DIRECTIONS IN MODERN LINGUISTICS

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1.0. Linguistic science is today in every sense of the word an international science. Few disciplines can lay better claim to this term than ours, in view of its universally and specifically human subject matter, as well as its bearing on the interrelationship and communication of nations. Even within our generation a vast expansion of linguistic study has taken place when compared with the preceding one. It is characteristic that around 1930 contributions to phonemics theory were being made by men as widely scattered as Trubetzkoy in Austria and Yuen Ren Chao in China. This was already a forward step over the much narrower field of Rask and Grimm, but we have seen a still more intense effort in the last two decades. From the occasional contributions of isolated professors we have in our own country proceeded to a concerted and eager program of linguistic research sponsored by a whole group of scholars working together in a vigorous and well-knit Linguistic Society.

1.1. Once we have granted that American linguistics is today in a more flourishing state than at any time since the founding of the Republic, we must go on to say that this is not the whole story. The very growth of an independent group of linguists has promoted a kind of scientific isolation, with even a hint of arrogance, which can only be deplored by those who, like myself, believe that our science should continue to be international. American linguists are finding it increasingly difficult to read European writings in our field; younger linguists are neglecting the older writers, so that we are in some degree losing contact both with the tradition of linguistic science and its present-day representatives in the rest of the world. Rarely does one see a reference in American writings on linguistic theory to the works of de Saussure, Trubetzkoy, or other European writers, although they were the thinkers who gave us the instruments with which we work. I yield to no one in my admiration for Bloomfield and Sapir; but I regard it as a kind of provincialism to suppose that all sound linguistics began with them.

1.2. Some of the disinterest of American linguists can be traced back to the rapid growth of a new linguistic terminology in this country among those who call themselves descriptive linguists. Those who have acquired this terminology are often unwilling to make the effort needed to translate other terminologies into their own language. They assume that those who use different terms are either talking nonsense or are confused in their thinking. This criticism applies equally, of course, to those European scholars who overlook the contributions

1 Delivered as the Presidential Address at the meeting of the Linguistic Society in Chicago, 29 December 1930. The present form of the paper owes much to discussion with colleagues at the University of Wisconsin.

2 Cf. SLR 8:8 (1950), where the label 'unscientific' is applied to 'much of the European structural studies'; ibid. 8:100: 'the usual kind of European philosophizing on the basis of insufficient evidence'.

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of Americans. It will be the purpose of this paper to take up for discussion some aspects of this movement toward a refinement of linguistic method and terminology which has been the most productive development in American linguistics in recent years. As an observer rather than a participant in the movement I may be able to give a certain perspective which other linguists will welcome. Even if I should fail to enlighten, I hope I may succeed in awakening discussion. Primarily I am interested in contributing to that goal which our school of philosophy has called the Unity of Science.

2.0. The past decade has seen the appearance of two or three articles and books each year devoted to the techniques of linguistic analysis. At first the emphasis was on phonomic techniques, but this has shifted to the wider fields of morphemics and syntax. New terms have been created whose purpose has been to make research techniques explicit, so that we may talk not merely about language, but also about how to talk about language. Among logicians it has become standard practice to refer to such a terminology as a metalanguage, which is defined as 'language which is used to make assertions about another language.' I cannot find that American linguists have used this term, but it seems a useful one and I should propose its adoption. The discussion of linguistic research techniques is not a linguistics as we have known it, but rather a metalinguistics. It is merely unfortunate that Trager already has proposed the term metalinguistics for a field which has generally become known as semantics. This usage should be rejected in view of the quite different meaning given the word


4 Some of the more important are: Bloch and Trager, Outline of linguistic analysis (Baltimore, 1942); Harris, Morpheme alternates in linguistic analysis, Lg. 18:160-69 (1942); Pike, Taxemes and immediate constituents, Lg. 19:65-82 (1943); Harris, Discontinuous morphemes, Lg. 21:121-7 (1945); Choi, The logical structure of Chinese words, Lg. 22:1-13 (1946); Harris, From morphemes to constituents, Lg. 22:201-63 (1946); Bloch, Studies in colloquial Japanese, JAOS 66:37-109 (1946), Lg. 22:200-48 (1940); JAOS 66:30-15 (1946), Lg. 26:80-121 (1950); Wells, Immediate constituents, Lg. 20:83-117 (1947); Voydlin, A problem in morpheme alternants and their distribution, Lg. 23:214-54 (1947); Pike, Grammatical prerequisites to phonemic analysis, Word 3:152-72 (1947); Hockett, Problems of morphemic analysis, Lg. 23:310-2 (1947); Bloch, English verb induction, Lg. 23:209-418 (1947); Pike, Phonemes (Ann Arbor, 1947); Bloch, A set of postulates for phonemic analysis, Lg. 24:3-67 (1948); Harris, Compositional analysis of a Hebrew paradigm, Lg. 24:87-91 (1948); Voydlin, Distinctive features and meaning equivalence, Lg. 24:123-5 (1948); Nida, The analysis of grammatical constituents, Lg. 24:168-77 (1948); Pittman, Nuclear structures in linguistics, Lg. 24:287-92 (1948); Nida, The identification of morphemes, Lg. 24:414-41 (1948); Wells, Automatic alternation, Lg. 24:293-16 (1949); Nida, Morphology, 2d ed. (Ann Arbor, 1949); Jones, Description of language design, Journal of the Acoustical Society of America 22:570-9 (1950).


4 Cf. C. H. Brinton's use of 'meta-research' in this sense, Acta linguistica 5:1-14 (1945-46). L. Hjelmslev uses 'meta-analysis' in his work Omkring sprogets grundbegge (see fn. 8).

7 George L. Trager, The field of linguistics 2 (Norman, Okla., 1949).
by the related discipline of logic. If semantics should be an undesirable term, there is always ‘ethno-linguistics’ or perhaps ‘socio-linguists’. In the present paper I shall find it convenient to apply the term METALINGUISTICS to the kind of research that has brought forth such new terms as PRONON, MORPH, SUBSTITUTION, CONSTITUTE, FOCUS CLASS, and TACTICS. These words are part of a new metalanguage created by American linguists, which is quite baffling to those students of language who know only the terms of our traditional schools of grammar.

2.1. One would not expect it from reading recent writings by American metalinguists, but it should be pointed out that a similar movement has been going on in Europe over the past dozen years. I am referring to the recent publications of Louis Hjelmslev and a group of scholars associated with him in the Linguistic Circle of Copenhagen. Hjelmslev made up the term CLOOSEMANTICS to describe his theory, but he has in reality created a new metalanguage. Unfortunately his chief exposition of the theory has so far been printed in Danish only; it appeared in 1943 under the title Omkring sprogteoriens grundlæggelse (Concerning the foundations of linguistic theory). The real difficulty is not in the Danish, however, which is readily accessible to any one who knows German; the problem facing the reader is the abstractness with which the theory is formulated and the comparative lack of illustrative material to make clear its bearing. Some of us find it hard going because we do not have an adequate training in mathematics or symbolic logic to follow so closely reasoned an argument. More recently a volume of so-called ‘structural studies’ based in part on Hjelmslev’s theories has appeared as Volume 5 of the Travaux du Cercle linguistique de Copenhague. Since all of these appear either in French or English and represent more or less concrete applications of the theory, they will undoubtedly engage the attention of more linguists than the previous writings by Hjelmslev himself.

2.2. It is not my purpose to present an analysis of Hjelmslev’s theory nor an evaluation of its associated procedures. I merely wish to point out that in Europe a new metalanguage is being shaped which is at least as different from that of our school grammars as is the American metalanguage. The two are as mutually incomprehensible as French and English, and we shall soon need a bimetalurgical lexicon to translate from one into the other. We are reaching a point where the metalanguage of linguistics is falling apart into metadialects, jeopardizing the unity of our science. Even among American metalinguists we note the rise of what may be called metadiolects, which make it confusing to follow recent discussion. Whatever differences of emphasis and approach there may be between the American and European schools, it is my conclusion after making an effort to assimilate the leading features of each, that they are talking about the same thing, and struggling toward the same goal.

2.3. In principle they are both attempting to give a mathematical formulation to linguistic statements. Harris has described his syntactic analysis as ‘mathe-
mational"; Hjelmslev declares his purpose to be the creation of a "linguistic algebra." 4 Harris expressly points out that his analysis is purely formal; Hjelmslev describes his theory as being based on "an exclusively formal system of postu-
lates." 5 Both are trying to get away from the haphazard empirical terminology of traditional linguistics and establish a metalanguage which will be available in the synthetic description of every language. But their vocabulary seems to have little beyond the word reoccurs in common. Both groups employ a prin-
ciple of analysis which might be called the bipartite division: they divide the utterance into two (or occasionally more) parts, and then divide each of these until they have realized the ultimate constituents. 6 Hjelmslev calls this the inductive method; Wells calls it an Immediate Constituent analysis. What Wells calls a constituent, Hjelmslev calls a class; what Wells calls a constituent, Hjelms-
lev calls a derivite. 7 What Wells calls a focus class, Hjelmslev calls a paradigm; what Wells calls a sequence class, Hjelmslev calls a chain. The technique which both groups use to determine the constituents of any given sentence turns out to be one which I shall here call explicandum. By trying to replace any part of an utterance with other linguistic material it is possible to determine whether the utterance is divisible and how best to divide it. This technique is called anagogery by Harris and those who have followed him. 8 Hjelmslev calls it the construction of n-ary, and makes it fundamental to his whole theory. 9 Perhaps the most important common feature is the application of this basic technique to all kinds of linguistic material, at every level of the language, from the com-
plete utterance down to the phonemes. 10

2.4. It is quite possible that I shall be challenged in my comparison of these two because of the weight given by Hjelmslev to meaning, while most American metalinguists do to them to utter the aspect of language. Actually, it could rather easily be shown that the difference here, too, is largely one of terminology. Hjelmslev sets up a fourth division of the linguistic universe. At one end is the real world of experience, which he calls the context; upon this is imposed a pattern, which he calls the contrarum. In intimate liaison with this form

9 Harris, Lg. 23.158; Hjelmslev, 608: 72; Ch. Hose, p. 22: 700. "We must make our "linguistic" a kind of mathematics, within which incomparability is by definition impossible."

10 Hjelmslev, Lg. 23.50; Wells, Lg. 23.80; Harris originally assumed a segmentation, and then worked his way up to more inclusive classes from morphological units (Lg. 23.178). Wells showed how an analysis in terms of immediate constituents could be worked from the whole down, and pointed out that it matters little in which direction one works (Lg. 23.50). Hjelmslev grants the same when he defines induction "working up" and deduction "working down" from the context to the utterance, the priority of deduction is based on the sound observation that the linguistic must start with the unsynthesized whole text.

11 Wells, Lg. 22.155; Hjelmslev, 608: 40.

12 Harris, Lg. 22.149 # 12. (cog.)

13 Ch. Hjelmslev, 608: 72: "For an understanding of the structure of language it is of the greatest advantage to be induced to study also in all the other inventories of the language, regardless of their degree or place in the system." Harris writes of his morpheme analysis, Lg. 15:78: "It shows that we can arrange alternates into units in exactly the same manner as we arrange sound types (phonetic variants) into phonemes."
space and time can be regarded as "phenomenally similar." The determination thus arrived at may be referred to as the "inversion" of the item concerned. It is characteristic of the new mathematical approach that the emphasis has been shifted from identity to "phenomenology." The distribution of English (a) includes the fact that it is always a syllable, that it can be followed or preceded by two, or three consecutive or by two, and that it contrasts in crossed syllables with all the other vowels. This is perhaps the chief discovery made by modern linguistics: that it is possible to find relationships between linguistic items by studying their distribution. But here we are confined mainly within the given language being studied. We are no longer concerned with general standards, only with the kind of environment in which the item is found, and a comparison of those environments with the environments of other items. This traditional linguistic analysis usually states the environment of at least some linguistic items, especially if morphemes entering into syntactical arrangements, but the emphasis on this fact, as distinct from linguistic study is entirely due to the structural effects of linguistics from de Saussure on.

3.1. Morphological items have a double identity, phonetic as well as semantic.

Their phonetic identity can hardly be described in terms of the description already made of the sounds. But their semantic identity has traditionally been established by external standards of reference. Apples have been described by reference to an actual apple or a picture of the same; a word tace that of a tace has been described by reference to such terms as 'subject,' though many nouns obviously do not name objects. Here, too, the reason now is to re-frame an emphasis on distribution or function. A noun is classified by its possibilities of combination, which means its distribution in relation to other forms in the lexicon. Nouns are not now the names of things, but a class of forms which occur with certain other forms. This cleavage between the traditional emphasis on identity, whether of sound or meaning, and the newer emphasis on distribution, seems to come through in the field of linguistic description. Distribution is the key to phonemics as distinct from phonetics, and to morphemics as distinct from semantics. It is the common factor in the mathematical approach to linguistic description.

3.2. The method which the metalanguage recognizes as fundamental in their analysis, namely replacement, is primarily directed in the discovery of distribution. 9 In some ways this technique is analogous to the natural sciences' controlled experiment. Just as the latter varies a single factor while keeping the rest constant, so the linguist studies the possibilities of variation in terms. Whenever he can, he finds differences by only a single factor, if he finds a native speaker, he manufactures such utterances by picking for repetition of the same utterance with replacement of a single factor. The fact

9 This distinction between identification and distribution of morphemes is that the one is always negated by the other, and the one always gives rise to the other, as in the case of "subject." Hence, in the case of "subject," the one is negated by the other.

87 This distinction is found in "The study of the word" by Troubetzkoy, Grundriss der Phonetik 32-4 (CUTP 1, Prague, 1930), words of sound sounds being "interchangeable;" the term "interchangeable" was first used in America by Morris Swadesh, The phonemic principle, Lg. 39 (1934).

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that such repetition is possible given the great advantage over other social sciences, whose situations can rarely be duplicated as will.

3.3. As generally practiced, replacement means the actual substitution of one word element for another, as when y and are replaced by it and in, or the John and the king of England are used alternately in the sentence The king of England speaks Parliament. By such a test it is possible to isolate any linguistic element and discover its possible environments. Following a usage of Wells, we shall call the element being isolated a root and the rest of the sentence its environment. One can either keep the focus constant and change the environment, or change the focus in a constant environment. A special type of replacement which is not mentioned in the literature, but which would seem to be of the utmost interest, is the replacement of a sentence. As applied to a sentence which Wells has analyzed at some length, The king of England speaks Parliament, leads to an analysis of the king of England into two sentences, the king and of England, and the rejection of the other possible analysis into the root of king of England. This is because one can say The king opened Parliament, but not King of England opened Parliament. Of the two constituents the king of and England, the latter is dispensable, the former is not.

This leads to a step further, and shows them into respectively nuclear and satellite to adopt the terms used by Firth and Pike. 10 The distinction is an essential part of a distributional analysis, for the only part of the environment that is relevant to the place of English in the meaning the king. A different kind of reference is discovered when we study the relation between the king of England and speaks Parliament. These two facts are not nuclear and satellite, but two nuclei: since neither one is more dispensable than the other, they may be called "two nuclei." In a sentence like Jack and Jill went down the hill, we have two nuclei in the form Jack and Jill. Since either one is dispensable, but not both, we may call them "semantic nuclei." The same analysis can be applied, on the phonological level, to a pair of words like sit and stood. Sit and stood are not in isolation, but showing through all pairs of lexical items in sit is a satellite to the root of sit; the same with stood, but the final outcome is not parallel, for the law of one can be cut away while the law of sit cannot. This establishes the sit of as a true noun, while the verb; it is another way of saying that the word of as a checked rather than as a free word. It may be remarked in passing that the three possible relationships have derived from a distributional analysis, namely nucleus, satelite, and non-entity, corresponding exactly to the basic functions in Frejard's metalanguage which is cells, intercellular (a presuppose), but not vice versa, hypertext (i.e. a presupposes one another), and intercollative (i.e. a four occurs together without presupposing another).

This little sample of distributional analysis shows that the distribution of a focus is not a statement of all its possible environments, but only of those that prove to be relevant when a test of replacement is made. We shall

94 Lg. 29-34 of Firth's Prose, I, which is the rule made for conceptually a semantic.

10 Lg. 21-34-37. 21-38-32.

21 2 eck 5
here call such a set of relevant environments the frame of a given focus, defined as its immediate satellites and related models.

3.4. Distributional analysis with the establishment of the foil and its frames. The next step is the organization of the foil into larger classes so that the structure of the language may appear. Distributional analysis would involve only a compaction of frames; but there is a previous step for which our procedures so far has not prepared us: we wish to identify those foil which are the 'same' and those which are not. This step is needed if we are to see what we are talking about. It is all very well to say that in bitter and d in ladder are in contrast; but unless we know what i and j are in some kind of phonetic terms, we cannot identify them with anything else, not even the i and d in kids and kiddy. Having isolated the focus or 'in sound', we need to know something of its meaning to decide whether the foils are in i or j in or in later or that in runner. The comparison of frames involves comparable problems, as we see from the difficulties encountered by Bolch in defining distributional environments.85 Our general principle is that if two different foils have identical frames, they are in free variation; if they have some frames in common, they are in contrast; if they have no frames in common, they are in complementary distribution. But problems of identity cut across this scheme at several points. By 'identical frame' one means not merely the phonetic environment, but also the morphological environment. Non-identities may also be seen in the potential appearance of every variety of sound in every occurrence of a word. To check this is utterly impossible, and we are here faced with an unfathomable bit of theory. It also appears that some foils which have frames in common are really in free variation in those foils; so he has set up a special category of overlapping distribution. Finally, he finds that those which have no frames in common are sometimes prevented from being identified by their phonetic nature, e.g. the initial and final sounds in long. At every step it is necessary to appeal simultaneously to identity and distribution to establish the kind of classes which phonemists with the establishment.

3.5. The double standard is obvious in Bolch's definition of the phoneme as 'class of non-contrastive and phonetically similar phonemes'. Groups merge into a single member if they are 'non-contrastive distribution' and mean the same. The need of thus setting up two essentially incomparable criteria for the unit has troubled the morphologists and led to various efforts to eliminate the criterion of identity. For phonemes this means the elimination of phoneme, which was a relative advances by some members of the Prague school. Historically, asks for a 'linguistic-sounds theory of composition, the reason is not a phonemics and whose theory of content is not a semantics. Attempts have been made to define sound classes pure in terms of distribution, e.g. in

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85 Note this is for supra-glossary 12:1-5 (1933).
86 Note that Wells describes classes established by distributional analysis as a roughly equivalent class (Le. 25.82), while Barr gives it to the linguistic to decide which cases to join in order to get 'the' linguistic-sounds theory of composition.
87 Tague analyzed American English in 1949 as having six vowels, in 1947 as having nine (Le. 25.111); Hockett analyzed American English disyllables in 1933 as single homonyms, in 1947 as double (Le. 25.117); Hockett analyzed the Chinese aspirated stops as single consonants (in spoken Chinese: basic sound), in 1947 as clusters with j (LACH 4.284); Bolch's phonemic analysis of Japanese in 1946 has several features, including a phoneme or, which he described in 1950 (Le. 25.22).
used. By a technique of replacements, we could find out, as in the game of twenty questions, which of various possibilities was intended. But it is important to note that only a native can make such replacements; and by definition a native knows the meanings of the forms he uses. Joe in his previously cited article gives a purely distributively defined meaning of "as the set of conditional probabilities of the occurrence of a morpheme in context with all other morphemes."

Now it would seem that only a lifetime of experience can enable us to establish statistically the conditional probability of occurrence of even a single morpheme. But the native to whom we appeal for information about the meaning of a word has learned this in substantially the same distribution of other speakers of his language. What he gives us as its meaning is essentially a replacement, i.e., a synonym or a circumlocution which has approximately the same distribution in the language. But he can do so only because he has a constant to which he may refer the question, namely his non-linguistic experience. In using his definitions, we are thus not merely adopting a short-cut of analysis, as is alleged by the metalinguists, but we are basing ourselves on the necessary foundation of language, its symbolic value. We have all had the experience of misunderstanding certain utterances because we were ignorant of crucial facts in the social situation which did not appear from the form of the utterance. Harris has analyzed the structure of the sentence "the man his a good husband because she made him a good wife." He contends that the meaning is clear because of the structural fact that the him in the second clause can be replaced by the expression for her. But one could just as well say, and with greater probability of being right, that it is clear because we know that a man cannot be a wife. 3.7. This constant effort to diversify distribution analysis from the determinations of identity is indicative of the essentially mathematical nature of distributional criteria. The technique of replacement is based on assumptions of identity which distribution alone cannot supply. Neither focus nor frame has anything but a relational value. For practical purposes we assume that the focus remains constant while we change the frame. But it is obvious that this is only a convenient fiction. In the case of phonology it has been shown by spectrographic analysis that each phone is affected by its environment; focus and frame are both variables in a common function. It is not until the relationship is tied to an external constant that we have a positive identification of linguistic description. This is apparent in phonemic analysis, where we have no criteria for identifying phones until we have determined their environment, and no way of determining the environment until we have identified the phones. Since morpheme boundaries are part of the environment, there appears to be no good way of entirely isolating phonemic and morphemic analysis. Zepel has shown that in German our "either to analyse such words as Snachen and A'kinnen into two morphemes first or else leave the palatal and labial variants of both and ask as separate phonetic."

Pick's contention that morphological criteria must be admitted into phonetic analysis seems to me inexcusable unless one can find external, objective criteria which will judge either the phonemes or the morphemes to some specific reality. In his analysis of immediate constituents, Witek grants that a certain circularity is involved; a characterization of all the utterances of a language is presupposed for an analysis which is made in terms of the constituents of these utterances. It has been a constant charge brought against the metalinguists that their procedures have seemed circular. They have often appeared to adopt arbitrary and unsupported principles of analysis, more characterized by esthetic than by scientific validity, contributing more to elegance than to learning. Perhaps we may recognize in what this is the result of distributional criteria. The resulting circularity is probably no fault in linguistics than it is in mathematics. Mathematics is also circular in that it does not depend for its validity on the existence of any part of reality.

4.0. The metalinguists have shown their impotence with criteria of identity by seeking to exclude from the field of linguistics those disciplines which primarily concern themselves with these. Hillemeyer writes of the "heuristic presumed linguistics" which is not, like his, based on criteria internal to the language being described. Zepel refers to phonemes as "prescriptive": only the analysis of language systems will be valid to the field of linguistic proper. Already Bloomfield excluded syntax as an essentially non-linguistic activity. The present paper has tried to show that distributional analysis must go hand in hand with phonetic and semantic identification in any total description of language. It follows that I cannot accept the doctrine of the metalinguists that only relations (or functions in Hillemeyer's term) are relevant. The contributions of the metalinguists are important, even crucial, but they occupy somewhat the role of mathematics in a science like physics. There is a growing disengagement between the mathematical linguists, or metalinguists, and the physical linguists, whom I should call just plain linguists. A linguist must not only be a student of formal linguistic relationships, but also something of a physical scientist on the phonetic side, and something of a sociologist on the semantic side. It has been suggested by Zepel that phonetics should be studied, given to the physical and semantic sides of the sociologists. I cannot see any evidence that he himself plans to follow this advice, and I have tried to show that it is a priori impossible. We must rely on these sciences for data of various kinds, and the actual tying up of linguistic relationships to concrete sense data is still an essential part of our science. The others cannot tell us which aspects of sound and meaning are relevant to our symbols, nor why our symbols should be relevant in various contexts. The metalinguist and the physical linguist will need to continue their cooperation if the linguistic systems are to be established without circularity and given unidirectional validity in a real world.

4.1. In conclusion I wish to return to my original topic of metalinguistic
unity. Hockett has described the purpose of metalinguistic discussion as the attainment of 'greater mutual intelligibility among the writers of grammar, and in terms thereof, more accurate pictures of the languages we describe.' This is a valuable goal, but for the time being, at least, the tendency toward economy of description has resulted in making many descriptions quite unreadable for other linguists. Present-day descriptions teeter like a page of symbolic logic and lack entirely the lucidity, even charming quality of the traditional grammar. I would not go back to those grammars, but only suggest that economy may not always be a virtue; in some cases it results from poverty, and in any case it must be replaced by an expansion into real sounds and real meanings whenever it is put to any practical use. I do not believe that the present metalinguistic discussion will finally settle the advantage of one type of linguistic analysis over another. The kind of analysis that is 'best' is determined by extra-linguistic goals. But in giving us a metalanguage with which to talk about various kinds of analysis, and in thereby enabling us to point out where the analysis of the past have differed or fallen by the wayside, the metalinguists have done us a real service. If only they would get together and work out a really usable esperanto for metalinguistic purposes, instead of promoting the present babel.  

4.2. Whatever the metalanguage used, the goal of our investigation is the structure of the language used by actual speakers. Whatever we may mean by structure, the one thing we can be sure of is that it is no more like the language itself than a botanist's description of an apple is like an apple. You can't eat the botanist's description and you can't talk the linguist's description. But once the apple or the language comes before your eyes, a good description will make it possible to identify it, and even to predict some few of its major sensory features.

57 Leq. 21. 244, fo. 38.
58 It will appear from the foregoing that I agree with the criticism of the Hjelmslev theory advanced by Crei H. Røgenstein, The technique of linguistic description, Acta linguistica 5.1-14 (1952-49), and a problem of methods in linguistic science: The meaning of the technical terms, Norsk idéskrift for språk- og kultur 14, 101-238 (1947).