

On Saussure and Hjelmslev, their Structural Viewpoints¹

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I. Introduction

1. The nineteenth century is called the Golden Age of historico-comparative linguistics, while the early half of the twentieth the age of structural linguistics. The greatest theoretician of the new era, and the one who first elaborated the structural principle into a well-defined theory, was no doubt the eminent Swiss comparativist F. de Saussure. The Copenhagen school led by another renown structuralist L. Hjelmslev is sometimes called neo-Saussurianism because no school has so strongly insisted that its roots are in Saussure's teaching as Hjelmslev's. Hjelmslev more than any one else has the merit of acclaiming Saussure as the founder of linguistic structuralism.

2. The aim of this paper is to see how these two scholars deal with a few of the most important and well-known linguistic aspects and how their views are related and different. For this purpose, I confine my attention mainly to Saussure's *Cours de linguistique générale* 1917 (also to W. Baskin's English translation) edited and published by C. Bally and A. Sechehaye, and Hjelmslev's *Prolegomena to a Theory of Language* translated by F. J. Whitfield.² In a sense, it may be unreasonable to compare the "Cours" with the "Prolegomena" because "Cours" is not the systematic statements on general linguistics by Saussure himself, while in "Prolegomena" Hjelmslev avowedly is providing only the prolegomena to a theory of language, not the theory itself. Therefore, I shall not attempt to make any discussion of

¹ A report made for a University of Hawaii seminar in the history of linguistics led by Prof. G.W. Grace in 1967.

² I have referred to some other authors as shown in the "References".

merits and demerits between them, but simply present their views. Nor am I in a position to make any critical comments.

3. As will be seen, there are not many points in which the two authors are exactly in agreement, but two of Saussure's theses are undoubtedly basic to Hjelmslev's theory: (a) that a language is a system of values; and (b) that language (*la langue*) is a form and not a substance.

II. Study of Language

1. According to Saussure, the linguistic phenomenon always has two related sides, each deriving its values from the other: articulation vs. acoustical impression, sound vs. thought, individual side of speech vs. its social side, system of speech vs. its evolution, etc. In studying these dual sided linguistic phenomena, Saussure insists that we must from the very outset put both feet on the ground of language (*la langue*) and use "langue" as the norm of all other manifestations (physical, psychological, etc.) of speech, since "langue" alone 'seems to lend itself to independent definition and provide a fulcrum that satisfies the mind.' (Course p. 9).

2. Hjelmslev bases his theory on the thesis that in linguistic phenomena there are two basic dimensions: process vs. system on the one hand and content vs. expression on the other. Thus, for every process there is a corresponding system and any process can be analyzed into a limited number of elements recurring in various combinations, while there is content interdependent with expression. He makes the point that as language is inseparably bound up with many aspects of human life and behavior, most attempts to subject it to investigation have involved the study of language not as an end in itself but as a means to 'a knowledge whose main object lies outside language' (p. 4). In order to establish a true linguistics, linguists must attempt to grasp language, 'not as a conglomerate of non-linguistic phenomena, but as a self-sufficient totality, a structure *sui generis*'.

3. In the above, it is clear that both authors insist that language must be studied autonomously. However, there is one point of basic difference: Saussure seeks to recognize and describe language in terms of a system but his method of establishing the system uses procedures that rely upon extra-linguistic information (for example, psychological, sociological). Hjelmslev attempts to construct a theory of language which also recognizes that language is a system, but he tries to find some means of verifying the existence of this system that does not depend upon non-linguistic information for its validities.

III. Saussure's "langage", "langue" & "parole"

1. This distinction is of fundamental importance to Saussure all through his discussions. Within the total phenomenon represented by "langage" (speech) Saussure first singles out two parts: "langue" (language) and "parole" (speaking). "Langue" is "langage" less "parole." "Parole" is an individual act. Within the act, Saussure distinguishes between (a) the combinations by which the speaker uses the language code for expressing his own thought, and (b) the psychophysical mechanism that allows him to exteriorize those combinations. Whereas speech is heterogeneous, "langue" is homogeneous. It is a system of signs. "Langue" is the social side of speech, outside the individual who can never create nor modify it by himself. However, it is concrete, no less so than "parole"; it can be localized in the limited segment of the speaking-circuit where an auditory image becomes associated with a concept. According to Saussure, the main object of linguistics is "langue," a system of signs.

2. In discussing the immutability of signs, Saussure says that the thing which keeps "langue" from being a simple convention that can be modified at random by interested parties is not its social nature but rather the action of time combined with the social force. Thus he points out the importance of the time factor which causes "langue" to tend to be immutable.

3. Saussure's distinction between "langue" and "parole" is compared and commented on by Chomsky in relation to his competence-performance distinction.³ Chomsky says that his conception of "langue" differs from Saussure's in that Saussure regards "langue" as essentially a storehouse of signs (e.g. words, fixed phrases) and their grammatical properties, while his competence is a generative process based on recursive rules. Chomsky further goes on to say that "consequently" Saussure is unable to deal with questions of sentence structure in any serious way and is forced to the conclusion that formation of sentences is basically a matter of "parole" rather than "langue", i. e. 'a matter of free and voluntary creation rather than of systematic rule'. It seems to me, however, that Saussure is not so sharply different in view from Chomsky as the latter supposes. First of all, Saussure clearly points out that 'what is natural to mankind is not oral speech but the faculty of constructing a language (la langue), i. e., a system of distinct signs corresponding to distinct ideas. (Course p. 10) Secondly, as I said above, Saussure states that individuals combine the signs in his langue

³ N. Chomsky: "Formal Properties of Grammar" *Handbook of Mathematical Psychology* Vol. II, 1963, pp. 326-8.

— : *Aspects of the Theory of Syntax*, 1965, p. 4.

to express his own thought, which I don't think is different from Chomsky's "creative activity." Furthermore, the fact that Saussure assigns the creativity to "parole" does not seem to me to mean that formation of sentences is a matter of free and voluntary creation disregarding the systematic patterns contained in the langue. Because in many places Saussure says that "langue" and "parole" are interdependent and one presupposes the other. It is true that Saussure is mostly concerned with morphological problems and pays little attention to syntax. As Godel points out,⁴ in Saussure's opinion, the rules for building sentences would not raise so many questions as those of word formation, and he probably thought word formation problems more relevant to the system of a language. This assumption may be justified when we think of the extremely complicated Indo-European morphology. Anyway it is undeniable that Saussure's theory has a grave defect in not dealing with syntactic problems.

4. In Hjelmslev's *Prolegomena*, the distinction between "langue" and "parole" in Saussure's term is not clearly observable, but merely hinted at here and there, for example, in his discussion on form, purpport, substance distinction and in particular in the discussion of linguistic schema and linguistic usage.(p. 81) He states that "The non-linguistic analysis of purpport must.....lead to the recognition of a non-linguistic hierarchy, which has function to the linguistic hierarchy discovered through the linguistic deduction." He calls this linguistic hierarchy the linguistic schema and the resultants of the non-linguistic he calls the linguistic usage. The linguistic usage manifests the linguistic schema, and the function between the linguistic schema and the linguistic usage he calls manifestation. I do not identify the linguistic schema and usage respectively with "langue" and "parole", but just point out some connection between them.

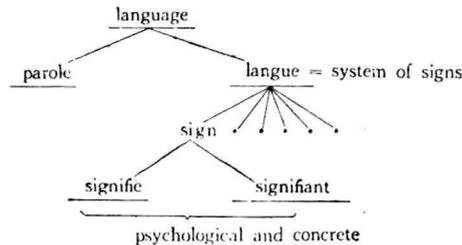
IV. Sign

1. In the preceding chapter I mentioned that Saussure's langue is a system of signs. Saussure's linguistic sign unites, not a thing and a name, but a concept and a sound-image. The latter is not the material sound, but the psychological imprint of the sound. Thus both terms involved in the linguistic sign are psychological and are united in the brain by an associative band. According to Saussure, linguistic signs, though basically psychological, are not abstractions; they are realities that have their seat in the brain; they are tangible; it is

⁴ R. Godel: "F. de Saussure's Theory of Language" Appendix I to *Current Trends in Linguistics III*, p. 488.

possible to reduce them to conventional written symbols. Saussure calls concept “signifié” and sound-image “signifiant”. Thus the linguistic sign exists only through the associating of the signifiant with the signifié; considered independently, a succession of sounds is material for a physiological study and concepts like “house”, “white” belong to pure psychology; they become linguistic entities only when associated with each other.

Saussure's sign



2. Words, word-groups and sentences are all signs--but syllables and phonemes are not. These signs are, in general, further analyzable into component signs. Those signs that are simple (not further analyzable) are the units of linguistics. (Cours p. 145) It is obvious from their definition that the simple units are essentially the same as the morphemes of modern linguistics, except that what we today regard as allomorphs Saussure subsumes under his broader concept of alternance. A compound sign, i.e., an uninterrupted sequence of morphemes he calls a syntagm. (Cours p. 170)

3. Saussure says that signs and their relations are what linguistics studies; they are the concrete entities of linguistics. He ascribes to linguistic signs two fundamental properties: they are arbitrary and linear. In addition, Wells assigns another property: signs are systematic.⁵

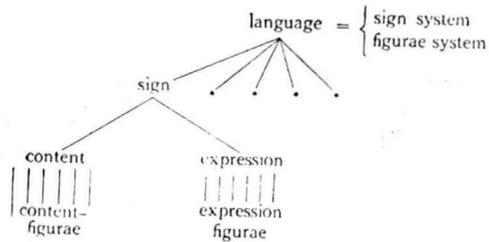
4. In chapters 12 and 13 of “Prolegomena”, Hjelmslev discusses signs and sign functions. There is solidarity between the sign function and its two functives, expression and content, because there will never be a sign function without the simultaneous presence of both these functives and vice versa. On the other hand expression and content are also solidary, for they necessarily presuppose each other as Saussure points out.

5. While Saussure excludes syllables and phonemes from linguistics of “langue,” Hjelmslev includes them in his linguistics. Hjelmslev argues that the two aspects of a sign, expression and content, must be separated for either to be fully analyzed. For example, a text can be

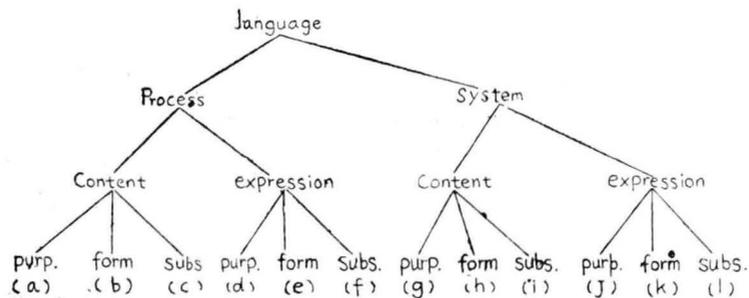
⁵ R. Wells: “de Saussure's System of Linguistics” *Word* Vol. 3, No. 1-2 pp. 1-31.

analyzed into sentences, clauses, words, stems, roots [and so on, all of which units are bearers of meaning. Thus English word 'in-act-iv-ate-s' can be shown to contain five entities each of which has meaning and consequently five signs. If we do not separate content and expression, these five signs are the final results of the analysis. Only by analyzing content and expression separately, can this word be further analyzed into smaller units. These smaller units he calls *figurae*. (He admits *figurae* not only in the expression plane but also in the content plane as will be seen later.) After this observation, Hjelmslev states that languages cannot be described as pure sign systems; they are first and foremost sign systems but by their internal structure they are systems of *figurae* that can be used to construct signs. The definition of a language as a sign system 'concerns only the external functions of a language, its relation to the non-linguistic factors that surround it, but not its proper, internal functions'. (p. 47)

Hjelmslev's sign



3. Hjelmslev distinguishes three aspects of content: content-purport, content-substance and content-form. The same three aspects of expression are also distinguished. Each of these can be viewed both in the linguistic process and linguistic system:



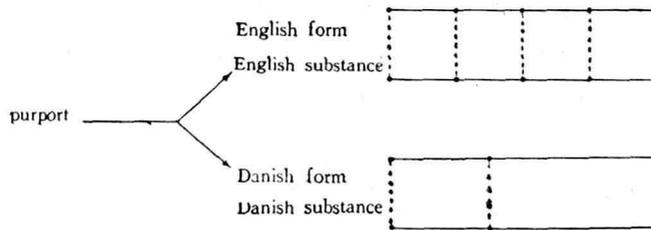
Some examples are as follows:

(a), (b), (c): If we compare different languages:

Danish: jeg ved det ikke

in English: I do not know
 in Finnish: en tiedä etc.

then we find that these sentences, despite all the differences, have a factor in common, namely the purport, the thought itself. This purport exists provisionally as an amorphous mass, an unanalyzed entity. In each of the languages considered it has to be analyzed in a different way. In Danish, first jeg 'I', then ved ('know'—pres. indicative), then an object det 'it', then the negative. In English, first I, then a verbal concept that is not distinctly represented in the Danish sentence, then the negative, and only then the concept 'know' (but nowhere the concept corresponding to the Danish present indicative ved) etc. The unformed purport extractable from all these linguistic chains is formed differently in each language. Each language lays down its own boundaries within the amorphous "thought-mass" and stresses different factors in it in different arrangements. Thus the same purport is *formed* (structured) differently in different languages. According to Hjelmslev, what determines its *form* is solely the functions of the language, the sign function. We thus recognize in the linguistic content, in its process, a specific form, the content-form, which is independent of the purport, and the content-form forms the purport into a content-substance.



(g), (h), (i): (system of the content)

Behind the paradigms of various designations of color in different languages, we can disclose such an amorphous cotinum, the color spectrum, on which each language arbitrarily sets its boundaries. Morpheme paradigms show a similar state of affairs. The zone of number is analyzed differently in different languages.

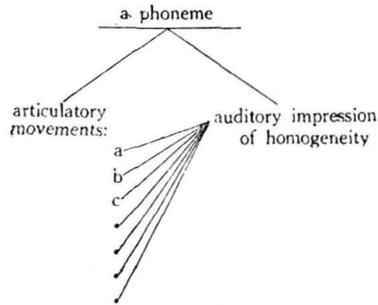
(j), (k), (l) (system of the expression): By comparing different languages, we can see the commonly shared zones in the phonetic sphere such as the vocalic continuum. Such a zone is subdivided differently in different languages as we see different number of phonemes in different languages. The vocalic continuum is then, according to Hjelmslev, a

phonetic zone of purport which is formed differently depending on the specific functions of each language, and which is thereby ordered to their expression-form as expression substance. As an example of (d),(e),(f), i.e., the process of expression, one and the same expression purport 'the city-name Berlin' may be formed differently in different languages.

4. As I already briefly mentioned in I (Introduction) Hjelmslev's purport-form-substance idea must have been derived from Saussure's form-substance distinction. Saussure states that the characteristic role of "langue" is not to create a material phonic means for expressing ideas but to serve as a link between thought and sound; "langue" works out its units while taking shape between two shapeless masses. He further says that 'langue can also be compared with a sheet of paper: thought is the front and the sound the back.....the division could be accomplished only abstractedly..... Linguistics then works in the borderland where the elements of sound and thought combine; their combination produces a form, not a substance'. (Course p. 113)

V. Study of Sub-sign Level

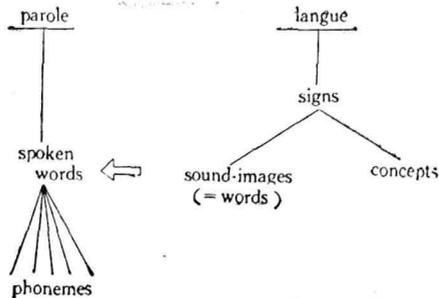
1. Saussure distinguishes between phonetics and phonology (Course, Ch VII of Introduction).
 - (a) Phonetics is a historical science: it is the study of the evolutions of sounds. To Saussure, phonetics is a basic part of diachronic linguistics into which I shall not enter here.
 - (b) Phonology is the physiology of sounds. As I already mentioned, he assigns phonology only to an auxiliary discipline to linguistics (exclusively to "parole"), for phonational movements do not constitute langue which is psychological.
2. Saussure says that we must draw up for each "langue" studied a phonological system which consists of a fixed number of well-differentiated phonemes; this system is to be set up by direct observation. Thus, in the definition of phonemes (Course p. 38), he takes into account both the phonational act and auditory impressions, and says that in a spoken chain we can identify each sound by ear; as long as there is an impression of homogeneity, the sound is unique. A given auditory beat (b) corresponds to a given articulatory beat (b'). The first units obtained by cutting the spoken chain are made up of b and b'; these units Saussure calls phonemes; thus according to him, 'a phoneme is the sum of the auditory impressions and articulatory movements, the unit heard and the unit spoken, each conditioning the other; it is a complex unit with a foot in each chain'. (Course p. 40) I take the definition to mean:



3. Saussure describes “phonemes” by means of articulatory features: vibration of the larynx, nasal resonance, etc. He never lays down the necessary and sufficient conditions under which two sounds are the same phoneme. Therefore, we have no way to ascertain in what degree his sense of phonemes is similar to ours. As can be seen in the above definition of phonemes, two phonemes must belong to one phoneme if they do not convey to native hearers distinct acoustic impressions. However, this means that an implosive and its corresponding explosive, being acoustically different, are different phonemes. It seems to me that two things are particularly noticeable in Saussure’s idea of phonemes: distinctive and physical character of phonemes. He insists that “phonemes (he says “material elements”) are characterized not by their own positive quality but simply by the fact that they are distinct. Phonemes are above all else opposing, relative, and negative entities”. (Course p. 119) As proof of this statement, he points out the latitude that speakers have between points of convergence in the pronunciation of distinct sounds. For example, in French, general use of a dorsal r does not prevent many speakers from using a trill r because the langue(French) is not in the least disturbed by it. In this he apparently has an idea of free variation (or allophone).

4. Some authors, for example Ohta Akira,⁶ assert that Saussure, along with Baudoin de Courtenay, is mentalistic because Saussure’s phonemes are acoustic (sound) images. I don’t think, however, that this statement is right, because it seems to me that Saussure emphasizes the material character of phonemes as mentioned above. Besides, in chapter 1 of Part I (General Principles), Saussure states: “Because we regard the words of our langue as sound images, we must avoid speaking of the ‘phonemes’ that make the words. The term ‘phoneme’ which suggests vocal activity is applicable to the spoken word only, to the realization of the inner image in discourse”. Here, he makes clear the physical character of

⁶ Ohta Akira: *Phonemics of American English*, Tokyo, p. 208.



phonemes.

5. Saussure also discusses “combinatory phonology” which seems to me to be related to the idea of morphophonemic changes and allophonic variations. His topic on syllabic boundary and vocalic peak is also very interesting, but I shall not take them up here.

6. Turning to Hjelmslev, I have mentioned that he considers the system of *figurae* an important part of linguistics as opposed to Saussure. In discussing “invariants and variants” (pp. 60–75), Hjelmslev gives his view of phonemic analysis and phonemes very briefly. He first compares the views of London school (D. Jones) and Prague Circle (N.S. Trubetzkoy) and comments that the two schools are similar in that neither school recognizes that the prerequisite for an inventory is a *textual analysis* made on the basis of *functions*. He criticizes that their method is inductive (as opposed to his deductive one) which takes as its datum a mass of individual sounds, to be grouped into classes of sounds, the phonemes. His further comments follow: “This grouping of sounds into phonemes (by the two schools) must then, in principle, take place without consideration of what paradigms the sounds enter..... both schools start with a certain rough division of the total sound-inventory of a language into categories, treating vowels and consonants separately. But vowel and consonant are regarded as categories defined, not by linguistic functions, but rather by non-linguistic (physiological or physical) premisses. And the category of vowels and the category of consonants are not analyzed at the beginning of the operation into sub-categories on the basis of relation (according to their ‘position’ in the syllable)”. As regards the differences between the two schools, Hjelmslev favors the Prague school in their setting up the criterion of a distinctive function in their definition of a phonemic opposition. He is opposed to the London school’s attempt to avoid distinctive opposition pointing out the fact that Jones’s variphones cause

difficulty.

7. From the above observation, I may conclude that so far as the phonemic approach is concerned Saussure and Hjelmslev are in agreement only in one point: phonemes are characterized as distinctive oppositions; and all the other points do not appear to be shared.

VI. Relation and Function

1. The crux of Saussure's theory is the role of relations in a system. Signs and phonemes are constituted by their relations, that is, by belonging to a system. For them to be is to be related. The important concept of opposition is treated in several passages. For example:

'... signifiant linguistique..... n'est aucunement phonique, il est incorporel, constitué, non par sa substance matérielle, mais uniquement par les différences qui séparent son image acoustique de toutes les autres' (Cours p. 164).

2. According to Saussure, relations between linguistic terms fall into two distinctive groups; one is the syntagmatic relations and the other the associative (normally called "paradigmatic") relations.

(a) *In discourse*, words are arranged together in sequences on the chain of speaking. Combinations by this kind of linearity Saussure calls syntagms. The syntagm is always composed of two or more consecutive units. (e.g. Fr. re-lire, etc.) In the syntagm a term acquires its value only because it stands in opposition to everything that precedes or follows it, or to both; the relations among these terms in the chain of discourse Saussure calls syntagmatic relations.

(b) *Outside discourse*, on the other hand, words acquire relations of a different kind. For instance, the French word *enseignement* will call to mind a host of other words: *enseigner*, *renseigner*, *armement*, *changement*, *education*, etc. All these words are related in some way. These forms outside discourse are not supported by linearity. Their seat is in the brain; they are a part of the inner storehouse that makes up the langue of each speaker. They are associative relations.

I may put one word of caution here: Saussure's "in and outside" discourse does not mean the "parole-langue" distinction. Parole is an individual speaking. Saussure makes the distinction "syntagmatic-paradigmatic" only in relation to "langue". Thus synchronic linguistics, which is a branch of linguistics of langue, deals with both syntagmatic and associative relations. Another thing noticeable in Saussure's example of the associative relation is that Saussure sets *enseignement* in relation to *changement* and *education*, without making any distinction

between form-side (signifiant) and meaning-side (signifié) association. In this Hjelmslev goes far more deeply.

3. Saussure further theorizes that when we compare signs with each other, they, each having a signifié and signifiant, are not different but distinct. Between them there is only *opposition*. The entire mechanism of langue is based on oppositions of this kind. (This reminds us of Hjelmslev's "dependences") In grammatical facts also (e.g. the singular without *umlaut* or final *-e* in opposition to the plural with *umlaut* and *-e* in *Nacht:Nächte*) each term consists of the interplay of a number of oppositions within the system. Saussure puts it another way: "the *Nacht: Nächte* relation can be expressed by an algebraic formula a/b in which a and b are not simple terms but result from a set of relations. Langue is a type of algebra consisting solely of complex terms..... units (his "unit" is roughly "word") and grammatical facts are only different names for designating diverse aspects of the same general fact: the functioning of linguistic oppositions." (Course pp. 121-2) Here again I can recognize the sprout of Hjelmslev's glossematics, algebra of language.

4. Some more words on syntagmatic and associative relations: Saussure says that syntagmatic solidarities are most striking in the organization of langue, for almost all units of langue depend on what surrounds them in the spoken chain or on their successive parts. For example, in word formation, a unit like *painful* decomposes into two subunits (pain-ful), but these subunits are not two independent parts simply lumped together, $pain + ful \neq painful$. The unit is a product, a combination of two interdependent elements that acquire value only through their reciprocal action in a higher unit: $pain \times ful = painful$. Saussure goes on to say that the suffix is nonexistent when considered independently; what gives it a place in langue is a series of common terms like delight-ful, fright-ful, etc. The same is true with radical, since it exists only through combining with a suffix. In *gos-ling*, the element *gos-* is nothing without its suffix. The whole has value only through its parts and the parts have value by virtue of their place in the whole. This is exactly the same as the way in which Hjelmslev explains dependences and functions in language.

5. At the end of Chapter I of this paper, I said that one of Saussure's theses i.e., that a language is a system of values, is basic to Hjelmslev's theory. In the above, I mentioned that Saussure's langue is a system of signs and each sign acquires its value only in relation (or opposition) to other signs. Now I shall discuss Hjelmslev.

According to Hjelmslev, linguistic theory (linguistics) starts from the text and attempts to show the way to a self-consistent and exhaustive description of the text through an analysis.

The purpose of the analysis is to register the mutual *dependences* between these parts. Both the object under examination and its parts have existence only by virtue of these dependences and the whole of the object under examination can be defined only by the sum total of dependences; each of its parts can be defined only by the dependences to other coordinated parts, and to the whole and to its parts of the next degree. In this Hjelmslev states: "a totality does not consist of things but of relationships, and that not substance but only its internal and external relationships have scientific existence". (p. 23) Hjelmslev distinguishes the following kinds of dependence:⁷

<i>dependence</i>	<i>interdependence</i> (mutual depen.)	<i>determination</i> (unilateral)	<i>constellation</i> (free)
<i>process</i>	solidarity	selection	combination
<i>system</i>	complementarity	specification	autonomy

He opposes morphology-syntax division, for dependences within the word are completely analogous to those of the sentence and thus words and sentences subject to the same kind of textual analysis and description. For example, just as between the primary and secondary clauses, there is *selection* between the derivational element and the stem, because the derivational element necessarily presupposes a stem but not vice versa. A syllable may also be divided on the same principle: under certain structural conditions, it is possible to distinguish between a central part of the syllable (the vowel or consonant) and a marginal part (the consonant or non-sonant) by virtue of the fact that a marginal part presupposes coexistence of a central part but not vice versa. (So there is *selection*.)

6. The object that is subjected to analysis Hjelmslev calls a class, and the other objects, which are registered by a particular analysis as dependent on the class and on each other, he calls components of the class. Class, component and analysis are given separate names depending on their entering the system or process:

	<i>class</i>	<i>component</i>	<i>analysis</i>
<i>process</i>	chain	parts	partition
<i>system</i>	paradigm	member	articulation

The first task of the analysis is, then, to undertake a *partition* of the textual process. The text is a *chain* and all the *parts* (e.g. sentences, clauses, words, stems.....) can be like-wise *chains*, except such eventual ultimate parts as cannot be subjected to analysis.

7. A dependence that fulfils the conditions for an analysis Hjelmslev calls a "function".

⁷ I omit examples here as I have presented them in my previous report.

Thus he says that there is a function between a class and its components and between the components mutually, etc. Here we must understand that Hjelmlev's term "function" is quite different from the same term used in mathematics. His "function" is very much like "relation" in mathematics.⁸ For example, Stoll defines a function as "a relation such that no two distinct members have the same first coordinate.", and further states that "f is a function iff it meets the following requirements: (I) The members of f are ordered pairs; (II) If (x,y) and (x,z) are members of f, then y=z." It is obvious that Hjelmlev's "function" does not meet the above requirements. For instance, there is a function "combination" between *pain* and *ful* and between *pain* and *less*. According to Stoll's definition, the two distinct members *ful* and *less* must not have the same first coordinate (here *pain*) for the relation to be a function.

Anyway, the parts of a function Hjelmlev calls its functives; a functive is said to contract its function. From his definitions it follows that functions can be functives since there can be a function between functions.

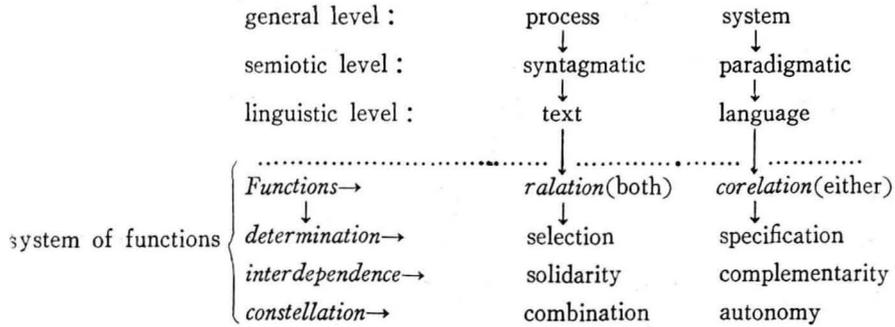
8. Other important distinction of Hjelmlev's for linguistic theory is the one between the both-and function (relation) and the either-or function (correlation). This is what is behind the distinction between his process and system: in the process (in the text) is present a both-and (a coexistence) between the functives; in the system is present an either-or (an alternation) between the functives entering therein. For example, in

p	e	t
m	a	n

by interchanging p and m, e and a, t and n, we obtain different words, pan, pen, etc. These entities are chains that enter into the linguistic process (text); on the other hand, p and m, e and a, t and n together produce paradigms, which enter into the linguistic system. In *pet*, there is conjunction (or coexistence or both-and function) between p and e and t. But between p and n there is alternation (disjunction or either-or function) i.e., p or n. Hjelmlev says that "process" and "system" are concepts of great generality, which cannot be restricted exclusively to semiotic objects. Thus he assigns the terms "syntagmatic" and "paradigmatic" for a semiotic process and a semiotic system respectively. When it is a question of language, he calls the process "a text" and the system "a language". Therefore, linguistic process = text and linguistic system = language. I draw a diagram below to show what I have said so far:

⁸ S. Lipschutz: *Set Theory* Schaum Publishing Co. New York 1964, pp. 81-3, 45, 69.

R.R.Stoll: *Sets, Logic & Axiomatic Theories* Freeman Co. 1961 p. 25, p. 37.



9. From the above observation, I may conclude that Saussure sets up the basic distinction between “syntagmatic” and “associative” relations in langue while Hjelmslev elaborates this basic distinction further setting up a system of “functions”. As widely known, Hjelmslev’s “both-and” function and “either-or” function constitutes one of the most important bases of Lamb’s stratificational grammar.⁹ Lamb uses, along with AND and OR, Unordered and Ordered as well as Upward and Downward.

VII. Analytical Procedure

1. Saussure is mainly concerned with principles of linguistics and descriptions of linguistic facts, and does not deal with analytical procedures in any serious way. A related topic on analytical method may be found in his discussion concerning “method of delimitation of signs”(Course p. 105). Units of a langue can be singled out by the method which consists of using speaking (parole) as the source material of the langue and picturing it as two parallel chains, one of concepts and the other of sound-images. For example, in French *sizlaprã* the only possible divisions are (a) si-ž-la-prã and (b) si-ž-l-aprã. The basis of such delimitations is the meaning that is attached to the words. In this way, signs can be analyzed into units whether the units are words, affixes or radicals. In phonology also, Saussure does not offer any analytical method except for (a) the syllable cutting method based on “explosion” and “implosion,” and (b) the identification of phonemes in a spoken chain by auditory impression.

2. On the other hand, Hjelmslev discusses analytical procedure in quite a detail. In fact, his 108 member definition system starts with the definition of “analysis”, upon which all the other concepts are directly or indirectly based. In the preceding chapter, I discussed Hjelmslev’s idea of “analysis” in relation to his dependences and functions. In this chapter,

⁹ S. Lamb: *Outline of Stratificational Grammar*, Georgetown Univ., 1966, p. 5 ff.

I shall add a couple of principles and procedures of analysis. As I have already mentioned, Hjelmslev's linguistic theory aims to show the way to a *self-consistent, exhaustive and simple description* of a given text through an analysis by means of the *deductive* progression. The purpose of analysis is the registration of mutual dependences.

3. As can be noticed in the italicized parts of the above paragraph, Hjelmslev insists that analysis must be based on the "empirical principle" and deductive method. By "empirical principle" he means that analysis must be made self-consistently, exhaustively, and as simply as possible. The requirement of self-consistency takes precedence over that of exhaustiveness which in turn takes precedence over the requirement of simplicity. (p. 11) The principle of simplicity is further divided into the principle of economy and the principle of reduction. (p. 61) Although Hjelmslev's empirical principle raises quite a few controversies in its interpretation,¹⁰ such a principle is still one of the fundamental criteria in current linguistic analysis.

Under the title "linguistic theory and induction" (pp. 11-3), Hjelmslev opposes the position of inductivism of previous linguistics and claims that the method of analysis must necessarily be deductive. His argument is as follows: Previous linguistics "ascends, in its formation of concepts, from the individual sounds to the phoneme..., from the individual phonemes to the categories of phonemes, from the various individual meanings to the general or basic meanings.....In linguistics we usually call this method of procedure inductive." (p. 12) He continues: "If we start from the supposed empirical data, these very data will impose the opposite procedure. If the linguistic investigator is given anything, it is the as yet unanalyzed text in its undivided and absolute integrity. Our only possible procedure, if we wish to order a system to the process of that text, will be an analysis in which the text is regarded as a class analyzed into components... and so on until the analysis is exhausted." (p. 12-3) This procedure he terms deduction. However, he does not oppose the inductive method only if it is applied after the deductive analysis has been completed. (p. 31) In this respect, Garvin says that Hjelmslev's deduction is the same as the so-called field method in American linguistics and his induction is the same as the formulation of a grammar.¹¹ Haugen

¹⁰ For example: S. Lamb: "Epilegomena to a Theory of Language" *Romance Philology* Vol. XIX No. 4 May 1966 pp. 537-543 in which Lamb prefers to substitute the term "the fundamental principle" for the "empirical principle" to avoid misunderstanding, and states that the principle must be understood as relative and not absolute.

¹¹ P.L. Garvin: "Review of Prolegomena" *Language* XXX, 1, 1954.

comments that Hjelmslev's deduction corresponds to immediate constituent analysis.¹² On the other hand Lamb comments on Hjelmslev's procedure of deduction as follows:¹³ "Hjelmslev quite correctly finds fault with one procedure, but unfortunately substitutes a different one for it. The real solution is to leave procedure out of this area altogether...Previous linguistics (including the Bloomfield school) was procedure-oriented and inductive. Hjelmslev broke with the induction but kept the procedural orientation." This is one of the important points in which Lamb is not in agreement with Hjelmslev.

4. Hjelmslev states that the distinction between expression and content and their interaction in the sign function is basic to the structure of any language. The first stage of the analysis of a text must therefore be an analysis into these two entities: expression line and content line. After that, the expression line and the content line are each analyzed further, with consideration of their interaction in the signs. To be exhaustive, the analysis must be so organized that at each stage we analyze into the parts that are of lowest number. (principle of reduction) If a text, for example, includes both sentences and clauses, we can show that the number of clauses is greater than the number of sentences; therefore we must not proceed directly to an analysis into clauses, but first analyze into sentences and then analyze the sentences into clauses down to *figurae*. Hjelmslev gives several sets of examples of textual analysis (pp. 68-72) both in expression and content planes and states that expression and content planes can be described as being structured in quite similar fashions, so that quite identical procedures of analysis can be applied. He also insists that not only in the expression plane, but also in the content plane, it must be possible to register the *figurae* that compose the sign-contents. He adds that the existence of content-*figurae* will only be a logical consequence of the existence of signs. And the reduction requirement must be the same here as for the expression plane: "the lower we can make the number of content-*figurae*, the better we can satisfy the empirical principle in its requirement of the simplest possible description."

VIII. A Remark on Hjelmslev's Linguistic Theory

1. An important claim by Hjelmslev which Saussure does not discuss is that a linguistic theory must have two basic natures: arbitrariness and appropriateness. (p. 13-4). A theory is arbitrary if the theory is in itself independent of any experience but its colloraries

¹² E. Haugen: "Review of Prolegomena" *IJLA* Vol. 20, 1954.

¹³ S. Lamb: "Epilegomena to a Theory of Language" *Romance Philology* 1966,

logically follow its premisses. In other words, even if a theory based on premisses does not apply to some empirical data, it may still be a good theory as far as corollaries are logically deducible from the premisses of the theory. By the appropriateness of a theory he means that the premisses of a theory must satisfy the conditions for application to a large number of empirical data. Thus the empirical data can not "strengthen or weaken the theory itself, but only its applicability." Lamb wisely gives an illustration of a theory's two natures: "The inappropriateness of Euclidian geometry to the surface of the earth does not invalidate it. It is a self-contained, independent system, which cannot be invalidated by any empirical data".¹⁴

2. It is interesting that Lamb contrasts Hjelmslev's approach to that represented by Bloomfield's "A Set of Postulates for the Science of Language", saying that the latter is based on various assumptions about reality. Therefore, in Bloomfield's type of theory (existence postulates), according to Lamb, the whole theory topples if any of the postulates turns out not to correspond to reality, whereas in a theory of the type supported by Hjelmslev reality can affect only its appropriateness.

3. It must be noted that Hjelmslev's principle does not mean that the theoretician should construct his theory without previous knowledge of or exposure to empirical data, but means, on the contrary, that the theoretician has complete freedom to examine reality by all means before the construction of the theory and it is only for the testing of the theory that rigor is required.

4. To Hjelmslev, the work of linguistic theory is empirical because of its appropriateness and at the same time it is calculative because of its arbitrariness. However, in his prolegomena to the linguistic theory, he is concerned only in the side of the appropriateness, confining himself to a large extent to the same empirical material as those investigated in previous research.

XI. System of Linguistics

1. Saussure's system: The study of speech (langage) is twofold, since the langue-parole distinction entails a corresponding dichotomy of linguistics, (Cours p. 37, p. 38) Its basic part, having as its object langue which is purely social, is exclusively psychological; its secondary part, which has as its object the individual side of speech, i.e. parole, including phonation, is psychophysical. Of the two branches linguistics of langue is primary and the main object

¹⁴ S. Lamb: "Epilegomena"

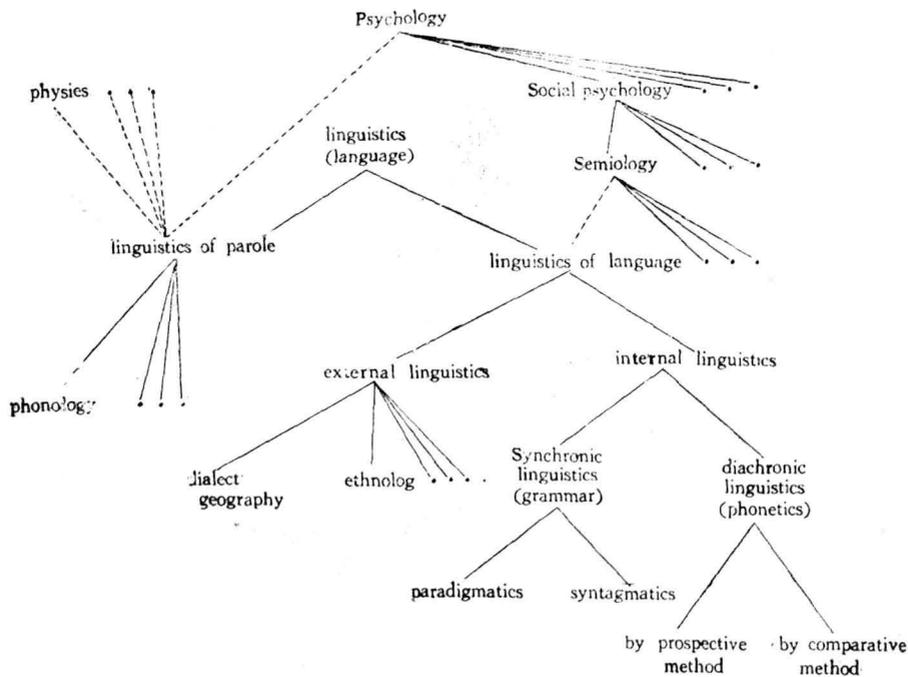
of 'Cours'. (Cours p. 37, p. 317) Linguistics of langue is in turn bifurcated into synchronic and diachronic linguistics. Everywhere Saussure makes a distinction between (1) the axis of simultaneities and (2) the axis of successions. Synchronic linguistics is concerned with the logical and psychological relations that bind together coexisting terms and form a system in the collective mind of speakers. On the other hand, diachronic linguistics takes change into account and studies relations that bind together successive terms not perceived by the collective mind but substituted for each other without forming a system not only in a langue but in related langues. The multiplicity of signs makes it absolutely impossible to study simultaneously relations in *time* and relations within the *system*; therefore, strictly different methods must be applied to the two branches. (Cours pp. 83-86) In other words, langue is a system whose parts can and must all be considered in their synchronic solidarity. Since changes never affect the system as a whole but rather one or another of its elements, they can be studied only outside the system. The basic difference between successive terms and coexisting terms, between partial facts and facts that affect the system, precludes making both classes of fact the subject matter of a single science. From characterization of diachronic linguistics, it is clear that it rests upon synchronic descriptions—a doctrine which is the sheer reversal of H. Paul's idea. And yet diachronic and synchronic linguistics are two radically separate enterprises. According to Saussure, synchronic linguistics is grammar and diachronic linguistics is his "phonetics". Saussure's conception of grammar is a description of paradigms (or associative relations) on the one hand, and of syntagms (syntagmatic patterns) on the other. It is clear that he disregards the distinction between morphology and syntax. Diachronic linguistics is achieved by two different techniques (Cours p. 128) according to the character of the data on which it operates. The "prospective" method requires records of two or more states of the same language; the "regressive" (comparative) method is primarily inferential and requires that the data be only collaterally related.

2. There is another non-synchronic study: dialect geography. Saussure distinguishes between internal and external linguistics. The significance of the distinction is methodological. Saussure's basic idea here is: "that is internal which lets systems be studied autonomously, whether one by one or two or more at a time, without reference to anything except other linguistic systems; in short, internal linguistics of langue is *pure* linguistics of langue." Now Saussure relegates dialect geography to external linguistics, presumably on the ground that it studies correlations between langues and something else.

3. Langue, once its boundaries are set off within speech, can be classified among

human phenomena, while speech cannot. (Course p. 16) The reason is that, since langue is a system of signs that express ideas, it is comparable to a system of writing, the alphabet of deaf-mutes, symbolic rites, military signals, etc., though langue is the most important of all these systems. Here he proposes an establishment of "semiology" which would be a part of social psychology and consequently of general psychology. Thus linguistics of langue is only a part of the general science of semiology; the laws discovered by semiology is to be applicable to linguistics. Although thus linguistics of langue is a part of semiology, langue must be studied in itself. As will be seen Hjelmslev also subjects his glossematics to semiotics.

4. Based on the discussion so far made, I present Saussure's system of linguistics as in the following diagram:



5. Turning to Hjelmslev, I have mentioned that he divides the linguistic universe into expression plane and content plane on one dimension and linguistic process (text) and linguistic system (langue) on the other. I also mentioned that he distinguishes purport, substance and form for both the content and expression planes. Now purport is in itself unformed and therefore inaccessible to knowledge, since the prerequisite for knowledge is an

analysis of some kind. It is therefore impossible to him to take the purport (expression-purport and content-purport) as the basis for the description of a language. It is accordingly impossible to introduce in the beginning a description of substance which depends on the description of the linguistic form. Therefore, according to Hjelmslev, linguistics can and must undertake an analysis of the linguistic form without considering the purport and substance, and linguistics must then see its main task in establishing a science of the expression and a science of the content on an "internal and functional" basis. In this connection, Hjelmslev insists:

"It must establish the science of the expression without having recourse to phonetic or phenomenological premisses, the science of the content without ontological or phenomenological premisses..... Such a linguistics... would be one whose science of the expression is not a phonetics and whose science of the content is not a semantics. Such a science would be an algebra of language, operating with unnamed entities, i.e., arbitrarily named entities without natural designation." (p. 79) He gives the name "glossematics" to his linguistics.

6. Hjelmslev, thus, opposes the old division of linguistics into phonetics, morphology, syntax, lexicography and semantics, as Saussure does, but for different reasons. (I have already mentioned this.) Hjelmslev's glossematics is neither synchronic nor diachronic; the time factor is of no interest, because he looks for what is fundamental in linguistic structure without which there can be no mutual understanding...namely the relations (functions) between linguistic units.

7. Hjelmslev attempts to integrate linguistics into a more general setting, i.e., into semiotics. Since linguistic theory is so constructed as to deal with linguistic forms, it can be applied to any structure whose form is analogous to that of a natural language. In other words, he is concerned with the systematic comparison of the structures of all semiotic systems. For this purpose, he elaborates and classifies semiotics in great detail. (pp. 101-125) The inclusion of natural language among semiotics is no doubt a development of Saussure's conception mentioned above. However, they differ in one point that Hjelmslev seeks to exclude all sociological and psychological basis from semiotics while Saussure takes them into consideration.

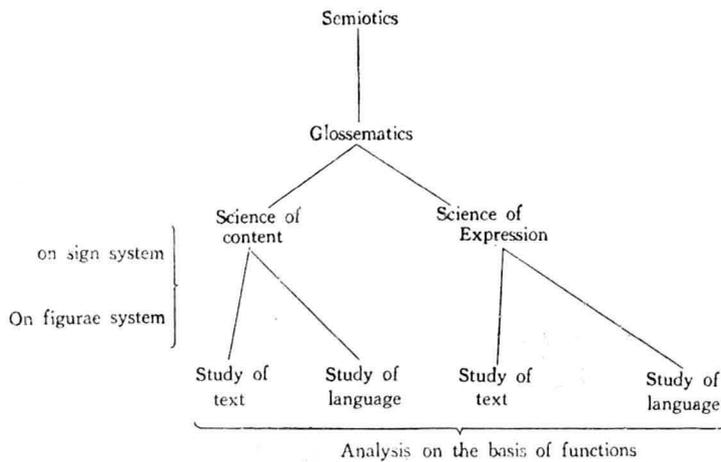
8. According to Lamb,¹⁵ Hjelmslev comes quite close to recognition of another stratum in addition to content and expression, because Hjelmslev sets a distinction between ideal chains and actualized chains within each content and expression. Lamb further says:

"His (Hjelmslev's) ideal chains in the expression plane are approximately at the morphonic

¹⁵ S. Lamb: *Outline of Stratificational Grammar*, p. 34.

of the present system (Lamb's) while his actualized expression is comparable to the classical phonemic level. His actualized content chains are roughly at the morphemic level, and his ideal content is a conflation which includes features of lexons, lexemes, and sememes." This is what Hjelmslev discusses in connection with neutralization phenomena under the title "syncretism" (pp. 87-93).

9. It is said that glosematicians, particularly in Russia, have noticeably developed and systematized Hjelmslev's basic ideas. Since I am not familiar with such systematizations, I simply draw a diagram showing what I have said so far on Hjelmslev's linguistics.



REFERENCES

1. Bloomfield, L.: "Review of Cours de linguistique générale, second edition" *Modern Language Journal* 8, 317-9, 1924.
2. Chomsky, N.: "Formal Properties of Grammar" *Readings in Mathematical Psychology*, Vol. II John Wiley & Sons, Inc. New York & London 1965.
3. _____: *Aspects of the Theory of Syntax*, MIT 1965.
4. Garvin, P.L.: "Review of Prolegomena," *Language* XXX, 1, 1954.
5. Godel, R.: "F. de Saussure's Theory of Language" Appendix I to *Current Trends in Linguistics III* ed. by T. Sebeok.
6. Haugen, E.: "Review of Prolegomena" *IJAL* Vol. 20, 1954.
7. Hjelmslev, L.: *Prolegomena to a Theory of Language*, translated by F.J. Whitfield, 1963.
8. Ivic, M.: *Trends in Linguistics* Mouton, the Hague 1965.
9. Lamb, S.: "Epilegomena to a Theory of Language" *Romance Philology* Vol. XIX, No. 4 May 1966, pp. 531-73.

10. _____: *Outline of Stratificational Grammar*, Georgetown Univ. 1966.
11. Lipschutz, S.: *Set Theory*, Schaum Publishing Co. New York 1964.
12. Ohta Akira: *Phonemics of American English*, Tokyo 1964
13. de Saussure, F.: *Cours de linguistique générale*, Paris 1955.
14. _____: *Course in General Linguistics*, McGraw-Hill, New York translated by W. Baskin 1959.
15. Stroll, R.R.: *Sets, Logic and Axiomatic Theories*, Freeman, San Fran. 1961.
16. Waterman, J.T.: *Perspectives in Linguistics*, Univ. of Chicago 1963.
17. Wells, R.: "de Saussure's System of Linguistics," *Word* Vol. 1963. No. 1-2(1947) pp. 1-31 also in *Readings in Linguistics* ed. by M. Joos.