologist and realist,

In his *Study of Words* (p. 119) Trench mentions the " creative energy " of a poet's use of language, and we are all in some sense poets. He emphasizes the connection between language and national character, and in his *English Past and Present* he says : " For the genius of a language is the sense and *inner conviction* entertained by the mass of those who speak it."

He deals with the influence of Christianity on language, a subject which Vossler has also treated. He discusses the force and imposture of words, words evoked by necessity, of meanings dictated by things, by usage. And finally he reminds us that " a word exists as truly for the eye as for the ear ".

[1] *On the Study of Words*, 6th ed. (1855), p. 194.

[2] pp. 311–314, 1898 edition.

goes back to the Indo-European reconstructed form **prtu-* and gives it the primary meaning of " the place through which or by which you can pass ", and then notices local specializations in *portus, porta, porte, port,* and *ford.* This shows the danger of going too far for permanence. You get back to nothing. We have here, then, two uses of the word meaning—first, in the sense of true, original, and essential meaning of a word, and secondly, the many meanings it comes to have in application or use.

No one seems to be able to handle the problem of meaning without splitting it up into components which can then be placed in categories and classified, and brought into relation with one another. Erdmann [1] distinguishes three kinds of meaning: (1) *Begriffsinhalt,* or Hauptbedeutung, roughly our Essential or Central Meaning or Denotation; (2) *Nebensinn* or Applied Meaning or Contextual Meaning; and (3) *Gefühlswert* or Stimmungsgehalt or Feeling-Tone.

Sperber and others who have made use of these categories in historical work have emphasized the great importance of the second sort of meaning, Nebensinn or contextual meaning, in the history of change; you may have noticed, for example, the important influence of context [2] and feeling-tone on public school cant as a result of its being used by the " old school tie " comedians, who seem to find great public favour. Research into the detailed contextual distribution of sociologically important words, what one might call *focal* or *pivotal* words, is only just beginning. Mention of the Public School and pivotal words reminds me of an interesting monograph [3] by Dr. Krebs on what

[1] *Die Bedeutung des Wortes,* 3rd ed., 1922.

[2] A very common colloquial English sentence was used by a well-known American actress in a notorious film. Whether we like it or not, that parasite context finds a place in most of our contexts of experience. The extraordinary influence of such contexts is shown by the following extract from page 3 of the *Sixty-fourth Annual Report of the Deputy Master and Comptroller of the Royal Mint,* 1933: " As already admitted, I am no Newton—or, to bring the parallel completely up to date, no Angell either, even though the Gold Standard in this country may have gone West—to show the road up out of our confusions."

[3] *Der Bedeutungswandel von ME.* Clerk *und damit zusammenhängende Probleme.* Bonner Studien zur Englischen Philologie, Heft xxi, 1933.

I would call the contextualization of the word *clerk* in Middle English, which is an excellent example of what can be done in the historical study of meaning from the sociological point of view.

Ogden and Richards in *The Meaning of Meaning* also find themselves forced to abandon the single term Meaning itself, and to resolve it into component terms such as intention, value, referent, emotion. The meaning of words is only appreciated when the symbols are expanded, or as I should say contextualized. Richards in his *Mencius on the Mind* says : " What may be called the Total Meaning of a word or phrase is a complex function of which Intention, Feeling, Tone, and Sense seem to be the main components." He sketches a technique of what he calls Multiple Definition by means of which we are to present an ordered systematic schema of ranges of meaning of pivotal words, not studied in isolation as they are in a dictionary, but in association with one another in a common background of a fairly homogeneous cultural context.

This characteristic study of change involving two or more kinds of meaning is even found in a recent statistical study, Zipf's *Studies of the Principle of Relative Frequency in Language.*[1] He uses the term Meaning for something not defined, but more or less equivalent to essential, primary, common, or usual meaning. He makes use of the terms primary meaning or denotation in the singular, and secondary meanings, metaphors, or connotations, all in the plural ; and yet this author is very doubtful about primary meaning, except perhaps in a statistical sense, a basic highest frequency meaning. Secondly, he says there is quality, positive quality and negative quality, that is " undesirable for the ego ". Thirdly, emotional intensity ; and lastly, and this is interesting, order—order being what our Dictionary calls Grammatical Designation, and what I shall regard as the grammatical component of meaning, to be contextualized grammatically and understood grammatically.

Turning back for a moment to the correlative of change, permanence, we find it stated in the first volume of our Dictionary that of the words on record since the twelfth century,

[1] Harvard University Press, 1932.

three-quarters are still in use, and for the whole ten volumes, of 206,565 main words, 177,970 are listed as current.

In Appendix I of Darmesteter's *La Vie des Mots* [1] there is a long list of Latin words which "have not changed in meaning in passing into French". In this list are such words as *ami, âme, bain, bête, chou, cercle, cité, famille, femme, fille, glace, honneur.* I prefer Johnson, who wrote in the preface to his Dictionary [2]: "Words change their manners when they change their country."

Then there is the question of causes of change. The observations of Greenough and Kittredge in this connection are typical. Causes there must be; "Since thought proceeds in obedience to definite laws, language . . . must also obey rules which, if we could discover them, would account for every variation."

We have formulated what we call Sound Laws to help us to follow the permanent word through changes of form. Similarly, German scholars have discussed die Gesetzmässigkeit des Bedeutungswandels.[3] Bréal had answered this question in the negative in one of the best things he wrote, a review of Darmesteter's *La Vie des Mots* in 1888.[4] But a classification and ordering of the facts he believed to be possible.

Three main types of classification of changes of meaning have been common: Logical, Psychological, Sociological. Darmesteter's logical conditions of changes of meaning are enumerated under the well-known headings of the figures of speech. They are dominated by *a priori* conceptions and are little more than a scheme of rhetoric. But they continue to travel round the world and one still meets them in new books fresh from the press.

Bréal was much more psychological in his classification, and also deals with certain social causes of change. Meillet also shows sociological tendencies, but on the whole only in theory. He is best on the purely linguistic conditions of change of meaning. But his oblique view of things comes out in his definition of a

[1] 1885.

[2] Dr. Johnson's common sense is quite good medicine after a surfeit of specialist literature. As Boswell notes, "The Preface furnishes an eminent instance of a double talent, of which Johnson was fully conscious."

[3] Sperber, *Einführung in die Bedeutungslehre.*

[4] No. 36, *Mémoires et documents scolaires,* 1888.

" borrowed word " in French. Any word not established in the earliest French or in Cæsar's time is " borrowed ". Thus almost the whole of Semantics comes to be the study of " borrowed words ". He actually says [1]: " The greater part of the vocabulary of French is ' borrowed '." This and the starred form **pr̥tu-* mentioned above are typical pieces of philological obliquity, but there is directness in his insistence on the importance of the *history of things* in the study of the history of words. He is one of the first historical philologists not to be afraid of things. More recently Dr. Sperber in his *Einführung in die Bedeutungslehre* also emphasizes the importance not so much of *Bedeutungsverschiebung* as of *Sachwandel*, which leads to what Wellander called " *Bedeutungsunterschiebung* ".[2] This is common sense, and it again reminds us of Dr. Johnson who wrote: " I am not yet so lost in lexicography as to forget that *words are the daughters of earth and that things are the sons of heaven* " (the italics are Johnson's). Wundt's classification of changes of meaning is psychological, chiefly based on the Associationist doctrine: Association by Contiguity, Association by Similarity, by Cause and Effect, etc.

A thoroughgoing sociological classification has not yet been attempted, but many valuable suggestions have been made, vaguely by psychologists and sociologists, and occasionally with more point by linguists.

Reviewing the history of the principles of Semasiology, we have first emphasized the Historical Principle and the study of change; secondly, following from that, the necessity of distributing the problem by analysing meaning into elements which can be placed in categories, such as original or primary meaning, applied or changed meaning (Nebensinn), order, and others above mentioned; and thirdly, the schematic

[1] " Comment les Mots Changent de Sens," in *Linguistique Historique et Linguistique Générale*, Paris, 1926. See especially pp. 241–6 and pp. 252–5. " Le vocabulaire d'une langue telle que le français se compose pour la plus grande partie de mots empruntés."

[2] See Wellander, *Studien*, i, pp. 55 sqq., and pp. 70 sqq. Stern in *Meaning and Change of Meaning*, chapter 8, p. 193, uses *substitution* as a " part translation of Bedeutungsunterschiebung ".

classification of types of change. Next there is the problem of the mechanism of change or the stages or steps of change.

In connection with the problem of meaning-links between a word base and its derivatives Dr. Johnson has something to say. He found it impossible to suggest the steps by which derivatives of simpler words came to have their specialized meanings. In noticing what he called the " maze of variations " in the uses of such English phrasal verbs as *come off*, *set off*, he adds : " Some being so far distant from the sense of the simple words, that no sagacity will be able to trace the steps by which they arrived at the present use."

There is, of course, a difference between historical changes of meaning of a word as it continues in use in the same morphological type or category, and differences of meaning a word-base undergoes in derivatives, e.g. *cut—cutter*, *head—header*. But, as we have seen, eighteenth century rationalism is not really interested in tracing the steps and progress of change. The first attempt of this kind was made by a German contemporary of Bréal's, Stöcklein,[1] who suggested three stages in a change : first, the particular influential context for the special meaning ; second, common quotation of the fixed context ; third, the use of the interesting word in free combination. He uses the word *Kreuz* in the gospel context in St. Mark [2] as his example. To this Sperber adds a fourth stage, contexts combining an earlier meaning with the new meaning. In this connection both Stöcklein and Sperber emphasize the fact that a change of meaning is not brought about in a single word as such, but in a complete functioning context. Contextual factors led to the replacing of the noun *Eurasian* by *Anglo-Indian*. And things have also happened since to *Anglo-Indian*.

While " old school tie " makes the success of a comic turn, the word *plan* with its derivatives provides some of the magic words of the age. Compounds like *air-minded*, *traffic-minded*, are fairly common. The other day I saw *beacon-minded* and *flat-minded* in a newspaper. Such compounds have favoured the rather

[1] *Bedeutungswandel der Wörter*, Munich, 1898.
[2] St. Mark, viii, 34.

un-English formation *likemindedness* as some sort of equivalent of the German magic word *Gleichschaltung*. Cases of this kind are interesting because they are often sociologically symptomatic.

Even in historical semantics of the traditional kind we are reviewing there is an enormous field of work if we follow a contextual and sociological technique. The study of such words as *work, labour, trade, employ, occupy, play, leisure, time, hours, means, self-respect* in all their derivatives and compounds in sociologically significant contexts during the last twenty years would be quite enlightening. So would the study of words particularly associated with the dress, occupations, and ambitions of women, or the language of advertising, especially of quackery, entertainments, food, drink, or of political movements and propaganda.

In the 1933 Supplement of the *Dictionary* there are evidences of an appalling recent development of derivatives and compounds of the word *sex*, and a large number of divisions have been added. The frequency of reference to sex had necessarily extended what I term the formal scatter of the word, and we now have *sexed, sexless, sexy, sexiness*, even *sexology*. *Sexy* and *sexiness* occur in print in 1928 in the *Daily Express* and the *Sunday Dispatch*. The more frequent and various the contexts, the greater the tendency to extension of formal scatter. We all appreciate the convenience of a term which will " conjugate " ; e.g. I have found it necessary to conjugate *context*, and find *contextualize* and *contextualization* indispensable forms in which to use the word *context* in certain unavoidable constructions, though I cannot find excuses for Mr. Palmer of Tokio who conjugates *semantic*. These examples bring out once more the close connection between Morphology and Semantics.

Lonely words are also interesting. Almost anything can happen to them. In Greenough and Kittredge's book published in 1902 the following passage occurs : " In England ' *car* ' has become, in the main, a poetical word for ' *chariot* ' or the like, as in Milton's ' car of night '." The revival of *coach* is also worth noting in passing. Is this a change of meaning ?

From the sociological point of view the History of Things and of Culture is all important for the study of changes of meaning. The other day I re-read *Pride and Prejudice* for the special purpose of noticing not only great formal changes, but the great change of meaning that has taken place even behind those forms of words and sentences which could still be written to-day. From the syntactical and sociological point of view it is written in " Old " English.[1]

In connection with the historical study of changes in meaning we have noted the subdivision of meaning, the classification of types of changes, the examination of causes and of the mechanisms or stages in change, with special emphasis on actual context, particularly stereotyped contexts, and sociological background. There is also the necessity of a parallel study of changes of form according to proved sound-laws and established philological doctrine. Meillet [2] compresses all the essential principles into the following cardinal paragraph: " Un mot est défini par l'association d'un sens donné à un ensemble donné de sons susceptible d'un emploi grammatical donné. Pour avoir une valeur, une concordance entre deux mots doit donc porter à la fois sur les sons, sur le sens et, s'il y a lieu, sur l'emploi grammatical. Plus la concordance est parfaite *à la fois* aux trois points de vue et plus l'étymologie a de chances d'être correcte." Murray said [3]: " The writing of the Morphology and of Sematology must go hand in hand." In our Dictionary every main word is treated under four heads, the first two of which are

[1] In this connection Mr. C. L. Wrenn, of Oxford, contributes an amusing story. A competent Bengali scholar was asked to translate the first page of *Pride and Prejudice* into his native language. An equally competent Englishman was then asked to produce a translation from the Bengali into present-day English. This version was then compared with the original, with results that can well be imagined.

One reason why Shakespeare can be such a success in a modern translation is the fact that he is brought up to date in the process, put into linguistic modern dress, so to speak. In England we cannot do this, but producers have tried the somewhat vulgar expedient of " Bedeutungsunterschiebung " by putting Hamlet into a dinner jacket and Macbeth into khaki.

[2] *Linguistique Historique et Linguistique Générale*, p. 30.

[3] *Trans. Phil. Society*, 1882–4, p. 511.

identification in the matter of spelling, pronunciation, and grammatical designation, and further under the heading of morphology which shows formation, form history, and etymology. We have already noticed in passing the importance of studying words in association with their derivatives in actual use, or in what I have called their formal scatter. This involves all the morphology of word-bases, stems, affixes, and compounds. This branch of semantics is rather neglected in English.[1]

From the preceding review and analysis it should be clear that the work of Trench and the earlier English Etymologists, many of whom helped to build up the earlier volumes of the Society's Dictionary, was both in principles and method what the French began to call Sémantique in the eighties of last century. In England we didn't get the name Semantics until 1900, when Mrs. Cust's translation of Bréal appeared under that title. But we had the thing. In certain respects Trench is to be preferred to Darmesteter and even to Bréal. Bréal has never had quite the same notice in Germany as in England, partly because in Germany they did not feel the need of words like *sémantique* and *polysémie*. Bréal used the word *sémantique* in 1883 and quite unjustifiably, I think, regarded himself as the godfather of the subject. Bréal is the godfather of the words *sémantique* and *polysémie*. In 1885 Darmesteter coupled the word *sémantique* with the sort of work we have reviewed, and in 1897 Bréal's essay was published, the translation of which gave us the noun *semantics*.

The adjectival form, *semantic*, had, however, been vaguely used by the American philologist, Bloomfield, in 1895. He referred to " The semantic value of the older reduplications ". This vague sort of adjectival thinking has been served by *semantic* ever since, especially in America. In Bloomfield's latest book on language [1] published in 1933 " Semantic Change " is the title of a chapter in which *semantic change* occurs about half a dozen times. There you will meet once more all the old scheme of rhetoric

[1] See *On the History and Use of the Suffixes -ery (-ry), -age, etc., and -ment in English*, by Fredrik Gadde. Lund, 1910.

[2] *Language*, by Leonard Bloomfield. Henry Holt and Co., New York, 1933.

and the technique of the eighties of last century amid a highly individual terminology bristling with neologisms.

When the noun semantics first appears on page 74, there is an explanatory note on p. 513, which, in the light of what has been said, is at once seen to be, and here I must use a derivative, semantically inaccurate. " Semantics," it runs, " from semantic (*sic*), pertaining to meaning. These words are less clumsy than semasiology, semasiological." He continues : " Literally, then, semantics is the study of meaning." The definition he gives on page 138 of the text is not quite the same thing, but it is difficult to say exactly what is meant. Semantics is grammar and lexicon, or grammar and lexicon are semantics.

According to Bloomfield semantics is the study of meaning ; and also, the study of meaning is the study of grammar. Nothing could be worse than this. It is precisely this confusion of formal grammar with contextual meaning that has been the downfall of all but the most intelligent students of language. Traditional semantics is really the historical study of changes of meaning [1] and as such serves a useful purpose. But, as I hope to show, descriptive grammar is another matter altogether, and as I have often urged in other places,[2] we must separate modern semantics

[1] A useful bibliography of works connected with historical semantics up to the year 1900, is to be found in K. Jaberg, " Pejorative Bedeutungsentwicklung im Französischen, mit Berücksichtigung allgemeiner Fragen der Semasiologie," in *Zeitschrift für Romanische Philologie*, vol. xxv, p. 561. For recent work see *Germanische Philologie, Festschrift für Otto Behagel*, Heidelberg, 1934, especially the article by Jost Trier, " Deutsche Bedeutungsforschung," pp. 173–200, and the article by Fritz Stroh, " Allgemeine Sprachwissenschaft und Sprachphilosophie," pp. 229–258, which contains an extensive bibliography, pp. 251–8. See also Jost Trier's *Der Deutsche Wortschatz im Sinnbezirk des Verstandes*, vol. i, chapter 1, pp. 1–27, bibliography in footnotes. There is also a comprehensive theoretical work of 456 pages by Dr. Gustaf Stern, " Meaning and Change of Meaning (with special reference to the English language) ", *Göteborgs Högskolas Arsskrift*, xxxviii, 1931, a copy of which I received through the kindness of the author after this paper had been read. It is written in English and also contains a bibliography (pp. 421–432). Dr. Stern's work is reviewed at some length in *English Studies*, Feb., 1933.

[2] See pp. 310–312, 325–330 of *Compte-rendu. Congrès international des Sciences anthropologiques et ethnologiques*, Londres, 1934. Also *Man*, No. 174 (September, 1934), p. 151.

from the purely formal, positional, and other categories of grammatical description, thus facilitating the thorough contextual study of meaning on sociological lines, unobscured by categories serving any other purpose. To this I shall return later.

Ogden and Richards in *The Meaning of Meaning* are quite clear about what semantics is, and devote pages 2 to 4 to Bréal and de Saussure and *Sémantique* as I have described it above—an established discipline which is not to be neglected, and which has gone to the making of our great Dictionary. Ogden and Richards do not think that Semantics has contributed very much to date to the study of the Science of Symbolism, i.e. the actual use of words in practice, and I think they are probably right.

Up to this point I have kept strictly to Semantics of the classical kind, and examined only the application of Historical Principles to the study of changes of meaning.

In the progressive Victorian age historical evolutionism [1] became the main technique of explanation in many branches of knowledge. The origins of historical evolutionism are to be found in the same soil that nourished the Romantic Reaction. Professor Willoughby has given us an interesting paper on

[1] The evolutionary and comparative method had been used by philologists in the eighteenth century. Comparative Philology was, in fact, the first science to employ this method, and for a very good reason. Although the Bible may have delayed its application to Anatomy, the idea of the unity of mankind and the eleventh chapter of Genesis beginning with " the whole earth was of one language, and of one speech ", followed by the confusion of Babel, actually prepared the ground for its use in the linguistic field. Curiously enough Trench makes this quite explicit in " affiliating " changes of meaning on the one central meaning, " just as the races of men . . . despite of all their present diversity and dispersion, have a central point of unity in that one pair from whom they all have descended." From the little I know of the early Jewish Rabbi Grammarians I believe that it was from these medieval Semitic comparativists that Christian scholars took over the technical idea of linguistic unity ; and that eventually towards the end of the eighteenth century in the atmosphere of evolutionism and the Romantic Reaction it became the key principle. This is the " genesis " of *Ur-* and *gemein-*, *commun*, *primitive*, *common*, *proto-*, and of the emphatic recurrence in French philology of such phrases as " *une langue une* " and " *unité linguistique* ".

Coleridge as a philologist ; two Coleridges [1] served the Dictionary, and as we know, more than one book has been written on the Romance of Words. And as for change and permanence, remember Shelley's Cloud, " *I change but I cannot die.*"

In this twentieth century evolutionism has lost much of its prestige, and other techniques are being tried. In the social sciences and in such subjects as semantics, which as we said at the outset is rather like meteorology, statistical and behaviouristic methods are widely held to be the only ones likely to take us further in our efforts to understand how language really works.

It is at this point that we turn to the beginnings of Modern Linguistics. Many of the features of Modern Linguistics can be traced to Baudouin de Courtenay and his pupils in Kazan,[2] and to de Saussure and his pupils in Geneva, and also to the sociologists, Durkheim and Tarde.[3]

De Saussure was first in many things. He was the first to make a clear technical distinction between the historical study of changes in meaning and the synchronic study of the use of signs, words, sentences in our daily life. As his predecessor Bréal had introduced the word *Sémantique* to describe the historical study of changes in meaning, he suggested a new term, *Sémiologie*, to describe a science not yet developed, which should study the use and function of signs and words in the heart of our everyday life in society. This science would bring into service such results of social psychology, sociology, and anthropology as would enable categories to be determined and used for the marshalling and description of the facts.[4] Perhaps the most striking thing in the whole of de Saussure's great work, the *Cours de linguistique générale*, is his statement on page 33 that linguistics can only

[1] Herbert Coleridge, son of Henry Nelson Coleridge, nephew of the poet, and the Rev. Henry J. Coleridge, second son of Sir J. Taylor Coleridge, grandson of the poet's father, grand-nephew of the poet.

[2] The Cercle Linguistique de Prague, represented by linguists like Trubetzkoy and Trnka, derives its doctrine from both the Russian and Swiss Schools. Modern French work owes much to de Saussure.

[3] A good review of the Sociology of Durkheim and Tarde is given in Dr. Charles Blondel's *Introduction à la Psychologie collective*, Collection Armand Colin, 1928.

[4] de Saussure, *Cours de linguistique générale*, pp. 32–5.

find a place among the sciences if it is brought into relations with this *sémiologie*, or to use a phrase which in the French would be a contradiction in terms, with synchronic semantics. There is, of course, nothing new in the idea of a systematic study of the use of all sorts of words in their actual contexts in the heart of everyday life.

The historical principle was the third of the three guiding principles of our dictionary, the first two being the continuation and extension of the common-sense principles of Dr. Johnson, whose dictionary appeared in the middle of the rationalistic eighteenth century (in 1755), and who died in 1784, two years before Sir William Jones read the famous paragraph before the Asiatic Society of Bengal.

And now I propose to break with the Historical Tradition and outline a non-historical technique[1] for the study of form and function in language.

Form may be either phonetic (including intonation) or orthographic, but it must be taken to mean pure form and position, to the exclusion of all other logical or grammatical categories.

We have already emphasized the necessity of sound morphology as the guarantee of sound historical semantics. Similarly it must be understood at once that no descriptive semantics of any spoken language can be taken seriously, which does not rest on reliable phonetic and intonational forms. It is impossible to begin morphology without the phonetic and sometimes tonal identification of the elements, and syntax is incomplete without a study of intonational form. By way of illustrating this I would

[1] I do not wish the description " non-historical " to be confused with the Saussurean use of the terms " static " and " synchronic " as opposed to " diachronic ". Such " opposition " is a fallacy. The static synchronic technique is applied to the study of an *état de langue*, and the result is a sort of schematic systematology, a kind of two-dimensional " still " in black and white. The central concept of the technique here sketched is the context of situation, in which, in a sense, whole stretches of personal biography and cultural history are involved, and in which past, present, and future all meet. For linguistics the pivotal or " focal " term of the context of situation is the actual verbal context. In normal speech behaviour all locutions whatsoever can be regarded as terms in some context of situation.

draw your attention to a careful comparative study of the Intonational Forms of French and English by two of my phonetic colleagues.[1] It is obvious that future work on French Syntax cannot afford to neglect such carefully recorded forms. The formal categories are phonetic, intonational, and positional. But there are also categories of a general syntactical nature, such as Emphatic and Unemphatic Sentences, Commands, Assertions, Requests, Specific Interrogatives, Intensity, and Contrast. This work also takes a first small step towards semantics by bracketing implied " meaning " in ordinary French orthography. Sooner or later, of course, all the correlations between intonational forms and other grammatical forms will have to be worked out. This has never been done.[2]

Dr. Gardiner is almost the only grammarian whose theory fully recognizes the place of intonational form in grammar and semantics. Not that he finds it in ancient Egyptian, but I have no doubt his Egyptian studies have convinced him of the value of purely formal and contextual technique. The sort of purely formal and contextual technique I have been advocating since my little book was published in 1930 is illustrated in a book published last week on " Newspaper Headlines " by my friend and disciple, Dr. Heinrich Straumann, of Zurich. The facts of Headlinese or Block Language are entirely different from those of normal speech, almost entirely visual. Yet the technique works just as well for printed form as for spoken form. Without morphology, then, no semantics.

Throughout our review of the study of meaning we have seen how it has been split up and regarded as a relation or system of relations. That is why so many scholars have preferred to study change, because they saw a relationship between one stage and the next, between original or primary meaning and shifted meaning.

Ogden and Richards resolve situational meaning into the three

[1] Hélène Coustenoble and Lilias Armstrong, *Studies in French Intonation*. Heffer, 1934.

[2] In her booklet, *The rôle of intonation in Spoken English*, Heffer, 1935, Dr. Maria Schubiger shows she has an inkling of what might be done.

terms, or triangle, of referent, reference, symbol. But meaning is for them a relation in the mind between the facts and events on the one hand and the symbols or words you use to refer to them. To illustrate the Ogden and Richards technique, I should like to take an example from Dr. Straumann's book.[1] In newspapers there is the common phenomenon of the same event being headlined by various newspapers. The event is the Sentence of Lord X. Let us take the first headline from *The Times*. It runs—R.M.S.P. CASE. *The News Chronicle*—LORD X. SENTENCED. *The Daily Herald*—LORD X. SENT TO PRISON FOR A YEAR. *The Daily Mirror*—LORD X. SENT TO GAOL FOR 12 MONTHS. *The Daily Mail*—LORD X'S SENTENCE SHOCKS THE CITY. And lastly *The Daily Worker*'s serve-him-right streamer—LORD X. GETS 12 MONTHS.

According to the Ogden and Richards technique there is one *referent*, the sentence on Lord X, and quite a number of different symbols for it in the various headlines, the various references being the relations between the two, the headlines and the event. By this technique the reference, or rather the relation between the *referent* (the event) and the *symbol* (the words), is regarded as thought or a mental process.

As we know so little about mind and as our study is essentially social, I shall cease to respect the duality of mind and body, thought and word, and be satisfied with the whole man, thinking and acting as a whole, in association with his fellows. I do not therefore follow Ogden and Richards in regarding meaning as relations in a hidden mental process, but chiefly as situational relations in a context of situation and in that kind of language which disturbs the air and other people's ears, as modes of behaviour in relation to the other elements in the context of situation. A thorough-going contextual technique does not emphasize the relation between the terms of a historical process or of a mental process, but the inter-relations of the terms of the actual observable context itself. In so far as introspection may be relied on, the headlines above quoted, for example, may be considered also in their relations within my context of experience.

[1] Heinrich Straumann, *Newspaper Headlines*, p. 28. Allen and Unwin, 1935.

What may be called memory-contexts or causal contexts are then linked up with the observable situation.

Like all those we have reviewed, I propose to split up meaning or function into a series of component functions. Each function will be defined as the use of some language form or element in relation to some context. Meaning, that is to say, is to be regarded as a complex of contextual relations, and phonetics, grammar, lexicography, and semantics each handles its own components of the complex in its appropriate context.

"No semantics without morphology"—therefore I must briefly sketch the technique for the description of the forms, and indicate what is meant by phonetic, morphological, and syntactical functions, as component functions of the whole complex of functions which a linguistic form may have. Our knowledge is built up as the result of previous analysis. The study of the living voice of a man in action is a very big job indeed. In order to be able to handle it at all, we must split up the whole integrated behaviour pattern we call speech, and apply specialized techniques to the description and classification of these so-called elements of speech we detach by analysis.

I assume then that what we say and hear can be subdivided into elements and components, that there are, to quote Johnson again, "primitives" or simple word-bases and derivatives. *Circumvent* is in English a "primitive" or word-base, while *fishy* or *restless* are derivatives. It follows from this that we recognize such categories as word-base, stem, affix, and other formatives, and eventually what we call sounds.

These elements can usually be delimited and identified by the method of substitution. A word is a lexical substitution-counter, and a "sound" may be a phonetic or a morphological substitution-counter. In the phonetic context of initial **b** and final **d** we observe that sixteen vowel substitutions are possible: **biːd, bid, bed, bæd, baːd, boːd, buːd, bʌd, bəːd, beid, boud, baid, baud, bɔid, biəd, bɛəd.** The phonetic function of each one of the sixteen vowels in that context is its use in contradistinction from fifteen others. Between initial **p** and final **l** eleven vowel substitutions or alternances are possible, between **h** and **d**

thirteen. The other symbols represent similar counters, and if we compare them, we shall find a function for **d** in **bɔ:d**, for instance. Its function is its use in that context in contradistinction from other possible substitution-counters such as **t, l,** or **n,** in **bɔ:t, bɔ:l, bɔ:n.** These phonetic substitution-counters can be determined in purely phonetic contexts, that is without complete verbal, grammatical, or situational context. This kind of use for an element of speech is the first little bit of meaning we have dealt with in the purely phonetic context, at the level of phonetic understanding. I have called this "minor function ".[1]

By an exhaustive study of the distribution of such substitution-counters in all possible contexts, that is of what I have termed the contextual distribution of the sound, the maximum number of alternances of vowels and of consonants in each type of phonetic context can be counted, the relative frequency of the occurrence of a sound in its various contexts estimated, and the total maximum number of the sounds of the given form of speech may be tabulated and described as a whole phonological system. The phonetic function of a form, of a sound, sound-attribute, or sound-group is then its use in contradistinction from other " sounds " ; the phonetic value or use of any sound is determined by its place in the whole system. The phonetic or minor function of a sound is shown by studying it in relation to the phonetic contexts in which it occurs and in relation to other sounds which may replace it in those contexts, or, in other words, in relation to the " context " of the whole phonological system. A phonetic substitution-counter (as distinct from tone, stress, and length) has been termed a phoneme.[2]

[1] " The Use and Distribution of Certain English Sounds. Phonetics from a functional point of view," in *English Studies,* February, 1935.

[2] There is a fairly extensive literature on this subject, some of it controversial. I refer to my own work, as it is more closely related to the present purpose. See my article " The Word ' Phoneme ' " in *Le Maître Phonétique,* No. 46, Avril–Juin, 1934. As far as my knowledge goes, I believe " *phoneme* " was first used in English by Dr. R. J. Lloyd in a review of Baudouin de Courtenay's *Versuch einer theorie phonetischer alternationen,* p. 615, *Neuere Sprachen,* vol. iii, 1896. As an example of its present use, study the " t " sounds in the English contexts **tik, stik, trik, betə, ʌtmoust, bi:tn, bi:tl, eitθ.** These " t " sounds are all different and each one is *specifically related to its particular context* ; so that, though other sounds,

Unfortunately in actual speech the substitution elements are not letters, but all manner of things we may analyse out of the living voice in action, not merely the articulation, but quite a number of general attributes or correlations associated with articulation, such as length, tone, stress, tensity, voice. The phoneme principle enables a transcriptionist to get down formulæ for pronunciation, but lengths, tones, and stresses, and such substitution elements present many difficulties, both practical and theoretical. The phoneme principle has been extended to these more general elements, and hence the terms *toneme* and *tonetic*, even *chroneme*, are sometimes to be met with.

In the specialized technique of semantics we have seen how scholars have split up meaning into components or sets of relations in order to describe the facts. I now propose to do the same sort of thing in phonetics, and to split up the whole living voice of man in action into elements, some of which, what we may call " sounds ", are to be again split up.

Sounds may be analysed in several ways. I propose to analyse a " sound " into (1) articulation or articulations and (2) general attributes or correlations such as length, stress, tone, voice, associated with articulations, and having function. Within the phonological system of a given language the articulations and

such as *l* or *p*, may replace some of them, they cannot replace one another. We have then eight *contextually specific* " t " variants, or eight alternant " t " phones. The alternant phones t_1, t_2, t_3, t_4, t_5, t_6, t_7, t_8, necessarily occur under the contextual conditions x_1, x_2, x_3, x_4, x_5, x_6, x_7, x_8, which are directly observable and definable in one style of speech of a certain type of speaker from a certain place or places, and therefore can be represented by the sign " **t** "; the specific value in each case is determined by the contextual conditions which, represented in phonetic transcription, provide contextual conventions which are quite unambiguous for described contextual alternants. That the general theory of the phoneme is in the melting-pot has been shown by W. Freeman Twaddell in his dissertation *On defining the Phoneme* (Language Monograph XVI, pp. 62, Linguistic Society of America, 1935). It is all rather like arranging a baptism before the baby is born. In the end we may have to say that a set of phonemes is a set of letters. If the forms of a language are unambiguously symbolized by a notation scheme of letters and other written signs, then the word phoneme may be used to describe a constituent letter-unit of such a notation scheme. See also Trubetzkoy, *Anleitung zu Phonologischen Beschreibungen*, Édition du Cercle Linguistique de Prague, 1935.

the correlations make up a complex of phonetic relations which it is the business of phonetics to examine and describe and reduce to writing by means of notation.

It is an elementary fact that several sounds share similar articulation, e.g. **p, b, m** ; and several sounds may share the same sort of general attribute, e.g. presence or absence of voice, which is here termed the voice correlation. In French, **p, t, s, f** are all voiceless or breathed, that is they all share the negative voice correlation, while **b, d, z, v** are distinguished from them by the positive voice correlation.

The difference between **tɔ:** and **dɔ:** in English is a difference between negative and positive voice correlation, and if we add **nɔ:** we introduce a difference by nasal correlation. The same correlations distinguish **pɔ:, bɔ:,** and **mɔ:.** But the difference between **tɔ:** and **pɔ:** is articulation, and a similar articulation difference separates the other pairs **dɔ:** and **bɔ:, nɔ:** and **mɔ:.** We have also **kɔ:** and **gɔ:,** but do not use the nasal correlation in initial position in such contexts.

A number of theoretical difficulties in phonetics are due to the fact that the analysis of the living voice does not necessarily correspond to the letters of the roman alphabet serially employed to represent it. Philologists of the older school have often been charged with studying letters and typography, not language. And precisely the same charge may be brought against some phoneticians. Only the letters and types are different.

It is a mistake to suppose that the stream of speech is just a string of separate roman letters. The letters usually represent an articulation, possibly with one or two correlations such as breath-voice or nasality, leaving other correlations such as tone or stress to be separately indicated, or not indicated at all. In cases where we have two letters such as **s** and **z,** roughly representing the negative and positive voice correlation, people may also talk of the unvoiced **z** and the voiced **s,** using four categories. But what about **m, n, l** ?

The use of the length marks in the broad transcription of English is a practical convenience and works well. But we must not make the mistake of supposing the use of the length marks is

based on a scientific classification. The length marks are used in association with the symbols **i, a, ɔ, u,** and **ə.** But it must not be inferred that a two-term length correlation, relatively long and relatively short, gives for these five " vowel sounds " a ten-term series of vowel substitution-counters in a given type of context. For three of the vowel sounds, **i, ɔ,** and **u,** the relations can be expressed as follows: As **i:/i,** so is **ɔ:/ɔ,** and **u:/u.** But there is no second term for **a:,** and the relation **ə:/ə** involves another factor, the correlation of stress. The term **ə** can only occur in unstressed syllables, whereas all the other terms can occur in stressed or unstressed syllables. In dealing with vowels it is often found convenient to analyse out the length correlation from the articulation, even when it is not completely systematic.

There is no reason why the presence or absence of voice, which may be associated with all manner of articulations, should not be treated in precisely the same way as length, and regarded as a correlation. In which case there would be one lip-closure articulation with positive and negative voice correlation giving two phonetic substitution-counters, **p** and **b.**

The separation of articulation from the voice correlation is particularly important for my present purpose, which is to provide a sound basis for morphology. No semantics without morphology, no morphology without phonetics. Hence the need for this lengthy phonetic digression.

Phonetic analysis of the actual sounds English people utter has made possible a grammar of the spoken language. But phonetic letters sometimes obscure it. For sometimes we put to grammatical use merely an articulation, sometimes correlations, sometimes a complex of both. The two commonest affixed flexions in English are what may be called the *-s* flexion and the *-d* flexion. The *-s* flexion in itself is neutral or " multi-valent ", being put to several uses—plural and possessive of nouns, and third person singular of verbs. But in all these flexions we make use of articulation, or of what may be termed the " final " assibilation of the simple form. In the case of all stops and fricatives (except sibilant consonants themselves) this assibilation may be indicated

by adding **s**: **rends, rents, bægs, bæks.** This use of **s** is not in contra-distinction from **z,** as the two-term voice correlation is not possible in these contexts. Similarly either **t** or **d** could be used for the inflected verbal form, and as we are accustomed to **d,** we might write **bækd, bægd, stɔpd, rɔbd.**

Both the positive and negative voice correlation can be associated with all the English plosive and fricative articulations and *made distinctive use of,* except in the case of **r.**

The semi-vowel **j** is not divided by voice correlation, though in the case of **w** many people distinguish between **hwitʃ** and **witʃ, hwɔt** and **wɔt** (Watt). But in English the distinction of positive and negative voice correlation can never be combined with nasalization as it can in Burmese, for instance. So that when the same flexion has to be added to words ending with articulations with which both positive and negative voice correlation can be associated, it naturally employs merely an articulatory flexion, ignoring the voice correlation.

Nasals and liquids (**m, n, ŋ, l**) in English are not further differentiated by the voice breath correlation, so that *after them,* as after vowels, the voice correlation can have function. After the nasals and liquids (**m, n, ŋ, l**) the same process takes place, namely assibilation; but in these contexts, unlike the previous ones, the negative voice correlation may have lexical function, so that in order to represent this, we must either use both **s** and **z,** as in **wins** (wince) and **winz** (wins), **wʌns** (once) and **wʌnz** (ones or one's), or make use of additional orthographic devices which are not merely phonetically, but also linguistically or grammatically representative; e.g. as the length correlation in final nasals is not significant, we could write **winn** and **wʌnn** for the simple forms, adding **s** for the assibilation as in all other cases. This would then give **wins** (wince), **winns** (wins) and **sins, sinns.** This method of writing would indicate that such forms as **winns** consisted of a simple form **winn** + **s,** whereas **sins** would be a simple form without flexion. The same device, though with less phonetic justification, could be used to separate *fined* from *find,* e.g. **fainnd, faind,** or **ædz, ædds.** The present orthography *wince, wins, once, ones, adze, adds,* etc., is not altogether absurd. And

the use of one sign *s* for the plural is in the vast majority of cases quite unambiguous.

In such nominal and verbal flexions we are making use of an articulation in final position. In other morphological processes we make use of the voice correlation and sometimes the stress correlation. Take the noun **ri:θ** (wreath) and compare it with the related verb **ri:ð**, or the pairs **ju:s** and **ju:z**, **breθ** and **bri:ð**. In the formation of the ordinals, however, the articulation and the negative voice correlation are essential, e.g. **faiv, fifθ; twelv, twelfθ**. In **'prousi:ds** (n.) and **prou'si:ds** (v.), **'tra:nsfə:z** and **tra:ns'fə:z**, we make grammatical use of the stress-tone correlation.

To recapitulate : The stream of speech is analysed into elements or " units " by the substitution method. At the phonetic level of understanding phonetic substitution-counters will be studied in their relations to their phonetic contexts and within the phonetic structure or system.

Phonetic substitution-counters may be articulations, correlations, or combinations of these, or complexes of phonetic elements such as **hmw, hmy** in Burmese, or what have been called common consonant groups in other languages, **str, skw, kl** in English, **nkp, ngb** in Yoruba. This study of contextual substitution and contextual distribution establishes phonetic or minor function, and deals with the first small element of meaning at the phonetic level.

Morphological and syntactical functions will account for further components of meaning in grammatical contexts at the grammatical level of understanding. " I have not seen your father's pen, but I have read the book of your uncle's gardener ", like so much in grammar books, is only at the grammatical level. From the semantic point of view it is just nonsense.

The following sentence gives perfectly satisfactory contexts for phonetics, morphology, and syntax, but not for semantics : " My doctor's great-grandfather will be singeing the cat's wings." We make regular use of nonsense in phonetics, and so also do most grammarians. Even the anthropological Sapir offers an example

like " The farmer kills the duckling " [1]; Jespersen gives us " A dancing woman charms " [2] and " A charming woman dances "; and Dr. Gardiner makes shift with " Pussy is beautiful ", " Balbus murum ædificavit ", and Paul's example of " The lion roars ".[3]

The categories of morphology, and especially of the parts of speech, tenses, and cases, should be allowed to arise from the formal conditions of the language. Nouns and verbs in Arabic [4] can be formally recognized at sight or on hearing them, and so they can also in Yoruba. Nouns and demonstratives and invariables are formally distinct in most Bantu languages. Purely formal and positional differentiae should be used wherever possible. Beyond such simple categories very few technical assumptions would be necessary, because the form and order in which these elements are put together in the word or in the sentence are always given in the situation in which they are used.[5]

And now to illustrate this empirical analysis of meaning at the phonetic, morphological, syntactical, and semantic levels by means of examples. Let us begin with an example of the simplest context—a purely phonetic context, such as the English form **bɔ:d,** consisting of an initial **b** followed by **ɔ:** and then **d** in final position. What is the function or meaning of **bɔ:d** ? At this stage, only to be different from fifteen other forms, like **bi:d, bid, bed, bæd, ba:d**, etc., and forms such as **bɔ:t, pɔ:t, pɔ:d, dɔ:b.** The form **bɔ:d** can be used in contradistinction from the other forms and has its phonetic or purely formal place, at the phonetic or formal level of understanding. It is a lexical substitution-counter. As it stands, **bɔ:d** is what is termed a *neutral.* Now, if I ask you to put the form **bɔ:d** in your context of experience, you will produce verbal contexts such as " which **bɔ:d, bɔ:d əv stʌdiz**

[1] *Language* p. 86.

[2] *Philosophy of Grammar*, p. 166.

[3] *The Theory of Speech and Language*, p. 22; p. 243.

[4] See " The technique of formal description applied to a Palestinian dialect of Arabic ", by I. M. Huseini. *Proceedings of the International Congress of Anthropological Sciences*, p. 330, London, 1934.

[5] Dr. Straumann also employs formal and positional technique in his *Newspaper Headlines.* See footnote on p. 70.

or **bɔ:d tə deθ ?** " Or you will spell the words, knowing that spelling in that case means a good deal more than mere phonetic identification. Incidentally that is the main argument against phonetic spelling; it removes phonetic ambiguity and creates other functional ambiguities.

You can now associate various forms together in what I have called formal scatter and paradigm scatter.

You may place **bɔ:d** in the scatter of—

(1) bɔ:d, **bɔ:ds**
or (2) bɔ:d, **bɔ:ds, bɔ:did, bɔ:diŋ**
or (3) **bɔ:, bɔ:z,** bɔ:d, **bɔ:riŋ.**

By placing your form in series such as these, you identify it in (1) as a noun in the singular, in (2) as the simple form of a verb, and in (3) as the *d*-form of a simpler word-base **bɔ:**. But in the first case both forms are semantic neutrals. We might eliminate some of the " neutrality " by extending the paradigm scatter to include the complete formal scatter, derivatives and compounds. We should then have :—

(1) bɔ:d, **bɔ:ds, bɔ:drum, bɔ:dsku:l,** etc.
and (1*a*) bɔ:d, **bɔ:ds, bɔ:di.**

All this sort of thing can be arrived at merely by recollection, or by asking the native speaker, or by collecting verbal contexts.

The establishing of the three *sounds*, **b, ɔ:,** and **d**, as three phonetic substitution-counters, as being used in contradistinction from other counters in the same phonetic context, disposes of one component of meaning. But the distinctive use of **d**, for example, in this purely phonetic context has **not**, in any sense, *semantic* function. Without further contextualization in formal scatter or in verbal contexts we cannot even place **bɔ:d** in a morphological category as a part of speech. It is, except on the phonetic level of understanding, a neutral. If now I say to you " Not on the board ", you have it verbally contextualized, and another component of meaning, that is *morphological meaning* or function, is clear. It is a noun. Even now its semantic function is obscure. The whole sentence is semantically neutral. In a definite context of situation you would have the semantic functions determined (1) *positively* by the use of the words in

relation to the rest of the situational context, and (2) *negatively*[1] by what is termed *contextual elimination*. The presence of a chess-board might eliminate a commercial board or a board of studies.

I may say " Not on the board ! " and also " Not on the board ? " without considering semantic function in a context of situation, but in the purely verbal context merely at the grammatical level of understanding. There are two different types of sentence, one a statement and the other a question. These are not semantic but syntactical categories. We now see what is meant by a syntactical component of meaning.

To recapitulate, we have resolved meaning into five principal component functions :—

First, phonetic function for a sound as a substitution-counter, e.g. **b**, **ɔ:**, and **d**, the sounds having their places in the context and in the system of relations we call the phonetic structure of the language.

Secondly, lexical function of the form or word **bɔ:d**, as a lexical substitution-counter, distinct from say **pɔ:t**, or **bɔ:t**, or **kɔ:d**. Some sounds have only lexical function: for instance **bɔ:d** is distinguished from **pɔ:d** chiefly by the voice correlation which in this case has lexical function ; **kɔ:d** is distinguished from **bɔ:d** by different initial articulation as well as by the voice correlation,

[1] We are already accustomed to the use of the negative relation in our functional analysis. We have recognized the use of a phonetic substitution counter in *contradistinction* from other alternatives, and the use of positive and negative in connection with correlations. But in all these cases there is a positive contextual element and a complex of positive contextual relations. It was far otherwise with de Saussure, who even went so far as to say, in italics, " *Dans la langue il n'y a que des différences . . . sans termes positifs* " and " Il n'y a qu'*opposition* ". It might almost be said that the whole of his theory rests on negation. There was nothing new in this, of course. It is just possible that he had learned something of Indian philosophy. Such aspects of the philosophy of language had been discussed by Hindu, Jain, and Buddhist writers. Early Buddhist philosophy regarded meaning as a set of negative relations. According to the Buddhist philosopher, Ratnakīrti, " The essence of meaning consists in affirmation qualified by the negation of other objects." [See " Analysis of Meaning in the Indian Philosophy of Language ", by Siddheshwar Varma, M.A., D.Lit., in the *Journal of the Royal Asiatic Society*, January, 1925.]

and **kɔ:k** from **bɔ:d** by two differences of articulation and two differences of voice correlation with the associated differences of aspiration and vowel length. It is clear that the differences between lexical substitution-counters or words do not really correspond to differences of alphabetic arrangement. Articulations and correlations and complexes of these can have lexical function.

Thirdly, when you have **bɔ:d** contextualized as the *d*-form of a verb, the complex of articulation and voice correlation which we symbolize as *d* has morphological function, but, be it repeated, not semantic function.

Fourthly, if I pronounced the forms **bɔ:d̀** ! and **bɔ:d** ?, you would be in a position to assess the syntactical function of intonation and place the forms in syntactical categories without knowing any semantic function, i.e. apart from any actual situation.

Fifthly, if I now contextualize the word **bɔ:d** and turn to you, on this occasion, with the question " **bɔ:d** ? ", you may possibly reply " not really " or just " no " with a rising intonation, or " go on ", and in the several cases furnish contextual relations which determine the meaning. In such a context of situation you have what I propose to call *semantic function.*

The central concept of the whole of Semantics considered in this way is the context of situation. In that context are the human participant or participants, what they say, and what is going on. The phonetician can find his phonetic context and the grammarian and the lexicographer theirs. And if you want to bring in general cultural background, you have the contexts of experience of the participants. Every man carries his culture and much of his social reality about with him wherever he goes.[1] But even when phonetician, grammarian, and lexicographer

[1] An Englishman on " safari " in the wilds of Africa carries not only many English artefacts about with him, but even if there is no Englishman within a day's journey, he may have reason to exclaim in English when something suddenly goes wrong, or use his language to address animals, refractory Africans, and God, and in writing his own notes and to his friends, enemies and government, and he will, of course, have a certain amount of reading to do.

have finished, there remains the bigger integration, making use of all their work, in semantic study. And it is for this situational and experiential study that I would reserve the term "semantics".[1]

But even when we have arrived at the context of situation, we are not at the end of the "House that Jack Built". The rest of the contextualization process is the province of sociological linguistics.

Sociological linguistics is the great field for future research. In this short paper I can only indicate the difficulties and make a few tentative suggestions, first in connection with the very difficult problem of describing and classifying typical contexts of situation within the context of culture, and secondly of describing and classifying types of linguistic function in such contexts of situation.

Our greatest difficulty at present is the absence of any really well documented work on how we acquire our speech as we grow up. We cannot lay the blame on psychologists or sociologists, because it is much easier for a student of linguistics to acquire sufficient psychology and sociology for this work than for a psychologist or sociologist to acquire the necessary linguistic technique. After all, we are not aiming at linguistic sociology, but building on the foundations of linguistics. And as we have seen, without phonetics there can be no morphology of a spoken language, without intonation no syntax. And unless these are sound, there can be no semantics.

An example from the Society's Dictionary will raise the problem of categories for types of linguistic function. When the word *set* came to be done, it occupied eighteen pages and a column, and it extends to 154 main divisions; the last of these, *set up*, has so many subdivisions that it exhausts the alphabet and repeats the letters again down to *rr*.

Multiplying illustrative contexts might have gone on indefinitely

[1] Taking advantage of what Coleridge called the "desynonymizing" process, I would use the term "semasiology" for the historical study of changes of meaning. Another suggestion is that *phonetics* and *semantics* be regarded as branches of *general* linguistics, the corresponding fields in *special* grammar being *phonology* and *semasiology*.

and filled a whole volume. In practice, however, we find that these contexts can be grouped into types of usage; and even if we only employ the few social categories mentioned in the Dictionary, such as common, colloquial, slang, literary, technical, scientific, conversational, dialectal, and remember the principle of relative frequency however approximately, we shall be getting nearer to a practical handling of the social background of the usage of words in typical contexts.

What we need are more accurately determined linguistic categories for the principal types of sentences and of usage we employ in our various social rôles. Every one of us starts life with the two simple rôles of sleeping and feeding; but from the time we begin to be socially active at about two months old, we gradually accumulate social rôles. Throughout the period of growth we are progressively incorporated into our social organization, and the chief condition and means of that incorporation is learning to say what the other fellow expects us to say under the given circumstances. It is true that just as contexts for a word multiply indefinitely, so also situations are infinitely various. But after all, there is the routine of day and night, week, month, and year. And most of our time is spent in routine service, familial, professional, social, national. Speech is not the " boundless chaos " Johnson thought it was. For most of us the rôles and the lines are there, and that being so, the lines can be classified and correlated with the part and also with the episodes, scenes, and acts. Conversation is much more of a roughly prescribed ritual than most people think. Once someone speaks to you, you are in a relatively determined context and you are not free just to say what you please. We are born individuals. But to satisfy our needs we have to become social persons, and every social person is a bundle of rôles or *personæ*; so that the situational and linguistic categories would not be unmanageable. Many new categories would arise from a systematic observation of the facts.

We learn speech in the routine action of the daily round. Speech is very largely vocal action in control of things and people including oneself, action in relation or in adjustment

to surroundings and situations. We establish ourselves on speaking terms with our environment, and our words serve our familiarity with it. " The study of words in cultural familiarity " might almost describe this aspect of semantics.

We are born into a vast potential cultural heritage, but we can only hope to succeed to a very small part of the total heritage and then only in stages. There would appear to be a need to emphasize that for each stage of childhood and youth, of each type of child, there are a relevant environment and relevant forms of language.

There is a vast field of research here in what may be called the biographical study of speech. There is material for all the branches of linguistics in the study of all the various components of meaning in this linguistic life history of the young person as an active member of his age-group as well as a pupil, in his seven ages of childhood and youth.

There are great possibilities for " biographical semasiology " or the history of changes in meaning of such words as *father, mother, love, child, play, toy, work, money, clothes, drink,* etc. There have been a certain number of rather sketchy works on " biographical phonetics ", and odd fragments of " biographical grammar " ; but we are still without real knowledge on language development.

Connected with this biographical approach is the history of what we have called the accumulation of social rôles. The grown man has to play many parts, function in many characters, and unless he knows his lines as well as his rôle, he is no use in the play. If you do not know your part and your lines, there are no cues for the other fellow, and therefore no place or excuse for his lines either.

The multiplicity of social rôles we have to play as members of a race, nation, class, family, school, club, as sons, brothers, lovers, fathers, workers, churchgoers, golfers, newspaper readers, public speakers, involves also a certain degree of linguistic specialization. Unity is the last concept that should be applied to language. Unity of language is the most fugitive of all unities, whether it be historical, geographical, national, or personal.

There is no such thing as *une langue une* and there never has been.

This " free interlocking " of rôles is a great conservative influence, for the " same " word may be used in many different rôles, and may even be specialized in certain uses ; but so long as the specialized use does not acquire great intensity by virtue of context, or extend in frequency, other uses do not suffer. The entry of the broadcast voice into the homes of the people will have just so much influence as the context of listening provides. But it is one of many new technical instruments of the age which are breaking down barriers of all sorts and promoting " free interlocking " of social and linguistic circles, tending to prevent further linguistic subdivision and to strengthen the forces of conservation.[1]

For the adequate description and classification of contexts of situation we need to widen our linguistic outlook. Certain elementary categories are obvious, such as speaking, hearing, writing, reading ; familiar, colloquial, and more formal speech ; the languages of the Schools, the Law, the Church, and all the specialized forms of speech.

Then one might add such types of situation as those in which there is an " individual " or " monologue " use of language, and those in which there is a sort of " choric " use, as when vocal interchange merely promotes or maintains affective rapport. Malinowski has applied to this kind of linguistic behaviour the very happy phrase " phatic communion ",—" a type of speech in which ties of union are created by a mere exchange of words." [2]

Malinowski has also insisted on the specially interesting types of situation in which vocal interchange is just part of a job of work in hand, such as fishing, hunting, loading a truck, or the co-operative handling of tools and materials. He says the meaning of such words is " their pragmatic efficiency ". Most of our contemporary " eye-language " in notices and directions is of this kind.

A great deal of conversation or discussion may also be in

[1] See pp. 98–9, 110–113, *The Broadcast Word*, by A. Lloyd-James, 1935.

[2] See Malinowski's supplement, p. 315, in Ogden and Richard's *The Meaning of Meaning*.

preparation for concerted or socially determined action. All the language of public administration and government may be said to be the language of planning and regulation, the language of public guidance. The subsequent discussion of success or failure may be regarded both as " phatic communion " and as a situation in which something planned is either accomplished or ends in failure.

In more detail we may notice such common situations as

(*a*) Address: " Simpson! " " Look here Jones," " My dear boy," " Now my man," " Excuse me, madam."

(*b*) Greetings, farewells, or mutual recognition of status and relationship on contact, adjustment of relations after contact, breaking off relations, renewal of relations, change of relations.

(*c*) Situations in which words, often conventionally fixed by law or custom, serve to bind people to a line of action or to free them from certain customary duties in order to impose others. In Churches, Law Courts, Offices, such situations are commonplace. Your signature or your word is a very important piece of linguistic behaviour. In passing, we may notice that, when other things fail, judges often have recourse to very rudimentary semantics in their interpretations. There is a great field for practical semantics in the contextualization of crucial words in judicial remarks and judgments, particularly in the lower courts.

Such words are made binding by law, but many other words and phrases are used with a similar binding effect in everyday life, because their use releases overwhelming forces of public opinion, of social custom. " Be a sport! " " I know you won't let us down." One of the magic words of the age is *plan*. The mere use of this word and its derivatives releases certain forces of opinion and experience and gives the word weight. Its association with certain influential contexts gives it a power over us in this age of uncertainty.

Many more types of situation will occur to the interested student, but there is an obvious need for a more accurate study of our speech situations in order that categories may be found which will enable us to extend such social studies all over the world.

It is perhaps easier to suggest types of linguistic function

than to classify situations. Such would be, for instance, the language of agreement, encouragement, endorsement, of disagreement and condemnation. As language is a way of dealing with people and things, a way of behaving and of making others behave, we could add many types of function—wishing, blessing, cursing, boasting, the language of challenge and appeal, or with intent to cold-shoulder, to belittle, to annoy or hurt, even to a declaration of enmity. The use of words to inhibit hostile action, or to delay or modify it, or to conceal one's intention are very interesting and important " meanings ". Nor must we forget the language of social flattery and love-making, of praise and blame, of propaganda and persuasion.

The valuation or judgment in appraisement or blame of people, nations, books, plays are all of the greatest interest and far more stereotyped or socially conditioned than most people imagine. Most Englishmen will know the various reactions to " a good man ", " a good chap ", " a good fellow ", " a good sort ", " a good scout ". A study of the jargon of contemporary book reviewers in the press shows how all such routine situations involving public judgment tend to produce stereotyped forms of language. This does not mean that such reviews are become meaningless, but rather that a fairly simple set of stock indications are practically convenient.

A more formal and much broader classification of types of language function would notice various types of narrative—traditional narrative, sacred and profane, and the free narrative of ordinary intercourse. Narrative of this kind would include description, but exposition and argument might be examined also.

Finally it must be repeated that most of the give and take of conversation in our everyday life is stereotyped and very narrowly conditioned by our particular type of culture. It is a sort of roughly prescribed social ritual, in which you generally say what the other fellow expects you, one way or the other, to say.[1] The moment a conversation is started, whatever is said

[1] It will be agreed that the adequate description of speech-behaviour, viewed in this way, necessitates a highly developed phonetic technique.

is a determining condition for what, in any reasonable expectation, may follow. What you say raises the threshold against most of the language of your companion, and leaves only a limited opening for a certain likely range of responses. This sort of thing is an aspect of what I have called contextual elimination. There is a positive force in what you say in a given situation, and there is also the negative force of elimination both in the events and circumstances of the situation and in the words employed, which are of course events in the situation. Neither linguists nor psychologists have begun the study of conversation; but it is here we shall find the key to a better understanding of what language really is and how it works.

On a much wider basis, but none the less a branch of linguistics, is the study of dialects and languages as organs of cultural *élites* or other special social groups, e.g. Medieval Latin, the English " governing voice ", Swahili, Classical Arabic, and also as channels or vehicles of culture contacts, as mechanisms of culture diffusion, e.g. French in Egypt, English and Russian in Asia.

In studies such as these in the past there has been too much vague speculation about " influences ", and not enough accurate investigation into the actual mechanisms and channels of culture contacts and culture " movements ". Who are the " culture-makers " ? Who are the " carriers " of the particular cultural tradition, of the particular pronunciation, word, dialect, or form of speech ? Is the number of " carriers " increasing or decreasing,

The close connection between the practical contextual view of speech and the scrupulous formal technique here described has recently been so well expressed by one of my pupils, Fritz Güttinger, that I take the liberty of quoting it at length. It follows also, of course, that loose linguistic sociology without formal accuracy is of little value. " Zu den nachhaltigsten Eindrücken, welche man von der programmatischen Schrift J. R. Firths über den Sprechvorgang, wie auch von seiner Lehrtätigkeit am University College London davonträgt, gehört die Einsicht, dass die Spielregeln der Sprache und des Sprechens im Grunde etwas viel Roheres sind, als man zu glauben gewohnt ist. Was für Folgen dies für die allgemeine Sprachtheorie hat, braucht hier nicht ausgeführt zu werden. Daraus, dass das Zweckhafte, Handlungsmässige der Worte und Sätze zur Betrachtung abgesondert wird, ergibt sich letzten Endes die Notwendigkeit, die Formenwelt nach streng formalen Gesichtspunkten zu beschreiben."—*Neue Schweizer Rundschau*, July, 1935, pp. 176–7.

and why? What is the mechanism of "transmission" from "carrier" to "carrier"? Where is a particular culture trait or linguistic habit at its best, in its "optimum 'locale'", and why?

The whole problem of translation is also in the field of semantics, but is much too vast to be entered upon here.

The above review of the wide field of general semantics implies rather a different general philosophical attitude towards speech from that which has set our scale of linguistic values hitherto. But I am convinced that the greatest need of linguistic scholarship at the present time is a new outlook over a much wider field of life in company with others looking through adjacent windows converging on the same scenes. The new philosophy, the new outlook, means new values in scholarship, but not necessarily in conflict with the older values.

The technique I have here sketched is an empirical rather than a theoretical analysis of meaning. It can be described as a serial contextualization of our facts, context within context, each one being a function, an organ of the bigger context and all contexts finding a place in what may be called the context of culture. It avoids many of the difficulties which arise if meaning is regarded chiefly as a mental relation or historical process.

By this time we are accustomed to the subdivision of meaning or function. Meaning, then, we use for the whole complex of functions which a linguistic form may have. The principal components of this whole meaning are phonetic function, which I call a minor function, the major functions—lexical, morphological, and syntactical (to be the province of a reformed system of grammar), and the function of a complete locution in the context of situation, or typical context of situation, the province of semantics.

In conclusion I should like to make two suggestions:—

First, that steps should be taken to compile a dictionary of English linguistic terminology, with or without French and German equivalents.

Secondly, that the Society might promote research into Present-Day English by inaugurating a Dictionary of Spoken Usage and Idiom.