TRAVAUX
DU
CERCLE LINGUISTIQUE
DE COPENHAGUE

VOL. XVI

LOUIS HJELMSLEV

Résumé of a Theory of Language

Edited and translated
with an introduction
by Francis J. Whitfield

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EDITOR'S INTRODUCTION

'It is therefore necessary to ensure the applicability of the theory, and any application necessarily presupposes the theory. But it is of the greatest importance not to confuse the theory with its applications or with the practical method (procedure) of application. The theory will lead to a procedure, but no (practical) "discovery procedure" will be set forth in the present book, which does not, strictly speaking, even offer the theory in systematic form, but only its prolegomena.'[1])

This paragraph, which was added to the *Prolegomena* by Hjelmslev in the autumn of 1960, in the course of discussions with the translator, was intended as a warning against a misreading of the book that had proved to be all too common during the years following its publication. For Hjelmslev, the *Prolegomena* constituted a work of 'popularization', in which it had been necessary to make certain concessions to received notions and to pass over many complications if he was to succeed in drawing the main contours of glossematics within a narrow frame, for the information of non-specialists as well as professional linguists. Understandably enough, however, what had been intended as a more or less informal introduction was often read in a quite different light by linguists who became

[1]) Louis Hjelmslev, *Prolegomena to a Theory of Language (PTL)*, translated by Francis J. Whitfield, revised English edition, Madison, The University of Wisconsin Press, 1961 (third printing, 1969), page 17. The original, Danish version, to which reference is made below, is *Omkring sprogteoriens grundlæggelse (OSG)*, Copenhagen, 1943.

interested in glossematics and for whom it remained the only available general exposition of the theory. And as the years went by, and circumstances continued to delay the planned presentation of the theory in more formal dress, misunderstandings multiplied of the sort against which Hjelmslev felt obliged to give warning -- most particularly, perhaps, in the matter of the glossematic 'procedure'. Meanwhile, it remained one of Hjelmlev's unfulfilled hopes that he might put in final form a detailed description of the procedure in its theoretical context. At least as late as 1958 he returned to the task, but advancing illness prevented its completion, as it did that of many other projects.

It should, then, be clear at once that the present work cannot be taken as representing in all points the concise formulation of glossematic theory that Hjelmslev would have wished to make it, had his health permitted. I should think it quite likely, to mention only one example, that his treatment of 'establishment' would have undergone revision -- likely, but not certain, since of course it is not enough in these matters to know that, at one or another time, he had thought of making alterations. The fact remains, however, that the *Résumé* in its present form was considered by Hjelmslev as a suitable *basis* for revision. Moreover, it is roughly contemporaneous with *OSG*, casts considerable light on it, and fills it out with many important details. For these reasons I have judged it proper and desirable to prepare this edition.

The original Danish text, entitled *Sprogteori: Résumé*, appeared as a typescript of 187 pages (preceded by a title page and a brief table of contents) but never received more than severely limited circulation in a small number of carbon copies. The prefatory note that occupies the first two numbered pages reads as follows:

'The *Theory of Language*, which, if the required permission is granted, will be published in the winter of 1943-1944 in *Humanistisk*

Samfunds Skrifter, Aarhus, is a concise and preliminary Danish version of the theory called *glossematics,* which the author has been preparing over a number of years in collaboration with H. J. Uldall, a collaboration that the second world war has indefinitely suspended. It is hoped that the theory will be elaborated in definitive and expanded form after the war, by both authors jointly, under the title *An Outline of Glossematics* (planned for publication in the same series). The present *Theory of Language,* which has been composed without Uldall's participation, is Hjelmlev's responsibility alone, although with respect to the whole work and to some of its details he is indebted to both Uldall and Paul Lier.

'The prolegomena to the theory, which are not summarized here, will be published under the title *Omkring sprogteoriens grundlæggelse* in *Festskrift udgivet af Københavns Universitet,* November, 1943. To this work readers are referred who have not had the opportunity, through Hjelmslev's and Uldall's publications, courses, and lectures, to become acquainted with the basic points of view underlying the theory. It may be possible to place a highly limited number of proof-sheet copies of the prolegomena at the disposition of individual users of the present résumé.

'Since no little space is required to set forth the theory, the present résumé has had to be kept most concise, but it should be sufficiently elaborated for the attentive reader to follow. It has been necessary to forgo almost entirely any applications and examples in the résumé.

'The various synopses at the end of the résumé are to be used *pari passu* with the text of the résumé.

'The theory is presented in the form of a procedure and consists exclusively of operations together with the necessary definitions, rules, and principles that enter into them. The symbols for the operations are given in the margin and at the upper left of each page. Definitions, rules, and principles have consecutive numbering, which is given in the margin. The definitions can also be found with the help of the index of definitions and terms.

'The text also contains consecutively numbered notes (also registered in the margin), in which, for reasons of convenience, explanations are offered that are theoretically dispensable at the given stage of the procedure. In these notes, informal use is made of previously undefined terms. On occasion, also, it has been judged expedient to introduce in the notes certain definitions that are not necessarily presupposed in the procedure. Such definitions have been assigned Roman numerals, while Arabic numerals are used for the definitions that enter into the procedure.'

The text that follows in the typescript does not completely fulfil the promise of the preface. Not only does it contain no index, but it breaks off abruptly after the rule numbered 201 in this edition, with the statement that procedure No 5 is to be carried out in what follows. While reviewing Hjelmlev's papers in the summer of 1967, at the gracious invitation of Mrs Hjelmslev, I found among them not only the manuscript from which the typewritten version was prepared, but also what is clearly shown by its pagination and cross-references to be the manuscript for this concluding section of the *Résumé*. It is not quite complete (and this may be the only reason for its not having been typed with the rest of the work) but it is almost so, extending through operation t2. On the basis of very closely related material, gathered from unpublished reports of Hjelmslev's University lectures of 1942-3, I have added an account of the concluding parts of operation-series II5.GII, together with a final paragraph reminding the reader of the operation-series .g that would follow. Here as elsewhere, in editing this translation, I have taken the conservative position of aiming simply at a reconstruction of what Hjelmslev intended at the time when the typescript was being prepared -- what he himself referred to in correspondence as the version of 1943(-45), as distinguished from an earlier version dating from 1941. Where following this principle has entailed any significant deviation from the manuscript, I have referred the reader -- by an asterisk in the margin -- to the 'Textual Notes' that immediately follow the text in this edition. I have not incorporated or, in general, referred to scattered indications in Hjelmslev's papers of changes that he may have contemplated at various times after the typescript was put in limited circulation. Nor have I judged it proper to annotate the text in such a way, or to introduce it in such a way, as to color it with any personal interpretations. In what follows, I hope to lighten the reader's task by providing him with a kind of ground plan to the book. In doing so, I shall naturally assume that he is well acquainted with the *Prolegomena*, which remains an indispensable introduction to Hjelmslev's theory.

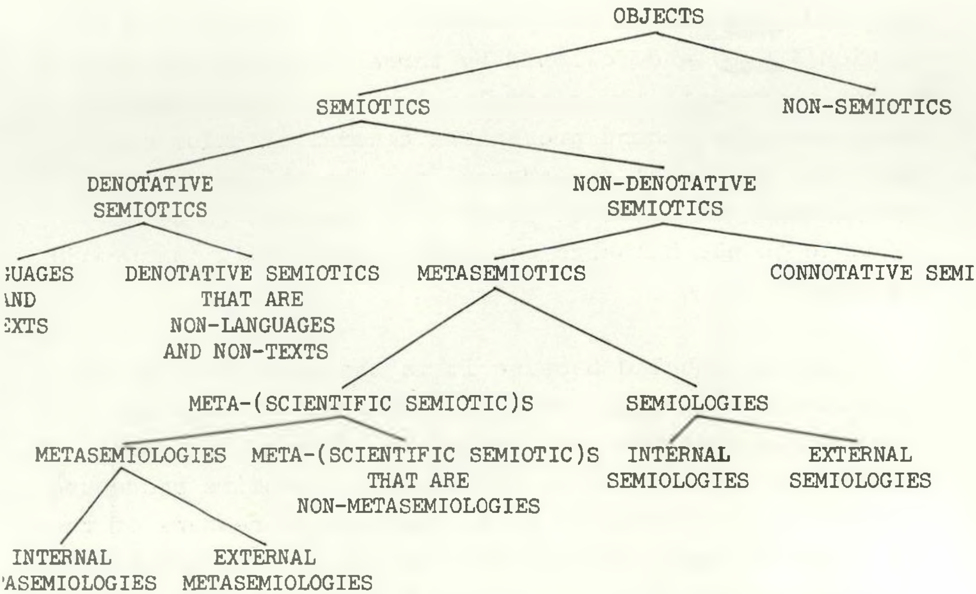
The main body of the text falls into two parts, labeled

*GgA and *GgB, which are preceded by an introductory section (*Gg0) and followed by three synopses. The first synopsis presents the general schema of the glossematic procedure, the second presents a general calculus over possible individual procedures, and the third treats in some detail the class of procedures asserted to be applicable to all hitherto observed ('everyday', 'natural') languages.

*Gg0 (so labeled because it is the zero-section, or introduction, to *Gg, the whole theory) presents the 'empirical principle' and principles derived therefrom, to which appeal will be made throughout the entire procedure. These principles will be quite familiar to readers of the *Prolegomena*. Next, the division of *Gg into a 'universal' component (*GgA) and a 'general' component (*GgB) is announced. Since it is rather the distinction between 'universal' and 'particular' that is emphasized in the *Prolegomena*, the reader would be well advised to compare carefully at this point the formal definitions (1, 2, 65) of all three terms as they will be used in the *Résumé*.

*GgA (the universal component of *Gg) is, in its turn, introduced by a zero-section (*GgA0) and is divided into two components: *Gga and *Ggb.

In *Gga, the class of objects is 'articulated' as shown in the following diagram:



Only a few of these terms will be unfamiliar to readers of the *Prolegomena*. An internal semiology is one that has a denotative semiotic as object semiotic, while an external semiology has a connotative semiotic as object semiotic. Metasemiologies are distinguished correspondingly, according to whether their object semiologies are internal or external. The formal definitions of all these terms will decide the course of the procedure at many points, since one of the final aims of the procedure is to find the place of the presumed semiotic under investigation within the whole system of semiotics.

*Ggb, which concerns articulation of the class of functives, has three parts:

In *Ggb1, the articulation is into the class of variants and the class of invariants -- a subject treated in section 14 of the *Prolegomena*.

In *Ggb2, which finds its correspondence in section 16 of the *Prolegomena*, the class of variants is articulated into the class of varieties and the class of variations.

*Ggb3 concerns articulation of a *given* functival class, and is divided into two parts. Of these, *Ggb3.1 treats of 'free articulation', which, without being named, receives only brief mention in the *Prolegomena* (pp. 99-100; *OSG*, pp. 88-89) and which is treated less generally, from a rather different point of view, and with some difference in details, in Hjelmslev's earlier work, *La catégorie des cas* (= Acta Jutlandica VII, 1 (1935) and IX, 2 (1937)). *Ggb3.2, treating of 'bound articulation', covers less difficult ground, which the reader of the *Prolegomena* will not have encountered by name but which he will find relatively familiar from applications of it in that work (cf. *PTL* 86-7, *OSG* 77-8).

*GgB (the general component of *Gg) has as its aim an analysis of a given object to determine whether or not it is a semiotic and, if so, what kind of semiotic it is. The 'general' character of the component stems from its condition that the object subjected to analysis belong to the class of semiotics. If at any point the object is revealed not to be a semiotic, the analysis cannot be carried through, and the procedure ceases to be applicable.

Only the introductory section (*GgB0) of the general component can be given, since the elaboration of all individual procedures prevised by the theory would be an endless task. What we have, then, is a general discussion of the rules that must be followed in choosing the procedu to be applied in any particular case. Within the section, subsections *GgB0G and *GgB0H are of central importance. The former presents in detail the method of procedure within the individual operation. The latter discusses the several *series* of operations -- extending from the first series (*GI) through an unrestricted number of intermediat series to the concluding one (*g) -- that may be foreseen in the individual procedures. But it does more than this: in the very important opening discussion (*GgB0H*a*) of 'semiotic functions', it spells out the 'catalysis on catalysis'[2] required by the glossematic principles and, in so doing, indicates once again in how special a sense the word 'procedure' must be taken when found in the context of glossematic theory.

The appended *General schema of the procedure* and *Calculus of procedures,* which I have taken to be two of the synopses referred to in Hjelmslev's preface, are also, according to rule 104, to be viewed as detached sections of *GgB. The third appendix, *Procedure-class II5,* although more restricted in application. remains a synopsis over an unlimited number of possible particular analyses provided by the theory and therefore -- it should be remembered -- covers possibilities that may or may not be found realized when a given text in a particular everyday language is subjected to analysis.

In the *General schema of the procedure,* it is the discussion of the final operation-series *g that occupies the greatest space and that also may be the most difficult section of the *Résumé* for the reader who is acquainted with glossematic theory only through the *Prolegomena.* Such a reader will find particularly helpful at this point Hjelmslev's paper of 1938, 'Essai d'une théorie des morphèmes') reprinted in Louis Hjelmslev, *Essais linguistiques* (= Travaux du Cercle linguistique de Copenhague, XII), Copenhagen, 1959), which will give him a good idea of the general direction in which this part of the procedure is heading -- the kinds of categories and units whose formal definition it aims to make possible. It may be added that the *Résumé,* in turn, will clear up certain ambiguities and apparent circularities in that paper that result from its highly condensed form of presentation.

2) *PTL*, page 126 (*OSG*, page 111).

Subseries *gII treats in a new light the taxeme-categories yielded by the preceding analysis. Let us consider first in some detail the first part of this subseries -- *gII1 -- where the categories are reviewed in their relationship to the function called *direction* (Df 219). In *gII1.1 we determine which of the previously yielded categories contain members contracting the function and which do not. In accordance with the rules of bound articulation and 'mapping' (Rgg 56-58), this investigation will result in the 'distribution' of the categories over new categories, called 'species'. There are four species in all, of which one may have as many as three particular varieties:

CONSTITUTIVES
THEMATIVES
  thematized v.
  direction-v.
  flexion-v.
DIRECTIVES
FLEXIVES

The species are then combined, as illustrated in the following diagram, to produce the 'simple species', which are only two in number:

SPECIES	SIMPLE SPECIES
CONSTITUTIVES THEMATIVES thematized v.	SIMPLE CONSTITUTIVES
direction-v. flexion-v. DIRECTIVES FLEXIVES	SIMPLE FLEXIVES

Next (in *gII1.2), the simple flexives are distributed according to the role played by their members (i.e., role of constant or role of variable) when they contract direction. (Only the simple flexives are distributed, since members of the simple constitutives do not contract direction at all.) The result will be a distribution over four 'subspecies', of which one may have as many as three particular varieties:

<u>SIMPLE SPECIES</u>	<u>SUBSPECIES</u>

SIMPLE FLEXIVES	CONVERTED
	AMBIFUNDAMENTALS
	   converted v.
	   fundamental v.
	   semifundamental v.
	FUNDAMENTALS
	SEMIFUNDAMENTALS

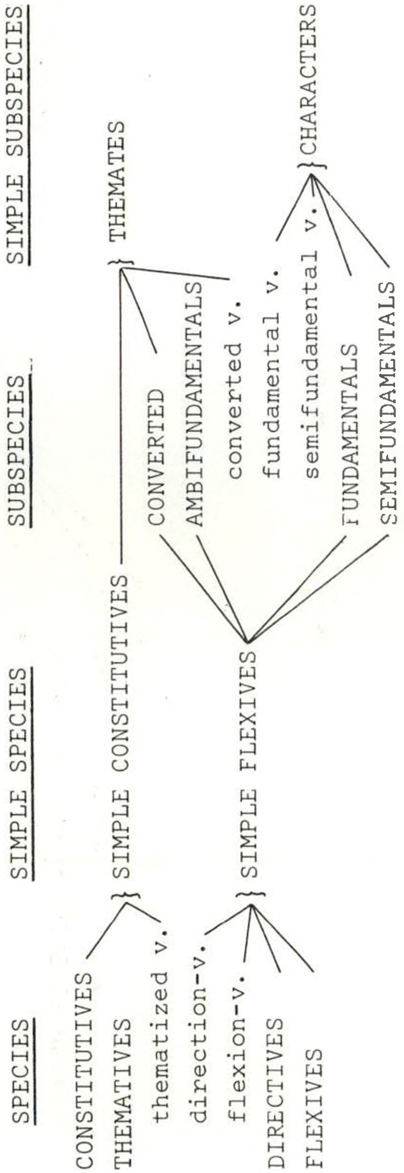
Finally, just as the species were combined to produce two simple species, the subspecies are combined to produce two simple subspecies:

<u>SUBSPECIES</u>	<u>SIMPLE SUBSPECIES</u>
CONVERTED AMBIFUNDAMENTALS converted v.	THEMATES (to which are also transferred the simple constitutives)
fundamental v. semifundamental v. FUNDAMENTALS SEMIFUNDAMENTALS	CHARACTERS

Direction -- the function used as basis for this redistribution -- had been defined with the help of a previously defined unit, the 'lexia'. The redistribution, in turn, makes possible the definition of two new units -- the 'set' and the 'succession' -- which are used as bases for the parallel redistributions *<u>gII2</u> (where the taxeme-categories in each subspecies are redistributed) and *<u>gII3</u>

(where the taxeme-categories in each subtype are redistributed) respectively. The parallelism is illustrated in the following diagrams:

*gIII: Redistribution of taxeme-categories yielded by *G
Basis of distribution: direction within the maximal (unit of) (lexia(s)



*gIII2: Redistribution of taxeme-categories in each sub-species.

Basis of distribution: intracohesion within the maximal set

TYPES	SIMPLE TYPES
PERIPHERALS AMBIMEDIANS peripheral v.	SIMPLE PERIPHERALS
median v. semimedian v. MEDIANS SEMIMEDIANS	SIMPLE MEDIANS

SUBTYPES

SIMPLE SUBTYPES

CENTRIFUGALS

MARGINALS

AMBICENTRALS

marginal v.

central v.

semicentral v.

CENTRIPETALS

CENTRALS

SEMICENTRALS

<u>TAGMATA</u>	<u>SIMPLE TAGMATA</u>
SECONDARIES	
AMBIPRIMARIES	SIMPLE SECONDARIES —
secondary v.	
primary v.	
semiprimary v.	SIMPLE PRIMARIES
PRIMARIES	
SEMIPRIMARIES	

gII3: Redistribution of taxeme-categories in each sub-type
Basis of distribution: endocohesion within the maximal succession

SUBTAGMATA	SIMPLE SUBTAGMATA
ACCESSORIES AMBIPRINCIPALS accessory v.	SIMPLE ACCESSORIES
principal v. semiprincipal v. PRINCIPALS SEMIPRINCIPALS	SIMPLE PRINCIPALS

Already at the end of *gII2, the exposition of taxeme-redistribution is interrupted by a set of definitions (Dff 250-257) illustrating one way in which these manoeuvers lead to contact with traditional terminology. The following diagram shows how the definitions are produced by the conjugation, in both the content-plane and the expression-plane, of the simple subspecies (themates and characters) with the simple subtypes (centrifugals and centripetals):

	THEMATE	CHARACTER	
CENTRIFUGAL	DERIVATIVE	NOMINAL CHARACTER	PLEREMATIC
	CONSONANT	ACCENT	CENEMATIC
CENTRIPETAL	RADICAL	VERBAL CHARACTER	PLEREMATIC
	VOWEL	MODULATION	CENEMATIC

The reader must, of course, bear in mind that these and similarly defined terms to come denote entities of semiotic *form*. Their *manifestation*, if they are present in a given semiotic, is a separate question. In a language with "vowel harmony", for example, it might turn out that the vocoids of the phonetic substance of expression manifest, not vowels, but accents.

The final result of these redistributions, wherever they are applicable, and of whatever other redistributions may be required in the case of any given semiotic will be the 'orders'. The orders of a semiotic are its smallest taxeme-categories definable on the basis of such functions as direction, intracohesion and the like -- functions called 'cell-cohesions' (Df 216). When the orders of the semiotic have been registered, the syntagmatic analysis is concluded in *gIII1, where each order is resolved into glossemes, to the extent that such a resolution is possible. This section of the procedure is discussed only briefly in *PTL* 99-100 (*OSG* 88-89) and involves, as I have noted above, free articulation. To make clear the terminology introduced at this point, we may imagine the simple case of an order including six members, to which we assign the labels *d, t, b, p, g, k*. Resolution of the order into 'prime glossemes' or 'dimensions' may yield two dimensions, and -- depending on the simplest possible adjustment to the manifesting substance (Rg 60) -- the result might be diagrammed thus:

b	p
d	t
g	k

The prime glossemes are subjected to free articulation, possibly yielding the following result:

⁝α	⁝A	
		⁝β
		⁝Γ
		⁝B

In such a case, the members ⁝α and ⁝A of the one dimension and the members ⁝β, ⁝B, and ⁝Γ of the other dimension would be the 'glossemes' appearing as final resultants of the analysis. Many concrete examples of such analyses into prime glossemes and glossemes are to be found in *La catégorie des cas*, where the role of the substance (*in casu*, the content-substance) in the ultimate *choice* of one from among several possible analyses may be profitably studied.

The syntagmatic 'deduction' just concluded is followed by a paradigmatic deduction -- another stage of the procedure that receives only the briefest mention in *PTL* (pp. 100-101; *OSG* 89-90). This is carried out in *gIII2, where the paradigmatic is analyzed into sides, the sides into species and simple species, and so on, and where the glossemes are distributed over the sides, the species and simple species, and so on. In *gIII3 takes place the synthesis of possible units (cf. *PTL, loc. cit.*), as well as various articulations of the entire class of units -- followed (*gIII3.2) by a redistribution of the units. Here again it becomes possible to make contact with classical linguistics through formal definitions of "parts of speech" and other entities, as mentioned in *PTL*. And again, a word of caution will not be amiss. Just as a scientifically useful definition of the term 'fish' may not permit its application in every instance where the word 'fish' is applied in everyday English, so it cannot be expected that the term 'noun', for example, as here defined, will be applicable to all those entities that may, at some time or another, by somebody or other, have been called 'nouns'. The glossematic definitions of traditional terms must not be taken as parts of an "answer book". In an extreme case, it might turn out that -- even for "languages of familiar structure" -- a given term as here defined would fail to cover *any* of its previous uses in traditional linguistics. This would, of course, show that the label had been chosen inappropriately, but that is all.

The following table of units may be of help to the reader in his study of *gIII3:

UNITS

	IDENTITY-UNITS			DIFFERENCE-UNITS	
MONOPLANE	INTRINSIC UNIT (INTRINSIC GLOSSEMATY)	⌣ ≍	Yg	SIGN	PLURIPLANE (BIPLANE)
HOMOGENEOUS	SUCCESSION	⧺ /	#	HETEROGENEOUS UNIT	HETEROGENEOUS
HOMOSUBGENEOUS	SET	⧺	x^s	SYNTAGMA	HETEROSUBGENEOUS
HOMOTYPICAL	HOMOTYPICAL UNIT	× /	ǂ /	HETEROTYPICAL UNIT	HETEROTYPICAL
HOMOSUBTYPICAL	GROUP	×	ǂ	SEQUENCE	HETEROSUBTYPICAL
HOMOTAGMATIC	COMPLEX	=	≠	CONGLOMERATE	HETEROTAGMATIC
HOMOSUBTAGMATIC	HOMOSUBTAGMATIC UNIT	= /	≠ /	HETEROSUBTAGMATIC UNIT	HETEROSUBTAGMATIC

The progress of articulation A in *gIII3.1 is such that each class of identity-units is articulated into the classes of identity-units and difference-units that follow it immediately in the diagram. Thus, for example, the class of intrinsic units is articulated into the class of successions and the class of heterogeneous units, the class of successions is articulated into the class of sets and the class of syntagmata, and so on.

The final stage of the entire procedure presents the comprehensive results of the analysis in schematic form. Here the semiotic to which the procedure has been applied finds its place within the whole system of semiotics (*gIV1; cf. Rg 126) and within the whole process of semiotics (*gIV2; cf. Rg 127).

I have prepared for this edition an index of terms and an index of symbols. Both might have been expanded indefinitely; instead, I have tried to keep them within reasonable bounds by registering almost exclusively the terms and symbols that appear in the formal definitions. Actually, the index of symbols will rarely be required by the reader except when he is studying the synopsis of procedure-class II5. Comments on the difficulty of the system would surely be superflous. I shall not describe it here, except for one detail: the use of the asterisk. This transmutes an immediately following Latin letter into a cover-symbol for the Latin letter (referring to the expression plane) and the corresponding Greek letter (referring to the content plane). Thus:

$*g^{\circ}$	plane	g°	cenematic (expression plane)	γ°	plerematic (content plane)
$*z$	syntagmateme	z	syllable (cenematic syntagmateme)	ζ	noun (plerematic syntagmateme)
$*þ_n^s$	intense theme	$þ_n^s$	syllabic theme	ϑ_n^s	nominal theme

$*q_n^s$	intense characteristic	q_n^s	cenematic intense characteristic	q_n^s	nominal characteristic
$*C_n$	intense character	C_n	accent	K_n	nominal character

Besides the indices, I have also supplied the detailed table of contents that replaces the short one found in the original.

My warmest thanks are once again due to Vibeke Hjelmslev for the opportunity of reviewing Louis Hjelmslev's papers and for her never-failing help and encouragement. It was Eli Fischer-Jørgensen who introduced me to the *Résumé*, in its typescript version, and I also owe her gratitude for information, advice, and assistance that she has offered with customary liberality during my work on this edition. To Karen Risager Larsen I am indebted for her invaluable aid in proofreading and technical editing. Finally, I wish to thank the Rask-Ørsted Foundation for the support that it gave to the translation project, and the Danish Research Council for the Humanities, which has financed the publication of this volume.

F. J. W.

Berkeley
October 3, 1974

ABBREVIATIONS

App	application
Df	definition
Ex	example
N	note
Op	operation
op Df	operative definition
opp Df	opposed definition
Pr	principle
Rg	rule

*Gg: GLOSSEMATICS. *Gg

*Gg0. *Gg0

A. -- Opp[1] numbered 0 introduce the necessary and sufficient premisses for the Op-chains that follow. *Gg0, accordingly, introduces the necessary and sufficient premisses for *Gg. A

B. -- We introduce the following principle: B

Pr 1 (the empirical principle): The description shall be free of contradiction, exhaustive, and as simple as possible. The requirement of freedom from contradiction takes precedence over the requirement of exhaustive description. The requirement of exhaustive description takes precedence over the requirement of simplicity. Pr 1

From Pr 1 is deduced

Pr 2 (the simplicity principle): Of two contradiction-free and exhaustive descriptions, that one is considered correct that yields the simplest result. Of two contradiction-free and exhaustive descriptions yielding equally simple results, that one is considered correct that involves the simplest procedure.[2] Pr 2

[1] *Op(eration)* is considered an Ind(efinable) (Df 182) from the point of view of the procedure. See Df 40.

[2] *Procedure* is considered an Ind(efinable) from the point of view of the procedure. See Df VII.

From Pr 2 are deduced

Pr 3 a) Pr 3 (the principle of economy): The description is made through a procedure[3] The procedure shall be so arranged that the result is the simplest possible, and shall be suspended if it does not lead to further simplification.

Pr 4 b) Pr 4 (the principle of reduction): Each Op in the procedure shall be continued or repeated until the description is exhausted, and shall at each stage lead to the registration of the lowest possible number of objects.

Pr 5 c) Pr 5 (the principle of generalization): If one object admits of a solution univocally, and another object admits of the same solution equivocally, then the solution is generalized to be valid for the equivocal object.

C C. -- *Gg falls into two components: a premised, universal component, *GgA, and a premising, general component, *GgB.

Df 1 Df 1. An Op with a given result is called UNIVERSAL if it is asserted that the Op can be performed on any object whatsoever. -- The resultants of a universal Op are called UNIVERSALS. -- opp Df 65 PARTICULAR.

Df 2 Df 2. An Op with a given result is called GENERAL if it is asserted that the Op can be performed on any object whatsoever under certain conditions, but not under all conditions.

[3] See the preceding footnote.

N 1 N 1

Df I. A General Op with a given result is called SPECIAL if it is asserted that it can be performed under relatively restricted conditions. Df I

Df II. An Op with a given result is called SPECIFIC if it is asserted that it can be performed on one or more Classes of objects as opposed to others. Df II

Df III. A Specific Op with a given result is called GENERIC if it is asserted that it can be performed on a Class of large extent or on a large number of classes. Df III

Dff I and III are relative in their nature.
Dff I-III are given here to preclude possible confusions.

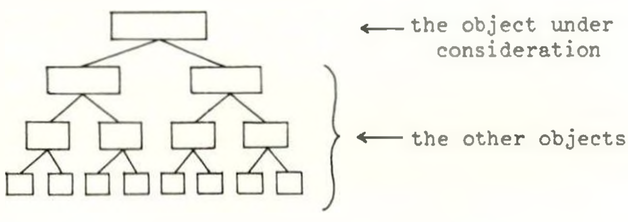
*GgA: UNIVERSAL COMPONENT. *GgA

*GgA0. *GgA0

A. -- The component consists in a chain of analyses, of which premised analyses are treated before those that premise them. A *

Df 3. ANALYSIS is description of an object by the uniform dependence of other objects on it and on each other. -- The phrase *is (are) analyzed into* may be represented by the symbol :: . -- opp Df IV FRAGMENTATION. -- :: Df 19 PARTITION, Df 20 ARTICULATION. Df 3

N 2. Df 3 in graphic representation: N 2 *



An analysis can consist of two or more analyses.

N 3 N 3.

Df IV Df IV. FRAGMENTATION is description of an object by the non-uniform dependence of other objects on it and on each other. -- opp Df 3 ANALYSIS.

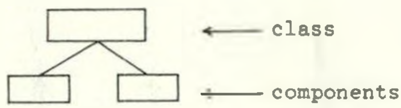
The common term for analysis and fragmentation is DISSECTION (Df 123).
It can be shown that a dissection complying with Pr 1 must be an analysis.

B B. -- The immediately necessary and sufficient analysis of analysis is introduced in the following Dff:

Df 4 Df 4. A CLASS (symbol: □) is an object that is subjected to Analysis. -- opp Df 5 COMPONENT. -- :: Df 34 CHAIN, Df 36 PARADIGM; Df 140 REALIZED, Df 141 VIRTUAL.

Df 5 Df 5. The COMPONENTS of a Class are the other objects that are registered by a single Analysis as uniformly dependent on the class and on each other. -- opp Df 4 CLASS. -- cf. Df 124 SECTION. -- :: Df 134 PART, Df 138 MEMBER.

N 4 N 4. Dff 4-5 in graphic representation:



N 5 N 5. It follows from Df 5 that the term *component* is used only for a first-degree derivate of a class, not for other derivates (Df 18, Df 21).

Df 6 Df 6. A FUNCTION (symbol: φ) is a dependence that fulfils the conditions for an Analysis. -- (Absence of a function is symbolized as $\overline{\varphi}$; cf. Dff 103-

104.) -- :: Df 7 RELATION, Df 10 CORRELATION; Df 148 COHESION, Df 126 CONSTELLATION; Df 175 HETERO-PLANE FUNCTION, Df X HOMOPLANE FUNCTION.

Df 7. RELATION or CONNEXION (symbol: R) is the 'both -- and' Function. -- opp Df 10 CORRELATION. -- :: Df 58 SOLIDARITY, Df 59 COMBINATION, Df 27 SELECTION. -- The symbol for relation (which is different from *R*, cf. Df 256) may be omitted, like the multiplication sign in algebra: $pq = p\mathrm{R}q$. Df 7

Df 8. A HIERARCHY (symbol: ⧉) is a Class of classes. -- By convention, ⧉*p* shall always mean: the hierarchy composed of all *p*'s. -- :: Df 9 PROCESS, Df 11 SYSTEM. Df 8

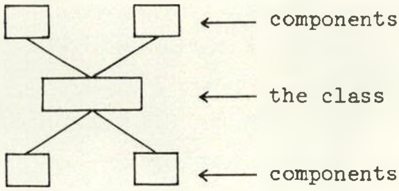
Df 9. A PROCESS is a Relational Hierarchy. -- opp Df 11 SYSTEM. Df 9

Df 10. CORRELATION (symbol: ⋮) is the 'either -- or' Function. -- opp Df 7 RELATION. -- :: Df 93 COMPLEMENTARITY, Df 94 AUTONOMY, Df 135 SPECIFICATION; Df 74 CONTRARY CORRELATION, Df 75 CONTRADICTORY CORRELATION, Df 78 SIMPLE CORRELATION; Df 70 EXCLUSION, Df 71 PARTICIPATION; Df 101 POLARITY, Df 102 HOMOLOGY. Df 10

Df 11. A SYSTEM is a Correlational Hierarchy. -- opp Df 9 PROCESS. -- :: Df 311 GENERAL-SYSTEM, Df 312 SCHEMA. Df 11

Df 12. An ANALYSIS COMPLEX is a Class of Analyses of one and the same class. Df 12

N 6. Df 12 in graphic representation: N 6



N 7 N 7. Each analysis under an analysis complex permits the registration of a specific dependence between the components of the class.

Df 13 Df 13. A FUNCTIVE (symbols: *p*, *q*, *r* ...) is an object that has Function to other objects. -- A functive is said to HAVE FUNCTION TO (not to "be a function of") another functive. A functive is said to CONTRACT its function. -- :: Df 60 RELATE, Df 53 CORRELATE; Df 14 CONSTANT, Df 15 VARIABLE; Df 127 DETERMINANT, Df 128 DETERMINATE, Df 129 INTERDEPENDENT, Df 130 CONSTELLATIVE; Df 148 COHESIVE, Df IX RECIPROCAL; Df 114 POLAR, Df 115 HOMOLOGUE; Df 178 PLEREMATIC FUNCTIVE, Df 214 CENEMATIC FUNCTIVE; Df 232 DIRECTING, Df 233 DIRECTED.

N 8 N 8. It follows from Df 13 that functions can be functives.

Df 14 Df 14. A CONSTANT (symbols: *a*, *b*, c ...) is a Functive whose presence is a necessary condition for the presence of the functive to which it has Function. -- opp Df 15 VARIABLE.

Df 15 Df 15. A VARIABLE (symbols: x, *y*, z ...) is a Functive whose presence is not a necessary condition for the presence of the functive to which it has Function. -- opp Df 14 CONSTANT.

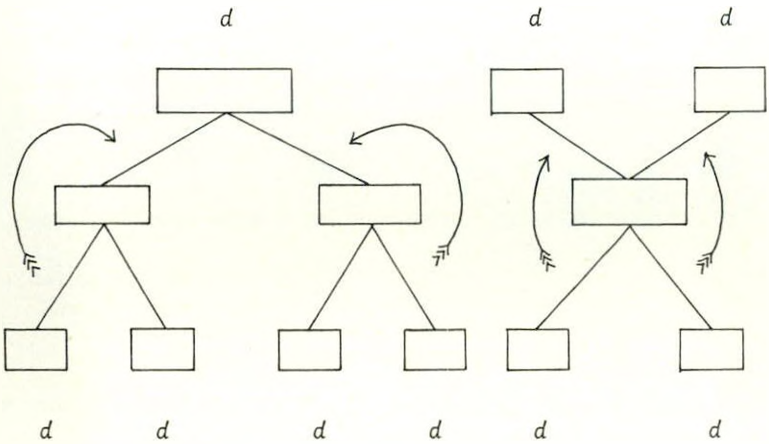
Df 16 Df 16. DETERMINATION is a Function between a

Constant and a Variable. -- opp Df IX RECIPROCITY. -- :: Df 27 SELECTION, Df 135 SPECIFICATION.

N 9. It follows from Df 16 that there is determination between something premised and something premising it; thus there is determination between our premised and premising Opp, and between our premised and premising Dff. N 9

Df 17. A DEDUCTION is a continued Analysis or an Analysis Complex with Determination between the analyses that enter therein. -- opp Df VI INDUCTION. Df 17

N 10. Df 17 in graphic representation: N 10



(*d* here = derivates; cf. Df 18. >>>→ = determining; cf. Df 127.)

N 11. N 11

Df V. SYNTHESIS is description of objects as Components of a Class. -- opp Df 123 DISSECTION. Df V

Df VI. INDUCTION is a continued Synthesis with Determination between the syntheses that enter therein. -- opp Df 17 DEDUCTION. Df VI

It can be shown that synthesis premises analysis but not *vice versa,* and that, consequently, a purely inductive procedure (necessarily with implicit deduction) would not satisfy the requirement of exhaustive description that enters into Pr 1. The procedure is therefore constructed as a deduction, and can be concluded with a synthesis.

Df 18 Df 18. The DERIVATES of a Class are its Components and components-of-components within one and the same Deduction. -- The class is said to INCLUDE (symbol: ▷) the derivates and their mutual functions, and the derivates and their mutual functions are said to ENTER INTO (symbol: ◁) the class.

Df 19 Df 19. A PARTITION is an Analysis of a Process or of a Derivate of a process. -- opp Df 20 ARTICULATION.

Df 20 Df 20. An ARTICULATION is an Analysis of a System or of a Derivate of a system. -- opp Df 19 PARTITION. -- :: Df 68 FREE ARTICULATION, Df 69 BOUND ARTICULATION.

N 12 N 12. It can now be seen that the information given in *GgOC and *GgAOA may be reformulated as partitions of *Gg and its components respectively.

C C. -- *GgA is partitioned into two components: *Gga, articulation of the class of objects (articulation of the class of all (possible) objects; provision of means for fixing upon the "nature" of a given object); and *Ggb, articulation of the class of functives (articulation of the class of all (possible) functives; provision of means for fixing upon the "nature" of a given functive). There is no relationship of premission between these two components, but the component treated first is the one that premises the lower number of Dff.

At this early stage of the procedure, the choice of object to be analyzed and the choice of basis of analysis are both purely arbitrary. The choice is decided solely by the aim of achieving results shown by experience from later components of the procedure to be necessary and sufficient.

*Gga: ARTICULATION OF THE CLASS OF OBJECTS. *Gga

*Gga0. The aim of *Gga is to provide means for identifying a given object as a semiotic or a non-semiotic, and for identifying semiotics as denotative semiotics or non-denotative semiotics, denotative semiotics as languages (or texts) or non-languages (or non-texts), non-denotative semiotics as metasemiotics or connotative semiotics, metasemiotics as meta-(scientific semiotic)s or as internal or external semiologies, and meta-(scientific semiotic)s as internal or external metasemiologies or as non-metasemiologies. *Gga0

In accordance with this aim, *Gga is partitioned into six Opp, which are conducted in the following order, with premised Opp preceding those that premise them:

*Gga1: articulation of the class of objects into the class of semiotics and the class of non-semiotics;

*Gga2: articulation of the class of semiotics into the class of denotative semiotics and the class of non-denotative semiotics;

*Gga3: articulation of the class of denotative semiotics into the class of languages and texts and the class of non-languages and non-texts;

*Gga4: articulation of the class of non-denotative semiotics into the class of metasemiotics and the class of connotative semiotics;

*Gga5: articulation of the class of metasemiotics into the class of meta-(scientific semiotic)s and the class of internal and external semiologies;

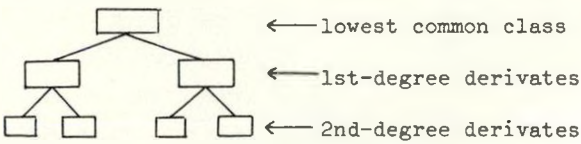
*Gga6: articulation of the class of meta-(scientific semiotic)s into the class of internal and external metasemiologies and the class of non-metasemiologies.

*Gga3 is not premised by the Opp that follow it, but premises those that precede it; its place in respect to *Gga4-6 is therefore arbitrary. The other Opp appear in order of premission.

*Gga1 *Gga1: Articulation of the class of objects into the class of semiotics and the class of non-semiotics.

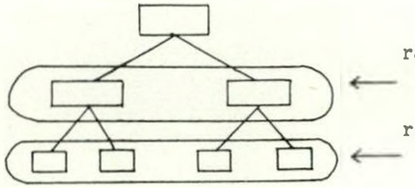
Df 21 Df 21. The DEGREE (symbols: 1, 2, 3 ... following the symbol for the derivate) of Derivates refers to the number of Classes through which they have Function to their lowest common class. -- If the number is 0, the derivates are said to be of the 1st degree; if the number is 1, the derivates are said to be of the 2nd degree; and so forth.

N 13 N 13. Df 21 in graphic representation:



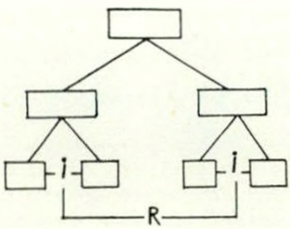
Df 22 Df 22. Derivates of the same Degree belonging to one and the same Process or to one and the same System are said to constitute a RANK.

N 14. Df 22 in graphic representation: N 14



Df 23. MUTATION (symbol: i) is a Function existing between first-Degree Derivates of one and the same Class, a function that has Relation to a function between other first-degree derivates of one and the same class and belonging to the same Rank. -- :: Df 54 COMMUTATION, Df 400 PERMUTATION. Df 23

N 15. Df 23 in graphic representation: N 15



Df 24. A SEMIOTIC (symbol: $\gamma^{\circ}g^{\circ}$) is a Hierarchy, any of whose Components admits of a further Analysis into Classes defined by mutual Relation, so that any of these classes admits of an analysis into Derivates defined by mutual Mutation. -- :: Df 41 SCIENTIFIC SEMIOTIC, Df 42 NON-SCIENTIFIC SEMIOTIC. Df 24

$_*$Gga2: Articulation of the class of semiotics into the class of denotative semiotics and the class of non-denotative semiotics. $_*$Gga2

Df 25. A PLANE (symbol: $_*g^{\circ}$) is a Component of a Semiotic. -- :: Df 165 INTERNAL PLANE, Df 25

Df 166 EXTERNAL PLANE, Df 169 SEMIOLOGICAL PLANE, Df 170 METASEMIOLOGICAL PLANE; Dff 163-164 CONTENT PLANE and EXPRESSION PLANE; Df 189 LINE, Df 270 SIDE.

Df 26 Df 26. A DENOTATIVE SEMIOTIC (symbol: $i\gamma^{\circ}g^{\circ}$) is a Semiotic none of whose Planes is a semiotic. -- opp Df 43 METASEMIOTIC, Df 44 CONNOTATIVE SEMIOTIC.

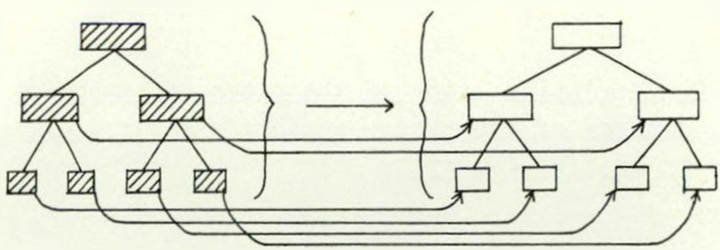
*Gga3 *Gga3: Articulation of the class of denotative semiotics into the class of languages and texts and the class of non-languages and non-texts.

Df 27 Df 27. SELECTION is a Relation between a Constant and a Variable. -- opp Df 58 SOLIDARITY, Df 59 COMBINATION; Df 135 SPECIFICATION.

N 16 N 16. Since the analysis of an Op-chain into Opp is a partition (N 12) and since determination is present between what is premised and what premises it (N 9), it follows from Df 27 that the premission-function between our Opp is a selection.

Df 28 Df 28. MANIFESTATION is a Selection between Hierarchies and between Derivates of different hierarchies.

N 17 N 17. Df 28 in graphic representation:



(→ = selecting; cf. Df 132.)

Df 29. THE FORM is the Constant in a Manifestation. -- opp Df 30 SUBSTANCE. Df 29

Df 30. SUBSTANCE is the Variable in a Manifestation. -- opp Df 29 THE FORM. Df 30

Df 31. A MANIFESTANT or SUBSTANCE-FUNCTIVE (symbol: Λ) is a Derivate of the Substance. -- opp Df 32 MANIFESTATUM. Df 31

Df 32. A MANIFESTATUM (symbol: V) is a Derivate of The Form. -- opp Df 31 MANIFESTANT. Df 32

N 18. The symbols V and Λ are intended to bring to mind the word "value" ("*valeur*"). N 18

Df 33. A SYNTAGMATIC or SIGN-PROCESS (symbol: $\gamma^{\circ}g^{\circ}R$) is a Semiotic Process. -- opp Df 35 PARADIGMATIC. -- $i\gamma^{\circ}g^{\circ}R$ can be used to symbolize the syntagmatic of a denotative semiotic, and corresponding symbols can be used for the syntagmatics of other kinds of semiotics. Df 33

Df 34. A CHAIN (symbol: ^{N}) is a Class that is a Derivate of a Syntagmatic. -- opp Df 36 PARADIGM. -- :: Df 161 ACTUALIZED, Df 162 IDEAL. Df 34

Df 35. A PARADIGMATIC or SIGN-SYSTEM (symbol: $\gamma^{\circ}g^{\circ}\vdots$) is a Semiotic System. -- opp Df 33 SYNTAGMATIC. -- $i\gamma^{\circ}g^{\circ}\vdots$ can be used to symbolize the paradigmatic of a denotative semiotic, and corresponding symbols can be used for the paradigmatics of other kinds of semiotics. Df 35

Df 36. A PARADIGM (symbol: < >) is a Class that is a Derivate of a Paradigmatic. -- opp Df 34 CHAIN. Df 36

Df 37 Df 37. A PURPORT is a Class of Variables which Manifest more than one Chain under more than one Syntagmatic, and/or more than one Paradigm under more than one Paradigmatic.

Df 38 Df 38. A LANGUAGE (symbol: $L\gamma^{O}g^{O:}$) is the Paradigmatic of a Denotative Semiotic whose Paradigms are Manifested by all Purports. -- opp Df 39 TEXT.

Df 39 Df 39. A TEXT (symbol: $L\gamma^{O}g^{O}R$) is the Syntagmatic of a Denotative Semiotic whose Chains are Manifested by all Purports. -- opp Df 38 LANGUAGE.

*Gga4 *Gga4: Articulation of the class of non-denotative semiotics into the class of metasemiotics and the class of connotative semiotics.

Df 40 Df 40. An OPERATION (symbol: Op) is a description that is in agreement with Pr 1.

N 19 N 19. It follows from Df 40 that Op-chains (Df 34) and Op-parts are also Opp. These terms are relative, and *operation* is an "accordion term".

Df VII Df VII. A PROCEDURE is a Class of Opp with mutual Determination.

It follows from Dff 40 and VII that a procedure is an Op.

Df 41 Df 41. A SCIENTIFIC SEMIOTIC is a Semiotic that is an Op. -- opp Df 42 NON-SCIENTIFIC SEMIOTIC.

Df 42 Df 42. A NON-SCIENTIFIC SEMIOTIC is a Semiotic that is not an Op. -- opp Df 41 SCIENTIFIC SEMIOTIC.

Df 43. A METASEMIOTIC is a Scientific Semiotic one or more of whose Planes is (are) (a) Semiotic(s). -- opp Df 44 CONNOTATIVE SEMIOTIC. -- :: Df 46 META-(SCIENTIFIC SEMIOTIC), Df 47 SEMIOLOGY. Df 43

Df 44. A CONNOTATIVE SEMIOTIC (symbol: $x\gamma^{\circ}g^{\circ}$) is a Non-scientific Semiotic one or more of whose Planes is (are) (a) Semiotic(s). -- opp Df 43 METASEMIOTIC. Df 44

*<u>Gga5</u>: <u>Articulation of the class of metasemiotics into the class of meta-(scientific semiotic)s and the class of internal and external semiologies</u>. *<u>Gga5</u>

Df 45. A Semiotic that Enters as a Plane into a semiotic is said to be the latter's OBJECT SEMIOTIC or OBJECT SEMIOTIC FOR the latter. Df 45

Df 46. A META-(SCIENTIFIC SEMIOTIC) is a Metasemiotic that has a Scientific Semiotic as an Object Semiotic. -- opp Df 47 SEMIOLOGY. Df 46

Df 47. A SEMIOLOGY (symbol: ${}_{2}\gamma^{\circ}g^{\circ}$) is a Metasemiotic that has a Non-Scientific Semiotic as an Object Semiotic. -- opp Df 46 META-(SCIENTIFIC SEMIOTIC). -- :: Df 48 INTERNAL SEMIOLOGY, Df 49 EXTERNAL SEMIOLOGY. Df 47

Df 48. An INTERNAL SEMIOLOGY (symbol: $i_{2}\gamma^{\circ}g^{\circ}$) is a Semiology that has a Denotative Semiotic as an Object Semiotic. -- opp Df 49 EXTERNAL SEMIOLOGY. Df 48

Df 49. An EXTERNAL SEMIOLOGY (symbol: $x_{2}\gamma^{\circ}g^{\circ}$) is a Semiology that has a Connotative Semiotic as an Object Semiotic. -- opp Df 48 INTERNAL SEMIOLOGY. Df 49

*Gga6 *Gga6: Articulation of the class of meta-(scientific semiotic)s into the class of internal and external metasemiologies and into the class of non-metasemiologies.

Df 50 Df 50. A METASEMIOLOGY (symbol: ${}_3\gamma^{\circ}g^{\circ}$) is a Meta-(scientific semiotic) whose Object Semiotics are Semiologies. -- :: Df 51 INTERNAL METASEMIOLOGY, Df 52 EXTERNAL METASEMIOLOGY.

Df 51 Df 51. An INTERNAL METASEMIOLOGY (symbol: $i_3\gamma^{\circ}g^{\circ}$) is a Metasemiology whose Object Semiotics are Internal Semiologies. -- opp Df 52 EXTERNAL METASEMIOLOGY.

Df 52 Df 52. An EXTERNAL METASEMIOLOGY (symbol: $x_3\gamma^{\circ}g^{\circ}$) is a Metasemiology whose Object Semiotics are External Semiologies. -- opp Df 51 INTERNAL METASEMIOLOGY.

*Ggb *Ggb: ARTICULATION OF THE CLASS OF FUNCTIVES.

*Ggb0 *Ggb0: *Ggb is partitioned into three Opp with mutual selection: one premised: *Ggb1, articulation of the class of functives into the class of variants and the class of invariants; and two premising: *Ggb2, articulation of the class of variants into the class of varieties and the class of variations; and *Ggb3, articulation of a given functival class. There is no mutual selection between the last two Opp, but the Op performed first is the one that determines the lower number of (previously unintroduced) Dff.

Ggb1: Articulation of the class of functives into the class of variants and the class of invariants. *Ggb1

Df 53. A CORRELATE is a Functive that Contracts Correlation. -- opp Df 60 RELATE. -- :: Df 56 VARIANTS, Df 57 INVARIANTS; Df 72 FIELDS, Df 73 PARTICIPANTS; Df 95 COMPLEMENTARY, Df 96 AUTONOMOUS, Df 136 SPECIFYING, Df 137 SPECIFIED. Df 53

Df 54. COMMUTATION (symbol: ;) is Mutation between the Components[4] of a Paradigm. -- opp Df 55 SUBSTITUTION; Df 400 PERMUTATION. Df 54

Df 55. SUBSTITUTION (symbol: ⁏) is absence of Mutation between the Components[5] of a Paradigm. -- opp Df 54 COMMUTATION. Df 55

Df 56. VARIANTS (symbol: var.) are Correlates with mutual Substitution. -- opp Df 57 INVARIANTS. -- :: Df 63 VARIETIES, Df 64 VARIATIONS. -- The symbol var.*p* is read "the variant *p*". The symbol var.(*p*) is read "variant of *p*". Df 56

Df 57. INVARIANTS are Correlates with mutual Commutation. -- opp Df 56 VARIANTS. Df 57

Ggb2: Articulation of the class of variants into the class of varieties and the class of variations. *Ggb2

Df 58. SOLIDARITY is a Relation between two Constants. -- opp Df 59 COMBINATION, Df 27 SELEC- Df 58

[4] More precisely, the Members (Df 138).
[5] More precisely, the Members (Df 138).

TION; Df 93 COMPLEMENTARITY. -- When the constants that contract the solidarity are two and only two, the solidarity can be called a BILATERAL CONNEXION.

Df 59 Df 59. COMBINATION is a Relation between two Variables. -- opp Df 27 SELECTION, Df 58 SOLIDARITY; Df 94 AUTONOMY.

Df 60 Df 60. A RELATE is a Functive that Contracts Relation. -- opp Df 53 CORRELATE. -- :: Df 61 SOLIDARY, Df 62 COMBINED, Df 131 SELECTING, Df 132 SELECTED.

Df 61 Df 61. SOLIDARY Relates (symbol: ~) are relates that Contract Solidarity. -- opp Df 62 COMBINED, Df 131 SELECTING, Df 132 SELECTED; Df 95 COMPLEMENTARY.

Df 62 Df 62. COMBINED Relates (symbol: —) are relates that Contract Combination. -- opp Df 61 SOLIDARY, Df 131 SELECTING, Df 132 SELECTED; Df 96 AUTONOMOUS.

Df 63 Df 63. A VARIETY (symbol: ~var.) is a Solidary Variant. -- opp Df VARIATION.

Df 64 Df 64. A VARIATION (symbol: —var.) is a combined Variant. -- opp Df 63 VARIETY.

N 20 N 20. ~var. corresponds approximately to the "combinatory variant" of classical linguistics, and —var. to the "free variant".

Df 65 Df 65. An Op with a given result is said to be PARTICULAR if it is asserted that the Op can be performed on a certain object but not on any other object. -- The resultants of a particular Op are called PARTICULARS. -- opp Df 1 UNIVERSAL.

Rg 1. The articulation of a functive into variants is universal, in that the same method of articulation that is applicable to one functive is applicable to any other: Rg 1

1°. From every functive that does not itself appear as final resultant of an exhausted articulation into varieties it is possible -- provided the functive can enter into a chain including three or more relates -- to register n‘(n - 1) *varieties*.

2°. *Variations* can be registered through continued articulation. If, for example, the variations can be registered according to the binomial formula, it is possible to set up two —var.1 -- namely, the two halves of the Gauss curve -- of any functive that is not itself the final resultant of an exhausted articulation into variations, and each of these first-degree variations may be further articulated into indefinitely many variations -- for example, through a continued halving.

In special cases, however, this universal articulation into variants can be supplemented by a particular articulation (Rgg 63, 68, 73, 143, 145, 146, 147, 149, and 150). An articulation into variants is shown to be particular when it is impossible to set the number of variants arbitrarily.

Apart from these cases, the articulation into variants, in accordance with Pr 2, is not to be performed in the individual Opp under •GgB, but is performed once and for all in the present Op.

Rg 2. It follows, moreover, from Pr 2 that variations are to be set up only of varieties (and Rg 2 of variations that can be articulated into variations), not of invariants. Experience shows that the articulation of a functive into ~var. and into —var. is exhausted alternately, but can be continued as an articulation into —var. and ~var. respectively.

Df 66 Df 66. A LOCALIZED Variety is a variety that cannot be Articulated into varieties. -- opp Df 67 INDIVIDUAL.

Df 67 Df 67. An INDIVIDUAL is a Variation that cannot be Articulated into variations. -- opp Df 66 LOCALIZED.

Rg 3 Rg 3. It follows from Pr 4 that one must operate with the lowest possible number of variants.

1°. With respect to the *varieties*, it follows that one must operate only with varieties that are each solidary with a single variety. If a functive p enters into the chains pq, pr, and pqr, two and only two ~var.(p) are to be set up, namely var.(p)$\sim q$ and var.(p)$\sim r$; in pqr there is no third var.(p)$\sim qr$ present, but a unit composed of var.(p)$\sim q$ and var.(p)$\sim r$: (var.(p)$\sim q$)—(var.(p)$\sim r$). -- It follows that the relation between the variants entering into such a unit may, depending on the circumstances, be a combination (as in the given example), a selection, or a solidarity. If, for example, the functive p enters into the chains pr and pqr, but not into a chain pq, then in pqr a unit (var.(p)$\sim q$)→(var.(p)$\sim r$) is present; and if the functive p enters into the chain pqr, but neither into a chain pq nor into a chain pr, then in pqr a unit (var.(p)$\sim q$)~(var.(p)$\sim r$) is present.

2°. With respect to the *variations*, it follows that

a) at each stage of the analysis the —var. that are of lowest number are to be registered. This number will usually be two and only two. But experience shows that in *Gg it is sometimes necessary to register three —var. 1 (Rg 23), and, moreover, the number of individuals can range from two to indefinitely many.

b) if, in addition to the variations *p* and *q*, a variation *pq* is present, this last is not to be registered as a third —var., but as var.*p*-var.*q*.

(On the requirement of operating with the lowest possible number of variants, see also Rg 41.)

*Ggb3: Articulation of a given functival class. *Ggb3

*Ggb3.1: Free articulation. *Ggb3.1

A. -- A

Df 68. FREE ARTICULATION is Articulation of a given Functival Class without a given Function as basis of Analysis. -- opp Df 69 BOUND ARTICULATION. Df 68

Df 69. BOUND ARTICULATION is Articulation of a given Functival Class with a given Function as basis of Analysis. -- opp Df 68 FREE ARTICULATION. Df 69

Rg 4. Free articulation is not applicable to the class of functives as a whole (the totality of all functives), which is amenable only to Rg 4 bound articulation: with correlation-relation as basis of analysis, it can be universally articulated into the class of correlates and the class of relates, and, with mutation as basis of analysis, it can be particularly articulated into the class of variants and the class of invariants. If the class of correlates and the class of relates are each further articulated by free articulation, the articulation will lead to registration of the same derivates in the two classes.

Free articulation must therefore be equivalent to articulation of a functival class that is a derivate of the class of functives as a whole. Since the universal articulation of the class of functives as a whole is an articulation into the class of correlates and the class of relates, it follows that no functival class subjected to free articulation can include both correlates and relates. Consequently, free articulation will be either an articulation of a given class of correlates (or a given paradigm) without a given correlation as basis of analysis, or an articulation of a given class of relates (or a given chain) without a given relation as basis of analysis.

Df 70 Df 70. An EXCLUSION is a Correlation in which no Correlates have common Variants. -- opp Df 71 PARTICIPATION.

Df 71 Df 71. A PARTICIPATION is a Correlation in which Correlates have common Variants. -- opp Df 70 EXCLUSION. -- cf. Df 76 EXTREME PARTICIPATION.

Df 72 Df 72. A FIELD (symbols: ⁝a, ⁝b, ⁝c) is a

Correlate that Contracts Exclusion. -- opp Df 73 PARTICIPANT.

Df 73. A PARTICIPANT (symbols: ⁝α, ⁝A, ⁝β, Df 73
⁝B, ⁝γ, ⁝Γ, ⁝β_2, ⁝B_2, ⁝γ_2, ⁝Γ_2) is a Correlate that Contracts Participation. -- opp Df 72 FIELD.

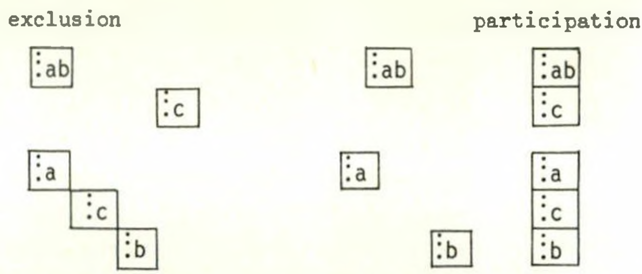
Df 74. A Correlation is said to be CON- Df 74
TRARY (symbol: a⁝b) if it is Contracted by two Correlates of which each is defined as 'everything which (within the Paradigm of the correlates) is not the other correlate, except what (within the paradigm of the correlates) is neither the one nor the other correlate.' -- opp Df 75 CONTRADICTORY CORRELATION, Df 78 SIMPLE CORRELATION.

Df 75. A Correlation is said to be CONTRA- Df 75
DICTORY (symbol: ab⁝c) if it is Contracted by two Correlates of which each is defined as 'everything which (without exception within the Paradigm of the correlates) is not the other correlate.' -- opp Df 74 CONTRARY CORRELATION, Df 78 SIMPLE CORRELATION.

Rg 5. Any participation (participant-cor- Rg 5
relation) can be transformed into an exclusion (field-correlation). A contradictory exclusion comprises only two fields, ⁝ab and ⁝c, which are defined as opposites. A contradictory participation can therefore be transformed into a two-field exclusion. A contrary exclusion comprises three fields, ⁝a and its opposite ⁝b together with a field ⁝c which is defined as 'neither ⁝a nor ⁝b, but situated in the paradigm of the correlates.' A contrary participation can therefore be transformed into a three-field exclusion.

Rg 6 Rg 6. Any exclusion can be transformed into a participation. A two-field exclusion can, for example, be transformed into a participation in which the one participant occupies the field :ab and the other participant occupies the field :c and the field :ab as well. A three-field exclusion can, for example, be transformed into a participation in which the one participant occupies the field :a, the second participant occupies the field :b, and the third participant occupies the field :c and the fields :a and :b as well.

N 21 N 21. Graphic representation to illustrate Rgg 5-6 with the given examples:



Rg 7 Rg 7. It follows from Rgg 5-6 that Dff 70-71 do not in themselves lead to a bound articulation, but only to a free articulation.

Rg 8 Rg 8. Any contrary exclusion can be transformed into a contradictory participation, and any contradictory participation into a contrary exclusion.

N 22. For example: N 22

exclusion participation

Rg 9. Any contradictory exclusion can be transformed into a contrary participation, and any contrary participation into a contradictory exclusion. Rg 9

N 23. For example: N 23

exclusion participation

Rg 10. It follows from Rgg 8-9 that Dff 74-75 do not in themselves lead to a bound articulation, but only to a free articulation. Rg 10

B. -- B

Df 76. An EXTREME PARTICIPATION is a Participation in which the Participants have the highest possible number of common Variants. -- cf. Df 71 PARTICIPATION. Df 76

Df 77. A CONFIGURATION is the Function between Participants and Fields in a Correlation. Df 77

Rg 11. In free articulation, in order to Rg 11 comply with Pr 2 (and Pr 5), an extreme participation is made the basis for registering all correlations. (It follows that all correlates are to be viewed as participants.) For extreme participation includes all other configurations (both all conceivable lesser participations and exclusion as well) as special cases (i.e., as variations and/or variation-chains) but not *vice versa*, and therefore the simplest description is obtained by taking extreme participation as the basis, since otherwise more than one configuration would have to be taken as bases.

C C. --

Df 78 Df 78. A SIMPLE CORRELATION (symbol: a⁝b(c)) is a Correlation which, viewed as Exclusion, can be indifferently construed as Contrary or Contradictory. -- opp Df 74 CONTRARY CORRELATION, Df 75 CONTRADICTORY CORRELATION.

Rg 12 Rg 12. The requirement of exhaustive description, contained in Pr 1, implies that the highest possible number of correlates shall be anticipated in the registration of correlations. By operating with simple correlation as well as contrary and contradictory correlation, the possible number is augmented by two. But besides, according to Pr 2, simple correlation must be taken as basis for registering correlations with two and only two correlates.

D D. --

Df 79 Df 79. A Participant is said to INSIST on a Field if the field is Included in all the first-Degree Variations of the participant.

Rg 13. With free articulation according to the given Dff there are seven logical possibilities in all for the determination of a given functive in its correlation with other functives under the same functival class. Viewed as exclusions, they can be described as follows (allowing for the possibilities both of two-field and three-field exclusion): Rg 13

op Df 80. ⁝α = occupying the field ⁝a, in opposition to ⁝b or to ⁝bc; Df 80

op Df 81. ⁝A = occupying the field ⁝b or ⁝bc, in opposition to ⁝a; Df 81

op Df 82. ⁝β = occupying the field ⁝a, in opposition to ⁝b or in opposition to ⁝b and to ⁝c; Df 82

op Df 83. ⁝B = occupying the field ⁝b, in opposition to ⁝a or in opposition to ⁝a and to ⁝c; Df 83

op Df 84. ⁝γ = occupying the fields ⁝ab, in opposition to ⁝c or without opposition of field; Df 84

op Df 85. ⁝Γ = occupying the field ⁝c, in opposition to ⁝a and to ⁝b; Df 85

op Df 86. ⁝$Γ_2$ = alternately occupying the fields ⁝a and ⁝b with mutual opposition and both in opposition to ⁝c or without opposition of field. Df 86

op Df 87. AREA (symbols: ⁝(α), ⁝(β), ⁝(γ)) is the totality of ⁝α and ⁝A (and ⁝α´, ⁝A´, ⁝α͵, Df 87

⁝Aˏ) or of ⁝β and ⁝B (and ⁝β´, ⁝B´, ⁝βˏ, ⁝Bˏ, ⁝β_2, ⁝B_2) or of ⁝γ, ⁝Γ, and, where appropriate, ⁝Γ_2 (and ⁝γ´, ⁝Γ´, ⁝Γ´$_2$, ⁝γˏ, ⁝Γˏ, ⁝Γ_2ˏ, ⁝γ_2).

N 24 N 24. Df 87 is introduced out of purely practical considerations, to be applied in cases where different configurations are tested with respect to a given functival class. -- The special symbols in parentheses, ⁝α´, ⁝A´, ⁝β´, ⁝B´, ⁝γ´, ⁝Γ´, ⁝Γ´$_2$, ⁝αˏ, ⁝Aˏ, ⁝βˏ, ⁝Bˏ, ⁝γˏ, ⁝Γˏ, ⁝Γ_2ˏ, ⁝β_2, ⁝B_2, ⁝γ_2, are introduced in Dff 118-122 and in Rg 27.

Rg 14 Rg 14. Viewed as extreme participations, the seven possibilities given in Rg 13 can be described as follows, with three fields, rather than two, taken as basis in accordance with the requirement of exhaustive description contained in Pr 1:

⁝α = occupying the fields ⁝ac without insisting on any field;

⁝A = occupying the fields ⁝abc without insisting on any field;

⁝β = occupying the fields ⁝abc and insisting on ⁝a;

⁝B = occupying the fields ⁝abc and insisting on ⁝b;

⁝γ = occupying the fields ⁝abc and insisting on ⁝ab;

⁝Γ = occupying the fields ⁝abc and insisting on ⁝c;

⁝Γ_2 = alternately occupying the fields ⁝a and ⁝b, and in both cases also ⁝c, without insisting on any field.

In brief formulation:

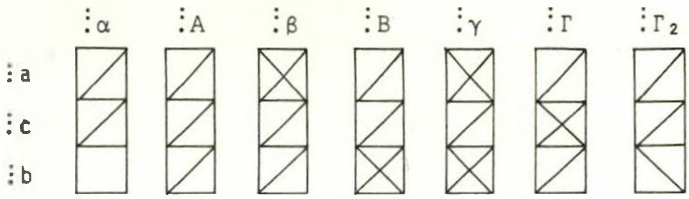
⁝α = ⁝ac

⁝A = ⁝abc

⁝β = ⁝$\underline{a}$bc

$$\vdots B = \vdots a\underline{b}c$$
$$\vdots \gamma = \vdots \underline{ab}c$$
$$\vdots \Gamma = \vdots ab\underline{c}$$
$$\vdots \Gamma_2 = \vdots {}^{a}_{b}c$$

In graphic representation



Rg 15. If the number of the correlates permits or requires it, the functival class may, or must, respectively, be registered as a multiplicative product of the given possibilities. Rg 15

Df 88. A DIMENSION is a Class that Enters into a class as multiplicative factor. Df 88

Df 89. PARTMENTS are Correlates Entering into a Dimension. Df 89

E. -- E

Df 90. A SUM is a Class that has Function to one or more other classes within the same Rank. Df 90
-- :: Df 97 CATEGORY, Df 133 UNIT; Df 176 EXTRINSIC, Df 371 INTRINSIC; Df 370 MONOPLANE, Df 367 PLURIPLANE, Df 368 BIPLANE; Df 378 HETEROGENEOUS, Df 228 HOMOGENEOUS; Df 379 HETEROSUBGENEOUS, Df 238 HOMOSUBGENEOUS; Df 381 HETEROTYPICAL, Df 382 HOMOTYPICAL; Df 383 HETEROSUBTYPICAL, Df 385 HOMOSUBTYPICAL; Df 387 HETEROTAGMATIC, Df 389 HOMOTAGMATIC; Df 391 HETEROSUBTAGMATIC, Df 392 HOMO-

SUBTAGMATIC; Df 91 COMPLEX, Df 92 SIMPLEX; Df 215 LEAST-SUM, Df 395 GREATEST-SUM.

Df 91 Df 91. A Sum is COMPLEX if it Includes two or more other sums of a given Degree. -- Complex sums may be specified as DUPLEX, TRIPLEX, QUADRUPLEX, QUINCUPLEX, SEXIESPARTITE, SEPTEMPLEX, OCTUPLEX, ... MULTIPLEX. A Complex unit is symbolized by the exponent $^{>1}$, a duplex unit by the exponent ^{2}, a triplex unit by ^{3}, and so forth. -- opp Df 92 SIMPLEX.

Df 92 Df 92. A Sum is SIMPLEX if it Includes one and only one sum of a given Degree. -- A simplex unit is symbolized by the exponent ^{1}. -- opp Df 91 COMPLEX.

Df 93 Df 93. COMPLEMENTARITY is a Correlation between two Constants. -- opp Df 94 AUTONOMY, Df 135 SPECIFICATION; Df 58 SOLIDARITY. -- If the constants that contract the complementarity are two and only two, the complementarity may be called a BILATERAL CORRELATION.

Df 94 Df 94. AUTONOMY is a Correlation between two Variables. -- opp Df 93 COMPLEMENTARITY, Df 135 SPECIFICATION; Df 59 COMBINATION.

Df 95 Df 95. COMPLEMENTARY Correlates (symbol: ⊥) are correlates that Contract Complementarity. -- opp Df 96 AUTONOMOUS, Df 136 SPECIFYING, Df 137 SPECIFIED; Df 61 SOLIDARY.

Df 96 Df 96. AUTONOMOUS Correlates (symbol: †) are correlates that Contract Autonomy. -- opp Df 95 COMPLEMENTARY, Df 136 SPECIFYING, Df 137 SPECIFIED; Df 62 COMBINED.

Rg. 16. The correlations between the possibilities provided in Rg 13 appear from the following schema: Rg 16

$$\left.\begin{matrix}\vdots\alpha\\+\\\vdots A\end{matrix}\right\} + \left\{\begin{matrix}\vdots\beta\\+\\\vdots B\end{matrix}\right\} + \left\{\begin{matrix}\vdots\gamma\\+\\\vdots\Gamma\end{matrix}\right\} + \vdots\Gamma_2$$

A class can accordingly include the following possible configurations:

simplex classes: $\vdots\Gamma_2$

duplex: $\vdots\alpha$ $\vdots A$

triplex:

1°	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
2°	$\vdots\beta$	$\vdots B$	$\vdots\gamma$
3°	$\vdots\beta$	$\vdots B$	$\vdots\Gamma$

quadruplex:

1°	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma$
2°	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma_2$
3°	$\vdots\beta$	$\vdots B$	$\vdots\Gamma$	$\vdots\Gamma_2$

4°	$\vdots\alpha$	$\vdots A$
$\vdots\alpha$	×	×
$\vdots A$	×	×

quincuplex:

1°	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma$	$\vdots\Gamma_2$
2°	$\vdots\alpha$	$\vdots A$	$\vdots\beta$	$\vdots B$	$\vdots\gamma$
3°	$\vdots\alpha$	$\vdots A$	$\vdots\beta$	$\vdots B$	$\vdots\Gamma$

4°	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	
$\vdots A$	×	×	
$\vdots\Gamma_2$			×

sexiespartite:

1°	$\vdots\alpha$	$\vdots A$	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma$
2°	$\vdots\alpha$	$\vdots A$	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma_2$
3°	$\vdots\alpha$	$\vdots A$	$\vdots\beta$	$\vdots B$	$\vdots\Gamma$	$\vdots\Gamma_2$

4°

	$\vdots\alpha$	$\vdots A$
$\vdots\alpha$	×	×
$\vdots A$	×	×
$\vdots\Gamma_2$	×	×

with the following alternative possibilities:

1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\gamma$

$\vdots\beta$ $\vdots B$ $\vdots\Gamma$

septemplex:

1° $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\gamma$ $\vdots\Gamma$ $\vdots\Gamma_2$

2°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma_2$			×

with the following alternative possibility:

1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

octuplex: 1°

	$\vdots\alpha$	$\vdots A$
$\vdots\beta$	×	×
$\vdots B$	×	×
$\vdots\gamma$	×	×
$\vdots\Gamma$	×	×

with the following alternative possibilities:

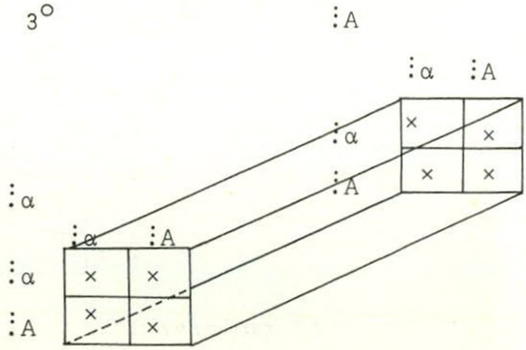
1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\gamma$ $\vdots\Gamma_2$

$\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

2°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	×
$\vdots A$	×	×	×
$\vdots\Gamma_2$	×	×	

3°



multiplex:

9 members: 1°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	×
$\vdots A$	×	×	×
$\vdots\Gamma_2$	×	×	×

with the following alternative possiblities:

1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\gamma$

$\vdots\beta$ $\vdots B$ $\vdots\Gamma$

2nd dimension: $\vdots\beta$ $\vdots B$ $\vdots\gamma$

$\vdots\beta$ $\vdots B$ $\vdots\Gamma$

2°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma_2$	×	×	×

with the following alternative possibility:
1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

3°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma$	×	×	
$\vdots\Gamma_2$			×

10 members: 1°

	$\vdots\alpha$	$\vdots A$
$\vdots\beta$	×	×
$\vdots B$	×	×
$\vdots\gamma$	×	×
$\vdots\Gamma$	×	×
$\vdots\Gamma_2$	×	×

with the following alternative possibilities:
1st dimension: $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\gamma$
$\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\Gamma$

2°

	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	×	
$\vdots B$	×	×	×	
$\vdots\gamma$	×	×	×	
$\vdots\Gamma_2$				×

with the following alternative
possibilities:
1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$
2nd dimension: $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

11 members: 1°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma$	×	×	
$\vdots\Gamma_2$	×	×	×

2°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	
$\vdots A$	×	×	
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma_2$			×

with the following alternative
possibility:
1st dimension: $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

12 members: 1°

	⋮α	⋮A
⋮α	×	×
⋮A	×	×
⋮β	×	×
⋮B	×	×
⋮γ	×	×
⋮Γ	×	×

with the following alternative possibilities:

1st dimension: ⋮α ⋮A ⋮β ⋮B ⋮γ ⋮Γ_2
⋮α ⋮A ⋮β ⋮B ⋮Γ ⋮Γ_2

2°

	⋮α	⋮A	⋮Γ_2
⋮β	×	×	×
⋮B	×	×	×
⋮γ	×	×	×
⋮Γ	×	×	×

with the following alternative possibilities:

1st dimension: ⋮β ⋮B ⋮γ ⋮Γ_2
⋮β ⋮B ⋮Γ ⋮Γ_2

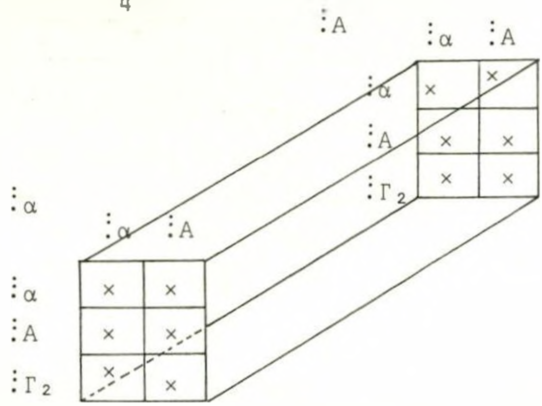
2nd dimension: ⋮β ⋮B ⋮γ
⋮β ⋮B ⋮Γ

3°

	⋮α	⋮A	⋮Γ_2
⋮α	×	×	×
⋮A	×	×	×
⋮β	×	×	
⋮B	×	×	
⋮γ	×	×	

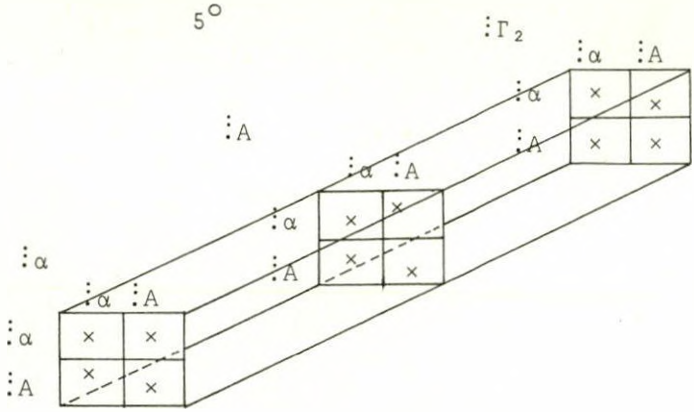
with the following alternative
possibility:
1st dimension: ⁝α ⁝A ⁝β ⁝B ⁝Γ

4°



with the following alternative
possibilities:
1st dimension: ⁝β ⁝B ⁝γ
⁝β ⁝B ⁝Γ

5°



with the following alternative
possibilities:
3rd dimension: ⁝β ⁝B ⁝γ
⁝β ⁝B ⁝Γ

13 members:

1^o

	$\vdots\alpha$	$\vdots A$	$\vdots\beta$	$\vdots B$	$\vdots\gamma$
$\vdots\alpha$	×	×			
$\vdots A$	×	×			
$\vdots\beta$			×	×	×
$\vdots B$			×	×	×
$\vdots\gamma$			×	×	×

with the following alternative possibilities:

1st dimension: $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\Gamma$

2nd dimension: $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\Gamma$

2^0

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	
$\vdots A$	×	×	
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma_2$	×	×	×

with the following alternative possibility:

1st dimension: $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

3^O

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	
$\vdots A$	×	×	
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma$	×	×	
$\vdots\Gamma_2$			×

4°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	×
$\vdots B$	×	×	×
$\vdots\gamma$	×	×	×
$\vdots\Gamma$	×	×	×
$\vdots\Gamma_2$			×

5°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\alpha$	×	×	×
$\vdots A$	×	×	×
$\vdots\beta$	×	×	
$\vdots B$	×	×	
$\vdots\gamma$	×	×	
$\vdots\Gamma_2$			×

with the following alternative
possibility:

1st dimension: $\vdots\alpha$ $\vdots A$ $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

6°

	$\vdots\alpha$	$\vdots A$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	×
$\vdots B$	×	×	×
$\vdots\gamma$	×	×	×
$\vdots\Gamma$	×	×	
$\vdots\Gamma_2$	×	×	

7°

	$\vdots\beta$	$\vdots B$	$\vdots\gamma$	$\vdots\Gamma_2$
$\vdots\beta$	×	×	×	×
$\vdots B$	×	×	×	×
$\vdots\gamma$	×	×	×	×
$\vdots\Gamma_2$				×

with the following alternative possibilities:

1st dimension: $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$
2nd dimension: $\vdots\beta$ $\vdots B$ $\vdots\Gamma$ $\vdots\Gamma_2$

The calculation, which we conclude here, can be continued indefinitely.

Rg 17 Rg 17. In free articulation, all conceivable configurations are to be anticipated in each individual case. In the exposition, when the procedure is applied to a given object, if more than one conceivable configuration offers, any one can be chosen arbitrarily. (Cf. Rg 59.)

F F. --

Df 97 Df 97. A CATEGORY (symbol: { }) is a Paradigm that has Correlation to one or more other paradigms within the same Rank. -- opp Df 133 UNIT. -- An exponent (except for the symbols $_2$ and $_3$; see Dff 169-170) may be placed at the lower left of a formula for a category to indicate more precisely the class of functives entering into the category. If such an exponent is added, the symbol for category can be omitted: ${}_{\sim}p = {}_{\sim}\{p\}$ = category of functives defined by solidarity; ${}_{\_}p = {}_{\_}\{p\}$ = category of functives defined by combination; and so forth. A category of glossemes (Df 183) can be symbolized by the category-sign alone or by such an exponent alone: $\{\ \} = \{_{*}g\}$ = category of glossemes; ${}_{\sim} = {}_{\sim *}g$ = category of glossemes defined by solidarity; ${}_{\_} = {}_{\_ *}g$ = category of glossemes defined by combination; and so forth.

[Df 97a. A FUNCTIONAL FIELD is a Function with all its possible Functives.][6] [Df 97a]

Df 98. An ESTABLISHMENT is a Relation that exists between a Sum and a Function Entering into the sum, and that the function Contracts as Constant.[7] Df 98

Df 99. The Function that has Establishment Df 99

[6] At some time after the typed version had been prepared from the ms., the definitions of ESTABLISHMENT, ESTABLISHING, and ESTABLISHED were revised so as to presuppose a definition of FUNCTIONAL FIELD. Directions were then added to the ms. to insert this new definition and to alter the three others in accordance with the card file of definitions. The three revised definitions (to be compared with Dff 98, 99, and 100, below) appear in the file as follows:

> An ESTABLISHMENT is a Relation that exists between a Paradigm of Sums and a Functional Field Entering into one or more of the sums, and that the paradigm of sums Contracts as Constant.
>
> The Functional Field that has Establishment to a Paradigm of Sums is called ESTABLISHING (symbol:). The functional field is said to ESTABLISH each of the sums into which it Enters.
>
> A sum into which Enters a Functional Field that has Establishment to the Paradigm of the sum is called ESTABLISHED (symbol:).

Still later -- as recorded in a multigraphed report of a colloquium held on December 2, 1957 -- Hjelmslev adopted the following strategy of definition:

> FUNCTIONAL FIELD -- as above;
>
> ESTABLISHMENT -- the Relation between a Function and its Functional Field;
>
> CELL -- Functional Field having Cohesion to a Paradigm of Sums, which (paradigm) Contracts the cohesion as Constant. [Contrast Df 216, below. (F.J.W.)] The cohesion is called a CONSOLIDATION, and the cell is said to CONSOLIDATE the constant.

(F.J.W.)

[7] This is the form in which the definition also appears in *OSG* (page 76); in *PTL* it was modified by deletion of the final clause. (F.J.W.)

to a Sum is called ESTABLISHING (symbol: ↶). -- opp Df 100 ESTABLISHED.

Df 100 Df 100. The Sum that has Establishment to a Function is called ESTABLISHED (symbol: ↷). -- opp Df 99 ESTABLISHING.

Df 101 Df 101. A POLARITY is a Correlation that Establishes a Category. -- opp Df 102 HOMOLOGY.

Df 102 Df 102. An HOMOLOGY is a Correlation that does not Establish a Category. -- opp Df 101 POLARITY.

Rg 18 Rg 18. Polarity is registered between each of the possibilities ⁝α, ⁝β, ⁝γ and each of the possibilities ⁝A, ⁝B, ⁝Γ, ⁝Γ_2. Thus there are twelve polarities:

α ⁝ A
α ⁝ B
α ⁝ Γ
α ⁝ Γ_2
β ⁝ A
β ⁝ B
β ⁝ Γ
β ⁝ Γ_2
γ ⁝ A
γ ⁝ B
γ ⁝ Γ
γ ⁝ Γ_2

Rg 19 Rg 19. Homology is registered between the possibilities ⁝α, ⁝β, and ⁝γ, and between the possibilities ⁝A, ⁝B, ⁝Γ, and ⁝Γ_2. Thus there are nine homologies:

$\alpha \vdots \beta$

$\alpha \vdots \gamma$

$\beta \vdots \gamma$

$A \vdots B$

$A \vdots \Gamma$

$A \vdots \Gamma_2$

$B \vdots \Gamma$

$B \vdots \Gamma_2$

$\Gamma \vdots \Gamma_2$

G. -- G

Dff 103-104. Given a Functive that is present under certain conditions and absent under certain other conditions, then, under the conditions where the functive is present, there is said to be APPLICATION of the functive, and under these conditions the functive is said to APPLY, -- and under the conditions where the functive is absent, there is said to be SUSPENSION (symbol: ‾) of the functive, and under these conditions the functive is said to BE SUSPENDED. Dff 103-104

Df 105. An OVERLAPPING (symbol: /) is a Suspended Mutation between two Functives. -- :: Df 158 FACULTATIVITY, Df 159 LATENCY. Df 105

Df 106. A SYNCRETISM is the Category Established by an Overlapping. Df 106

N 25. It follows from Dff 105-106 that a syncretism can contract overlapping (either with another syncretism or with a non-syncretism). N 25

Df 107. A SEJUNCTION is the Correlation between the Category of Suspended Correlates and the Df 107 category of Applying correlates within a category.

N 26 N 26. A sejunction does not establish a category: there is combination between the sejunction and the category into which it enters; and the sejunction does not enter into the subcategories that appear by virtue of it (i.e., the category of suspended correlates and the category of applying correlates); thus, Df 98 is not satisfied.

Df 108 Df 108. A Category Entered into by a Sejunction is said to be DEFECTIVE when the sejunction Applies.

Df 109 Df 109. A DOMINANCE is a Solidarity between a Variant on the one hand and an Overlapping or a Sejunction on the other hand. -- :: Df 110 SYNCRETIZATION, Df 111 DEFECTIVATION; Df 156 OBLIGATORY, Df 157 OPTIONAL.

Df 110. Df 110. A SYNCRETIZATION is a Solidarity between a Variant and an Overlapping. -- The variant is said to be SYNCRETIZING in respect of the Syncretism that is Established by the overlapping. -- opp Df 111 DEFECTIVATION.

Df 111 Df 111. A DEFECTIVATION is a Solidarity between a Variant and a Sejunction. -- The variant is said to DEFECTIVATE (symbol: $\downarrow$) the Defective Category, and the latter is said to BE DEFECTIVATED BY (symbol: $\uparrow$) the variant. -- opp Df 110 SYNCRETIZATION.

Df 112 Df 112. A DOMINANT (symbol: $\in$) is the Variant Contracting a Dominance. -- opp Df 113 DOMINATE. -- :: Df 110 SYNCRETIZING, Df 111 DEFECTIVATING.

Df 113 Df 113. A DOMINATE (symbol: $\ni$) is the

Overlapping or Sejunction Contracting a Dominance. -- opp Df 112 DOMINANT.

Df 114. A POLAR is a Functive that Contracts Polarity. -- opp Df 115 HOMOLOGUE -- :: Df 116 INTENSIVE, Df 117 EXTENSIVE, Df 118 CONTENSIVE. Df 114

Df 115. A HOMOLOGUE is a Functive that Contracts Homology. -- opp Df 114 POLAR. Df 115

Rg 20. To meet Df 101, correlates that can enter into syncretism together within the category subjected to free articulation are to be registered as *polars*. Rg 20

N 27. The justification and necessity of this rest in the fact that a syncretism is a category which, in compliance with the requirement of exhaustive description included in Pr 1, must be viewed as established (Df 100) both by the overlapping (Df 105) and by the correlation between the correlates entering into the syncretism. N 27

Rg 21. To meet Df 102, correlates that cannot be determined to be polar according to Df 101 and/or Rg 20 and that can contract mutual sejunction within the category subjected to free articulation are registered as *homologues*. Rg 21

N 28. The justification and necessity of this rest in the fact that a sejunction gives rise to two categories but does not establish a category common to both (N 26). N 28

Df 116. An INTENSIVE (symbols: ⁝α, ⁝β, ⁝γ) is a Polar that has Dominant Variants and that Contracts Polarity with a polar that does not have dominant variants. -- opp Df 117 EXTENSIVE, Df 118 CONTENSIVE. Df 116

Df 117 Df 117. An EXTENSIVE (symbols: $\vdots A$, $\vdots B$, $\vdots \Gamma$, $\vdots \Gamma_2$) is a Polar that does not have Dominant Variants and that Contracts Polarity with a polar that has dominant variants. -- opp Df 116 INTENSIVE, Df 118 CONTENSIVE).

Df 118 Df 118. A CONTENSIVE (symbols: $\vdots \alpha'$, $\vdots A'$, $\vdots \beta'$, $\vdots B'$, $\vdots \gamma'$, $\vdots \Gamma'$, $\vdots \Gamma_2'$) is a Polar that Contracts no Polarity permitting its determination as being Intensive or as being Extensive. -- opp Df 116 INTENSIVE, Df 117 EXTENSIVE. -- :: Df 119 PSEUDOINTENSIVE, Df 120 PSEUDOEXTENSIVE.

Df 119 Df 119. A PSEUDOINTENSIVE (symbols: $\vdots \alpha'$, $\vdots \beta'$, $\vdots \gamma'$) is a Contensive that occupies the place of an Intensive in a Correlation. -- opp Df 120 PSEUDOEXTENSIVE.

Df 120 Df 120. A PSEUDOEXTENSIVE (symbols: $\vdots A'$, $\vdots B'$, $\vdots \Gamma'$, $\vdots \Gamma_2'$) is a Contensive that occupies the place of an Extensive in a Correlation. -- opp Df 119 PSEUDOINTENSIVE.

Df 121 Df 121. An INEXTENSIVE (symbols: $\vdots \alpha_{\prime}$, $\vdots \beta_{\prime}$, $\vdots \gamma_{\prime}$) is an Extensive that occupies the place of an Intensive in a Correlation. -- opp Df 122 EXINTENSIVE.

Df 122 Df 122. An EXINTENSIVE (symbols: $\vdots A_{\prime}$, $\vdots B_{\prime}$, $\vdots \Gamma_{\prime}$, $\vdots \Gamma_{2\prime}$) is an Intensive that occupies the place of an Extensive in a Correlation. -- opp Df 121 INEXTENSIVE.

N 29 N 29.

Df VIII Df VIII. A TEMPO is an Op that Enters into a Procedure.

Rg 22. The correlates under the class subjected to free articulation are subjected to the following procedure: Rg 22

Tempo 1. Correlate-pairs which, according to Df 101 and/or Rg 20, can be determined to consist of two polars are to be treated as follows:

1°. If one of the polars in such a pair of correlates has dominant variants and the other does not, then, in accordance with Dff 116-117, the polar that has dominant variants is registered as *intensive* and the one that does not is registered as *extensive.*

2°. If both or neither of the polars in such a pair of correlates have dominant variants, then:

a) if one of them can be determined to be intensive in another such pair of correlates, the other is registered as *extensive;*

b) if one of them can be determined to be extensive in another such pair of correlates, the other is registered as *intensive;*

c) if neither of them can be determined to be either intensive or extensive in another such pair of correlates, they are both registered, in accordance with Df. 118, as *contensives.*

Tempo 2. Correlates that cannot be determined to be polars according to Df 101 and/or Rg 20 and that cannot be determined to be homologues according to Rg 21 are to be treated as follows:

1°. If such a correlate has dominant variants, it is registered as *intensive,* in accordance with Df 116.

2°. If such a correlate has no dominant variants, it is registered as *contensive,* in accordance with Df 118.

Tempo 3. With reference to the correlations of Rg 16, designations are given to the correlates that appear from the free articulation so that the highest possible number of *intensives* are designated ⁝α, ⁝β, ⁝γ, and the highest possible number of *extensives* are designated ⁝A, ⁝B, ⁝Γ, ⁝Γ_2, while -- depending on what the correlations require -- *contensives* are registered, in accordance with Dff 119-120, partly as *pseudointensives* (and designated ⁝α´, ⁝β´, ⁝γ´) and partly as *pseudoextensives* (and designated ⁝A´, ⁝B´, ⁝Γ´, ⁝Γ_2´).

Extensives which the correlations require to occupy the same place in the correlations as intensives are registered as *inextensives* (and designated ⁝α‸, ⁝β‸, ⁝γ‸) according to Df 121. Intensives which the correlations require to occupy the same place in the correlations as extensives are registered as *exintensives* (and designated ⁝A‸, ⁝B‸, ⁝Γ‸, ⁝Γ_2‸)according to Df 122.

H H. --

Rg 23 Rg 23. Since all correlates are viewed as participants (Rg 11), the fields (⁝a, ⁝b, ⁝c) and field-units (e.g., ⁝ab, ⁝abc) are to be registered as first-degree variations. To satisfy Df 79, the registration shall be so conducted that a field insisted upon by a participant enters into all the first-degree variations of the participant. Since (as follows from Rg 11 and from the requirement of exhaustive description in Pr 1) extreme participation requires operation with a three-field analysis, it follows that, if it is impossible to register mutually exclusive variety-categories (so that each variety occupies one and only one field), the first-degree variations of the varieties of all participants, excluding ⁝α (⁝α´, ⁝α¸), must be registered in the number of three (corresponding to the three fields). If further registration is required of the variation-units ⁝ab and/or ⁝ac and/or ⁝bc and/or ⁝abc, these must not, according to Rg 3 $2^{o}b$, be registered as distinct variations, but as ⁝a-⁝b, ⁝a-⁝c, ⁝b-⁝c, and ⁝a-⁝b-⁝c respectively.

A complete calculation can be made of the first-degree variation-units belonging to each participant.

I. -- I

Df 123. DISSECTION is description of an object by the dependence of other objects on it and on one another. -- opp Df V SYNTHESIS. -- :: Df 3 ANALYSIS, Df IV FRAGMENTATION. Df 123

Df 124. SECTIONS are objects that are registered in a single Dissection as dependent on the dissected object and on one another. -- cf. Df 5 COMPONENT. Df 124

Rg 24. If it is impossible to identify unambiguously each correlate under a category through bound articulations, the result of the free articulation provides the only designation of the correlates. In the course of *GgB this designation of correlates as participants can be introduced everywhere where it is impossible to identify each correlate unambiguously through a bound articulation. If the given class includes an unlimited number of correlates, Rg 24 designation can be introduced within any section of the class whatsoever.

*Ggb3.2 *Ggb3.2: Bound articulation.

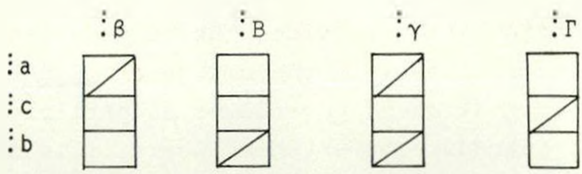
Rg 25 Rg 25. In bound articulation, the logical possibilities for the identification of a given functive in its correlation to other functives under the same functival class are five in all; they may be described in the same way as the corresponding designations in Rg 13:

⁝β ⁝B ⁝γ ⁝Γ ⁝Γ_2

Rg 26 Rg 26. In registering correlations, in order to satisfy Pr 2 it is necessary to operate with a two-field exclusion or with transformation to a two-field exclusion wherever this would not conflict with the superordinate requirement of exhaustive description laid down in Pr 1 (cf. Rgg 14 and 23).

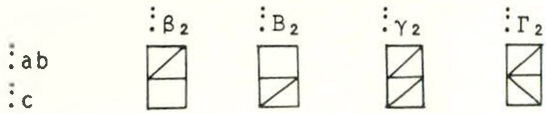
Rg 27 Rg 27. According to Rgg 25-26, two configurations are to be anticipated in bound articulation:

1°. a correlation in which the maximum number of participants is four and the number of fields is three (directly or through transformation):



⁝β = ⁝a; ⁝B = ⁝b; ⁝γ = ⁝ab (i.e., both ⁝a and ⁝b); ⁝Γ = ⁝c.

2°. a correlation in which the maximum number of participants is four and the number of fields is two (directly or through transformation):



⁝β_2 = ⁝ab; ⁝B_2 = ⁝c; ⁝γ_2 = ⁝abc (i.e., at once ⁝ab and ⁝c); ⁝Γ_2 = $\begin{matrix}\vdots ab\\ \vdots c\end{matrix}$ (i.e., alternately ⁝ab and ⁝c).

Df 125. INTERDEPENDENCE is a Function be- Df 125
tween two Constants. -- opp Df 16 DETERMINATION; Df 126 CONSTELLATION -- :: Df 58 SOLIDARITY, Df 93 COMPLEMENTARITY. -- When the constants that contract the interdependence are two and only two, the interdependence can be called a BILATERAL FUNCTION or BILATERALITY.

Df 126. CONSTELLATION is a Function be- Df 126
tween two Variables. -- opp Df 148 COHESION; Df 125 INTERDEPENDENCE; -- :: Df 59 COMBINATION, Df 94 AUTONOMY.

Rg 28. Configuration 1° (Rg 27) is applied Rg 28
in articulating the class of functions according to their mutual correlation:

{φ} :: φ⁝β = having constants as functives: interdependence
φ⁝B = having variables as functives: constellation
φ⁝γ = having both constant(s) and variable(s) as functives: determination

$\varphi\vdots\Gamma$ = having neither constants nor variables as functives, i.e., absence of the functional possibility concerned.

Rg 29 Rg 29. Configuration 2° (Rg 27) is applied in bound articulation in the following special cases:

1°. When the question is whether given functives contract a given function. In what follows here and below, we symbolize the given functival class by $\{p\}$:

$\{p\} :: \{\vdots\beta_2\}$ = contracting the given function

$\{\vdots B_2\}$ = not contracting the given function

$\{\vdots\gamma_2\}$ = at once contracting and not contracting the given function

$\{\vdots\Gamma_2\}$ = alternately contracting and not contracting the given function.

An analysis into three fields would be inappropriate here since the class $\{\vdots\Gamma\}$ (= neither contracting nor not contracting the given function) would always be empty and it is necessary to be able to register the possibility $\{\vdots\Gamma_2\}$

2°. In articulation into constants and variables of a class of functives about which it is known beforehand that they all contract the given function:

$\{p\} :: \{\vdots\beta_2\}$ = appearing only as constant

$\{\vdots B_2\}$ = appearing only as variable

$\{\vdots\gamma_2\}$ = appearing as constant with respect to one functive and as variable with respect to another functive

$\{\vdots\Gamma_2\}$ = appearing alternately as constant and as variable

Here also, an analysis into three fields would be inappropriate since the class $\vdots\Gamma$ (= appearing neither as constant nor as variable) would always be empty and it is necessary to be able to register the possibility $\vdots\Gamma_2$

Rg 30. In all cases other than those given in Rg 29, configuration 1° (Rg 27) is applied as follows in bound articulation of functival classes: Rg 30

$\{p\}$ :: $\{\vdots\beta\}$ = appearing only as constant

$\{\vdots B\}$ = appearing only as variable

$\{\vdots\gamma\}$ = appearing as constant with respect to one functive and as variable with respect to another functive

$\{\vdots\Gamma\}$ = appearing neither as constant nor as variable, i.e., not contracting the given function.

Df 127. A DETERMINANT or DETERMINING Functive (symbol: ≫↣) is the Variable in a Determination. -- opp Df 128 DETERMINATE, Df IX RECIPROCAL. Df 127

Df 128. A DETERMINATE or DETERMINED Functive (symbol: ↢≪) is the Constant in a Determination. Df 128

-- opp Df 127 DETERMINANT, Df IX RECIPROCAL.

Df 129 Df 129. INTERDEPENDENTS (symbol: ↔) are functives that Contract Interdependence. -- opp Df 130 CONSTELLATIVES.

Df 130 Df 130. CONSTELLATIVES (symbol: |) are Functives that Contract Constellation. -- opp Df 129 INTERDEPENDENTS.

Rg 31 Rg 31. In *GgB the several functions (*in casu* relations) are to be taken in turn as bases of analysis until both the analyses and the analysis complex are exhausted. In each Op under each analysis, the given class is articulated into functival possibilities in respect of the given function, according to Rg 30.

According to the functional possibilities registered in Rg 28, the following analyses can be undertaken:

1°. $\varphi\vdots\beta$ or $\varphi\vdots B$ as basis of analysis:

$\{p\}$ :: $\{\vdots\beta\}$ = appearing only as interdependent (symbol: ↔)

$\{\vdots B\}$ = appearing only as constellative (symbol: |)

$\{\vdots\gamma\}$ = appearing as interdependent with respect to one functive and as constellative with respect to another functive (symbols: ↔ |)

$\{\vdots\Gamma\}$ = appearing neither as

interdependent nor
as constellative
(i.e., either con-
tracting only
determinations
(symbols: ⋙→,
←⋘) or not
contracting the
relation or cor-
relation taken as
basis: $\varphi\vdots\Gamma$).

2°. $\varphi\vdots\gamma$ as basis of analysis:

$\{p\} :: \{\vdots\beta\}$ = appearing only as determined (symbol: ←⋘)

$\{\vdots B\}$ = appearing only as determining (symbol: ⋙→)

$\{\vdots\gamma\}$ = appearing as determined by one functive and as determining another functive (symbols: ←⋘ ⋙→)

$\{\vdots\Gamma\}$ = appearing neither as determined nor as determining (i.e., contracting only interdependences and/or constellations (symbols: ↔ , |) or not contracting the relation or correlation taken as basis: $\varphi\vdots\Gamma$).

*GgB *GgB: GENERAL COMPONENT.

*GgBO *GgBO.

A A. -- The aim of *GgB is an analysis of a given object to determine:

whether it is a semiotic or not;

if it is a semiotic, whether it is a denotative semiotic or not;

if it is a denotative semiotic, whether it is a language or not;

if it is not a denotative semiotic, whether it is a metasemiotic or a connotative semiotic;

if it is a metasemiotic, whether it is a meta-(scientific semiotic) or an internal or external semiology;

and, if it is a meta-(scientific semiotic), whether it is an external or internal metasemiology, or not a metasemiology.

The procedure is directed exclusively to semiotics, and if, in the course of the procedure, the given object proves not to be a semiotic, the analysis cannot be carried through, and the procedure ceases to be applicable to the object.

B B. -- Since from the very beginning of the procedure it is conjectured that the given object is a semiotic (otherwise it would be pointless to apply the procedure -- cf. *GgBOA) and since the procedure is designed to verify the conjecture (cf. *GgBOA), the procedure must aim at satisfying Df 24 by attempting to analyze the object into components any of which admits a further analysis into classes defined by mutual *relation* so that any of these classes admits an analysis into derivates defined by mutual *mutation*. The whole elaboration of the procedure is determined by this aim.

It follows from what has been said that *relation*, and not correlation, must be taken as basis of analysis for the whole procedure. There is another reason for this, as well, at least at the beginning of the procedure: for any object, it appears to be the process, and not the system, that is immediately accessible to cognition.

Consequently, since it is conjectured that the given object is a semiotic, it is to be viewed as a syntagmatic and not (in the first instance) as a paradigmatic. And since it is conjectured that the given object may be a language, it is to be viewed (in the first instance) as a text.

C. -- We here introduce some required C
supplementary Dff of functives.

a) Since the basis of analysis is *Ca*
relation, we introduce the following Dff of previously undefined relational functives (relational functives include relations and relates, but in fact it is only some relates that have not been previously defined):

Df 131. A SELECTING Relate (symbol: →) Df 131
is the Variable in a Selection. -- opp Df 132 SELECTED, Df 61 SOLIDARY, Df 62 COMBINED; Df 136 SPECIFYING.

Df 132. A SELECTED Relate (symbol: ←) Df 132
is the Constant in a Selection. -- opp Df 131 SELECTING, Df 61 SOLIDARY, Df 62 COMBINED; Df 137 SPECIFIED.

Df 133 Df 133. A UNIT (symbol: ^{n}) is a Chain that has Relation to one or more other chains within the same Rank. -- opp Df 97 CATEGORY. -- :: Df 239 SET, Df 380 SYNTAGMA; Df 384 SEQUENCE, Df 386 GROUP; Df 388 CONGLOMERATE, Df 390 COMPLEX. -- An exponent to the upper right (except for ^{N} and ^{0}; see Dff 34 and 25) always signifies a unit of functives belonging to the class signified by the symbol to which the exponent is adjoined: p^{n} = unit of functives; a^{n} = unit of constants; x^{n} = unit of variables; var.^{n} = unit of variants; $p^{\rightarrow n}$ = unit of selecting relates; $p^{\sim n}$ = unit of solidary relates; and so on. A unit of glossemes (Df 183) may be symbolized by ^{n} alone: ^{n} = $_{*}g^{n}$. If the exponent includes more precise specification of the unit, the letter ^{n} may be omitted: $p^{\sim}$ = $p^{n\sim}$ = unit with solidarity between the functives entering into it, p^{-} = p^{n-} = unit with combination between the functives entering into it, and so on; $^{\sim}$ = unit of glossemes with mutual solidarity, $^{-}$ = unit of glossemes with mutual combination, and so on.

Df 134 Df 134. A PART is a Component of a Chain. -- opp Df 138 MEMBER.

C*b* *b*) For reasons which, because of the terminology involved, can be most easily stated immediately *after* the Dff have been given, we also introduce here the Dff of previously undefined correlational functives (correlations and correlates):

Df 135 Df 135. A SPECIFICATION is a Correlation between a Constant and a Variable. -- opp Df 93

COMPLEMENTARITY, Df 94 AUTONOMY; Df 27 SELECTION.

Df 136. A SPECIFYING Correlate (symbol: $\vdash$) Df 136
is the Variable in a Specification. -- opp Df 137 SPECIFIED, Df 96 AUTONOMOUS, Df 95 COMPLEMENTARY; Df 131 SELECTING.

Df 137. A SPECIFIED Correlate (symbol: $\dashv$) Df 137
is the Constant in a Specification. -- opp Df 136 SPECIFYING, Df 96 AUTONOMOUS, Df 95 COMPLEMENTARY; Df 132 SELECTED.

Df 138. A MEMBER is a Component of a Df 138
Paradigm. -- opp Df 134 PART.

The reason why Dff of the correlational functives must also be introduced here, although the basis of analysis is relation and although the given object is viewed in the first instance as a syntagmatic (or as a text), is that an exhaustive analysis cannot be carried out from a relational point of view alone, since

1°, in every analysis (whether of a process or of a system) there is always correlation (and only sometimes relation as well) between a class and its components (or between the function between class and components on the one hand and the function between the components on the other);

N 30. From a universal point of view there is N 30
1° complementarity between a realized (Df 140) class and its components by virtue of the very definitions of class and component (Dff 4-5), and 2° specification between, on the one hand, a functive which, at a given stage of the procedure, is not yet registered as a class but which eventually will be so registered at a later stage and, on the other hand, its eventual components, which specify it.

From a general point of view: when given classes and given components are registered as converse (Df 154) with given classes and given components, then, in so far as they are not universals, there is autonomy between a class and its components.

2^{o}, the registered relates can be shown to be categories or members of categories;

3^{o}, the requirement that *mutation* be demonstrated (cf. *GgB0B) presupposes that both the categories and their members are registered as such, since it is the members of categories that can be shown to have the mutual mutation; the mutation is, consequently, a commutation.

With reference to the Dff given here and to *Ggb3.2, the following over-all schema can be presented:

	φ	R	⁝
φ⁝β	interdependence	solidarity	complementarity
φ⁝B	constellation	combination	autonomy
φ⁝γ	determination	selection	specification
φ⁝Γ	absence of the functional possibility		

p, q, r	φ⁝(β)	R⁝(β)	⁝⁝(β)	φ⁝γ	R⁝γ	⁝⁝γ
{⁝β}	↔	~		←⋘	←	⊣
{⁝B}	|	-	↑	⋙→	→	⊢
{⁝γ}	↔ |	~-	↓ ↑	⋙→ ←⋘	→ ←	⊢ ⊣
{⁝Γ}	⋙→ ←⋘, φ⁝Γ	→ ←, ⁝	⊢⊣, R	↔, |, φ⁝Γ	~, -, ⁝	↓, ↑, R

Cc c) Finally, we must introduce some required Dff of functives that are independent of the opposition between relation and correlation:

Df 139. An ENTITY is a Functive that is not a Function. Df 139

Df 140. A Class is said to be REALIZED (symbol: X) if it can be taken as object for Particular Analysis. -- opp Df 141 VIRTUAL. Df 140

Df 141. A Class is said to be VIRTUAL if it cannot be taken as object for Particular Analysis. -- opp Df 140 REALIZED. Df 141

D. -- Class and components at the individual stage of the procedure: D

a) Paradigmatic point of view: D*a*

Df 142. A FUNCTIONAL CATEGORY is the Category of the Functives that are registered in a single Analysis with a given Function taken as basis of analysis. Df 142

Df 143. FUNCTIVAL CATEGORIES are the Categories that are registered by Articulation of a Functional Category according to Functival possibilities. Df 143

Df 144. ELEMENTS (symbol: ${}_{*}ll$) are the Members of a Functival Category and their Particular Derivates. Df 144

Rg 32. The functional category is articulated into functival categories, and these are articulated into elements. Rg 32

Ex 1. If $R\colon\gamma$ is chosen as basis of analysis (cf. Rg 31), the functional category Ex 1 'first-degree selection-units' is set up in Op I; then the functional category is articulated into as many as four functival categories ($\{\vdots\beta\}$, $\{\vdots B\}$, $\{\vdots\gamma\}$, and $\{\vdots\Gamma\}$) according to relate-possibilities; then the realized functival categories so obtained are articulated into elements: the individual first-degree selection-units. In Op II, the functional category is 'second-degree selection-units', and so on.

D*b* *b*) Syntagmatic point of view:

Rg 33 Rg 33. In the first Op of the procedure, what is conjectured to be a syntagmatic is partitioned into units defined by mutual relation; these units will, when the Op is completed, be identical with the elements registered in the same Op. In all the remaining Opp of the procedure, the units registered in a preceding Op are partitioned into units defined by mutual relation; these units will, when the Op is completed, be identical with the elements registered in the same Op.

Rg 34 Rg 34. In each Op, compliance with Pr 3 requires that partition be permitted only if the resultant parts do not have substitution to parts registered as such in one of the following Opp within the deduction. If this condition is not fulfilled, the entity concerned is to be transferred unanalyzed from the preceding to the current Op as element in the latter.

Rg 35 Rg 35. The boundaries between the parts registered in a given Op cannot be fixed within that Op, but only when the partition is carried on through succeeding Opp; thus

1°, it will be possible to fix the boundaries unambiguously when a decision can be reached on the basis of relations between parts, or parts of parts, of the parts concerned;

2°, the boundaries will remain ambiguous when no decision can be reached on such a basis, either

a) because there are too few such relations between parts, or parts of parts, of the parts concerned, or

b) because the relations between parts, or parts of parts, of the parts concerned are in themselves ambiguous (e.g., such as to make possible both the analysis $(pq)r$ and the analysis $p(qr)$).

An additional check in *gII provides for the definitive delimitation of the registered parts in doubtful cases.

E. -- Realized and virtual functival categories: E

a) E*a*

Rg 36. Since, from a universal point of view, the functival categories of a functional category are mutually autonomous, it will be possible, depending on circumstances, to register each one of them as realized or as virtual in respect of a given object. Each Op therefore aims at discovering which of the possible relates that may be anticipated on the basis of *Ggb3.2 are realized and which are virtual. The general conditions give rise to the following possibilities: Rg 36

1° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: 0$

2° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: 0$

3° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: 0,\quad \{:\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: 0$

4° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: 0$

5° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: n$

6° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: 0$

7° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: 0$

8° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: n$

9° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: 0$

10° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: n$

11° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: n$

12° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: 0$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: 0$

13° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: 0,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: 0,\quad \{\vdots\Gamma_2\} :: n$

14° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: 0,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: 0,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: n$

15° $\{\vdots\beta\} :: 0,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: 0,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: n$

16° $\{\vdots\beta\} :: n,\quad \{\vdots B\} :: n,\quad \{\vdots\gamma\} :: n,\quad \{\vdots\Gamma\} :: n$ or
$\{\vdots\beta_2\} :: n,\quad \{\vdots B_2\} :: n,\quad \{\vdots\gamma_2\} :: n,\quad \{\vdots\Gamma_2\} :: n$

b) Eb

Rg 37. An analysis is exhausted Rg 37

1°, if it leads only to the registration of virtual classes;

2°, if, however far it is carried, it leads only to registration of $\{\vdots\Gamma\}$ among the realized functival categories. (Hence the practical rule that in each Op we attempt to register $\{\vdots\beta\}$ and/or $\{\vdots B\}$ and/or $\{\vdots\gamma\}$ as realized.)

Rg 38. When the analysis is exhausted for one or more components of the given object but not for all, it is continued for the remaining components, while the components that cannot be further analyzed are transferred to the following Opp as separate components for whose treatment special directions must be given in the individual cases. Rg 38

F. -- F

a) We introduce the following principles, which select, *inter alia*, Pr 1 and Pr 4 as well as Dff 142-144: F*a*

Pr 6 (principle of exhaustive description): Any analysis (or analysis-complex) in which functives are registered with a given function as basis of analysis shall be so made that it leads self-consistently to the registration of the highest possible number of realized functival categories within the highest possible number of functional categories. Pr 6

Pr 7 (refined principle of reduction): Any analysis (or analysis-complex) in which Pr 7 functives are registered with a given function as basis of analysis shall be so made that it leads to the registration of the lowest possible number of elements.

Rg 39 Rg 39. Since, according to Pr 1, the requirement of exhaustive description takes precedence over the requirement of simplicity, the requirement laid down in Pr 6 takes precedence over the requirement laid down in Pr 7.

Rg 40 Rg 40. Both requirements apply in the first instance to Op-chains, secondarily to the individual Op.

From Pr 6 is derived the following practical rule:

Rg 41 Rg 41. When there is determination between two relations, the determined relation is to be registered before the one that determines it.

The requirement of Rg 3 -- that one operate with the lowest possible number of variants -- can also be viewed as a consequence of Pr 7: variant-articulation is performed with complementarity as basis of analysis, and variants of one and the same variant are elements under that variant as functival category.

N 31 N 31. Under a continued analysis, certain relations will be registered in the lower (earlier) Opp as relations between units of larger extent, while in the higher (later) Opp it may be possible to localize them as relations between units of smaller extent. In order to comply with Pr 1, it proves to be necessary, whenever possible, to localize relations in this way in units of the smallest possible extent or, as we shall say, to circumscribe the relates (cf. Df 155). This can be done only by adhering to the requirement that the largest possible number of functival categories be registered as late as possible in the procedure (with this requirement applying in the first instance to Op-chains).

b) F*b*

Rg 42. At the beginning of each analysis, from among the possible *bases of analysis* offering particular yield, that basis is to be chosen which satisfies Prr 6-7. Rg 42

If, with the same highest possible number of realized functional and/or functival categories, all possible bases of analysis yield an unlimited number of elements within the chain as a whole, that basis of analysis is chosen which yields the lowest number of elements within any arbitrary section of the chain.

If, with the same highest possible number of realized functional and/or functival categories, more than one basis of analysis yields the same limited number of elements, the basis of analysis is chosen arbitrarily.

Rg 43. Likewise, in each Op, that *analysis* is to be chosen that satisfies Prr 6-7. Rg 43

If more than one analysis on one and the same basis leads to setting up the same number of functional categories with the same highest possible number of realized functival categories and with an unlimited number of elements, at each stage of the procedure that functional category is to be preferred whose elements within any section of the chain are of the lowest number.

(Ex 2. Thus it can be shown that there are more paragraphs than chapters within any Ex 2 part of a text that includes at least one chapter and paragraphs as well; therefore the chapters are to be registered before the paragraphs.)

If, with the same highest possible number of realized functional and/or functival categories, more than one analysis on one and the same basis yields the same limited number of elements, the analysis (functional category) is chosen arbitrarily

G G. -- Here the method of procedure within the individual Op will be described in greater detail.

Rg 44 Rg 44. Except where tempi are expressly enumerated, each Op must be carried out as a single whole. Thus, in the absence of express indication to the contrary, the Op-parts are not to be understood as being tempi.

With this reservation, each Op (except for the concluding Opp, concerning which see Rgg 112 ff.) falls into the following Op-parts (cf. *GgBOD):

- *GXx.0: Choice of analysis
- *GXx.1: Setting up of the functional category
- *GXx.2: Articulation of the functional category into functival categories
- *GXx.3: Articulation of the functival categories into elements
  - *GXx.3.1: Derivate test and commutation test
  - *GXx.3.2: Defective categories
  - *GXx.3.3: Syncretisms
  - *GXx.3.4: Free articulation

*GXx.4: Semiotic test

*GXx.4.1: Hierarchy test

*GXx.4.2: Relation and mutation test

*GXx.4.3: Denotation test I

*GXx.4.4-6: Science test

*GXx.4.7-8: Denotation test II

*GXx.4.9-10: Language test

*GXx.4.9: Manifestation test

*GXx.4.10: Purport test.

Each of these Op-parts will be examined individually in what follows.

*GXx.0: Choice of analysis

Rg 45. Rg 45

Tempo 1. The given object is tentatively subjected to all possible analyses on the basis of analysis selected in *GX0. (Except for *GI1, the object to be analyzed will have been decided by a preceding analysis.)

Tempo 2. Choice of the analysis or analyses that yield(s) the highest possible number of realized functival categories within the highest possible number of functional categories.

Tempo 3. If two or more analyses have been chosen in Tempo 2, that analysis or those analyses is (are) chosen from among them that yield(s) the lowest number of elements (within the chain in its entirety or within any arbitrary section of it).

Tempo 4. If two or more analyses have been chosen in Tempo 3, one of them is chosen arbitrarily.

*GXx.1

Rg 46 Rg 46. The functional category is set up according to the analysis chosen in *GXx.0.

*GXx.2

Rg 47 Rg 47. The functional category is articulated into functival categories.

*GXx.3

Rg 48 Rg 48. The functival categories are articulated into elements.

This Op-part reveals whether the functival categories are realized or virtual; if they are all virtual, the analysis is exhausted, and continuation of the analysis complex is attempted from other analyses or from other bases of analysis.

*GXx.3.1: Derivate test and commutation test

Rg 49 Rg 49. It follows from the aims of the procedure that the criterion for determining the number of the elements (and thereby for deciding whether a given functival category is realized or virtual, since one possibility is that the number of elements is 0) is necessarily different in *GI1 from the criterion used in the higher (later) Opp. One aim of the procedure is to determine whether the given object is a semiotic or a non-semiotic, and the procedure must therefore be so constructed as to meet Df 24. This means that an attempt must be made in each Op to articulate the functival categories into elements with mutual mutation (in practice, commutation, since the elements are members in a category). But this *commutation test* cannot, in the nature of the case, be made in *GI1 since that Op merely registers the components of the hierarchy without further analyzing them (cf. Df 24). The commutation test, therefore, is made only in Opp higher than $_*$GI1. In $_*$GI1 the criterion for determining the number of the elements rests exclusively in another test, the *derivate test,* which must also (together with the commutation test) be carried out in each of the higher Opp.

On application of both these tests, it will turn out in practice that certain tentatively registered relates cannot be retained as such in the course of the Op or Op-chain. In this connexion, the purely operative terms *pre-relate* and *reduction* are introduced according to the following Dff:

op Df 145. PRE-RELATES are Relates that Df 145
are registered in an Op without its being possible to determine in that Op whether the registration can be maintained as definitive. -- Correspondingly, we may speak of PRE-ELEMENTS, PRE-UNITS, PRE-PARTS, etc. and, in general, of PRE-FUNCTIVES. Pre-functives are symbolized with a prefixed ?.

op Df 146. REDUCTION is cancellation of Df 146
the registration of a Pre-functive in a given Functival Class. -- For "is (are) reduced to", the symbol ≡ is used.

a) Derivate test

Df 147. Two Functives are said to be Df 147
CONFORMAL (symbol: ||) if each Particular Derivate of the one functive Contracts exclusively the same Functions as a particular derivate of the other functive, and *vice versa*.

Rg 50. Two conformal pre-components of Rg 50
one and the same class are to be reduced to one

component if they do not have mutual commutation.

Rg 51 Rg 51. The derivate test consists in reducing to a single element, in each Op, mutually conformal pre-elements without mutual commutation, according to Rg 50.

b) Commutation test

Rg 52. Rg 52. In Opp higher than *GI1, two pre-elements are to be reduced to a single element if it can be shown that they have mutual substitution. This can be shown in different ways: by 1° catalysis, 2° analysis, 3° mapping.

A variant-articulation yielding particular results is carried out in the Op concerned. Particular variants that are not fields (cf. Rg 23) are so registered as to be carried through the further procedure as distinct entities.

c) Catalysis

Df 148 Df 148. COHESION is used as a common term for Interdependence and Determination. Functives that Contract mutual cohesion are called COHESIVE. -- opp Df 126 CONSTELLATION; Df 130 CONSTELLATIVE. -- :: Df 125 INTERDEPENDENCE, Df 16 DETERMINATION; Df 129 INTERDEPENDENTS, Df 127 DETERMINANT, Df 128 DETERMINATE; Df 453 ELECTION, Df 454 GOVERNMENT. -- For paradigmatic cohesion the symbol ɸ is used; for syntagmatic cohesion, the symbol ⋇ .

N 32 N 32

Df IX Df IX. RECIPROCITY is used as a common term for Interdependence and Constellation. Functives that Contract mutual reciprocity are called RECIPROCAL. -- opp Df 16 DETERMINATION; Df 127 DETERMINANT, Df 128 DETERMINATE. -- :: Df 125 INTERDEPENDENCE, Df 126 CONSTELLATION; Df 129 INTERDEPENDENTS, Df 130 CONSTELLATIVES.

Df 149. CATALYSIS is a registration of Cohesions through the replacement of one Entity by another to which it has Substitution. -- The replaced entity is said to BE CATALYZED TO (symbol: $\geq$) the replacing entity. Df 149

Since Df 149 requires that the replacement of one entity by another shall make possible the registration of cohesions, it follows that the replacing entity must contain two entities as components (parts or members): an entity 1, which has substitution to the replaced entity, and an entity 2, which has cohesion to entity 1 and which is so constituted that the unit including entity 1 and entity 2 has substitution to the replaced entity. The entity we have here called "entity 2" may be called the ENCATALYZED entity (while the replaced entity is called the CATALYZED entity).

N 33. The replacing entity is thus of greater extent (Df 184) or of greater size (Df 185) than the replaced entity. N 33

N 34. The encatalyzed entity 1°) always and necessarily, if it is an entity of content, has the expression zero and, if it is an entity of expression, has the content zero (this follows from Df 149, since otherwise there would be commutation between the replaced and the replacing entity); 2°) is often, but not necessarily, latent (Df 159); 3°) is often, but not necessarily, a syncretism (manifested by a fusion)[8], which, in such a N 34

[8] A *fusion* (symbol: λ) is a manifestation of a syncretism which, from the point of view of the substance hierarchy, is identical with the manifestation either of all or of none of the functives that enter into the syncretism. In contrast, an *implication* is a manifestation of a syncretism which, from the point of view of the substance hierarchy, is identical with the manifestation of one or more of the functives that enter into the syncretism but not with all. See *PTL* 90-91, *OSG* 80-81. A functive p whose manifestation is not identical with the manifestation of the syncretism is said to *imply* a functive q whose manifestation is identical with the manifestation of the syncretism ($p \supset q$), and the latter is said to *be implied by* the former ($q \subset p$). (F.J.W.)

case, is irresoluble. -- In practice, catalysis consists in bringing into the chain or paradigm -- on the basis of indications of cohesion -- a hypothetical formal point that contracts the registered cohesion as a functive. -- Most often, in practice, it is most appropriate to formulate syntagmatic catalysis in such a way that, even if a syncretism is present, only one of the units entering into the syncretism is cited, since enumeration of all the units will often be laborious, and in many instances impossible, because of their large number. In such cases, the notation must make clear that what is encatalyzed is not the individual unit cited but a syncretism of it and two or more other units. This is usually done by adding to both ends of the cited unit the sign for overlapping together with dots indicating that other units enter into the syncretism. For example: 'If I only had money!' ≥ 'If I only had money, .. /I should be happy/ ..!'.

N 35 N 35. Catalysis is an Op that finds application in many areas within linguistic theory. Here we shall only point out that the whole Op-chain $_*$Gg may be viewed as a catalysis through which the syntagmatic (which is the immediately accessible form in which the given object appears; cf. $_*$GgBOB) has encatalyzed to it a paradigmatic to which it has cohesion (the paradigmatic is selected by the syntagmatic).

Rg 53 Rg 53. To comply with Prr 2 and 5, a catalysis, both paradigmatic and syntagmatic, must be performed in each Op by application of Pr 5. Moreover, this catalysis is of service to the commutation test since the substitution criterion enters into Df 149 and so reduction becomes possible.

1°. *Paradigmatic catalysis* with accompanying reduction: From ?*p* ⏀ ?*q* and from ?*r* ⁝ {?*p* ⏀ ?*q*} we conclude:

?*r* ■ ?*p* ■ *s*

?*r* ■ var.*r* (*s*)

?*p* ■ var.*p* (*s*)

Ex 3 Ex 3. Cf Df 75 and Rg 27. From c ⊹ ab and from c ⁝ {ab ⊹ c} we conclude:

$$c \equiv ab \equiv \vdots\gamma_2$$

$$c \equiv \text{var.}(\vdots\gamma_2)$$

$$ab \equiv \text{var.}(\vdots\gamma_2)$$

(Variants of the same degree are always mutually complementary (cf. $_*$GgBOF*a*); this follows from the universal character of the articulation into variants (cf. Rg 1).)

2°. *Syntagmatic catalysis* with accompanying reduction: From ?*p* ⋇ ?*q* and from ?*r* ⫶ ^{n}(?*p* ⋇ ?*q*) we conclude:

$$?r \equiv ?p \equiv s$$

$$?r \equiv \text{var.}r\ (s)$$

$$?p \equiv \text{var.}p\ (s)$$

Ex 4. From Ex 4
"secondary clause" 'p' → "primary clause" 'q' and from
"clause" 'r' ⫶ "sentence" 'pq'
we conclude that "secondary clause" 'p' and "clause" 'r' can be reduced to variants of one and the same "secondary clause" 's'.

App 1. See N 34, conclusion. App 1

d) Analysis I

Df 150. A CONNECTIVE (symbol: $_*X$) is a Functive that under certain conditions is Solidary with the Relation Establishing Complex Units of a certain Degree.[9] -- The symbol $_*Xp$ is read "the connective *p*". The symbol $_*X(p^n)$ is read "connective for the unit p^n ". Df 150

[9] This is the form in which the definition also appears in *OSG* (page 65); in *PTL* (pages 72, 137) it was modified by deletion of the words "the Relation Establishing". Note that this would entail a corresponding change in Rg 54. (F.J.W.)

Rg 54 Rg 54. Pre-elements which, on application of Pr 5, can be univocally registered as complex units including only elements under one or more of the functival categories registered in $_*$GXx.2 must not be registered as elements in any of these categories. Connectives are separated out from the units, so that the same analysis is also performed on the complex units whose establishing relation is solidary with a connective.

That the reduction $?p \blacksquare q^{>1}$ (with or without $_*X$) is permissible only if it can be performed univocally is a consequence of Pr 5, which requires that a solution be admitted by some object univocally. Without this restriction, Pr 7 might lead us to postulate complex units mechanically, everywhere where this could be done without contradiction, and thus in general, everywhere, to reduce the number of elements under a given functival category to one.

The requirement laid down in Rg 3 (1° and 2° b) concerning analysis of var.$^{>1}$ may be viewed as a consequence of Rg 54.

N 36 N 36. The requirement of univocal registration, laid down in Rg 54, does not exclude the possibility 1°) of a pre-element's being reducible to a syncretism (Df 106) of elements or to a complex unit including one or more syncretisms of elements; 2°) of one and the same pre-element's being reducible to different complex units under different conditions.

Rg 55 Rg 55. Since connectives, when they are registered as such, do not appear as parts resulting from a partition, it follows that Rg 34 does not apply to connectives registered as such. However, both in the Op in which they are registered as connectives and in higher Opp, they are to be identified, wherever the commutation test makes such identification possible, with other connectives or with non-connectives, in whatever Op these may be registered.

e) Mapping I

Df 151. MAPPING is Reduction by transference from one Functival Category to another. Df 151

Rg 56 Rg 56

a) If pre-elements entering into $\{\vdots\beta\}$ and/or into $\{\vdots B\}$ and/or into $\{:\Gamma\}$ have substitution to pre-elements entering into $\{\vdots\gamma\}$, they are assigned to $\{\vdots\gamma\}$.

b) If pre-elements entering into $\{\vdots\beta_2\}$ and/or into $\{\vdots B_2\}$ and/or into $\{\vdots\Gamma_2\}$ have substitution to pre-elements entering into $\{\vdots\gamma_2\}$, they are assigned to $\{\vdots\gamma_2\}$.

c) If a given pre-element ambiguously admits assignment to $\{\vdots\beta\}$ and to $\{\vdots\gamma\}$, or to $\{\vdots B\}$ and to $\{\vdots\gamma\}$, or to $\{:\Gamma\}$ and to $\{\vdots\gamma\}$, it is assigned to $\{\vdots\gamma\}$.

d) If a given pre-element ambiguously admits assignment to $\{\vdots\beta_2\}$ and to $\{\vdots\gamma_2\}$, or to $\{\vdots B_2\}$ and to $\{\vdots\gamma_2\}$, or to $\{:\Gamma_2\}$ and to $\{\vdots\gamma_2\}$, it is assigned to $\{\vdots\gamma_2\}$.

Rg 57. Rg 57

a) If pre-elements entering into $\{\vdots\beta\}$ have substitution to pre-elements entering into $\{\vdots B\}$, both are assigned to $\{\vdots\gamma\}$.

b) If pre-elements entering into $\{\vdots\beta_2\}$ have substitution to pre-elements entering into $\{\vdots B_2\}$, both are assigned to $\{\vdots\Gamma_2\}$.

c) If a given pre-element ambiguously admits assignment to $\{\vdots\beta\}$ and to $\{\vdots B\}$, it is assigned to $\{\vdots\gamma\}$.

d) If a given pre-element ambiguously admits assignment to $\{\vdots\beta_2\}$ and to $\{\vdots B_2\}$, it is assigned to $\{\vdots\gamma_2\}$.

Rg 58 Rg 58.

a) If pre-elements entering into $\{\vdots\Gamma\}$ have substitution to pre-elements entering into $\{\vdots\beta\}$ and/or into $\{\vdots B\}$, they are assigned to $\{\vdots\beta\}$ or, respectively, $\{\vdots B\}$.

b) If pre-elements entering into $\{\vdots\Gamma_2\}$ have substitution to pre-elements entering into $\{\vdots\beta_2\}$ and/or into $\{\vdots B_2\}$, they are assigned to $\{\vdots\Gamma_2\}$.

c) If a given pre-element ambiguously admits assignment to $\{\vdots\beta\}$ and to $\{\vdots\Gamma\}$, or to $\{\vdots B\}$ and to $\{\vdots\Gamma\}$, it is assigned to $\{\vdots\beta\}$ or, respectively, $\{\vdots B\}$.

d) If a given pre-element ambiguously admits assignment to $\{\vdots\beta_2\}$ and to $\{\vdots\Gamma_2\}$, or to $\{\vdots B_2\}$ and to $\{\vdots\Gamma_2\}$, it is assigned to $\{\vdots\Gamma_2\}$.

Rg 59 Rg 59. In mapping, provision is to be made for all conceivable reductions, two by two, in each individual instance. In the exposition, when the procedure is applied to a given object and two or more pre-elements under one and the same functival category can be subjected to mapping, an arbitrary choice can be made of one such reduction. (Cf. Rg 17.)

Rg 60 Rg 60. Where arbitrary choice of reduction is made according to Rg 59, if the given object is an object semiotic, that reduction is to be chosen, in compliance with Pr 2, which reduces to one element such pre-elements as will be determined, in the analysis of the metasemiotic of the object semiotic, to be mutually conformal. (Cf. Rg 74.)

f) Analysis II

op Df 152. An INDICATOR (symbol: ♂) is a Part which Enters into one or both of two Functives in such a way that the functives have mutual Substitution if the part is deducted and which is found under given conditions in all functives of a given Degree. -- :: Df 153 SIGNAL, Df 200 CONNOTATOR. Df 152

op Df: A SIGNAL (symbol: ↗) is an Indicator which is not, under given conditions, found in all Planes. (Cf. Df 153.) -- The symbol ↗*p* is read 'the signal *p*' ; the symbol ↗(*p*) is read 'signal for *p*' . op Df

Df 153. SIGNALS (symbol: ↗) are Invariants without mutual Function. Df 153

N 37. The reason for requiring that an entity, to be registered as a signal, not have function to other signals is that it would otherwise always be possible to decide arbitrarily that any parts were signals, e.g., that modulations and accents were signals for the units into which they entered, or that a category of all "words" was a signal for a "clause" and so on. N 37

Rg 61. Rg 61

1°. Signals admit no particular further analysis and are therefore virtual. In accordance with Rg 38 they are carried through the procedure as distinct entities.

2°. Signals are solidary with, or, as we shall say: SIGNALS FOR functions that establish sums (thus having a property in common with connectives (cf. Df 150) but differing from them, for one thing, by the possibility of their being solidary with correlations as well as with relations and, for another, by the property stated in Df 153), and this is why the signals are definitively collected and redistributed, and why each signal is defined, in gIII.2-3.

3°. Along with the registration of connectives, signals can be registered for the solidarity of the connectives with establishing relations: CONNECTIVE-SIGNALS.

op Df op Df: A CONNOTATOR (symbol: $x\Gamma$) is an Indicator that is found in all Planes under given conditions. (Cf. Df 200.)

Df 154 Df 154. CONVERSE Functives are functives that acquire mutual Substitution when the Connotators Entering into them are deducted.

Rg 62 Rg 62. If a signal enters into one or more pre-elements, the signal is to be deducted in accordance with Pr 7, and the two pre-elements are to be reduced to a single element (directly or through mapping).

Rg 63 Rg 63. If a connotator is found in one or more pre-elements, it is likewise to be deducted in accordance with Pr 7, and converse pre-elements are reduced to a single element (directly or through mapping). The converse varieties of the elements concerned (varieties registered by the solidarity of each to its connotator or by the solidarity of one to a connotator and the solidarity of the other to the category of the non-connotators) must meanwhile be so recorded that they are carried under the further procedure as distinct particular varieties (since the universal articulation into varieties gives particular yield in this instance; cf. Rg 52). Unlike the signals (Rg 61 1°), the connotator cannot be carried through the procedure immediately, but is temporarily separated off from the object of investigation. (Concerning the later treatment of connotators, see Rg 99.) The reason for these special measures is that a connotator cannot, in consequence of its op Df, be univocally referred to any one plane and therefore cannot be handled by means of a procedure that deduces from each plane separately.

g) Mapping II

Rg 64. All pre-elements under mutually Rg 64
different functival categories are subjected to the commutation test, proceeding from all those units, registered in lower Opp, in which the pre-elements concerned can be thought to appear as correlates. If units that are all of the same degree are found in which the pre-elements concerned have mutual substitution, the pre-elements are reduced to one element, and signals are registered for their functival categories.

Rg 65. All pre-elements entering as deri- Rg 65
vates of second or higher degree under mutually different functival categories registered in lower Opp are subjected to the commutation test. If any can be shown by the test to have mutual substitution, they are reduced to one element, and signals are registered for the functival categories concerned.

GXx.3.2: Defective categories

Rg 66. The following cases may be antic- Rg 66
ipated:

1^{o} Two realized selection-categories may be so related that not all elements in the one have the required selection to all elements in the other, but that only some elements in the one have the required selection to some elements in the other.

2^{o} Not all elements within a realized solidarity- or combination-category may have the required solidarity or, respectively, combination to all elements, but only some to some and others to others.

In such cases, those elements in each functival category that have the required relation to given elements in the other or, respectively, in the same category are collected into a category under their category, and this is named, according to Df 21, element of the first degree. Its members, in turn, are named -- likewise according to Df 21 -- elements of the second degree, and so on. The members that are not categories in this sense are named, from this point of view, elements of the highest degree.

Rg 67 Rg 67. In the cases discussed in Rg 66, the relation applies (Df 103) between the elements that contract it and is suspended (Df 104) between those that do not. Likewise, the correlation between elements not of the highest degree applies under the conditions under which they contract the same relation and is suspended under other conditions. Thus, the registration of elements of various degrees is equivalent to a registration in each Op of the defective categories and of the defectivating variants, in accordance with Dff 107-109 and 111-113.

Rg 68. The defectivating variants are registered as particular varieties. Rg 68

Rg 69. Relations are always contracted by categories, just as correlations are always contracted by units. If -- in cases where a selection-category includes more than one highest-degree element or where a solidarity- or combination-category includes more than two highest-degree elements -- we informally ascribe a relation to a highest-degree element, this is to be taken as an abbreviated way of saying that the element enters into a category that contracts the relation. If the highest-degree elements are considered each by itself, they will sometimes be seen to contract other relations than the categories into which they enter and by which they are defined. Two given highest-degree elements of which one enters, together with others, into the selection-category {⁝β} and the other enters, together with others, into the selection-category {⁝B} could, considered by themselves, be said to have mutual combination, since the element entering into {⁝β} could be connected with other elements entering into {⁝B} than the one actually present, and since the element entering into {⁝B} could be connected with other elements entering into {⁝β} than the one actually present. Thus, it is never the relation directly between highest-degree elements that is decisive in fixing the relations, but the relation between categories (functival categories or, respectively, elements of lower degree). Rg 69

What has been noted here concerning the relationship between category-relation and element-relation is bound up with certain general laws governing *the relationship between function between sums and function between their derivates* -- laws which are formulated as follows:

Interdependence between sums is realized either as *interdependence* and/or *determination* or also as *constellation* between derivates.

Determination between sums is realized either as *determination* or also as *constellation* between derivates.

Constellation between sums is always realized as *constellation* between derivates.

From this can be derived what follows concerning *relation between functions:*

The universal relation between a given sum-function and a given category of derivate-functions is a solidarity. The universal relation between the sum-function and the indidivual possible derivate-functions is a combination, except for the relation between sum-interdependence and derivate-interdependence, which is a selection (where the sum-interdependence is the selected relate).

The general correlation between the individual possible derivate-functions is a specification:

interdependence $\vdash$ determination $\vdash$ constellation

Rg 70 Rg 70. On the basis of the preceding, the following practical rule is derived in accordance with Pr 2: If an analysis reveals that an interdependence between sums (categories) exclusively involves interdependence between their derivates (elements), the two sums (categories) are to be reduced to one by a one-to-one mapping of their derivates (elements), unless there is something to prohibit the reduction.

On the basis of the preceding, the circumscription of relates that was discussed in N 31 can now be defined:

Df 155. To CIRCUMSCRIBE a Functive is to fix a Function between Sums as being Realized in a Cohesion between Derivates of highest possible degree. Df 155

Rg 71. If a function between sums is realized only in derivate-constellations, the functive cannot be circumscribed. Rg 71

*GXx.3.3: Syncretisms

Rg 72. Element-syncretisms, together with the syncretizers, are registered in each Op according to Dff 105, 106, 109, 110, 112, 113, and the following Dff: Rg 72

Df 156. An OBLIGATORY (obl.) Dominance is one in which the Dominant in respect of the Syncretism is a Variety. -- opp Df 157 OPTIONAL. Df 156

Df 157. An OPTIONAL (opt.) Dominance is one in which the Dominant in respect of the Syncretism is a Variation. -- opp Df 156 OBLIGATORY. Df 157 *

Df 158. A FACULTATIVITY is an Overlapping with zero in which the Dominance is Optional. A functive contracting facultativity is called FACULTATIVE (symbol: (*p*)). -- opp Df 159 LATENCY. Df 158 *

Df 159. A LATENCY is an Overlapping Df 159 * with zero in which the Dominance is Obligatory. A functive that contracts latency is called LATENT (symbol: ^{p}). -- opp Df 158 FACULTATIVITY.

Df 160 Df 160. To RESOLVE a Syncretism is to introduce the syncretism-Variety which does not Contract the Overlapping that Establishes the syncretism.

Df 161 Df 161. An ACTUALIZED Chain (symbol: { }) is a chain with unResolved resoluble Syncretisms. -- opp Df 162 IDEAL.

Df 162 Df 162. An IDEAL Chain is a chain with Resolved resoluble Syncretisms. -- opp Df 161 ACTUALIZED.

Rg 73 Rg 73. The syncretizers are registered as particular varieties.

GXx.3.4: Free articulation

Rg 74 Rg 74. Since bound articulation with commutation as basis of analysis does not lead to unambiguous determination of each element in itself, every functival category can be subjected to free articulation in accordance with Rg 24. The requirement of exhaustive description contained in Pr 1 implies that free articulation is demanded if the elements of a functival category are of restricted number.

In cases where, according to Rg 17, several configurations can be anticipated and one is chosen arbitrarily, if the object is an object semiotic, then, in order to comply with Pr 2, the choice is so made as to achieve the greatest possible agreement with the eventual result of the analysis of the metasemiotic of the object semiotic. (Cf. Rg 60.)

*GXx.4: Semiotic test

*GXx.4.1: Hierarchy test
(performed only in *GI1)

Rg 75. In order to meet Df 24, an investigation is made to determine whether the analysis has led to a hierarchy (Df 8). Rg 75

In accordance with Pr 2, this test is applied in each Op only until it has once yielded positive results. In the case of a semiotic, experience shows that this happens already in *GI1.

If the test has negative results, the procedure is abandoned as inapplicable to the given object. (Cf. *GgBOA.)

*GXx.4.2: Relation- and mutation-test
(omitted in *GI1)

Rg 76. If the hierarchy test has had positive results in *GI1, then, in order to meet Df 24, an investigation is made in each of the higher Opp to determine to what extent the analysis has led to registration of classes defined by mutual *relation* so that any one of these classes admits an analysis into derivates defined by mutual *mutation*. Rg 76

If, under the given presuppositions, this test yields negative results in any Op, the procedure is abandoned as inapplicable to the given object. (Cf. *GgBOA.)

If, under the given presuppositions, the test yields positive results in an Op, it still does not follow that the object is a *semiotic*.

This can be determined only after the deduction is exhausted and the relation- and mutation-test has been applied in each of the higher Opp. The final determination is made in *gIl.

*GXx.4.3: Denotation test I (omitted in *GIl)

Rg 77 Rg 77. If the relation- and mutation-test has had positive results for the given object as a whole within the individual Op, then, with reference to Df 26, each of the pre-planes is subjected separately to a corresponding test.

If, under the given presuppositions, this test yields positive results for one or more pre-planes, and if these pre-planes have not previously been subjected separately to procedure *GgB in its entirety, the object is restricted to include only one such pre-plane and the procedure is applied again from the beginning. (Cf. Rg 94.)

If, under the given presuppositions, the test yields negative results within an Op, it still does not follow that the given object is a *denotative semiotic*. This can be determined only after the deduction is exhausted and both the object as a whole and each of the pre-planes have been subjected to the relation- and mutation-test in each of the higher Opp. The final determination is made in *gIl.

If, however, under the given presuppositions, the test has had negative results within a given Op for all pre-planes, then, in accordance with Pr 2, the test is not to be performed in the higher Opp.

GXx.4.4-6: Science test (omitted in *GI1*)

GXx.4.4

Rg 78. If, under the given presuppositions, denotation test I has had positive results for one or more pre-planes in *GXx.4.3*, and if these pre-planes have each previously been subjected to procedure *GgB* in its entirety, then, with reference to Dff 40-44, the given object is examined to determine whether, viewed as process, it reveals agreement with Pr 1. Rg 78

If, under the given presuppositions, this test yields positive results within an Op, it still does not follow that the object is a *metasemiotic*; nor, if the test yields negative results, does it follows that the object is a *connotative semiotic*. This can be determined only after the deduction is exhausted and the object has been subjected to the relation- and mutation-test in each of the higher Opp. The final determination is made in *gI1*.

If, however, under the given presuppositions, the test has had negative results within a given Op, then, in accordance with Pr 2, the test is not to be performed in the higher Opp.

GXx.4.5

Rg 79. If, under the given presuppositions, the test prescribed in Rg 78 has positive results, then, with reference to Dff 45-47, each pre-plane is investigated separately to determine whether, viewed as process, it reveals agreement with Pr 1 independently of the other pre-planes. Rg 79

If, under the given presuppositions, this test yields positive results for one or more pre-planes within an Op, it still does not follow that the given object is a *meta-(scientific semiotic)*; nor, if the test yields negative results, does it follow that the object is a *semiology*. This can be determined only after the deduction is exhausted and the object has been subjected to the relation- and mutation-test in each of the higher Opp. The final determination is made in *gI1.

If, however, under the given presuppositions, the test has had negative results for all pre-planes within a given Op, then, in accordance with Pr 2, the test is not to be performed in the higher Opp.

*GXx.4.6

Rg 80 Rg 80. If, under the given presuppositions, the test prescribed in Rg 79 has positive results for one or more pre-planes, then, with reference to Df 50, each component of these pre-planes is investigated separately to determine whether, viewed as process, it reveals agreement with Pr 1 independently of the other components of the same pre-plane.

If, under the given presuppositions, this test yields negative results for all pre-planes within an Op, then, in accordance with Pr 2, the test is not to be performed in the higher Opp, but it still does not follow that the given object is a *metasemiology*. This can be determined only after the deduction is exhausted and the object has been subjected to the relation- and mutation-test in each of the higher Opp. The final determination is made in *gI1.

*GXx.4.7-8: Denotation test II
(omitted in *GIl)

*GXx.4.7

Rg 81. If, under the given presuppositions, Rg 81
the test prescribed in Rg 79 has negative results for all pre-planes, then, with reference to Dff 48-49, each component of each pre-plane is subjected separately to a relation- and mutation-test.

If, under the given presuppositions, this test yields positive results for one or more pre-plane components within an Op, it still does not follow that the given object is an *external semiology*; nor, if the test yields negative results, does it follow that the object is an *internal semiology*. This can be determined only after the deduction is exhausted and the object has been subjected to the relation- and mutation-test in each of the higher Opp. The final determination is made in *gIl.

If, however, under the given presuppositions, the test has had negative results for all pre-plane components within a given Op, then, in accordance with Pr 2, the test is not to be performed in the higher Opp.

*GXx.4.8

Rg 82. If, under the given presuppositions, Rg 82
the test prescribed in Rg 80 has negative results for all pre-planes, then, with reference to Dff 51-52, each second-degree derivate of the pre-planes is subjected to the relation- and mutation-test.

If, under the given presuppositions, this test yields positive results for one or more second-degree derivates of the pre-planes within an Op, it still does not follow that the given object is an *external metasemiology*; nor, if the test yields negative results, does it follow that the object is an *internal metasemiology*. This can be determined only after the deduction is exhausted and the object has been subjected to the relation- and mutation-test in each of the higher Opp. The final determination is made in *gIl.

If, however, under the given presuppositions, the test has had negative results for all second-degree derivates of all pre-planes within a given Op, then, in accordance with Pr 2, the test is not to be performed in the higher Opp.

N 38 N 38. In the calculus underlying Rgg 76-82, only semiotics with two planes have been considered. In a complete calculus, provision will have to be made for semiotics with three or more planes, and special rules will have to be set up for them.

*GXx.4.9-10: Language test

Rg 83 Rg 83. It is necessary and sufficient to perform this test (under the presuppositions given in Rgg 84-85) once -- at the earliest in *GIIl, and at the latest in *gIl. For practical reasons (including reasons that concern choice of terminology) it is appropriately introduced already in *GIIl.

The language test must be partitioned into two tests: the manifestation test and the purport test.

*GXx.4.9: Manifestation test

Rg 84 Rg 84. If the relation- and mutation-test in *GXx.4.2 has positive results within the Op under consideration, then, in order to meet Df 38, a check is made for the presence of *manifestation,* which, in consequence of Df 28, is possible when the hierarchy test has had positive results.

The test consists in a syntagmatic catalysis, through which are encatalyzed to the given hierarchy and to each of its derivates one or more other hierarchies and derivates, respectively, which select the former. If this catalysis can be carried out under the given presuppositions, manifestation is present.

*GXx.4.10: Purport test

Rg 85. If the manifestation test has positive results, then, in order to meet Df 38, a check is made for the presence of *purport.* This is done by a syntagmatic catalysis, through which are encatalyzed to the manifesting hierarchy (or hierarchies) and derivates found in *GXx.4.9 one or more other hierarchies and derivates, respectively, which -- like the former -- are manifested by (components of) (some of) those (that) found in *GXx.4.9. Rg 85

If this catalysis can be carried out under the given presuppositions, it follows that:

1°, *purport* is present, provided that the given object can be determined, in *gIl, to be a semiotic (Rg 76);

2°, the given object is a *text,* provided that it can be determined, in *gIl, to be a denotative semiotic (Rg 77).

H **H. Elaboration of the component:**

Ha *a) Semiotic functions*

Rg 86 Rg 86. The requirement of exhaustive description in Pr 1 implies that any section of the universe of objects that is chosen as object must be expanded through catalysis so that objects outside that section which have cohesion to it are drawn into the investigation if the registration of the cohesion satisfies Df 149.

If a single (presumed) semiotic is chosen as object (and if this object can, in the course of the procedure, be shown to be a semiotic), the above-mentioned requirement will always mean a very significant expansion of the object:

1°. The very application of the procedure to the semiotic means that the semiotic is object semiotic for a semiology; this semiology will be object semiotic for a metasemiology; this metasemiology will be object semiotic for a meta-(scientific semiotic); and so on.

2°. If connotators can be registered in the course of the analysis, that means that the semiotic under study is object semiotic for a connotative semiotic; this connotative semiotic will be object semiotic for an external semiology; this, in turn, will be object semiotic for an external metasemiology; this will be object semiotic for a meta-(scientific semiotic); and so on.

3°. The semiotic under study has cohesion to other (conceivable or attested) semiotics, which behave like the semiotic under study in respect of points 1° and 2° above and which enter into hierarchy with it.

These possibilities will be examined in what follows, to the extent necessary to show that the cohesions mentioned can be registered by catalysis and to present the consequences of these possibilities for the elaboration of the procedure.

In order to undertake this examination, we introduce the following Dff:

Dff 163-164. The designations CONTENT PLANE or PLEREMATIC (symbol: γ°) and EXPRESSION PLANE or CENEMATIC (symbol: g°) are assigned arbitrarily as distinct names for Planes whose number within a Semiotic is two and only two. -- :: Df 165 INTERNAL CONTENT (or EXPRESSION) PLANE, Df 166 EXTERNAL CONTENT (or EXPRESSION) PLANE, Df 169 SEMIOLOGICAL CONTENT (or EXPRESSION) PLANE; Df 170 METASEMIOLOGICAL CONTENT (or EXPRESSION) PLANE; Dff 190-191 CONTENT LINE and EXPRESSION LINE; Dff 271-272 CONTENT SIDE and EXPRESSION SIDE. Dff 163-164

Df 165. An INTERNAL PLANE (symbol: $i_{*}g^{\circ}$) is a Component of a Denotative Semiotic. -- opp Df 166 EXTERNAL PLANE, Df 169 SEMIOLOGICAL PLANE, Df 170 METASEMIOLOGICAL PLANE. Df 165

Correspondingly, we can speak of INTERNAL CONTENT PLANE, INTERNAL EXPRESSION PLANE, and so on; in general, derivates of a denotative semiotic can be called INTERNAL FUNCTIVES. Internal functives and Opp performed on internal functives are symbolized with a prefixed i ; for internal functives that are derivates of a language, and for Opp performed on them, i may be replaced by L.

Df 166. An EXTERNAL PLANE (symbol: $x_{*}g^{\circ}$) is a Component of a Connotative Semiotic. -- opp Df 165 INTERNAL PLANE, Df 169 SEMIOLOGICAL PLANE, Df 170 METASEMIOLOGICAL PLANE. -- :: Df 167 DENOTATIVE PLANE, Df 168 CONNOTATIVE PLANE. Df 166

Correspondingly, we can speak of EXTERNAL CONTENT PLANE, EXTERNAL EXPRESSION PLANE, and so on; in general, all derivates of a connotative semiotic can be called EXTERNAL FUNCTIVES. External functives and Opp performed on external functives are symbolized with a prefixed x .

Df 167 Df 167. A DENOTATIVE PLANE (symbol: xg°) is an External Plane that is a Denotative Semiotic. -- opp. Df CONNOTATIVE PLANE. A denotative plane can also be arbitrarily (cf. Dff 163-164) called EXTERNAL EXPRESSION PLANE.

Df 168 Df 168. A CONNOTATIVE PLANE (symbol: $x\gamma^{\circ}$) is an External Plane that is not a Semiotic. -- opp Df 167 DENOTATIVE PLANE. A connotative plane can also be arbitrarily (cf. Dff 163-164) called EXTERNAL CONTENT PLANE.

Df 169 Df 169. A SEMIOLOGICAL PLANE (symbol: ${}_{2*}g^{\circ}$) is a Component of a Semiology. -- opp Df 165 INTERNAL PLANE, Df 166 EXTERNAL PLANE, Df 170 METASEMIOLOGICAL PLANE. -- :: Df 171 INTERNAL SEMIOLOGICAL PLANE, Df 172 EXTERNAL SEMIOLOGICAL PLANE.

Correspondingly, we can speak of SEMIOLOGICAL CONTENT PLANE, SEMIOLOGICAL EXPRESSION PLANE, and so on; in general, derivates of a semiology can be called SEMIOLOGICAL FUNCTIVES.

A SEMIOLOGICAL CONTENT PLANE can also be called a DESCRIPT, and a SEMIOLOGICAL EXPRESSION PLANE can also be called a DESCRIPTOR.

Semiological functives and Opp performed on semiological functives are symbolized with a prefixed ${}_{2}$.

Df 170. A METASEMIOLOGICAL PLANE (symbol: Df 170
$_{3*}g^{\circ}$) is a Component of a Metasemiology. -- opp Df 165 INTERNAL PLANE, Df 166 EXTERNAL PLANE, Df 169 SEMIOLOGICAL PLANE. -- :: Df 173 INTERNAL METASEMIOLOGICAL PLANE, Df 174 EXTERNAL META-SEMIOLOGICAL PLANE.

Correspondingly, we can speak of METASEMIOLOGICAL CONTENT PLANE, METASEMIOLOGICAL EXPRESSION PLANE, and so on; in general, derivates of a metasemiology can be called METASEMIOLOGICAL FUNCTIVES.

A METASEMIOLOGICAL CONTENT PLANE can also be called a METADESCRIPT, and a METASEMIOLOGICAL EXPRESSION PLANE can also be called a METADESCRIPTOR.

Metasemiological functives and Opp performed on metasemiological functives are symbolized with a prefixed $_3$.

Df 171. An INTERNAL SEMIOLOGICAL PLANE (sym- Df 171
bol: $i_{2*}g^{\circ}$) is a Component of an Internal Semiology. -- opp Df 172 EXTERNAL SEMIOLOGICAL PLANE.

Correspondingly, we can speak of INTERNAL SEMIOLOGICAL CONTENT PLANE or INTERNAL DESCRIPT, INTERNAL SEMIOLOGICAL EXPRESSION PLANE or INTERNAL DESCRIPTOR, and so on; in general, derivates of an internal semiology can be called INTERNAL SEMIOLOGICAL FUNCTIVES.

Internal semiological functives and Opp performed on internal semiological functives are symbolized with a prefixed i_2 .

Df 172. An EXTERNAL SEMIOLOGICAL PLANE Df 172
(symbol: $x_{2*}g^{\circ}$) is a Component of an External Semiology. -- opp Df 171 INTERNAL SEMIOLOGICAL PLANE.

Correspondingly, we can speak of EXTERNAL

SEMIOLOGICAL CONTENT PLANE or EXTERNAL DESCRIPT, EXTERNAL SEMIOLOGICAL EXPRESSION PLANE or EXTERNAL DESCRIPTOR, and so on; in general, derivates of an external semiology can be called EXTERNAL SEMIOLOGICAL FUNCTIVES.

External semiological functives and Opp performed on external semiological functives are symbolized with a prefixed x_2 .

Df 173 Df 173. An INTERNAL METASEMIOLOGICAL PLANE (symbol: $i_{3*}g^{\circ}$) is a Component of an Internal Metasemiology. -- opp Df 174 EXTERNAL METASEMIOLOGICAL PLANE.

Correspondingly, we can speak of INTERNAL METASEMIOLOGICAL CONTENT PLANE or INTERNAL METADESCRIPT, INTERNAL METASEMIOLOGICAL EXPRESSION PLANE or INTERNAL METADESCRIPTOR, and so on; in general, derivates of an internal metasemiology can be called INTERNAL METASEMIOLOGICAL FUNCTIVES.

Internal metasemiological functives and Opp performed on internal metasemiological functives are symbolized with a prefixed i_3 .

Df 174 Df 174. An EXTERNAL METASEMIOLOGICAL PLANE (symbol: $x_{3*}g^{\circ}$) is a Component of an External Metasemiology. -- opp Df 173 INTERNAL METASEMIOLOGICAL PLANE.

Correspondingly, we can speak of EXTERNAL METASEMIOLOGICAL CONTENT PLANE or EXTERNAL METADESCRIPT, EXTERNAL METASEMIOLOGICAL EXPRESSION PLANE or EXTERNAL METADESCRIPTOR, and so on; in general, derivates of an external metasemiology can be called EXTERNAL METASEMIOLOGICAL FUNCTIVES.

External metasemiological functives and Opp performed on external metasemiological functives are symbolized with a prefixed x_3 .

Df 175. A HETEROPLANE FUNCTION or DESIG- Df 175
NATION or SIGN FUNCTION is a Function between Functives each of which Enters into a different Plane. -- opp Df X HOMOPLANE FUNCTION.

N 39 N 39

Df X. A HOMOPLANE FUNCTION is a Function be- Df X
tween Functives that Enter into one and the same Plane. -- opp Df 175 HETEROPLANE FUNCTION.

Df 176. A Sum that Contracts Heteroplane Df 176
Function is called EXTRINSIC. -- :: Df 177 GLOSSEMATY, Df 372 GLOSSIA. -- The symbol for an extrinsic unit is $\frown$; the symbol for an extrinsic category is)(.

Df 177. A GLOSSEMATY (symbol: $\frown$) is an Df 177
Extrinsic Unit. -- opp Df 372 GLOSSIA. -- :: Df 181 DEFINABLE, Df 182 INDEFINABLE; Df 180 PLEREMATY, Df 374 CENEMATY.

Df 178. A PLEREMATIC FUNCTIVE, or CONTENT Df 178
FUNCTIVE, is a Functive that Enters into a Content Plane. -- opp Df 214 CENEMATIC FUNCTIVE.

Df 179. A DEFINITION is an Analysis of a Df 179
Glossematy.

Df 180. A PLEREMATY or CONTENT (symbols: Df 180
$\gamma^{\frown}$, $\gamma^{\asymp}$) is a Plerematic Glossematy. A non-intrinsic (cf. Df 371) plerematy is symbolized by $\gamma^{\frown}$; an intrinsic plerematy is symbolized by $\gamma^{\asymp}$. -- The plerematy is said to be PLEREMATY or CONTENT FOR (symbol: ∃) the cenematy (Df 374) or cenia (Df 375) to which it has relation. -- opp Df 374 CENEMATY, Df 373 PLERIA.

Df 181 Df 181. A DEFINABLE is an Analyzed Glossematy. -- opp Df 182 INDEFINABLE.

Df 182 Df 182. An INDEFINABLE (Ind) is an unAnalyzed Glossematy. -- opp Df 181 DEFINABLE.

Df 183 Df 183. GLOSSEMES (symbol: $_{*}g$) are non-Signals that are highest-Degree Invariants within a Semiotic. -- :: Df 273 PLEREMATEME, Df 274 CENEMATEME; Df 279 DIRECTIVE GLOSSEME, Df 280 CONSTITUTIVE GLOSSEME, Df 281 FLEXIVE GLOSSEME, Df 282 THEMATIVE GLOSSEME; Df 285 CONSTITUENT, Df 286 EXPONENT; Df 309 THEMATE GLOSSEME, Df 310 CHARACTER GLOSSEME; Df 317 MEDIAN GLOSSEME, Df 318 PERIPHERAL GLOSSEME, Df 319 SEMIMEDIAN GLOSSEME, Df 320 AMBIMEDIAN GLOSSEME; Df 323 SIMPLE PERIPHERAL GLOSSEME, Df 324 SIMPLE MEDIAN GLOSSEME; Df 333 CENTRIFUGAL GLOSSEME, Df 334 CENTRIPETAL GLOSSEME; Df 349 PRIMARY GLOSSEME, Df 350 SECONDARY GLOSSEME, Df 351 SEMIPRIMARY GLOSSEME, Df 352 AMBIPRIMARY GLOSSEME; Df 355 SIMPLE SECONDARY GLOSSEME, Df 356 SIMPLE PRIMARY GLOSSEME; Df 365 SIMPLE ACCESSORY GLOSSEME, Df 366 SIMPLE PRINCIPAL GLOSSEME.

Df 184 Df 184. The EXTENT of a Chain is the number of Parts Entering into the chain. -- opp Df 185 SIZE.

Df 185 Df 185. The SIZE of a Paradigm is the number of Members Entering into the paradigm. -- opp Df 184 EXTENT.

Df 186 Df 186. A SEMIOTIC SCHEMA is The Form when the form is a Semiotic. -- opp Df 187 SEMIOTIC USAGE.

Df 187. A SEMIOTIC USAGE is a Substance that Manifests a Semiotic Schema. -- opp Df 186 SEMIOTIC SCHEMA. Df 187

(ad Rg 86 1°) *Semiology* and *metasemiology*

Rg 87. The aim of a theory[1] is to provide a method whereby objects of a given nature are to be described. The aim is achieved by ordering the given object, together with any other realizable objects that are amenable to such treatment, as plane (or plane-derivate) in a semiotic which, to comply with Pr 1, must be a scientific semiotic (Df 41). That plane of the scientific semiotic that is constituted by (or includes) the object is arbitrarily called the content plane of the scientific semiotic concerned (cf. Df 163); the expression plane of the scientific semiotic concerned is the descriptive instrument itself. Rg 87

The aim of linguistic theory is to provide a method whereby semiotics are to be described. The aim is achieved by ordering the given (presumed) semiotic, together with any other realizable semiotics that are amenable to such treatment, as plane (or plane-derivate) in a scientific semiotic, which is, accordingly, a metasemiotic (Df 43) with respect to which the given semiotic (if it is correctly presumed to be a semiotic) is object semiotic (Df 45).

That plane of the metasemiotic that is constituted by (or includes) the object semiotic is arbitrarily called the content plane of the metasemiotic, while the expression plane of the metasemiotic is the descriptive instrument itself.

[1] In the sense in which the word *theory* is here taken: a calculus that is independent of applications and in itself postulate-free.

This metasemiotic, or metasemiotic of the first degree, enters in like manner as plane (or plane-derivate) into a second-degree metasemiotic, which is a scientific semiotic and which is consequently a meta-(scientific semiotic) (Df 46); in respect to it, the first-degree metasemiotic is object semiotic.

That plane of the meta-(scientific semiotic) that is constituted by (or includes) the object semiotic (alias metasemiotic of the first degree) is arbitrarily called the content plane of the meta-(scientific semiotic), while the expression plane of the meta-(scientific semiotic) is the descriptive instrument itself.

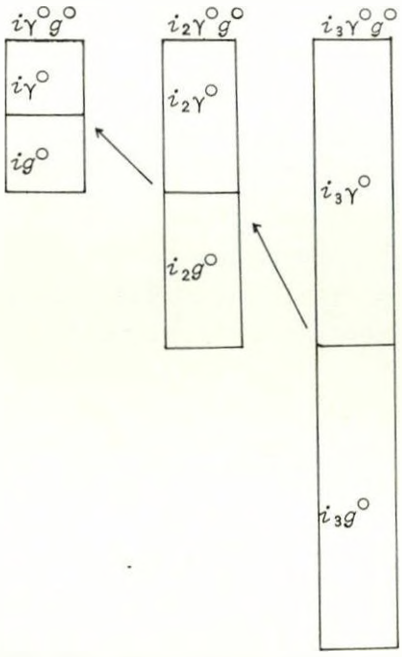
This meta-(scientific semiotic) enters in like manner as object semiotic and as so-called content plane (or content-plane derivate) into a second-degree meta-(scientific semiotic) (a third-degree metasemiotic); this, in turn, enters into a third-degree meta-(scientific semiotic) (a fourth-degree metasemiotic); and so on.

To meet the requirement of exhaustive description in Pr 1 and of simplest possible description (cf. Prr 2-4) it is necessary and sufficient to continue this regression until the introduction of a meta-(scientific semiotic) of higher degree can no longer involve a particular analysis that does not reveal conformity with particular analyses in the object semiotic of the meta-(scientific semiotic).

If the object chosen as primary in this regression is a denotative semiotic that is a non-scientific semiotic, linguistic theory is in the first instance an internal semiology, and its meta-(scientific semiotic) an internal metasemiology. The primary object enters as descript into the semiology, whose expression plane is the descriptor. The semiology enters as metadescript into the metasemiology, whose expression plane is the metadescriptor.

Rg 88. A metasemiotic selects its object Rg 88
semiotic.

N 40. Rgg 87-88 in graphic representation (on the N 40
assumption that the primary object is a denotative semiotic that is a non-scientific semiotic; cf. end of Rg 87):



Rg 89. If the expression plane of a meta- Rg 89
semiotic (e.g., i_2g°) and one of the planes of its object semiotic (the expression plane of the object semiotic) (e.g., ig°) can be shown to be conformal with one another, then the metasemiotic (e.g., $i_2\gamma^{\circ}g^{\circ}$) and the object semiotic (e.g., $i\gamma^{\circ}g^{\circ}$) have mutual substitution in the second-degree metasemiotic (e.g., $i_3\gamma^{\circ}g^{\circ}$). Consequently,

in such a case, the registration of a cohesion between the planes of the metasemiotic (e.g., between $i_2\gamma^{\circ}$ and i_2g°) will satisfy Df 149, and it follows that if the object semiotic under consideration (e.g., $i\gamma^{\circ}g^{\circ}$) alone is chosen as object of investigation, the expression plane of the metasemiotic under consideration (e.g., i_2g°) and, along with it, the metasemiotic (e.g., $i_2\gamma^{\circ}g^{\circ}$) are to be drawn into the investigation through catalysis in compliance with Rg 86.

Rg 90 Rg 90. To comply with the requirement of exhaustive description in Pr 1, the expression plane of a metasemiotic must always, when possible, be so ordered as to have cohesion to its content plane.

Rg 91 Rg 91. To comply with Pr 2, the expression plane of a metasemiotic must always, when possible, be so ordered as to be either conformal or converse with the expression plane of its object semiotic. (If converse, it can be transposed to a system conformal with the expression plane of the object semiotic.)

Rg 92 Rg 92. It follows from Df 38 that any semiotic is converse with a language. Hence, if the object chosen for investigation is a language, its internal descriptor and internal metadescriptor can and must be encatalyzed if Rg 90 can be followed with positive results.

N 41 N 41. Inductive experience shows that all hitherto observed semiotics can be analyzed into two planes with mutual solidarity. Thus, in all hitherto observed cases, Rg 90 can be followed with positive results. Hence we conclude concerning languages that Rg 92 can be followed with positive results in all hitherto observed cases.

Rg 93. Since a metasemiotic is a scientific semiotic (Df 43; cf. Dff 40-41), it must -- to comply with the requirement of exhaustive and simplest possible description (Pr 1) -- define as many of its own pleremati̇es as possible. Rg 93

A metasemiotic whose expression plane is conformal with the expression plane of the object semiotic can and must define its own plerematies in all instances where the plerematies are also found as possible glossematies in the object semiotic; thus there are fewer indefinables in a metasemiotic than in other scientific semiotics. The indefinables of the metasemiotic consist only in its simplex plerematies, i.e. the glosseme-individuals and signal-individuals of the object semiotic. For because of the unrestricted number of the individuals only an undifferentiated difference can be registered between them with the help of the metasemiotic; and while individuals that enter into complex glosseme-units of the object semiotic and into its units of lower degree can be subjected to particular partition in the same way as their invariants, this is impossible for the glosseme-individuals and signal-individuals of the object semiotic. With the help of the metasemiotic they are amenable only to a statistical, not to a qualitative, treatment, and because of the undifferentiated difference between the individuals, the single unpartitionable individual is an indefinable.

Since, however, the glosseme-individuals and signal-individuals of the object semiotic are invariants in the content plane of the metasemiotic, an investigation must be made to determine whether they can be analyzed particularly in the meta-(scientific semiotic) for which the metasemiotic is object semiotic by being subjected to the analysis to which the invariants of any object semiotic can be subjected in a metasemiotic.

Hence it follows that the involvement of metasemiotics of higher degree in the object under investigation is necessary in order to meet the requirement of exhaustive description; cf. Rg 87.

N 42 N 42. From Rg 93, considered together with Rg 88, it can be seen that the object semiotic is premised by its indefinables. In this respect, linguistic theory seems to contrast with other sciences, in that they premise their indefinables.

Rg 94 Rg 94. It follows from Rg 88 that when the object subjected to investigation (either immediately or through catalysis) includes a (presumed) object semiotic and its metasemiotic, the procedure must first be applied to the object semiotic and only after that to the metasemiotic (cf. Rgg 77 and 41, and Rg 102).

Rg 95 Rg 95. In order to comply with Pr 2 (and Pr 7), the application of the procedure in a second-degree metasemiotic shall be so ordered that derivates of the first-degree metasemiotic that are conformal with derivates of its object semiotic are not registered again. For this reason, a *conformity test* must precede the analysis undertaken by the second-degree metasemiotic. The purpose of this conformity test is to ensure the simplest possible application of the procedure by separating out, as early as possible, derivates that are conformal with derivates of the object semiotic.

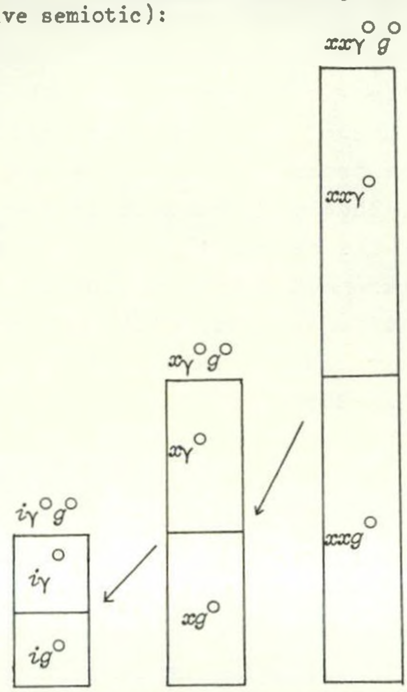
Rg 96 Rg 96. It follows from Rgg 93 and 95 that, in practice, the task of a meta-(scientific semiotic) (e.g., a metasemiology) is to carry out a particular analysis of the glosseme-individuals and signal-individuals of a denotative semiotic (e.g., a language), followed by a synthesis. Thus, in practice, the meta-(scientific semiotic) (the metasemiology) is identical with the study of the semiotic usage, while the first-degree metasemiotic (the semiology) alone is the study of the semiotic schema. This explicit formulation further confirms the necessity of treating the first-degree metasemiotic (the semiology) before the meta-(scientific semiotic) (the metasemiology), since the semiotic usage selects the semiotic schema (cf. Dff 28-30).

Rg 97. It follows from Rg 96 that the conformity test in a tentatively performed second-degree meta-(scientific semiotic) will have positive results for the aggregate object under investigation. The indefinables of the metasemiology, according to Rg 93, will be the simplex plerematies alone, i.e. the glosseme-individuals and signal-individuals of the semiology -- in practice, physical particles. And these, it turns out, can no more be subjected to particular analysis in the second-degree meta-(scientific semiotic) than in the metasemiology, so the test prescribed in Rg 93 has negative results. In compliance with Rg 87, the analysis of the aggregate object under investigation is therefore to be suspended as exhausted. Rg 97

(ad Rg 86 2^{o}) *Connotative semiotics*

Rg 98. A connotative semiotic selects its object semiotic and the latter's metasemiotic. Rg 98

N 43 N 43. Just as in N 40, we can here give, in accordance with Dff 167-168, the following graphic representation of a connotative semiotic's relationship to the semiotics to which it has selection (assuming that the primary object is a denotative semiotic and using $xx\gamma^{\circ}g^{\circ}$ as symbol for a connotative semiotic whose object semiotic is a connotative semiotic):



Rg 99 Rg 99. A connotative plane is constituted by all the connotators which are registered under the analysis of the object semiotic but which, in compliance with Rg 63, are provisionally removed from the procedure. It will be possible to show that any connotator is converse with a plerematy in the object semiotic. It follows that the connotative semiotic ($x\gamma^{\circ}g^{\circ}$) and its object semiotic (e.g., $i\gamma^{\circ}g^{\circ}$) have mutual substitution in a semiotic of higher degree (connotative semiotic of second degree or metasemiotic).

Rg 100 Rg 100. According to Rg 63, each of the entities entering into the connotative plane is solidary with a particular variety entering into the expression plane of the connotative semiotic (i.e., into the object semiotic). If all particular varieties of a given degree under each of the invariants entering into the expression plane of the connotative semiotic are solidary with a connotator, there will be solidarity between the planes of the connotative semiotic. It follows from Rg 99 that registration of this solidarity satisfies Df 149, and from this it follows that, if the object semiotic (e.g., $i\gamma^{\circ}g^{\circ}$) alone of the connotative semiotic is chosen as object under investigation, then the connotative plane ($x\gamma^{\circ}$) and, along with it, the connotative semiotic ($x\gamma^{\circ}g^{\circ}$) are to be drawn into the investigation through catalysis in compliance with Rg 86.

N 44. Inductive experience shows that in all hitherto N 44
observed cases connotators contract mutually contradictory or simple correlation, so it follows that the condition laid down in Rg 100 is fulfilled.

Rg 101. It follows from Df 44 that the ob- Rg 101
ject semiotic for a connotative semiotic can be a connotative semiotic or a metasemiotic.

N 45. Inductive experience shows that analysis of N 45
hitherto observed connotative semiotics does not lead to registration of connotators in conformity with Rg 63. Thus, in hitherto observed cases, no second-degree connotative semiotic ($xx\gamma^{\circ}g^{\circ}$) (i.e., connotative semiotic whose object semiotic is a connotative semiotic) has been registered.

Inductive experience shows that when the denotative semiotic is a language, no connotators can be registered in conformity with Rg 63 in the course of the internal metasemiology ($i_3\gamma^{\circ}g^{\circ}$), but that the definitions required for description of the connotative semiotic presuppose $i_3\gamma^{\circ}g^{\circ}$. (Cf. Rg 98.)

Rg 102. It follows from Rg 98 that when the Rg 102 given object includes (either immediately or through catalysis) a (presumed) object semiotic and its connotative semiotic, the procedure must be applied first to the object semiotic, then to the metasemiotic, and only after that to the connotative semiotic. (Cf. Rg 94.)

(ad Rg 86 3°) *Hierarchies of semiotics*

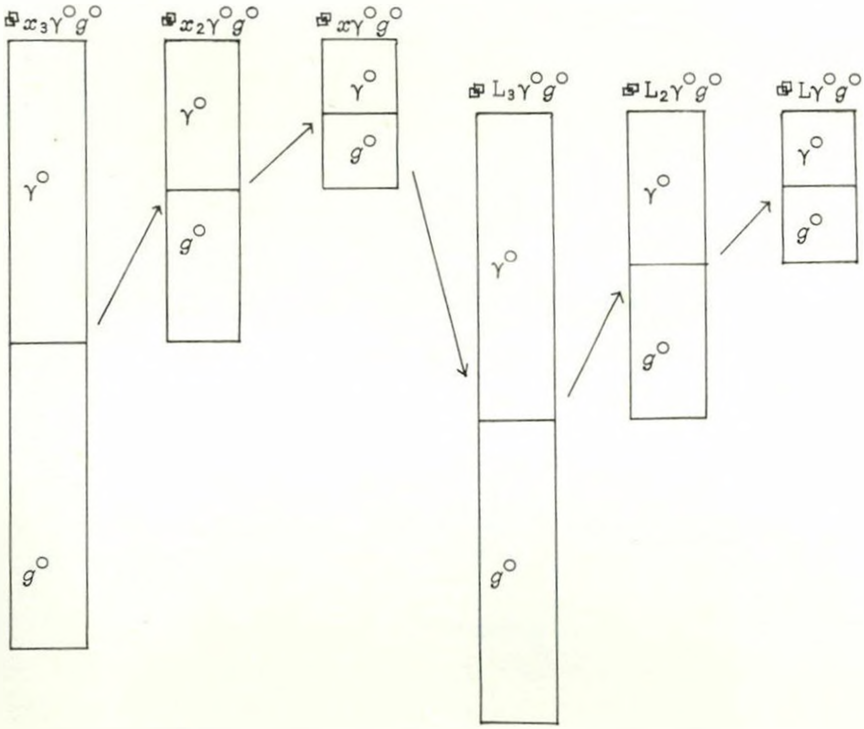
Rg 103 Rg 103. The semiotics that can be registered as possible according to Df 24 constitute a hierarchy. Within a hierarchy there are the following cohesions between derivates of different degree:

components → class
{components} + class
the individual component ⊢ class

Because of the unlimited number of individuals, one object semiotic and a chain of two object semiotics will have mutual commutation in their second-degree metasemiotic.

From this it follows that if one semiotic schema alone is chosen as object of investigation, all other conceivable semiotic schemata must be drawn into the investigation through catalysis, in compliance with Rg 86.

N 46 N 46. On the basis of Rgg 97 and 102 and of NN 41, 44, and 45, hitherto observed languages will lead to the following catalyzed object of investigation (cf. NN 40 and 43):



$x_2\gamma^\circ g^\circ$ is the science of "stylistic genres" and entities on a line with "stylistic genres" viewed as forms.

$x_3\gamma^\circ g^\circ$ is the science of the substance of these.

$L_2\gamma^\circ g^\circ$ is the science of the schema of the language.

$L_3\gamma^\circ g^\circ$ is the science of the usage of the language.

The associated ⧉ $x\gamma^\circ g^\circ$ is the science of "kinds of substance" (e.g., "writing" and "speech", "myokinetic substance" and "microphonetic substance", etc.).

Rg 104. It follows from Rgg 86-103 (in Rg 104
particular, Rgg 94 and 102) that the procedure *GgB is to be applied successively to all the semiotics entering into the object under investigation, one semiotic at a time, first to the selected, and then to the selecting semiotics.

From Pr 1 it must be foreseen that component *GgB will be elaborated in different ways as it is applied to these different objects of investigation, and therefore it is impossible to set up any detailed formation of the component that would have universal validity. The component must embrace

1°, the general schema of the procedure,
and 2°, a general calculus over the possible procedures.

Hb *b) Op-series*

Df 188 op Df 188. An Op-SERIES is a Component of a Procedure that is not itself a component of a procedure.

Rg 105 Rg 105. The final (i.e., the purely selecting) Op-series within $_*$Gg is named $_*$g; the others are named $_*$GI, $_*$GII, and so on.

Rg 106 Rg 106. The functional category registered in $_*$GI1 is called *pre-line* (symbol: ?#⊙), and the elements *pre-lines*. If the number of elements is two and only two, they are arbitrarily designated *content pre-line* (symbol: ?γ#⊙) and *expression pre-line* (symbol: ?*g*#⊙), according to Dff 163-164 and 145, together with the following Dff:

Df 189 Df 189. A LINE (symbol: #⊙) is a Part of a Syntagmatic. -- opp Df 270 SIDE. -- :: Df 190 CONTENT LINE, Df 191 EXPRESSION LINE.

Dff 190-191 Dff 190-191. CONTENT LINE (symbol: γ#⊙) and EXPRESSION LINE (symbol: *g*#⊙) are arbitrarily assigned as special designations for Lines whose number within a Syntagmatic is two and only two.

Rg 107 Rg 107. Since the procedure is constructed with reference to semiotics, it must be so ordered that the relation- and mutation-test can be made in each Op after the analysis into pre-lines. Moreover, it is important that all connotators be registered as such in the course of $_{*}\underline{Gg}$.

For these reasons, only the first individual analysis within $_{*}\underline{Gg}$ (the analysis into pre-lines) is an analysis of the object under investigation as an unanalyzed whole; all the following analyses, irrespective of the basis of analysis, are analyses of the pre-lines.

It follows that $_{*}\underline{GI}$ can comprise only two Opp: $_{*}\underline{GI0}$ (choice of basis of analysis) and $_{*}\underline{GI1}$ (analysis into pre-lines). Next comes $_{*}\underline{GII0}$, in which a new choice is made of basis of analysis, but this time for the pre-lines, not for the whole object under investigation (the pre-syntagmatic). *Thus, at this point the object under investigation shifts;* from here on, each new analysis proceeds from the class *pre-line,* and no longer from the class *pre-syntagmatic.* Thus, $_{*}\underline{GII}$ ff. appear as an analysis of the pre-lines, while only $_{*}\underline{GI}$ appears as an analysis of the pre-syntagmatic.

From this also follows the practical consequence that if there are two and only two pre-lines, each Op or Op-part in $_{*}\underline{GII}$ ff. (but not in $_{*}\underline{GI}$) falls into a plerematic part ($\underline{\Gamma}$) and a cenematic part ($\underline{G}$) (and, if there are more than two pre-lines, into more parts). In principle, it is indifferent whether $\underline{\Gamma}$ or $\underline{G}$ is treated first in each Op or Op-part. In the following exposition, $\underline{\Gamma}$ is arbitrarily treated first.

c) Op-chains within $_{*}\underline{G}$ *Hc*

op Df 192. UPPER CHAINS are the highest-Degree Elements registered in the immediately preceding Op. Df 192

Rg 108 Rg 108. In each of the Opp *GII1 ff., *GIII1 ff., etc., until further determination to the contrary, a check is made to discover whether all elements of highest degree can each alone constitute a catalyzed upper chain (which will, in such a case, be simplex).

In the first Op of an Op-series where this test has negative results, the upper chains are called *lexias*, according to

Df 193 op Df 193. LEXIAS are Elements of highest Degree each of which can alone constitute a Catalyzed Unit of next lower degree.

The highest-degree elements registered in the Op are called *lexemes*, according to

Df 194 op Df 194. LEXEMES are Parts of Lexias.

Within each Op-series, the Op-chain extending from the beginning of the Op-series through the Op in which lexeme and lexia are registered receives a special designation. In the last Op-series before *g, the designation is *n; in the next to last, it is *n'.

Rg 109 Rg 109. Within each Op-series, in each of the Opp following the one in which lexeme and lexia are registered, until further determination to the contrary, a check is made to discover whether all elements of highest degree can each alone constitute one and only one uncatalyzed lexia.

In the last Op within an Op-series where this test has positive results, the highest-degree elements are called *syllabemes*, according to op Df 195. SYLLABEMES are Elements of highest Degree of which each alone can constitute an unCatalyzed Lexia. Df 195

The upper chains of the syllabemes are called *syllabias*, according to

op Df 196. A SYLLABIA is a Unit whose Parts are Syllabemes. Df 196

Within each Op-series, the Op-chain following the Op in which lexeme and lexia are registered and extending through the Op in which syllabeme and syllabia are registered receives a special designation. In the last Op-series before ${}_{*}\underline{g}$, the designation is ${}_{*}\underline{s}$ (*lexematics*); in the next to the last, it is ${}_{*}\underline{s}'$.

Rg 110. Neither of the tests prescribed above is to be made in the Opp which, within each Op-series, follow the Op in which syllabeme and syllabia are registered. In the last Op-series before ${}_{*}\underline{g}$, the designation of the Op-chain constituted by these Opp is ${}_{*}\underline{t}$ (*syllabematics*); in the next to last, it is ${}_{*}\underline{t}'$. Rg 110

N 47. The terms *upper chain, lexeme, lexia, syllabeme,* and *syllabia* remain purely operative through the entire procedure. N 47

The analysis of ${}_{*}\underline{G}$ into Op-chains that is here prescribed is a purely practical measure, designed

1°, to avoid excessive continuous numbering of Opp;

2°, to mark certain points in the procedure that experience has shown can have special significance at the close of the procedure.

The symbols ${}_{*}\underline{n}^{(')}$, ${}_{*}\underline{s}^{(')}$, and ${}_{*}\underline{t}^{(')}$ are chosen for mnemonic reasons. In semiotics with nexus, the lexeme registered in ${}_{*}\underline{\underline{GIII}}$ will, at the conclusion of the procedure, prove to be, or to be reducible to, the nexus;

similarly, in semiotics with syntagmatemes, the syllabeme registered in *GIII will, at the conclusion of the procedure, prove to be, or to be reducible to, the syntagmateme; and, finally, the analyses in *t lead to registration of the taxeme. The symbols *n, *s, and *t indicate that the Op-chains concerned lead to registration of (pre-)*n*exus, (pre-)*s*yntagmateme, and *t*axeme respectively. The symbols *n', *s', and *t' are chosen arbitrarily by analogy to aid the memory.

Hd *d) Designation of the individual Opp within* *G

Df 197 Df 197. TRANSPOSITION (symbol: ≅) is Substitution between Converse Functives.

Df 198 Df 198. TRANSLATION is Semiotic Transposition.

Rg 111 Rg 111. Within each of its Op-series, *G permits the designation of the registered relates only as units of a given degree (solidarity units of first degree, solidarity units of second degree, and so on; selection units of first degree, selectio units of second degree, and so on) but not the definition of these units by their establishing relations or by their derivates (not, for example, the designation of some as nexus, accents, morphemes consonants, or the like); this can take place only when the analysis is exhausted, i.e., in *g.

According to Rg 103, however, *G does permit determination of the most inclusive hierarchy among the possible hierarchies (presumed semiotics) that rest on a given basis of analysis -- that is to say, the hierarchy that includes the highest number of relate-degrees. On this basis, each of the relate-degrees entering into a given hierarchy can be fixed as being converse with given relate-degrees in the most inclusive hierarchy.

Thus, on the basis of translation between the possible hierarchies (semiotics), we can introduce

1°, fixed numerations, so that a given relate is not numbered blindly according to its degree within the individual hierarchy, but in such a way that mutually converse relates are referred to the same Op-number. Thus, within the individual hierarchy, those numbers are to be passed over that do not give particular yield;

2°, unambiguous designations, which serve to identify the registered relate-categories but which must be chosen arbitrarily. They are chosen appropriately so as to agree with the designations introduced in *g. They are therefore operative until *g, and this is marked by their being placed within slants (//). These designations imply no assertion that the registered relates will always be identical with the entities indicated by the designations, but only that they will be so in so far as these entities are realized in the hierarchy under consideration.

e) Op-series *g He

Rg 112. *g includes the following tempi: Rg 112

*gI: Definitive semiotic test

*gII: Redistribution

*gIII: Glossemes and glosseme-sums

*gIII1: Glossemes

*gIII2: Glosseme-categories

*gIII3: Glosseme-units

*gIV: Classes of semiotics and variants of classes of semiotics

*gIV1: Classes of semiotics and variations of classes of semiotics

*gIV2: Varieties of classes of semiotics

*gI: Definitive semiotic test

Rg 113 Rg 113. When it finally appears that the chosen basis of analysis gives no possibility for further analysis and that choice of other bases of analysis cannot lead to further particular analysis, it is concluded that the analysis complex is exhausted.

Rg 114 Rg 114. If the relation- and mutation-test according to Rg 76 has had positive results in all preceding Opp (after *GI1), then, in accordance with Df 24, the object under investigation is registered as a *semiotic*.

Rg 115 Rg 115. If the object under investigation has been registered by Rg 114 as a semiotic and if the denotation test of Rg 77 has had negative results in one of the preceding Opp (after *GI1), then, in accordance with Df 26, the object under investigation is registered as a *denotative semiotic*.

Rg 116 Rg 116. If the object under investigation has been registered by Rg 114 as a semiotic and if the denotation test has had positive results in all preceding Opp (after *GI1), then:

if the science test of Rg 78 has had positive results in all preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 43, as a *metasemiotic*;

if the science test of Rg 78 has had negative results in one of the preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 44, as a *connotative semiotic*.

Rg 117 Rg 117. If the object under investigation has been registered by Rg 116 as a metasemiotic, then:

if the science test of Rg 79 has had positive results in all preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 46, as a *meta-(scientific semiotic)*;

if the science test of Rg 79 has had negative results in one of the preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 47, as a *semiology*.

Rg 118. If the object under investigation has been registered by Rg 117 as a meta-(scientific semiotic) and if the science test of Rg 80 has had negative results in one of the preceding Opp (after *GI1), then, in accordance with Df 50, the object under investigation is registered as a *metasemiology*. Rg 118

Rg 119. If the object under investigation has been registered by Rg 117 as a semiology, then: Rg 119

if the denotation test of Rg 81 has had positive results in all preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 49, as an *external semiology*;

if the denotation test of Rg 81 has had negative results in one of the preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 48, as an *internal semiology*.

Rg 120. If the object under investigation has been registered by Rg 118 as a metasemiology, then: Rg 120

if the denotation test of Rg 82 has had

positive results in all preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 52, as an *external metasemiology;*

if the denotation test of Rg 82 has had negative results in one of the preceding Opp (after *GI1), the object under investigation is registered, in accordance with Df 51, as an *internal metasemiology.*

N 48 N 48. In respect of Rgg 114-120, corresponding reservations are made as in N 38.

Rg 121 Rg 121. If the object under investigation has been registered by Rg 115 as a denotative semiotic and if the language test of Rgg 83-85 has had positive results (in *GII1 or later), then, in accordance with Df 39, the object under investigation is registered as a *text*, and its corresponding paradigmatic, in accordance with Df 38, as a *language*.

Rg 122 Rg 122. If the object under investigation has been registered by Rg 114 as a semiotic, then the highest-degree elements registered in the last Opp under *G, in so far as they are not signals, are termed *taxemes*, according to

Df 199 Df 199. A TAXEME (symbol: *G) is a Virtual Element. -- :: Df 221 DIRECTIVE TAXEME, Df 222 CONSTITUTIVE TAXEME, Df 223 FLEXIVE TAXEME, Df 224 THEMATIVE TAXEME; Df 283 SIMPLE CONSTITUTIVE, Df 284 SIMPLE FLEXIVE; Df 307 THEMATE, Df 308 CHARACTER; Df 241 MEDIAN TAXEME, Df 242 PERIPHERAL TAXEME, Df 243 SEMIMEDIAN TAXEME, Df 244 AMBIMEDIAN TAXEME; Df 321 SIMPLE PERIPHERAL

TAXEME, Df 322 SIMPLE MEDIAN TAXEME, Df 331 CENTRIFUGAL TAXEME, Df 332 CENTRIPETAL TAXEME; Df 260 PRIMARY TAXEME, Df 261 SECONDARY TAXEME, Df 262 SEMIPRIMARY TAXEME, Df 263 AMBIPRIMARY TAXEME; Df 353 SIMPLE SECONDARY TAXEME, Df 354 SIMPLE PRIMARY TAXEME; Df 363 SIMPLE ACCESSORY TAXEME, Df 364 SIMPLE PRINCIPAL TAXEME.

Df 200. A CONNOTATOR (symbol: $x\Gamma$) is an External Taxeme. (Cf. op Df immediately preceding Df 154.) Df 200

$_*$gII: Redistribution

Df 201. REDISTRIBUTION is distribution of the Components of given Classes over other classes. Df 201

Df 202. A TAXEME-CATEGORY (symbol: $\{_*G\}$) is a Functival Category whose highest-Degree Elements are Taxemes. Df 202

Rg 123. Since the procedure has of necessity been so ordered that analysis is made by stages and it has therefore been possible in each Op only to register cohesions within units of next lower degree, but not within units of still lower degrees, the requirement of exhaustive description in Pr 1 makes it necessary also to investigate such cohesions as the taxemes may contract within units of next-to-next-lower degree or even lower degrees. Accordingly, $_*$gII consists in a *redistribution* of the taxemes on this basis. This redistribution must not, however, cancel the results of the previous deduction and must, therefore, be so conducted that *the taxeme-categories as such are kept intact,* so it is the taxeme- Rg 123 categories as such and not the single taxemes that are redistributed. The realized categories of highest degree that are registered by this redistribution are called *orders*.

N 49 N 49. For the present, *order* stands as an operative term (cf. Df 268).

*gIII: Glossemes and Glosseme-sums

*gIII1: Glossemes

Rg 124 Rg 124. Since all conceivable *particular* analyses are exhausted after this redistribution, we attempt, in order to comply with Pr 7, to carry out a *universal* analysis that can serve to reduce further, as much as possible, the number of elements. This universal analysis will consist in a *resolution of the registered number of taxemes into prime factors*. This resolution must not, however, cancel the results of the distribution undertaken in *gII and is therefore to be made *for each order separately*. The entities into which the taxemes are thus resolved, together with the taxemes entering into irresoluble orders, constitute the *glossemes* (Df 183).

*gIII2-3: Glosseme-sums

Rg 125 Rg 125. Finally, the requirement of exhaustive description in Pr 1 implies adding to the syntagmatic deduction a paradigmatic deduction which yields a repertory over all the categories into which the glossemes and glosseme-units enter.

*gIV: Classes of semiotics and Variants of classes of semiotics

*gIV1: Classes of semiotics and Variations of classes of semiotics

Rg 126. The single semiotic (or the single class of semiotics, or the single variation of a semiotic or of a class of semiotics) to which the procedure has been applied (cf. Rg 104) is defined on the basis of *gIII2 by its place in the whole system of semiotics: Rg 126

denotative semiotics (languages)
metasemiotics
  meta-(scientific semiotic)s
    internal metasemiologies
    external metasemiologies
  internal semiologies
  external semiologies
connotative semiotics.

*gIV2: Varieties of classes of semiotics

Rg 127. The single semiotic (or the single class of semiotics, or the single variety of a semiotic or of a class of semiotics) to which the procedure has been applied (cf. Rg 104) is defined on the basis of *gIII3 by its place in the whole process of semiotics (denotative semiotics (languages) or metasemiotics (meta-(scientific semiotic)s (the internal or external metasemiologies) or the internal or the external semiologies) or connotative semiotics) on the basis of the following Dff: Rg 127

Df 203. CONTACT is Relation between Semi- Df 203 otics and between Derivates of different Semiotics. -- :: Df 208 GENETIC RELATIONSHIP, Df 212 LOAN-CONTACT.

Df 204 Df 204. When a Unit of Varieties of one and the same Semiotic Class is Established by Selection (according to Rg 3 1°), the term SEMIOTIC BASE is used of the variety that Enters into the Unit as Constant and not also as Variable.

Df 205-206 Df 205-206. The Invariant that has Relation to the Semiotic Base of a Semiotic Class is called the FORE-SEMIOTIC of the class, and the class is called its AFTER-SEMIOTIC.

Df 207 Df 207. CONTINUATION or SEMIOTIC CHANGE is the contact between a Fore-semiotic and its After-semiotic and between Derivates of a fore-semiotic and derivates of its after-semiotic. After-semiotics and their derivates are said to CONTINUE (symbol: <) their fore-semiotic and its derivates respectively, and these are said to BE CONTINUED BY (symbol: >) their after-semiotics and their derivates respectively. -- :: Df 210 DIACHRONY, Df 211 METACHRONY.

Df 208 Df 208. Between two Functives that have Continuation to each other or to one and the same third functive there is said to be GENETIC RELATIONSHIP. -- opp Df 212 LOAN-CONTACT.

N 50 N 50. The term *genetic relationship* is retained to conform to classical terminology and also to ensure against ambiguity, including confusion with "typological relationship". Actually, "typological relationship" is a superfluous term in glossematics since typologically related semiotics (or classes of semiotics, or variations of (classes of) semiotics) are simply semiotics that enter into one and the same class of semiotics (or variation of a class of semiotics).

Df 209. Genetically Related Semiotics are said to constitute together a SEMIOTIC FAMILY. Df 209

N 51. In glossematics, the term *semiotic family* comes, in a way, to be opposed in meaning to *semiotic class*, which has to be used in conformity with Df 4. Thus there is an unavoidable contrast at this point with a classical terminology in which "class" has been used to denote a family of second degree. For this reason, no attempt is made to set up a definite terminology for degrees of language families (cf. Danish "sprogæt", "sprogklasse", "sprogstamme", "sproggren"). N 51

Df 210. A DIACHRONY is a Continuation between Metasemiotics. -- opp Df 211 METACHRONY. Df 210

Df 211. A METACHRONY is a Continuation between Semiotics that are not Metasemiotics. -- opp Df 210 DIACHRONY. Df 211

N 52. The terminology introduced in Dff 210-211, although actually misleading, is retained in deference to established usage. N 52

Df 212. A LOAN-CONTACT is a Contact that is not a Genetic Relationship. -- opp Df 208 GENETIC RELATIONSHIP. Df 212

Df 213. When Loan-contact is present between two Semiotics and (cf. Rg 69) the Solidarity between their Varieties is Realized as a Selection between Derivates of the varieties, the Selecting derivate is called a LOAN FROM the semiotic that Includes the Selected derivate. Df 213

Ex 5. Let there be given a semiotic that contracts contact with several other semiotics: Ex 5

$$\begin{array}{lll} \gamma^{\circ}g^{\circ}{}_{1} & R & \gamma^{\circ}g^{\circ}{}_{2} \\ & R & \gamma^{\circ}g^{\circ}{}_{3} \\ & & \vdots \\ & R & \gamma^{\circ}g^{\circ}{}_{n} \end{array}$$

Like any relation, the contact will be realized by solidarity between varieties, *in casu* between varieties of semiotics:

$$\begin{array}{rl} \text{var. } (\gamma^{\circ}g^{\circ}{}_{1}) & \sim \text{var. } (\gamma^{\circ}g^{\circ}{}_{2}) \\ & \sim \text{var. } (\gamma^{\circ}g^{\circ}{}_{3}) \\ & \quad \vdots \\ & \sim \text{var. } (\gamma^{\circ}g^{\circ}{}_{n}) \end{array}$$

According to Rg 3 1°, the semiotic $\gamma^{\circ}g^{\circ}{}_{1}$, when it contracts relation simultaneously with $\gamma^{\circ}g^{\circ}{}_{2}$, $\gamma^{\circ}g^{\circ}{}_{3}$, ... $\gamma^{\circ}g^{\circ}{}_{n}$, must be resolved into (var. $(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{2})$ R (var. $(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{3})$ R ... R (var. $(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{n})$.

If (var. $(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{2}) \rightarrow$ (var.$(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{3}) \rightarrow \ldots \rightarrow$ (var. $(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{n})$, then (var. $(\gamma^{\circ}g^{\circ}{}_{1}) \sim \gamma^{\circ}g^{\circ}{}_{n})$ is semiotic base, $\gamma^{\circ}g^{\circ}{}_{n}$ is fore-semiotic, and $\gamma^{\circ}g^{\circ}{}_{1}$ is after-semiotic, so that $\gamma^{\circ}g^{\circ}{}_{n} > \gamma^{\circ}g^{\circ}{}_{1}$.

From this we conclude that the relations

$$\begin{array}{lll} \gamma^{\circ}g^{\circ}{}_{1} & R & \gamma^{\circ}g^{\circ}{}_{2} \\ \gamma^{\circ}g^{\circ}{}_{1} & R & \gamma^{\circ}g^{\circ}{}_{3} \\ & \vdots & \\ \gamma^{\circ}g^{\circ}{}_{1} & R & \gamma^{\circ}g^{\circ}{}_{n-1} \end{array}$$

are loan-contacts.

Hf *f) Theorems and hypotheses*

Rg 128 Rg 128. The procedure $_{*}\underline{Gg}$ itself, which, as a theory in the sense taken here (cf. Rg 87, fn.), is postulate-free by definition, is selected by an unrestricted process of general and specific propositions (with selecting definitions). These are in part *theorems*, or proved propositions that are deduced from the theory, and in part *hypotheses*, which are erected on the basis of experience.

$_*\underline{\underline{GI}}$ - $_*\underline{\underline{gIV}}$

GENERAL SCHEMA OF THE PROCEDURE

*GI -- *gIV: GENERAL SCHEMA OF THE PROCEDURE[2]

*GI: First Op-series: Line-analysis. *GI

*GI0: Choice of basis of analysis. *GI0

Rg 129. In accordance with Rg 42, *GI0 falls into the following tempi: Rg 129

*GI0.1 Tentative performance of all possible analyses on the basis of R⁝β (solidarity), of R⁝B (combination), and of R⁝γ (selection). *GI0.1

*GI0.2 Choice of the basis of analysis that leads to the highest possible number of realized functival categories within the highest possible number of functional categories. *GI0.2

*GI0.3 If more than one basis of analysis has been chosen in *GI0.2 (i.e., if two or more bases of analysis yield the same highest possible number of realized functival categories within the same highest possible number of functional categories), that basis of analysis is chosen which, within the chain in its entirety or within any arbitrary section *GI0.3

[2] Cf. Rg 104.

of it, leads to registration of the lowest number of elements.

*GIO.4 *GIO.4 If more than one basis of analysis has been chosen in *GIO.3 (i.e., if two or more bases of analysis lead to registration of the same highest possible number of realized functival categories within the same highest possible number of functional categories and to registration of the same limited number of elements), one of them is chosen arbitrarily.

Rg 130 Rg 130. In the first-degree analysis chosen in accordance with the prescriptions just stated, the functional category is termed the *pre-line* (symbol: $?^{\#}\odot$), and the elements are termed *pre-lines* and arbitrarily designated, if there are only two, as the *content pre-line* (symbol: $?\gamma^{\#}\odot$) and the *expression pre-line* (symbol: $?g^{\#}\odot$). These terms are used in accordance with Dff 145, 163-164, and 189-191.

N 53 N 53. For all semiotics so far observed, inductive experience shows that we are led by the preceding considerations to choose R⁝β as basis of analysis. If R⁝B or R⁝γ is chosen, the pre-elements registered in the lower Opp will be entities which, under line-analysis (i.e., if R⁝β had been chosen as basis of analysis) would have proved to be *signs* (since, in the lower Opp concerned, content and expression cannot, of course, be distinguished if we proceed from R⁝B or R⁝γ as basis of analysis); moreover, these signs will be entities of various kinds, depending on the structure of the object under investigation. In the case of languages, R⁝B as basis of analysis may yield such entities as genres, works of individual authors, libraries, formats, series, works, volumes, chapters, paragraphs, sub-paragraphs, lexias, syllabias, members of compounds, or words; R⁝γ as basis of analysis may yield similar entities or exclusively entities of lesser extent, such as radicals and derivatives or subspecies of the same. (Consequently, if we were faced with objects having the last-mentioned kind of structure and if we had to choose between R:B and R:γ as basis of analysis, we should have to choose R:B since this could be shown to lead to registration of the highest number of functional categories with realized functival categories.) -- Now, to be sure, it will generally turn out that analysis-bases R:B and R:γ will lead to registration of a lower number of elements than would R:β when applied to an object which, on the basis of R:β, could be shown to be a semiotic. For the number of elements will ordinarily be one (1) in all realized functival categories, since it will generally be impossible to demonstrate commutation by an analysis from bases R:B and R:γ[3], and the consequence would necessarily be that at each stage of the analysis the pre-elements under each functival category would have to be reduced, two at a time, to one. -- But it can be demonstrated that application of analysis-bases R:B and R:γ to an object that could be shown to be a semiotic (from analysis-basis R:β) would lead to registration of a lower number of functional and functival categories than would application of analysis-basis R:β. For in the course of the higher Opp the analysis would come to be carried out below the minimal sign[4], and a choice would have to be made between two possible analyses: one, which in comparison with an analysis based on R:β could be termed a content-analysis, and another, which in comparison with an analysis based on R:β could be termed an expression-analysis. The choice would have to comply with Prr 6-7, and consequently either a content-analysis or an expression-analysis would have to be chosen to the exclusion of the other. Hence the number of Opp -- and consequently the number of functional categories, and consequently the number of realized functival categories -- would be lower if R:B or R:γ , rather than R:β, were chosen as basis of analysis.

According to Rg 39, this is decisive for the choice of R:β over R:B or R:γ as basis of analysis. [On the other hand, it is not decisive that an analysis from basis R:B

[3] If, for example, we conceive of the first analysis as an analysis into libraries, it would generally be impossible to show that an interchange of two entities within the one library could entail an interchange of two entities within the other library. And if we conceive of the first analysis as an analysis into lexias, it would be at least a rare and quite restricted case in which an interchange of two entities within the one lexia could be shown to entail an interchange of two entities within the other lexia.

[4] Below the glossia (see below). That is to say, we would face the problem of analyzing into content-entities without corresponding expression and into expression-entities without corresponding content.

and R:γ would ordinarily lead to negative results from the endosemiological test, so that objects that could be shown from basis R:β to be semiotics would necessarily appear as non-semiotics from basis R:B or R:γ. On the contrary, whether a proposed object of investigation is or is not a semiotic is a question that must be decided by the choice of analysis and basis of analysis according to Prr 6-7 and Rg 39.

The kind of calculation suggested here is of the greatest significance and is one of the most important tasks for theoretical glossematics. Only by deliberately carrying out the greatest possible number of "incorrect descriptions" of languages and other semiotics shall we be able to test fully and in detail the principles on which glossematics is based. Here, previous work in linguistics provides a useful (but of course, even from this point of view, incomplete) body of material.

N 54 N 54. Since endoplanes have mutual solidarity and are thus both constants, and since they are also complementary, assignment of distinct designations to each of the two endoplanes is arbitrary. But (here as everywhere in such cases) in our terminology and formulae we follow as far as possible the traditional conception where there is one. Now the traditional conception erroneously posits the axiom that the one endoplane, called the expression plane, selects the other, called the content plane. This axiom rests on an unjustified conclusion from the (more or less clearly perceived) fact that the physical hierarchy, which is specified by the expression substance, specifies the ontological hierarchy, which is specified by the content substance. This specification from physics to ontology is quite external to the endosemiology and finds no place in the object under investigation if the glossematic procedure can be carried out (i.e., if the object is an endosemiology). Consequently, this specification cannot be registered within the internal glossematic procedure and neither, therefore, can it legitimately influence its results.

Throughout the whole glossematic procedure, consequently, the concepts of *plane, content plane,* and *expression plane* retain their purely operative definition, and this is why their definition (in contrast to that of *connotative;* see Df 276) can and must be introduced already at this point.]

*GI1 *GI1: First (and only) Op:

Analysis of the pre-syntagmatic into pre-lines.

$$?\gamma^{\circ}g^{\circ}R :: ?^{\#}\odot$$

Rg 131 Rg 131. From the theoretical point of view, *GI1 falls into the Op-parts given in Rgg 44ff., but actually these are all carried out in *GI0 in so far as they are not omitted in *GI1 according to the rule.

*GI1.0: Choice of analysis. *GI1.0

N 55. Inductive experience shows that for all semiotics so far observed the analysis into content line and expression line in the approximately established meaning of those terms will be the one among the possible solidarity-analyses that leads to the highest number of functional categories with realized functival categories. N 55

Tempi 3°-4° have no application.

*GI1.1: $\{?^{\#}\odot\}$ *GI1.1

*GI1.2: $\{?^{\#}\odot\} :: \{\vdots\beta\}, \{\vdots B\}, \{\vdots\gamma\}, \{\vdots\Gamma\}$ *GI1.2

N 56. In all semiotics so far observed, the result is N 56

$\{^{\#}\odot\} :: \{\vdots\beta\}$ = the solidary pre-line (Rg 36 2°).

*GI1.3: $\{\vdots\beta\} :: n, \{\vdots B\} :: n, \{\vdots\gamma\} :: n, \{\vdots\Gamma\} :: n$ *GI1.3

N 57. In all semiotics so far observed, the result is N 57

$\{\vdots\beta\} :: \gamma^{\#}\odot, g^{\#}\odot$ (cf. NN 38 and 53).

By free articulation (*GI1.3.4; cf. Df 68), the elements are found to be polar according to Dff 114 and 101 (since, according to Rg 86, any semiotic, in its character as plane in a meta-semiotic, can be shown by analysis or catalysis to have correlation to the other plane of the metasemiotic; cf. Df 97) and contensive according to Rg 22, Tempo 1 2° *c* ; in accordance with Rg 22, Tempo 3, they are termed

$$\vdots\alpha' = g^{\#}\odot$$
$$\vdots A' = \gamma^{\#}\odot$$

or

$$\vdots\alpha' = \gamma^{\#}\odot$$
$$\vdots A' = g^{\#}\odot$$

The choice between these two possibilities depends on the analysis of the metasemiotic (Rg 74).

*GI1.4.1 *GI1.4.1: Hierarchy test.

Rg 132 Rg 132. The test has positive results if $?\gamma^{\circ}g^{\circ}R$ has proved to be a class that includes one member -- namely, $?^{\#}\odot$ -- which in turn is a class that includes 1-4 members -- namely, realized $\{\vdots\beta\}$, $\{\vdots B\}$, $\{\vdots\gamma\}$, and/or $\{\vdots\Gamma\}$. These, incidentally, in so far as they are realized, are in their turn classes.

Rg 133 Rg 133. If the number of pre-lines is two and only two, we introduce the terms *plerematic functive,* or *content functive,* and *cenematic functive,* or *expression functive,* according to Df 178 and

Df 214 Df 214. A CENEMATIC FUNCTIVE, or EXPRESSION FUNCTIVE, is a Functive that Enters into an Expression Plane. -- opp Df 178 PLEREMATIC FUNCTIVE.

*GII *GII: Second Op-series: Analysis of the pre-lines.

*GII0 *GII0: Choice of basis of analysis.

*GII0.1 *GII0.1: Conformity test according to Rg 95. (applied only in analysis of metasemiotics)

Rg 134 Rg 134. If the object under investigation ($?\gamma^{\circ}g^{\circ}R$) is a (pre-)metasemiotic, then, *after* its analysis into (pre-)planes ((pre-)lines), a check is made to discover whether these can be further analyzed (articulated or partitioned) in such a way that one or more components (members or parts) become conformal with components (members or parts) of the object semiotic of the (pre-) metasemiotic.

If more than one such analysis proves to be possible, that one is chosen which leads to registration of conformal components of greatest size or extent, respectively.

The conformal components are separated out of the procedure, so that only the non-conformal components are taken as object for new further analysis through *GII0.2.

Rg 135. It follows from Rg 93 that in any second-degree metasemiotic the conformity test can be carried out with positive results provided the designations in the first-degree metasemiotic for all those functives in its object semiotic that are not individuals can be reduced either to entities that are all found also in the object semiotic (cf. Rgg 89 and 91) or to units whose parts are all found also in the designations of individuals of the metasemiotic. Under such conditions, the conformity test can be so framed that the analysis chosen as further analysis of the planes of the (pre-)metasemiotic (cf. Rg 134) is that which the first-degree metasemiotic has carried out up to and including the registration of glossemes, supplemented by the articulation, in *Ggb2, of variants into varieties and variations. Rg 135

After this, it will be possible to separate out from the procedure the glossemes and entities of lower degree than glossemes in the primary object semiotic, as well as any variants in the primary object semiotic that are not individuals, so that only the glosseme-individuals and the signal-individuals of the primary object semiotic are taken as object for further analysis through *GII0.2.

*GII0.2 *GII0.2

Rg 136 Rg 136. The same procedure is followed as in *GI0, but it must be borne in mind that the object of analysis is not the pre-syntagmatic, but the pre-line, so that analysis is attempted of each of the pre-lines separately (cf. Rg 107).

All Op-series are first carried out tentatively with a view to ensuring (in conformity with Rg 34) that no Op is performed in a lower Op-series that would only lead to registration of entities that will be registered in a higher Op-series (e.g., in *GIII).

Rg 137 Rg 137. The choice of basis of analysis differs for different objects of analysis and may differ for the two pre-lines.

*GII1 *GII1: First Op: Analysis of the pre-lines into first-degree units.

*GII1.0 *GII1.0: Choice of analysis.

*GII1.1 *GII1.1: Setting up of functional category.

*GII1.2 *GII1.2: Articulation of the functional category into functival categories.

*GII1.3 *GII1.3: Articulation of the functival categories into elements.

*GII1.3.1 *GII1.3.1: Derivate test and commutation test.

*GII1.3.2 *GII1.3.2: Defective categories.

*GII1.3.3 *GII1.3.3: Syncretisms.

*GII1.3.4: Free articulation. *GII1.3.4

*GII1.4: Semiotic test. *GII1.4

*GII1.4.2: Relation- and mutation-test. *GII1.4.2

*GII1.4.3: Denotation test I. *GII1.4.3

*GII1.4.4-6: Science test (if appropriate). *GII1.4.4-6

If the science test, according to Rg 78, has positive results in *GII1.4.4, then -- if the conformity test has not been carried out in *GII0.1 -- the procedure is halted and gone through again, starting with *GII0 (cf. Rg 134).

*GII1.4.7-8: Denotation test II (if appropriate). *GII1.4.7-8

*GII1.4.9-10: Language test. *GII1.4.9-10

*GII1.4.9: Manifestation test. *GII1.4.9

*GII1.4.10: Purport test. *GII1.4.10

*GII2 ... *GIIn: Second and following Opp. *GII2 ... *GIIn

Rg 138. The analysis is continued until it is exhausted (cf. Rg 37), in the same manner, and with the same Op-parts in each Op, as in *GII1, except that the language test is omitted. Rg 138

*GIII: Third Op-series: Analysis of the pre-lines *GIII

(with a different basis of analysis from the one used in *GII).

*GIII1: First Op: Analysis of the pre-lines into first-degree units *GIII1

(with a different basis of analysis from the one used in *GII1).

Rg 139 Rg 139. The Op-parts are the same as in *GII1, except that the language test is omitted.

*GIII2... *GIIIn *GIII2 ... *GIIIn: Second and following Opp.

Rg 140 Rg 140. The analysis is continued as in *GII2 ... *GIIn.

*GIV ff. *GIV ff.: Fourth and following Op-series: Analysis of the pre-lines

(with a different basis of analysis, in each Op-series, from the one used in the immediately preceding Op-series).

Rg 141 Rg 141. The analysis is carried out as in *GII and *GIII.

*g *g: Final Op-series: Taxematics.

*g0 *g0: See *GgBOHe.

*gI *gI: First subseries: Definitive semiotic test.

*gI0 *gI0: *gI comprises only one Op: *gI1.

*gI1 *gI1: First (and only) Op:

$?\gamma^{o}g^{o} = \gamma^{o}g^{o}$ (See Rgg 113-122.)

*gII *gII: Second subseries: Redistribution.

*gII0 *gII0

Df 215 Df 215. A LEAST-SUM is a Sum of lowest possible Extent or Size. -- opp Df 395 GREATEST-SUM.

Df 216 Df 216. The CELL of a Sum is the Least-Sum that Enters into the sum and is Established by a Function that also establishes the sum itself.

Df 217. A CELL-COHESION is a Cohesion Establishing a Cell. Df 217

Df 218. A ROLE is the Relation of a Functive to a given Function within a given Sum. Df 218

Df 219. A MAXIMAL SUM (symbol: $\odot$) is a Sum that is Derivate of lowest possible Degree of another sum. -- NB: *Minimal* and *maximal* are not opposites. Df 219

Rg 142. Rg 142

a) The $\{_{*}G\}$ are distributed according to their role within the cell-cohesion under consideration on the basis of a two-field analysis.

1°. Since analysis is not performed here according to *mutual* relation, as it is in $_{*}\underline{\underline{G}}$, the first question to be resolved is whether given taxeme-categories contract the relation under consideration at all. The taxeme-categories are consequently analyzed according to Rg 29 1°, with attention paid, in the case of each taxeme, to all the maximal established units into which it enters.

Mapping is performed according to Rgg 56-58.

2°. The taxeme-categories revealed in 1° as contracting the relation that is being considered (i.e., in practice, those that are members in the categories $\{\vdots\beta_2\}$ and $\{\vdots\Gamma_2\}$ and -- if this has given particular yield -- $\{\vdots\gamma_2\}$) are distributed in each of the categories obtained in 1°, according to Rg 29 2°, with attention paid, in the case of each taxeme, to all the maximal established units into which it enters.

Mapping is performed according to Rgg 56-58.

b) After each of these two distributions, the *units* are to be defined in each Op that proceed from the distribution performed and that are to be operated with in the next distribution.

Here (just as later, in the complete registration of units in $_*$gIII2, *q.v.*) it proves necessary and sufficient to operate -- not with all the four categories set up in *a*) above -- but with two:

$\{\vdots\alpha\}$, comprising all those $_*G$ and those particular varieties of $_*G$ that have been defined on distribution as exclusively = the field b (in practice, these will be the invariants included in $\{\vdots B_2\}$ and certain particular varieties included in $\{\vdots \Gamma_2\}$);

$\{\vdots A\}$, comprising all those $_*G$ and those particular varieties of $_*G$ that have been defined on distribution as = the field a or as = ab (in practice, these will be the invariants included in $\{\vdots\beta_2\}$ and in $\{\vdots\gamma_2\}$ and certain particular varieties included in $\{\vdots\Gamma_2\}$).

$_*$gIII1

$_*$gIII: First Op:

Analysis into species and subspecies.

$$\{_*G\} :: \{_*D\}, \{_*M,\}, \{_*P,\}, \{_*P_t\}$$
$$\{_*D\}, \{_*P,\}, \{_*P_t\} :: \{_*P_{\sim}\}, \{_*P_{\frown}\}, \{_*P_{\frown\sim}\}, \{_*P_{\sim\frown}\}$$

$_*$gIII.0

$_*$gIII.0

Df 220

Df 220. DIRECTION is Cell-cohesion for Lexias and lexia-Units.

In $_*$gIII the basis of distribution is *direction,* considered within the *maximal lexia* or *lexia-unit.*

$_*$gIII.1 *gIII.1

Rg 143. Rg 143

a) The {$_*G$} are distributed according to their role in respect of direction.

Tempo 1: The {$_*G$} that include one or more elements contracting direction in all maximal lexias into which they enter are registered in {:β_2}.

The {$_*G$} that include one or more elements not contracting direction in any maximal lexia into which they enter are registered in {:β_2}.

The {$_*G$} that include one or more elements both contracting and not contracting direction in all maximal lexias into which they enter are registered in {:γ_2}.

The {$_*G$} that include one or more elements contracting direction in some, and not contracting direction in other maximal lexias into which they enter are registered in {:Γ_2}.

Tempo 2: Mapping is performed according to Rgg 56-58.

Tempo 3: The {$_*G$} registered in {:β_2} by the mapping are called categories of *directives:* Df 221. A DIRECTIVE (symbol: $_*D$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that Contract Direction in all the Maximal Lexias into which they enter. -- opp Df 222 CONSTITUTIVE, Df 223 FLEXIVE, Df 224 THEMATIVE. * Df 221

The {$_*G$} registered in {:B_2} by the mapping are called categories of *constitutives:* Df 222. A CONSTITUTIVE (symbol: $_*M$,) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that do Df 222 not Contract Direction in any of the Maximal Lexias into which they enter. -- opp Df 221 DIRECTIVE, Df 223 FLEXIVE, Df 224 THEMATIVE.

The $\{_*G\}$ registered in $\{\vdots\gamma_2\}$ by the mapping are called categories of

Df 223 *flexives:* Df 223. A FLEXIVE (symbol: $_*P_,$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that at once Contract and do not contract Direction in all the Maximal Lexias into which they enter. -- opp Df 221 DIRECTIVE, Df 222 CONSTITUTIVE, Df 224 THEMATIVE.

The $\{_*G\}$ registered in $\{\vdots\Gamma_2\}$ by the mapping are called categories of

Df 224 *thematives:* Df 224. A THEMATIVE (symbol: $_*P_t$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that Contract Direction in some of the Maximal Lexias into which they enter and do not contract direction in others of the Maximal Lexias into which they enter. -- opp Df 221 DIRECTIVE, Df 222 CONSTITUTIVE, Df 223 FLEXIVE.

When a themative enters as part of an element into a functival category in which it contracts direction, the *direction variety* of the themative is said to be present:

Df 225 Df 225. A DIRECTION VARIETY OF A THEMATIVE (symbol: $_*P_d$) is a Themative-Variety that Contracts Direction. -- opp Df 226 FLEXION VARIETY OF A THEMATIVE, Df 227 THEMATIZED THEMATIVE.

When a themative enters as part of an element into a functival category in which it both contracts and does not contract direction, the *flexion variety* of the themative

Df 226 is said to be present: Df 226. A FLEXION VARIETY OF A THEMATIVE (symbol: $_*P_\tau$) is a Themative-Variety that both Contracts and does not contract Direction. -- opp Df 225 DIRECTION VARIETY OF A THEMATIVE, Df 227 THEMATIZED THEMATIVE.

When a themative enters as part of an element into a functival category in which it does not contract direction, it is said to be present as *thematized:* Df 227. A THEMATIZED THEMATIVE (symbol: $_{*}P_{\vartheta}$) is a Themative-Variety that does not Contract Direction. -- opp Df 225 DIRECTION VARIETY OF A THEMATIVE, Df 226 FLEXION VARIETY OF A THEMATIVE. Df 227

Direction varieties and flexion varieties of thematives, as well as thematized thematives, are *particular varieties* and are therefore to be analyzed separately under the further procedure (cf. Rg 1).

$\{_{*}D\}$, $\{_{*}M_{,}\}$, $\{_{*}P_{,}\}$, and $\{_{*}P_{t}\}$ are called *species.* This term is purely operative until $_{*}$gIII2 (cf. Df 277).

If, for one or more planes, $_{*}$gII1.1 fails to give particular yield (i.e., if direction is not present in the plane(s)), the plane(s) is (are) transferred unanalyzed as species.

b)

{:α} ⊳ constitutives and thematized thematives.

{:A} ⊳ directives and flexives, as well as direction varieties and flexion varieties of thematives.

{:α} and {:A} are called *simple species,* {:α} *simple constitutives,* and {:A} *simple flexives.* These terms are purely operative until $_{*}$gIII2 (cf. Dff 278, 283, 284).

Df 228. A HOMOGENEOUS SUM (symbols: H. UNIT Df 228 (see SUCCESSION) $^{*/}$, H. CATEGORY $_{*/}$) is a Sum into which Enter Taxemes of one and only one Simple Species in one and the same Plane. -- opp Df 378 HETEROGENEOUS SUM.

Df 229 Df 229. A SUCCESSION (symbol: $^{*/}$) is a Homogeneous Unit.

Rg 144 Rg 144. If the number of planes is two, the special terms *formative* and *simple formative* are introduced in γIIl.1 and the special terms *prosody* and *simple prosody* in gIIl.1 according to the following Dff:

Df 230 Df 230. A FORMATIVE (symbol Π,) is a Pleremātic Flexive. -- opp Df 231 PROSODY.

op Df op Df. SIMPLE FORMATIVES (symbol: Π) are Plerematic Simple Flexives. This term is purely operative until γIII2 (cf. Df 287).

Df 231 Df 231. A PROSODY (symbol: *P*,) is a Cenematic Flexive. -- opp Df 230 FORMATIVE.

op Df op Df. SIMPLE PROSODIES (symbol: *P*) are Cenematic Simple Flexives. This term is purely operative until gIII2 (cf. Df 288).

*gIIl.2

*gIIl.2

Rg 145 Rg 145.

a) The simple flexives (symbol: $_*P$) are distributed as follows according to their role as constants or variables in the direction within the maximal lexia; the given tempi are traversed for each species or particular variety separately.

Df 232. A DIRECTING Functive is the Variable in a Direction. -- opp Df 233 DIRECTED. Df 232

Df 233. A DIRECTED Functive is the Constant in a Direction. -- opp Df 232 DIRECTING. Df 233

Tempo 1: The $\{_*P\}$ that include one or more elements which, when contracting direction, always contract it as directed, whatever maximal lexia they enter into, are registered in $\{\vdots\beta_2\}$.

The $\{_*P\}$ that include one or more elements which, when contracting direction, always contract it as directing, whatever maximal lexia they enter into, are registered in $\{\vdots B_2\}$.

The $\{_*P\}$ that include one or more elements which, when contracting direction, always contract it as directed by one relate and as directing another relate, whatever maximal lexia they enter into, are registered in $\{\vdots\gamma_2\}$.

The $\{_*P\}$ that include one or more elements which, when contracting direction, always contract it as directed when they enter into certain maximal lexias and always contract it as directing when they enter into certain other maximal lexias are registered in $\{\vdots\Gamma_2\}$.

Tempo 2: Mapping is performed according to Rgg 56-58.

Tempo 3: The $\{_*P\}$ registered in $\{\vdots\beta_2\}$ by the mapping are called categories of *fundamentals:* Df 234. A FUNDAMENTAL TAXEME or Df 234
TAXEME-VARIETY (symbol: $_*P_\frown$) is a Taxeme or taxeme-Variety that Enters into a taxeme-

Category Including one or more taxemes which can Contract Direction and which, when they contract it, always do so as Directed, whatever Maximal Lexia they enter into. -- opp Df 235 CONVERTED TAXEME(-VARIETY), Df 236 SEMIFUNDAMENTAL TAXEME (-VARIETY), Df 237 AMBIFUNDAMENTAL TAXEME (-VARIETY).

The $\{_*P\}$ registered in $\{{:}B_2\}$ by the mapping are called categories of

Df 235 *converted:* Df 235. A CONVERTED TAXEME or TAXEME-VARIETY (symbol: $_*P_{\frown}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Direction and which, when they contract it, always do so as Directing, whatever Maximal Lexia they enter into. -- opp Df 234 FUNDAMENTAL TAXEME (-VARIETY), Df 236 SEMIFUNDAMENTAL TAXEME(-VARIETY), Df 237 AMBIFUNDAMENTAL TAXEME(-VARIETY).

The $\{_*P\}$ registered in $\{{:}\gamma_2\}$ by the mapping are called categories of

Df 236 *semifundamentals:* Df 236. A SEMIFUNDAMENTAL TAXEME or TAXEME-VARIETY (symbol: $_*P_{\sim}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Direction and which, when they contract it, always do so as Directed by one taxeme and as Directing another taxeme, whatever Maximal Lexia they enter into. -- opp Df 234 FUNDAMENTAL TAXEME(-VARIETY), Df 235 CONVERTED TAXEME (-VARIETY), DF 237 AMBIFUNDAMENTAL TAXEME(-VARIETY)

The $\{_*P\}$ registered in $\{{:}\Gamma_2\}$ by the mapping are called categories of

Df 237 *ambifundamentals:* Df 237. An AMBIFUNDAMENTAL TAXEME or TAXEME-VARIETY (symbol: $_*P_{\sim\frown}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Direction and which, when they contract it, always do so as Directed when they enter into certain Maximal Lexias and always do so as Directing when they enter into certain other maximal lexias. -- opp Df 234 FUNDAMENTAL TAXEME (-VARIETY), Df 235 CONVERTED TAXEME(-VARIETY), Df 236 SEMIFUNDAMENTAL TAXEME(-VARIETY).

When an ambifundamental enters into a maximal lexia in which it contracts direction as directed, the *fundamental variety* of the ambifundamental is said to be present (symbol: ${}_*P_{\sim\sim}$).

When an ambifundamental enters into a maximal lexia in which it contracts direction as directing one relate and as directed by another relate, the *semifundamental variety* of the ambifundamental is said to be present (symbol: ${}_*P_{\sim\frown\sim}$).

When an ambifundamental enters into a maximal lexia in which it contracts direction as directing, the *converted variety* of the ambifundamental is said to be present (symbol: ${}_*P_{\sim\frown\frown}$).

Fundamental varieties, semifundamental varieties, and converted varieties of ambifundamentals are *particular varieties* and are therefore to be analyzed separately under the further procedure (cf. Rg 1).

$\{{}_*P_{\sim}\}$, $\{{}_*P_{\frown}\}$, $\{{}_*P_{\frown\sim}\}$, and $\{{}_*P_{\sim\frown}\}$ are called *subspecies*. This term is purely operative until ${}_*$gIII2 (cf. Df 301).

If ${}_*$gII1.2 fails to give particular yield for one or more species (i.e., if there is no direction present in the species), the species is (are) transferred unanalyzed as subspecies. This is always true, in the nature of the case, for $\{{}_*M,\}$.

Thematized thematives are transferred as particular varieties of $\{_*P_{t\sim}\}$, $\{_*P_{tn}\}$, $\{_*P_{t\sim\sim}\}$, and $\{_*P_{t\sim n}\}$, respectively.

b)

$\{\vdots\alpha\}$ ⊳ converted taxemes and converted varieties.

$\{\vdots A\}$ ⊳ fundamentals and semifundamentals and fundamental and semifundamental varieties. *

The analysis is so conducted that each simple species (not each species) is analyzed separately. In practice, the analysis becomes an analysis of the simple species $\{\vdots A\}$ -- the simple flexives.

The simple constitutives are transferred to $\{\vdots\alpha\}$.

$\{\vdots\alpha\}$ and $\{\vdots A\}$ are called *simple subspecies*, $\{\vdots\alpha\}$ *themates*, and $\{\vdots A\}$ *characters*. These terms are purely operative until $_*$gIII2 (cf. Dff 302, 307, 308).

Df 238 Df 238. A HOMOSUBGENEOUS SUM (symbols: H. UNIT (see SET) #, H. CATEGORY $_\#$) is a Sum into which Enter Taxemes of one and only one Simple Subspecies under one and the same Simple Species. -- opp Df 379 HETEROSUBGENEOUS SUM.

Df 239 Df 239. A SET (symbol: #) is a Homosubgeneous Unit. -- opp Df 380 SYNTAGMA.

In practice, $_*$gII1.2 serves as a check on the demarcation undertaken in $_*$sl and $_*$tl (cf. Rg 35).

$_*$gII2: Second Op: $_*$gII2
Analysis into types and subtypes

$$\{_*G\} :: \{_*G_i\}, \{_*G_p\}, \{_*G_{pi}\}, \{_*G_{ip}\}$$

$$\{_*G_i\}, \{_*G_{pi}\}, \{_*G_{ip}\} :: \{_*G_c\}, \{_*G_m\}, \{_*G_{mc}\}, \{_*G_{cm}\}$$

$_*$gII2.0 $_*$gII2.0

Df 240. An INTRACOHESION is the Cell-cohesion of a Set. Df 240

In $_*$gII2 the basis of distribution is *intracohesion,* considered within the *maximal set.*

$_*$gII2.1 $_*$gII2.1

Rg 146 Rg 146

a) The $\{_*G\}$ are distributed according to their role in respect of intracohesion.

Tempo 1: The $\{_*G\}$ in each subspecies that include one or more elements contracting intracohesion, whatever maximal set the elements enter into, are registered in $\{\vdots\beta_2\}$.

The $\{_*G\}$ in each subspecies that include one or more elements not contracting intracohesion, whatever maximal set the elements enter into, are registered in $\{\vdots B_2\}$.

The $\{_*G\}$ in each subspecies that include one or more elements both contracting and not contracting intracohesion, whatever maximal set the elements enter into, are registered in $\{\vdots\gamma_2\}$.

The $\{_*G\}$ in each subspecies that include one or more elements contracting intracohesion in some of the maximal sets into which the elements enter and not contracting intracohesion in other maximal sets into which the elements enter are registered in $\{\vdots\Gamma_2\}$.

Tempo 2: Mapping is performed according to Rgg 56-58.

Tempo 3: The $\{_*G\}$ registered in $\{\vdots\beta_2\}$ by the mapping are called categories of
Df 241 *medians:* Df 241. A MEDIAN TAXEME (symbol: $_*G_i$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that Contract Intracohesion in all the Maximal Sets into which they enter. -- opp Df 242 PERIPHERAL TAXEME, Df 243 SEMIMEDIAN TAXEME, Df 244 AMBIMEDIAN TAXEME.

The $\{_*G\}$ registered in $\{\vdots B_2\}$ by the mapping are called categories of
Df 242 *peripherals:* Df 242. A PERIPHERAL TAXEME (symbol: $_*G_p$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that do not Contract Intracohesion in any of the Maximal Sets into which they enter. -- opp Df 241 MEDIAN TAXEME, Df 243 SEMIMEDIAN TAXEME, Df 244 AMBIMEDIAN TAXEME.

The $\{_*G\}$ registered in $\{\vdots\gamma_2\}$ by the mapping are called categories of
Df 243 *semimedians:* Df 243. A SEMIMEDIAN TAXEME (symbol: $_*G_{pi}$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that at once Contract and do not contract Intracohesion in all the Maximal Sets into which they enter. -- opp Df 241 MEDIAN TAXEME, Df 242 PERIPHERAL TAXEME, Df 224 AMBIMEDIAN TAXEME.

The $\{_*G\}$ registered in $\{\vdots\Gamma_2\}$ by the mapping are called categories of
Df 244 *ambimedians:* Df 244. An AMBIMEDIAN TAXEME (symbol: $_*G_{ip}$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that Contract Intracohesion in some of the

Maximal Sets into which they enter and do not contract intracohesion in others of the maximal sets into which they enter. -- opp Df 241 MEDIAN TAXEME, Df 242 PERIPHERAL TAXEME, Df 243 SEMIMEDIAN TAXEME.

When an ambimedian enters into a maximal set in which it contracts intracohesion, the *median variety* of the ambimedian is said to be present (symbol: $_*G_{ipi}$).

When an ambimedian enters into a maximal set in which it both contracts and does not contract intracohesion, the *semimedian variety* of the ambimedian is said to be present (symbol: $_*G_{ippi}$).

When an ambimedian enters into a maximal set in which it does not contract intracohesion, the *peripheral variety* of the ambimedian is said to be present (symbol: $_*G_{ipp}$).

Median varieties, semimedian varieties, and peripheral varieties of ambimedians are *particular varieties* and are therefore to be analyzed separately under the further procedure (cf. Rg 1).

$\{_*G_i\}$, $\{_*G_p\}$, $\{_*G_{pi}\}$, and $\{_*G_{ip}\}$ are called *types*. This term is purely operative until $_*$gIII2 (cf. Df 315).

If $_*$gII2.1 fails to give particular yield for one or more subspecies (i.e., if there is no intracohesion present in the subspecies), the subspecies is (are) transferred unanalyzed as types.

Fundamental and/or converted varieties of ambifundamentals are transferred, if necessary, as particular varieties of $\{_*P_{\sim\neg\, i}\}$, $\{_*P_{\sim\neg\, p}\}$, $\{_*P_{\sim\neg\, pi}\}$, and $\{_*P_{\sim\neg\, ip}\}$, respectively. Correspondingly, thematized thematives transferred to $_*$gIII.2 as particular varieties are transferred in the present Op as particular varieties ($\{_*P_{d\neg i}\}$, $\{_*P_{d\neg p}\}$, $\{_*P_{d\neg pi}\}$, $\{_*P_{d\ulcorner ip}\}$, $\{_*P_{d\ulcorner i}\}$, etc.).

b)

$\{\vdots\alpha\} \rhd$ peripherals and peripheral varieties.

$\{\vdots A\} \rhd$ medians and semimedians and median and semimedian varieties of ambimedians.

The analysis is so conducted that each simple subspecies (not each subspecies) is analyzed separately.

$\{\vdots\alpha\}$ and $\{\vdots A\}$ are called *simple types*, $\{\vdots\alpha\}$ *simple peripherals* and $\{\vdots A\}$ *simple medians*. These terms are purely operative until $_*$gIII2 (cf. Dff 316, 321, 322).

At the present stage of the procedure, the registration of the simple types does not serve to set up units for treatment in the next distributions, but is a necessary intermediate step towards the analysis into simple subtypes that takes place in $_*$gII2.2 on the basis of the analysis into simple types.

$_*$gII2.2
Rg 147

$_*$gII2.2

Rg 147

a) The simple medians are distributed as follows according to their role as constants or variables in the intracohesion within the maximal set; the given tempi are traversed for each type or particular variety separately.

Tempo 1: The $\{_*G\}$ that include one or more elements which, when contracting intracohesion, always contract it as constants, whatever maximal set they enter into, are registered in $\{\vdots\beta_2\}$.

The $\{_*G\}$ that include one or more elements which, when contracting intracohesion, always contract it as variables, whatever maximal set they enter into, are registered in $\{{:}B_2\}$.

The $\{_*G\}$ that include one or more elements which, when contracting intracohesion, always contract it as constants in respect of one relate and as variables in respect of another relate, whatever maximal set they enter into, are registered in $\{{:}\gamma_2\}$.

The $\{_*G\}$ that include one or more elements which, when contracting intracohesion, always contract it as constants when they enter into certain maximal sets and always contract it as variables when they enter into certain other maximal sets are registered in $\{{:}\Gamma_2\}$.

Tempo 2: Mapping is performed according to Rgg 56-58.

Tempo 3: The $\{_*G\}$ registered in $\{{:}\beta_2\}$ by the mapping are called categories of *centrals:* Df 245. A CENTRAL TAXEME or TAXEME- Df 245
VARIETY (symbol: $_*G_c$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Intracohesion and which, when they contract it, always do so as Constant, whatever Maximal Set they enter into. -- opp Df 246 MARGINAL TAXEME (-VARIETY), Df 247 SEMICENTRAL TAXEME(-VARIETY), Df 248 AMBICENTRAL TAXEME(-VARIETY).

The $\{_*G\}$ registered in $\{{:}B_2\}$ by the mapping are called categories of *marginals:* Df 246. A MARGINAL TAXEME or TAX- Df 246
EME-VARIETY (symbol: $_*G_m$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract

Intracohesion and which, when they contract it, always do so as Variables, whatever Maximal Set they enter into. -- opp Df 245 CENTRAL TAXEME (-VARIETY), Df 247 SEMICENTRAL TAXEME(-VARIETY), Df 248 AMBICENTRAL TAXEME(-VARIETY).

The $\{_*G\}$ registered in $\{\vdots\gamma_2\}$ by the mapping are called categories of

Df 247 *semicentrals:* Df 247. A SEMICENTRAL TAXEME or TAXEME-VARIETY (symbol: $_*G_{mc}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Intracohesion and which, when they contract it, always do so as Constants in respect of one Relate and as Variables in respect of another Relate, whatever Maximal Set they enter into. -- opp Df 245 CENTRAL TAXEME(-VARIETY), Df 246 MARGINAL TAXEME(-VARIETY), Df 248 AMBICENTRAL TAXEME(-VARIETY).

The $\{_*G\}$ registered in $\{\vdots\Gamma_2\}$ by the mapping are called categories of

Df 248 *ambicentrals:* Df 248. An AMBICENTRAL TAXEME or TAXEME-VARIETY (symbol: $_*G_{cm}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Intracohesion and which, when they contract it, always do so as Constants when they enter into certain Maximal Sets and always do so as Variables when they enter into certain other maximal sets. -- opp Df 245 CENTRAL TAXEME(-VARIETY), Df 246 MARGINAL TAXEME(-VARIETY), Df 247 SEMICENTRAL TAXEME(-VARIETY).

When an ambicentral enters into a maximal set in which it contracts the intracohesion as constant, the *central variety* of the ambicentral is said to be present (symbol: $_*G_{cmc}$).

When an ambicentral enters into a maximal set in which it contracts the intracohesion as constant in respect of one relate and as variable in respect of another relate, the *semicentral variety* of the ambicentral is said to be present (symbol: $_{*}G_{cmmc}$).

When an ambicentral enters into a maximal set in which it contracts the intracohesion as variable, the *marginal variety* of the ambicentral is said to be present (symbol: $_{*}G_{cmm}$).

Central varieties, semicentral varieties, and marginal varieties of ambicentrals are *particular varieties* and are therefore to be analyzed separately under the further procedure (cf. Rg 1).

$\{_{*}G_{c}\}$, $\{_{*}G_{m}\}$, $\{_{*}G_{mc}\}$, and $\{_{*}G_{cm}\}$ are called *subtypes*. This term is purely operative until $_{*}$gIII2 (cf. Df 325).

If $_{*}$gII2.2 fails to give particular yield for one or more types (i.e., if there is no intracohesion present in the type(s)), the type(s) is (are) transferred unanalyzed as subtypes. This is always true, in the nature of the case, for $\{_{*}G_{p}\}$.

Peripheral varieties of ambimedians are transferred as particular varieties of $\{_{*}G_{ipc}\}$, $\{_{*}G_{ipm}\}$, $\{_{*}G_{ipmc}\}$, and $\{_{*}G_{ipcm}\}$, respectively. Correspondingly, fundamental and/or converted varieties of ambifundamentals along with thematized thematives transferred to $_{*}$gII2.1 as particular varieties are transferred in the present Op as particular varieties.

b)

$\{\vdots\alpha\} \rhd$ marginals and marginal varieties.

$\{\vdots A\} \rhd$ centrals and semicentrals and central and semicentral varieties.

The analysis is so conducted that each simple type (not each type) is analyzed separately. In practice, the analysis becomes an analysis of the simple type $\{\vdots A\}$ -- the simple medians.

The simple peripherals are transferred to {:α}.

{:α} and {:A} are called *simple subtypes*, {:α} *centrifugals*, and {:A} *centripetals*. These terms are purely operative until *gIII2 (cf. Dff 326, 331, 332).

At the present stage of the procedure, the registration of the simple subtypes does not serve to set up units for treatment in the next distributions, but is a necessary intermediate step towards the analysis into simple tagmata that takes place in *gII3.1 on the basis of the analysis into simple subtypes.

Centrifugal characters may be called *intense*, and centripetal characters *extense*, according to

Df 249 Df 249. An INTENSE CHARACTER (symbol: $_*C_n$) is a Centrifugal Character. -- opp Df 250 EXTENSE CHARACTER. -- :: Df 253 NOMINAL CHARACTER, Df 257 ACCENT.

Df 250 Df 250. An EXTENSE CHARACTER (symbol: $_*C_v$) is a Centripetal Character. -- opp Df 249 INTENSE CHARACTER. -- :: Df 254 VERBAL CHARACTER, Df 258 MODULATION.

Rg 148 Rg 148. If the number of planes is two and only two, we can here arrive at specifically plerematic and cenematic terminologies that match traditional conceptions. In practice, the analysis corresponds, on the content plane, to the classical distinction between "radical elements" and "derivational elements" and between "nominal flexional elements" and "verbal flexional elements"; on the expression plane, it corresponds to the classical distinction between "vowel" and "consonant" and between "sentence intonation" and "syllable accent".

Since the terminology that thus stands ready for adaptation distinguishes themates and characters, it rests on the analysis into simple species, simple subspecies, and simple types -- not on the analysis into species, subspecies, and types. Therefore -- even though, from a practical point of view, it might be quite possible to introduce terms like *semiradical* and *ambiradical*, *semivowel* and *ambivowel* (thus giving some relative justification to the classical concept of "semi-vowel") and corresponding terms for characters -- it is more consistent, from a theoretical point of view, to use the terms *plerematic central*, *plerematic marginal*, *plerematic semicentral*, and *plerematic ambicentral* (and *cenematic central*, etc.) for the subtypes and to reserve the specific terminology for the simple subtypes. This consideration leads us to introduce the special terms *derivative*, *radical*, *nominal character*, and *verbal character* in γII2.2 and the special terms *consonant*, *vowel*, *accent*, and *modulation* in gII2.2, according to the following Dff:

Df 251. A DERIVATIVE (symbol: Φ) is a Plerematic Centrifugal Themate. -- opp Df 252 RADICAL; Df 255 CONSONANT. Df 251

Df 252. A RADICAL (symbol: P) is a Plerematic Centripetal Themate. -- opp Df 251 DERIVATIVE; Df 256 VOWEL. Df 252

Df 253. A NOMINAL CHARACTER (symbol: K_n) is a Plerematic Intense Character. -- opp Df 254 VERBAL CHARACTER; Df 257 ACCENT. Df 253

Df 254 Df 254. A VERBAL CHARACTER (symbol: K_v) is a Plerematic Extense Character. -- opp Df 253 NOMINAL CHARACTER; Df 258 MODULATION.

Df 255 Df 255. A CONSONANT (symbol: F) is a Cenematic Centrifugal Themate. -- opp Df 256 VOWEL; Df 251 DERIVATIVE.

Df 256 Df 256. A VOWEL (symbol: R) is a Cenematic Centripetal Themate. -- opp Df 255 CONSONANT; Df 252 RADICAL.

Df 257 Df 257. An ACCENT (symbol: C_n) is a Cenematic Intense Character. -- opp Df 258 MODULATION; Df 253 NOMINAL CHARACTER.

Df 258 Df 258. A MODULATION (symbol: C_v) is a Cenematic Extense Character. -- opp Df 257 ACCENT; Df 254 VERBAL CHARACTER.

*gII3 *gII3: Third Op: Analysis into tagmata and subtagmata.

* $\{_*G\} :: \{_*G_1\}, \{_*G_2\}, \{_*G_{21}\}, \{_*G_{12}\}$

$\{_*G_1\}, \{_*G_{21}\}, \{_*G_{12}\} :: \{_*G_{\mathrm{I}}\}, \{_*GI_{\mathrm{II}}\}, \{_*G_s\}, \{_*G_a$

*gII3.0 *gII3.0

Df 259 Df 259. An ENDOCOHESION is the Cell-cohesion of a Succession.

In *gII3 the basis of distribution is *endocohesion,* considered within the *maximal succession.*

$_*$gII3.1 $_*$gII3.1

Rg 149 Rg 149

a) The $\{_*G\}$ are distributed according to their role in respect of endocohesion.

Tempo 1: The $\{_*G\}$ in each subtype that include one or more elements contracting endocohesion, whatever maximal succession the elements enter into, are registered in $\{\vdots\beta_2\}$.

The $\{_*G\}$ in each subtype that include one or more elements not contracting endocohesion, whatever maximal succession the elements enter into, are registered in $\{\vdots B_2\}$.

The $\{_*G\}$ in each subtype that include one or more elements both contracting and not contracting endocohesion, whatever maximal succession the elements enter into, are registered in $\{\vdots\gamma_2\}$.

The $\{_*G\}$ in each subtype that include one or more elements contracting endocohesion in some of the maximal successions into which they enter and not contracting endocohesion in other maximal successions into which they enter are registered in $\{\vdots\Gamma_2\}$.

Tempo 2: Mapping is performed according to Rgg 56-58.

Tempo 3: The $\{_*G\}$ registered in $\{\vdots\beta_2\}$ by the mapping are called categories of *primaries*: Df 260. A PRIMARY TAXEME (symbol: $_*G_1$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that Contract Endocohesion in all the Maximal Successions into which they enter. -- opp Df 261 SECONDARY TAXEME, Df 262 SEMIPRIMARY TAXEME, Df 263 AMBIPRIMARY TAXEME. Df 260

The $\{_*G\}$ registered in $\{\vdots B_2\}$ by the mapping are called categories of

Df 261 *secondaries:* Df 261. A SECONDARY TAXEME (symbol: $_*G_2$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that do not Contract Endocohesion in any of the Maximal Successions into which they enter. -- opp Df 260 PRIMARY TAXEME, Df 262 SEMIPRIMARY TAXEME, Df 263 AMBIPRIMARY TAXEME.

The $\{_*G\}$ registered in $\{\vdots\gamma_2\}$ by the mapping are called categories of

Df 262 *semiprimaries:* Df 262. A SEMIPRIMARY TAXEME (symbol: $_*G_{21}$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that at once Contract and do not contract Endocohesion in all the Maximal Successions into which they enter. -- opp Df 260 PRIMARY TAXEME, Df 261 SECONDARY TAXEME, Df 263 AMBIPRIMARY TAXEME.

The $\{_*G\}$ registered in $\{\vdots\Gamma_2\}$ by the mapping are called categories of

Df 263 *ambiprimaries:* Df 263. An AMBIPRIMARY TAXEME (symbol: $_*G_{12}$) is a Taxeme that Enters into a taxeme-Category Including one or more taxemes that Contract Endocohesion in some of the Maximal Successions into which they enter and do not contract Endocohesion in others of the maximal successions into which they enter. -- opp Df 260 PRIMARY TAXEME, Df 261 SECONDARY TAXEME, Df 262 SEMIPRIMARY TAXEME.

When an ambiprimary enters into a maximal succession in which it contracts endocohesion, the *primary variety* of the ambiprimary is said to be present (symbol: $_*G_{121}$).

When an ambiprimary

enters into a maximal succession in which it both contracts and does not contract endocohesion, the *semiprimary variety* of the ambiprimary is said to be present (symbol: ${}_{*}G_{1221}$).

When an ambiprimary enters into a maximal succession in which it does not contract endocohesion, the *secondary variety* of the ambiprimary is said to be present (symbol: ${}_{*}G_{122}$).

Primary varieties, semiprimary varieties, and secondary varieties of ambiprimaries are *particular varieties* and are therefore to be analyzed separately under the further procedure (cf. Rg 1).

$\{{}_{*}G_{1}\}$, $\{{}_{*}G_{2}\}$, $\{{}_{*}G_{21}\}$, and $\{{}_{*}G_{12}\}$ are called *tagmata*. This term is purely operative until *gIII2 (cf. Df 347).

If *gII3.1 fails to give particular yield for one or more subtypes (i.e., if there is no endocohesion present in the subtype(s)), the subtype(s) is (are) transferred unanalyzed as tagmata.

Marginal varieties of ambicentrals are transferred as particular varieties of $\{{}_{*}G_{cm1}\}$, $\{{}_{*}G_{cm2}\}$, $\{{}_{*}G_{cm21}\}$, and $\{{}_{*}G_{cm12}\}$, respectively. Correspondingly, peripheral varieties of ambimedians and fundamental and/or converted varieties of ambifundamentals along with thematized thematives transferred to *gII2.2 as particular varieties are, if necessary, transferred in the present Op as particular varieties.

b)

$\{\dot{:}\alpha\} \rhd$ secondaries and secondary varieties.

{⁝A} primaries and semiprimaries and semiprimary varieties.

The analysis is so conducted that each simple subtype (not each subtype) is analyzed separately.

{⁝α} and {⁝A} are called *simple tagmata*, {⁝α} *simple secondaries*, and {⁝A} *simple primaries*. These terms are purely operative until *gIII2 (cf. Dff 348, 353. 354).

At the present stage of the procedure, the registration of the simple tagmata does not serve to set up units for treatment in the next distribution, but is a necessary intermediate step towards the analysis into simple subtagmata that takes place in *gII3.2 on the basis of the analysis into simple tagmata.

Provisional note: Thus, the converted taxemes here go along with the fundamental taxemes, and this is necessary for the registration of the endocohesions. It follows that the converted taxemes cannot be analyzed like the other thematès and together with them into 'near' and 'distant'; the converted taxemes must remain outside this analysis.

*gII3.2
Rg 150

*gII3.2

Rg 150

a) The simple primaries are distributed as follows according to their role as constants or variables in the endocohesion within the maximal succession; the given tempi are traversed for each tagma or particular variety separately.

Tempo 1: The {$_{*}G$} that include one or more elements which, when contracting endocohesion, always contract it as constants, whatever maximal succession they enter into, are registered in {⁝β_2}.

The $\{_*G\}$ that include one or more elements which, when contracting endocohesion, always contract it as variables, whatever maximal succession they enter into, are registered in $\{\vdots B_2\}$.

The $\{_*G\}$ that include one or more elements which, when contracting endocohesion, always contract it as constants in respect of one relate and as variables in respect of another relate, whatever maximal succession they enter into, are registered in $\{\vdots \gamma_2\}$.

The $\{_*G\}$ that include one or more elements which, when contracting endocohesion, always contract it as constants when they enter into certain maximal successions and always contract it as variables when they enter into certain other maximal successions are registered in $\{\vdots \Gamma_2\}$.

Tempo 2: Mapping is performed according to Rgg 56-58.

Tempo 3: The $\{_*G\}$ registered in $\{\vdots \beta_2\}$ by the mapping are called categories of *principals:* Df 264. A PRINCIPAL TAXEME or TAXEME-VARIETY (symbol: $_*G_{\mathrm{I}}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Endocohesion and which, when they contract it, always do so as Constants, whatever Maximal Succession they enter into. -- opp Df 265 ACCESSORY TAXEME(-VARIETY), Df 266 SEMIPRINCIPAL TAXEME (-VARIETY), Df 267 AMBIPRINCIPAL TAXEME(-VARIETY). Df 264

The $\{_*G\}$ registered in $\{\vdots B_2\}$ by the mapping are called categories of *accessories:* Df 265. An ACCESSORY TAXEME or TAXEME-VARIETY (symbol: $_*G_{\mathrm{II}}$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Df 265

Including one or more taxemes which can Contract Endocohesion and which, when they contract it, always do so as Variables, whatever Maximal Succession they enter into. -- opp Df 264 PRINCIPAL TAXEME(-VARIETY), Df 266 SEMIPRINCIPAL TAXEME (-VARIETY), Df 267 AMBIPRINCIPAL TAXEME(-VARIETY).

The $\{_*G\}$ registered in $\{\vdots\gamma_2\}$ by the mapping are called categories of

Df 266 *semiprincipals:* Df 266. A SEMIPRINCIPAL TAXEME or TAXEME-VARIETY (symbol: $_*G_s$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Endocohesion and which, when they contract it, always do so as Constants in respect of one Relate and as Variables in respect of another relate, whatever Maximal Succession they enter into. -- opp Df 264 PRINCIPAL TAXEME (-VARIETY), Df 265 ACCESSORY TAXEME(-VARIETY), Df 267 AMBIPRINCIPAL TAXEME(-VARIETY).

The $\{_*G\}$ registered in $\{\vdots\Gamma_2\}$ by the mapping are called categories of

Df 267 *ambiprincipals:* Df 267. An AMBIPRINCIPAL TAXEME or TAXEME-VARIETY (symbol: $_*G_a$) is a Taxeme or taxeme-Variety that Enters into a taxeme-Category Including one or more taxemes which can Contract Endocohesion and which, when they contract it, always do so as Constants when they enter into certain Maximal Successions and always do so as Variables when they enter into certain other maximal successions. -- opp Df 264 PRINCIPAL TAXEME(-VARIETY), Df 265 ACCESSORY TAXEME (-VARIETY), Df 266 SEMIPRINCIPAL TAXEME(-VARIETY).

When an ambiprincipal enters into a maximal succession in which it contracts the endocohesion as constant, the *principal variety* of the ambiprincipal is said to be present (symbol: $_*G_{a\mathrm{I}}$).

When an ambiprincipal enters into a maximal succession in which it contracts the endocohesion as constant in respect of one relate and as variable in respect of another relate, the *semiprincipal variety* of the ambiprincipal is said to be present (symbol: ${}_*G_{as}$).

When an ambiprincipal enters into a maximal succession in which it contracts the endocohesion as variable, the *accessory variety* of the ambiprincipal is said to be present (symbol: ${}_*G_{a\,\mathrm{II}}$).

$\{{}_*G_{\mathrm{I}}\}$, $\{{}_*G_{\mathrm{II}}\}$, $\{{}_*G_s\}$, and $\{{}_*G_a\}$ are called *subtagmata*. This term is purely operative until ${}_*$gIII2 (cf. Df 357).

b)

{⁝α} ⊳ accessories and accessory varieties.

{⁝A} ⊳ principals and semiprincipals and principal and semiprincipal varieties of ambiprincipals.

The analysis is so conducted that each simple subtagma (not each subtagma) is analyzed separately. In practice, the analysis becomes an analysis of the simple tagma {⁝A} -- the simple primaries.

The simple secondaries are transferred to {⁝α}.

{⁝α} and {⁝A} are called *simple subtagmata*, {⁝α} *simple accessories*, and {⁝A} *simple principals*. These terms are purely operative until ${}_*$gIII2 (cf. Dff 358, 363, 364).

Rg 151. Various other redistributions on the basis of other cell-cohesions would be theoretically possible. Rg 151

The realized categories of highest degree that are registered by the redistribution in $_*$<u>gII</u> are called *orders* (cf. Rg 123), according to

Df 268 Df 268. An ORDER is a Least-Category of Taxemes that is defined by Unit-Establishment. (See N 49).

$_*$<u>gIII</u> $_*$<u>gIII</u>: <u>Third subseries</u>: <u>Glossemes and Glosseme-sums</u>

$_*$<u>gIII0</u> $_*$<u>gIII0</u>: See Rgg 124-125.

$_*$<u>gIII1</u> $_*$<u>gIII1</u>: <u>First Op</u>: <u>Glossemes</u>

$\{_*G\} :: \{_*g\}$

$_*$<u>gIII1.0</u> $_*$<u>gIII1.0</u>: See Rg 124.

$_*$<u>gIII1.1</u> $_*$<u>gIII1.1</u>

Rg 152 Rg 152. Wherever it is arithmetically possible, each order is resolved into the highest possible number of prime factors, either directly or through a resolution into sums of resoluble numbers. The highest-degree members entering into the prime factors or into the irresoluble orders are called *glossemes*, according to Df 184. The prime factors and the irresoluble orders into which the glossemes enter are called *prime glossemes*, according to

Df 269 Df 269. A PRIME GLOSSEME (symbol: $_*g'$) is a Functival Category whose Elements of highest Degree are Glossemes. (A $_*g'$ is a DIMENSION -- see Df 88).

The prime glossemes are individually subjected to free articulation.

N 58. It follows immediately from Rg 152 that the prime factors (prime glossemes under a single order) have mutual solidarity and that the solidarity is realized as combination between their glossemes. The prime factors can therefore be theoretically viewed as functival categories registered with the basis of analysis R⁝β so that only the functival possibility {⁝β} is realized. N 58

From this point of view, the glossemes that enter into prime factors are to be considered as elements, just like the glossemes -- in practice, identical with taxemes -- that enter into irresoluble orders. Thus, the glossemes in general are the highest-degree elements of the semiotic.

*gIII2: Second Op: Glosseme-categories *gIII2

*gIII2.0 *gIII2.0

Rg 153. On the basis of the preceding syntagmatic deduction (*GI1-*gIII1), a paradigmatic deduction is undertaken, consisting in an articulation of the paradigmatic into glosseme-categories of diminishing size over which the glossemes are redistributed. Rg 153

The signals are definitively collected and redistributed if this has not already been done (cf. Rg 61 2°).

*gIII2.1 *gIII2.1

$\Upsilon^{\circ} g^{\circ}$: :: ¤⊙

Rg 154. The paradigmatic is analyzed into sides, according to the following Df: Rg 154

Df 270. A SIDE (symbol: ¤⊙) is a Member in a Paradigmatic. -- opp Df 189 LINE. -- :: Df 271 CONTENT SIDE and Df 272 EXPRESSION SIDE. Df 270

Rg 155. If the number of the sides is two and only two, they are arbitrarily named the Rg 155 *content side* and the *expression side*, according to Dff 163-164 and the following

Dff 271-272 Dff 271-272. The designations CONTENT SIDE (symbol: $\gamma_{\sharp}\odot$) and EXPRESSION SIDE (symbol: $g_{\sharp}\odot$) are assigned arbitrarily as distinct names for Sides whose number within a Paradigmatic is two and only two.

Rg 156 Rg 156. The glossemes are redistributed over the sides.

If the number of sides is two and only two, the glossemes of the content side are called *plerematemes* and the glossemes of the expression side are called *cenematemes*, according to the following Dff:

Df 273 Df 273. A PLEREMATEME (symbol: γ) is a Content Glosseme. -- opp Df 274 CENEMATEME. -- :: Df 289 DIRECTIVE MORPHEME, Df 290 CONSTITUTIVE PLEREME, Df 291 FLEXIVE MORPHEME, Df 292 THEMATIVE PLEREMATEME; Df 293 PLEREME, Df 294 MORPHEME.

Df 274 Df 274. A CENEMATEME (symbol: g) is an Expression Glosseme. -- opp Df 273 PLEREMATEME. -- :: Df 295 DIRECTIVE PROSODEME, Df 296 CONSTITUTIVE CENEME, Df 297 FLEXIVE PROSODEME, Df 298 THEMATIVE CENEMATEME; Df 299 CENEME, Df 300 PROSODEME.

Df 275 Df 275. A DENOTATIVE (symbol: xg) is an External Cenemateme. -- opp Df 276 CONNOTATIVE.

Df 276 Df 276. A CONNOTATIVE (symbol: $x\gamma$) is an External Pleremateme. -- opp Df 275 DENOTATIVE.

¤ ⊙ :: ⧺, ⊙

Rg 157. The sides are analyzed into Rg 157
species and *simple species,* according to the following Dff:

Df 277. A SPECIES is a Member, in a Plane, Df 277
that Contracts Contradictory and/or Contrary Correlation. (This term was introduced operatively above, in Rg 143.)

Df 278. A SIMPLE SPECIES is a Member, in Df 278
a Plane, that Contracts Simple Correlation. (This term was introduced operatively above, in Rg 143.)

Rg 158. The glossemes are redistributed Rg 158
over the species, and the terms *directive glosseme, constitutive glosseme, flexive glosseme,* and *themative glosseme,* with *direction variety* ($_*p_d$), *flexion variety* ($_*p_\tau$), and *thematized* ($_*p_\vartheta$) are introduced, according to Dff 225-227 and the following Dff:

Df 279. A DIRECTIVE GLOSSEME (symbol: $_*d$) Df 279
is a Glosseme that Enters into a Directive. -- opp Df 280 CONSTITUTIVE GLOSSEME, Df 281 FLEXIVE GLOSSEME, Df 282 THEMATIVE GLOSSEME. -- :: Df 289 DIRECTIVE MORPHEME, Df 295 DIRECTIVE PROSODEME.

Df 280. A CONSTITUTIVE GLOSSEME (symbol: Df 280
$_*m$,) is a Glosseme that Enters into a Constitutive. -- opp Df 279 DIRECTIVE GLOSSEME, Df 281 FLEXIVE GLOSSEME, Df 282 THEMATIVE GLOSSEME. --

:: Df 290 CONSTITUTIVE PLEREME, Df 296 CONSTITUTIVE CENEME.

Df 281 Df 281. A FLEXIVE GLOSSEME (symbol: $_{*}p,$) is a Glosseme that Enters into a Flexive. -- opp Df 279 DIRECTIVE GLOSSEME, Df 280 CONSTITUTIVE GLOSSEME, Df 282 THEMATIVE GLOSSEME. -- :: Df 291 FLEXIVE MORPHEME, Df 297 FLEXIVE PROSODEME.

Df 282 Df 282. A THEMATIVE GLOSSEME (symbol: $_{*}p_{t}$) is a Glosseme that Enters into a Themative. -- opp Df 279 DIRECTIVE GLOSSEME, Df 280 CONSTITUTIVE GLOSSEME, Df 281 FLEXIVE GLOSSEME. -- :: Df 292 THEMATIVE PLEREMATEME, Df 298 THEMATIVE CENEMATEME.

Rg 159 Rg 159. The glossemes and glosseme-varieties are redistributed over the simple species, and the terms *simple constitutives, simple flexives, constituent,* and *exponent* are introduced, according to the following Dff:

Df 283 Df 283. SIMPLE CONSTITUTIVES (symbol: $_{*}M$) are a Simple Species Including Constitutives and/or Thematized Thematives. (This term was introduced operatively above, in Rg 143.) -- opp Df 284 SIMPLE FLEXIVES.

Df 284 Df 284. SIMPLE FLEXIVES (symbol: $_{*}P$) are a Simple Species Including Directives and/or Flexives and/or Direction-varieties and/or Flexion-varieties. (This term was introduced operatively above, in Rg 143.) -- opp Df 283 SIMPLE CONSTITUTIVES. -- :: Df 234 FUNDAMENTALS, Df 235 CONVERTED, Df 236 SEMIFUNDAMENTALS, Df 237 AMBIFUNDAMENTALS.

Df 285. A CONSTITUENT (symbol: $_{\bullet}m$) is a Glosseme or glosseme-Variety that Enters into a Simple Constitutive. -- opp Df 286 EXPONENT. -- :: Df 293 PLEREME, Df 299 CENEME. Df 285

Df 286. An EXPONENT (symbol: $_{\bullet}p$) is a Glosseme or glosseme-Variety that Enters into a Simple Flexive. -- opp Df 285 CONSTITUENT. -- :: Df 294 MORPHEME, Df 300 PROSODEME; Df 303 FUNDAMENTAL EXPONENT, Df 304 CONVERTED EXPONENT, Df 305 SEMIFUNDAMENTAL EXPONENT, Df 306 AMBIFUNDAMENTAL EXPONENT. Df 286

Rg 160. If the number of sides is two and only two, the simple flexives of the content side are called *simple formatives*, and the simple flexives of the expression side are called *simple prosodies*, according to the following Dff: Rg 160

Df 287. SIMPLE FORMATIVES (symbol: Π) are Plerematic Simple Flexives. (This term was introduced operatively above, in Rg 144.) -- opp Df 288 SIMPLE PROSODIES. Df 287

Df 288. SIMPLE PROSODIES (symbol: P) are Cenematic Simple Flexives. (This term was introduced operatively above, in Rg 144.) -- opp Df 287 SIMPLE FORMATIVES. Df 288

Furthermore, the directive glossemes, constitutive glossemes, flexive glossemes, themative glossemes, constituents, and exponents are called -- for the content side -- *directive morphemes, constitutive pleremes, flexive morphemes, themative plerematemes, pleremes*, and *morphemes* respectively, and -- for the expression side --

directive prosodemes, constitutive cenemes, flexive prosodemes, themative cenematemes, cenemes, and *prosodemes* respectively, according to the following Dff:

Df 289 Df 289. A DIRECTIVE MORPHEME (symbol: δ) is a Plerematic Directive Glosseme. -- opp Df 290 CONSTITUTIVE PLEREME, Df 291 FLEXIVE MORPHEME, Df 292 THEMATIVE PLEREMATEME; Df 295 DIRECTIVE PROSODEME.

Df 290 Df 290. A CONSTITUTIVE PLEREME (symbol: μ,) is a Plerematic Constitutive Glosseme. -- opp Df 289 DIRECTIVE MORPHEME, Df 291 FLEXIVE MORPHEME, Df 292 THEMATIVE PLEREMATEME; Df 296 CONSTITUTIVE CENEME.

Df 291 Df 291. A FLEXIVE MORPHEME (symbol: π,) is a Plerematic Flexive Glosseme. -- opp Df 289 DIRECTIVE MORPHEME, Df 290 CONSTITUTIVE PLEREME, Df 292 THEMATIVE PLEREMATEME; Df 297 FLEXIVE PROSODEME.

Df 292 Df 292. A THEMATIVE PLEREMATEME (symbol: π_t) is a Plerematic Themative Glosseme. -- opp Df 289 DIRECTIVE MORPHEME, Df 290 CONSTITUTIVE PLEREME, Df 291 FLEXIVE MORPHEME; Df 298 THEMATIVE CENEMATEME.

Df 293 Df 293. A PLEREME (symbol: μ) is a Plerematic Constituent. -- opp Df 294 MORPHEME; Df 299 CENEME.

Df 294 Df 294. A MORPHEME (symbol: π) is a Plerematic Exponent. -- opp Df 293 PLEREME; Df 300 PROSODEME. -- :: Df 343 INTENSE MORPHEME, Df 344 EXTENSE MORPHEME.

Df 295. A DIRECTIVE PROSODEME (symbol: d) is a Cenematic Directive Glosseme. -- opp Df 296 CONSTITUTIVE CENEME, Df 297 FLEXIVE PROSODEME, Df 298 THEMATIVE CENEMATEME; Df 289 DIRECTIVE MORPHEME. Df 295

Df 296. A CONSTITUTIVE CENEME (symbol: $m,$) is a Cenematic Constitutive Glosseme. -- opp Df 295 DIRECTIVE PROSODEME, Df 297 FLEXIVE PROSODEME, Df 298 THEMATIVE CENEMATEME; Df 290 CONSTITUTIVE PLEREME. Df 296

Df 297. A FLEXIVE PROSODEME (symbol: $p,$) is a Cenematic Flexive Glosseme. -- opp Df 295 DIRECTIVE PROSODEME, Df 296 CONSTITUTIVE CENEME, Df 298 THEMATIVE CENEMATEME; Df 291 FLEXIVE MORPHEME. Df 297

Df 298. A THEMATIVE CENEMATEME (symbol: p_t) is a Cenematic Themative Glosseme. -- opp Df 295 DIRECTIVE PROSODEME, Df 296 CONSTITUTIVE CENEME, Df 297 FLEXIVE PROSODEME; Df 292 THEMATIVE PLEREMATEME. Df 298

Df 299. A CENEME (symbol: m) is a Cenematic Constituent. -- opp Df 300 PROSODEME; Df 293 PLEREME. Df 299

Df 300. A PROSODEME (symbol: p) is a Cenematic Exponent. -- opp Df 299 CENEME; Df 294 MORPHEME. -- :: Df 345 INTENSE PROSODEME, Df 346 EXTENSE PROSODEME. Df 300

${}_{*}$gIII2.3

$\nleftrightarrow , ^{\odot} :: \nrightarrow \odot$

Rg 161 Rg 161. The species are analyzed into *subspecies* and the simple species into *simple subspecies* according to the following Dff:

Df 301 Df 301. A SUBSPECIES is a Member, in a Species, that Contracts Contradictory and/or Contrary Correlation. (This term was introduced operatively above, in Rg 145.)

Df 302 Df 302. A SIMPLE SUBSPECIES is a Member, in a Species, that Contracts Simple Correlation. (This term was introduced operatively above, in Rg 145.)

Rg 162 Rg 162. The exponents are redistributed over the subspecies, and the terms *fundamental exponents, converted exponents, semifundamental exponents,* and *ambifundamental exponents,* with *fundamental variety* (${}_{*}p^{\sim\sim\sim}$), *converted variety* (${}_{*}p^{\sim\frown\frown}$), and *semifundamental variety* (${}_{*}p^{\sim\frown\sim\sim}$) are introduced, according to Rg 145 and the following Dff:

Df 303 Df 303. A FUNDAMENTAL EXPONENT (symbol: ${}_{*}p^{\sim}$) is an Exponent that Enters into a Fundamental Taxeme. -- opp Df 304 CONVERTED EXPONENT, Df 305 SEMIFUNDAMENTAL EXPONENT, Df 306 AMBIFUNDAMENTAL EXPONENT.

Df 304 Df 304. A CONVERTED EXPONENT (symbol: ${}_{*}p^{\frown}$) is an Exponent that Enters into a Converted Taxeme. -- opp Df 303 FUNDAMENTAL EXPONENT, Df 305 SEMIFUNDAMENTAL EXPONENT, Df 306 AMBIFUNDAMENTAL EXPONENT.

Df 305. A SEMIFUNDAMENTAL EXPONENT (symbol: $_*p^{\frown\frown}$) is an Exponent that Enters into a Semifundamental Taxeme. -- opp Df 303 FUNDAMENTAL EXPONENT, Df 304 CONVERTED EXPONENT, Df 306 AMBIFUNDAMENTAL EXPONENT: Df 305

Df 306. An AMBIFUNDAMENTAL EXPONENT (symbol: $_*p^{\sim\frown}$) is an Exponent that Enters into an Ambifundamental Taxeme. -- opp Df 303 FUNDAMENTAL EXPONENT, Df 304 CONVERTED EXPONENT, Df 305 SEMIFUNDAMENTAL EXPONENT. Df 306

Rg 163. The glossemes and glosseme-varieties are redistributed over the simple subspecies, and the terms *themates, characters, themate glosseme* or *glosseme-variety,* and *character glosseme* or *glosseme-variety* are introduced, according to the following Dff: Rg 163 *

Df 307. THEMATES are a Simple Subspecies Including Converted Taxemes and/or Converted Varieties of taxemes and/or Simple Constitutives. (This term was introduced operatively above, in Rg 145.) -- opp Df 308 CHARACTERS. -- :: Df 251 DERIVATIVE, Df 252 RADICAL, Df 255 CONSONANT, Df 256 VOWEL. Df 307

Df 308. CHARACTERS are a Simple Subspecies Including Fundamental Taxemes and/or taxeme-Varieties and/or Semifundamental taxemes and/or taxeme-varieties. (This term was introduced operatively above, in Rg 145.) -- opp Df 307 THEMATES. -- :: Df 249 INTENSE CHARACTER, Df 250 EXTENSE CHARACTER. Df 308 *

Df 309. A THEMATE GLOSSEME (symbol: $_*b$) Df 309 * or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Themate. -- opp Df 310 CHARACTER GLOSSEME. -- :: Df 335 SYMPHTHONG, Df 336 AUTOPHTHONG.

Df 310 Df 310. A CHARACTER GLOSSEME (symbol: $_{*}q$) or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Character. -- opp Df 309 THEMATE GLOSSEME.

Df 311 Df 311. A GENERAL-SYSTEM is a System that is not a Variety of a system within the same Semiotic. -- opp Df 312 SCHEMA.

Df 312 Df 312. SCHEMATA are System-Varieties within one and the same Semiotic. -- opp Df 311 GENERAL-SYSTEM. -- :: Df 313 SPECIAL-SCHEMA, Df 314 TOTAL-SCHEMA.

Df 313 Df 313. A SPECIAL-SCHEMA is a Schema that is Solidary with schemata of different Simple Subspecies. -- opp Df 314 TOTAL-SCHEMA. -- :: Df 337 DECLENSION, Df 338 CONJUGATION.

Df 314 Df 314. A TOTAL-SCHEMA is a Schema that is Solidary with schemata of the same Simple Subspecies. -- opp Df 313 SPECIAL-SCHEMA.

Rg 164 Rg 164. If the number of sides is two and only two, the fundamental exponents, converted exponents, semifundamental exponents, ambifundamental exponents, themate glossemes, and character glossemes of the content side are called *fundamental morphemes, converted morphemes, semifundamental morphemes, ambifundamental morphemes, themate plerematemes,* and *character* *plerematemes* respectively, and those of the expression side are called *fundamental prosodemes*, *converted prosodemes*, *semifundamental prosodemes*, *ambifundamental prosodemes*, *themate cenematemes*, and *character cenematemes* respectively, according to Dff 294 and 300 and Dff 273 and 274.

$_*$gIII2.4 $_*$gIII2.4

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Rg 165. The subspecies are analyzed into *types* and the simple subspecies into *simple types*, according to the following Dff: Rg 165

Df 315. A TYPE is a Member, in a Subspecies, that Contracts Contradictory and/or Contrary Correlation. (This term was introduced operatively above, in Rg 146.) Df 315

Df 316. A SIMPLE TYPE is a Member, in a Subspecies, that Contracts Simple Correlation. (This term was introduced operatively above, in Rg 146.) Df 316

Rg 166. The glossemes are redistributed over the types, and the terms *median glosseme*, *peripheral glosseme*, *semimedian glosseme*, and *ambimedian glosseme*, with *median variety* ($_*g_{ipi}$), *peripheral variety* ($_*g_{ipp}$), and *semimedian variety* ($_*g_{ippi}$) are introduced, according to Rg 147 and the following Dff: Rg 166

Df 317. A MEDIAN GLOSSEME (symbol: $_*g_i$) is a Glosseme that Enters into a Median Taxeme. -- opp Df 318 PERIPHERAL GLOSSEME, Df 319 SEMIMEDIAN GLOSSEME, Df 320 AMBIMEDIAN GLOSSEME. Df 317

Df 318 Df 318. A PERIPHERAL GLOSSEME (symbol: $*g_p$) is a Glosseme that Enters into a Peripheral Taxeme. -- opp Df 317 MEDIAN GLOSSEME, Df 319 SEMIMEDIAN GLOSSEME, Df 320 AMBIMEDIAN GLOSSEME.

Df 319 Df 319. A SEMIMEDIAN GLOSSEME (symbol: $*g_{pi}$) is a Glosseme that Enters into a Semi-median Taxeme. -- opp Df 317 MEDIAN GLOSSEME, Df 318 PERIPHERAL GLOSSEME, Df 320 AMBIMEDIAN GLOSSEME.

Df 320 Df 320. An AMBIMEDIAN GLOSSEME (symbol: $*g_{ip}$) is a Glosseme that Enters into an Ambi-median Taxeme. -- opp Df 317 MEDIAN GLOSSEME, Df 318 PERIPHERAL GLOSSEME, Df 319 SEMIMEDIAN GLOSSEME.

Rg 167 Rg 167. The glossemes and glosseme-varieties are redistributed over the simple types, and the terms *simple peripheral taxemes* and *taxeme-varieties, simple median taxemes* and *taxeme-varieties, simple peripheral glosseme* or *glosseme-variety,* and *simple median glosseme* or *glosseme-variety* are introduced, according to the following Dff:

Df 321 Df 321. SIMPLE PERIPHERAL TAXEMES and TAXEME-VARIETIES are a Simple Type Including Peripheral Taxemes and/or peripheral taxeme-Varieties. (This term was introduced operatively above, in Rg 146.) -- opp Df 322 SIMPLE MEDIAN TAXEMES and TAXEME-VARIETIES.

Df 322 Df 322. SIMPLE MEDIAN TAXEMES and TAXEME-VARIETIES are a Simple Type Including Median

Taxemes and/or Semimedian taxemes and/or median taxeme-Varieties and/or semimedian taxeme-varieties. (This term was introduced operatively above, in Rg 146.) -- opp Df 321 SIMPLE PERIPHERAL TAXEMES and TAXEME-VARIETIES. -- :: Df 245 CENTRALS, Df 246 MARGINALS, Df 247 SEMICENTRALS, Df 248 AMBICENTRALS.

Df 323. A SIMPLE PERIPHERAL GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Simple Peripheral Taxeme or, respectively, into a simple peripheral taxeme-variety. -- opp Df 324 SIMPLE MEDIAN GLOSSEME or GLOSSEME-VARIETY. Df 323

Df 324. A SIMPLE MEDIAN GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Simple Median Taxeme or, respectively, into a simple median taxeme-variety. -- opp Df 323 SIMPLE PERIPHERAL GLOSSEME or GLOSSEME-VARIETY. -- :: Df 327 CENTRAL GLOSSEME or GLOSSEME-VARIETY, Df 328 MARGINAL GLOSSEME or GLOSSEME-VARIETY, Df 329 SEMICENTRAL GLOSSEME or GLOSSEME-VARIETY, Df 330 AMBICENTRAL GLOSSEME or GLOSSEME-VARIETY. Df 324

Rg 168. If the number of sides is two and only two, the median glossemes, peripheral glossemes, semimedian glossemes, ambimedian glossemes, simple peripheral glossemes and glosseme-varieties, and simple median glossemes and glosseme-varieties of the content side are called *median pleremateme*s, *peripheral plerematemes*, *semimedian plerematemes*, *ambimedian plerematemes*, *simple peripheral plerematemes* and *pleremateme-varieties*, and *simple median plerematemes* and *pleremateme-varieties* Rg 168 respectively, and those of the expression side are called *median cenematemes* and so on, according to Dff 273 and 274.

$_*$gIII2.5 $_*$gIII2.5

$\times / \odot :: \times \odot$

Rg 169 Rg 169. The types are analyzed into *subtypes* and the simple types into *simple subtypes,* according to the following Dff:

Df 325 Df 325. A SUBTYPE is a Member, in a Type, that Contracts Contradictory and/or Contrary Correlation. (This term was introduced operatively above, in Rg 147.)

Df 326 Df 326. A SIMPLE SUBTYPE is a Member, in a Type, that Contracts Simple Correlation. (This term was introduced operatively above, in Rg 147.)

Rg 170 Rg 170. The simple median glossemes and glosseme-varieties are redistributed over the subtypes, and the terms *central, marginal, semicentral,* and *ambicentral glossemes* and *glosseme-varieties,* with *central variety* ($_*g_{cmc}$), *marginal variety* ($_*g_{cmm}$), and *semicentral variety* ($_*g_{cmmc}$) are introduced, according to Rg 147 and the following Dff:

Df 327 Df 327. A CENTRAL GLOSSEME or GLOSSEME-VARIETY ($_*g_c$) is a Glosseme or glosseme-Variety that Enters into a Central Taxeme or, respectively, into a central taxeme-variety. -- opp Df 328 MARGINAL GLOSSEME or GLOSSEME-VARIETY, Df 329 SEMICENTRAL GLOSSEME or GLOSSEME-VARIETY, Df

330 AMBICENTRAL GLOSSEME or GLOSSEME-VARIETY.

Df 328. A MARGINAL GLOSSEME or GLOSSEME-VARIETY ($_*g_m$) is a Glosseme or glosseme-Variety that Enters into a Marginal Taxeme or, respectively, into a marginal taxeme-variety. -- opp Df 327 CENTRAL GLOSSEME or GLOSSEME-VARIETY, Df 329 SEMICENTRAL GLOSSEME or GLOSSEME-VARIETY, Df 330 AMBICENTRAL GLOSSEME or GLOSSEME-VARIETY. Df 328

Df 329. A SEMICENTRAL GLOSSEME or GLOSSEME-VARIETY ($_*g_{mc}$) is a Glosseme or glosseme-Variety that Enters into a Semicentral Taxeme or, respectively, into a semicentral taxeme-variety. -- opp Df 327 CENTRAL GLOSSEME or GLOSSEME-VARIETY, Df 328 MARGINAL GLOSSEME or GLOSSEME-VARIETY, Df 330 AMBICENTRAL GLOSSEME or GLOSSEME-VARIETY. Df 329

Df 330. An AMBICENTRAL GLOSSEME or GLOSSEME-VARIETY ($_*g_{cm}$) is a Glosseme or glosseme-Variety that Enters into an Ambicentral Taxeme or, respectively, into an ambicentral taxeme-variety. -- opp Df 327 CENTRAL GLOSSEME or GLOSSEME-VARIETY, Df 328 MARGINAL GLOSSEME or GLOSSEME-VARIETY, Df 329 SEMICENTRAL GLOSSEME or GLOSSEME-VARIETY. Df 330

Rg 171. The glossemes and glosseme-varieties are redistributed over the simple subtypes, and the terms *centrifugal taxemes* and *taxeme-varieties*, *centripetal taxemes* and *taxeme-varieties*, *centrifugal glosseme* or *glosseme-variety*, and *centripetal glosseme* or *glosseme-variety* are introduced, according to the following Dff: Rg 171

Df 331. CENTRIFUGAL TAXEMES and TAXEME-VARIETIES are a Simple Subtype Including Marginal Df 331

Taxemes and/or taxeme-Varieties and/or Simple Peripheral taxemes and/or taxeme-varieties. (This term was introduced operatively above, in Rg 147.) -- opp Df 332 CENTRIPETAL TAXEMES and TAXEME-VARIETIES.

Df 332 Df 332. CENTRIPETAL TAXEMES and TAXEME-VARIETIES are a Simple Subtype Including Central Taxemes and/or taxeme-Varieties and/or Semi-central taxemes and/or taxeme-varieties. (This term was introduced operatively above, in Rg 147.) -- opp Df 331 CENTRIFUGAL TAXEMES and TAXEME-VARIETIES.

Df 333 Df 333. A CENTRIFUGAL GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Centrifugal Taxeme or, respectively, into a centrifugal taxeme-variety. -- opp Df 334 CENTRIPETAL GLOSSEME or GLOSSEME-VARIETY.

Df 334 Df 334. A CENTRIPETAL GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Centripetal Taxeme or, respectively, into a centripetal taxeme-variety. -- opp Df 333 CENTRIFUGAL GLOSSEME or GLOSSEME-VARIETY.

Df 335 Df 335. A SYMPHTHONG (symbol: $_*f$) is a Centrifugal Themate Glosseme(-Variety). -- opp Df 336 AUTOPHTHONG. -- :: Df 340 SYMPLEREMATEME, Df 342 SYNCENEMATEME.

Df 336 Df 336. An AUTOPHTHONG (symbol: $_*r$) is a Centripetal Themate Glosseme(-Variety). -- opp Df 335 SYMPHTHONG. -- :: Df 339 AUTOPLEREMATEME, Df 341 AUTOCENEMATEME.

Df 337. A DECLENSION is a Special-schema of Centrifugal Characters. -- opp Df 338 CONJUGATION. Df 337

Df 338. A CONJUGATION is a Special-schema of Centripetal Characters. -- opp Df 337 DECLENSION. Df 338

Rg 172. If the number of sides is two and only two, the central, marginal, semicentral, ambicentral, centrifugal, and centripetal glossemes and glosseme-varieties, and autophthongs and symphthongs of the content side are called *central, marginal, semicentral, ambicentral, centrifugal,* and *centripetal plerematemes* and *pleremateme-varieties,* and *autoplerematemes* and *sympleremateme*s respectively, and those of the expression side are called *central, marginal, semicentral, ambicentral, centrifugal,* and *centripetal cenematemes* and *cenemateme-varieties,* and *autocenematemes* and *syncenematemes* respectively, according to Dff 273 and 274 and to the following Dff: Rg 172

Df 339. An AUTOPLEREMATEME (symbol: ρ) is a Plerematic Autophthong. -- opp Df 340 SYMPLEREMATEME; Df 341 AUTOCENEMATEME. Df 339

Df 340. A SYMPLEREMATEME (symbol: ϕ) is a Plerematic Symphthong. -- opp Df 339 AUTOPLEREMATEME; Df 342 SYNCENEMATEME. Df 340

Df 341. An AUTOCENEMATEME (symbol: *r*) is a Cenematic Autophthong. -- opp Df 342 SYNCENEMATEME; Df 339 AUTOPLEREMATEME. Df 341

Df 342 Df 342. A SYNCENEMATEME (symbol: f) is a Cenematic Symphthong. -- opp Df 341 AUTOCENEMATEME; Df 340 SYMPLEREMATEME.

When they are constituents, autoplerematemes and symplerematemes, and autocenematemes and syncenematemes can be called, respectively, *autopleremes* and *sympleremes*, and *autocenemes* and *syncenemes*, according to Dff 293 and 299.

Intense and extense character morphemes and intense and extense character prosodemes are called, respectively, *intense morphemes* and *extense morphemes*, and *intense prosodemes* and *extense prosodemes*, according to the following Dff:

Df 343 Df 343. An INTENSE MORPHEME (symbol: π_n) is a Morpheme that Enters into a Nominal Character. -- opp Df 344 EXTENSE MORPHEME; Df 345 INTENSE PROSODEME.

Df 344 Df 344. An EXTENSE MORPHEME (symbol: π_v) is a Morpheme that Enters into a Verbal Character. -- opp Df 343 INTENSE MORPHEME; Df 346 EXTENSE PROSODEME.

Df 345 Df 345. An INTENSE PROSODEME (symbol: p_n) is a Prosodeme that Enters into an Accent. -- opp Df 346 EXTENSE PROSODEME; Df 343 INTENSE MORPHEME.

Df 346 Df 346. An EXTENSE PROSODEME (symbol: p_v) is a Prosodeme that Enters into a Modulation. -- opp Df 345 INTENSE PROSODEME; Df 344 EXTENSE MORPHEME.

$_{*}$gIII2.6 $_{*}$gIII2.6

$${}_{x}\odot :: {}_{=}\odot$$

Rg 173. The subtypes are analyzed into *tagmata* and the simple subtypes into *simple tagmata*, according to the following Dff: Rg 173

Df 347. A TAGMA is a Member, in a Subtype, that Contracts Contradictory and/or Contrary Correlation. (This term was introduced operatively above, in Rg 149.) Df 347

Df 348. A SIMPLE TAGMA is a Member, in a Subtype, that Contracts Simple Correlation. (This term was introduced operatively above, in Rg 149.) Df 348

Rg 174. The glossemes are redistributed over the tagmata, and the terms *primary glosseme*, *secondary glosseme*, *semiprimary glosseme*, and *ambiprimary glosseme*, with *primary variety* ($_{*}g_{121}$), *secondary variety* ($_{*}g_{122}$), and *semiprimary variety* ($_{*}g_{1221}$) are introduced, according to Rg 149 and the following Dff: Rg 174

Df 349. A PRIMARY GLOSSEME (symbol: $_{*}g_{1}$) is a Glosseme that Enters into a Primary Taxeme. -- opp Df 350 SECONDARY GLOSSEME, Df 351 SEMIPRIMARY GLOSSEME, Df 352 AMBIPRIMARY GLOSSEME. Df 349

Df 350. A SECONDARY GLOSSEME (symbol: $_{*}g_{2}$) is a Glosseme that Enters into a Secondary Taxeme. -- opp Df 349 PRIMARY GLOSSEME, Df 351 SEMIPRIMARY GLOSSEME, Df 352 AMBIPRIMARY GLOSSEME. Df 350

Df 351. A SEMIPRIMARY GLOSSEME (symbol: Df 351

$_{*}g_{21}$) is a Glosseme that Enters into a Semiprimary Taxeme. -- opp Df 349 PRIMARY GLOSSEME, Df 350 SECONDARY GLOSSEME, Df 352 AMBIPRIMARY GLOSSEME.

Df 352 Df 352. An AMBIPRIMARY GLOSSEME (symbol: $_{*}g_{12}$) is a Glosseme that Enters into an Ambiprimary Taxeme. -- opp Df 349 PRIMARY GLOSSEME, Df 350 SECONDARY GLOSSEME, Df 351 SEMIPRIMARY GLOSSEME.

Rg 175 Rg 175. The glossemes and glosseme-varieties are redistributed over the simple tagmata, and the terms *simple secondary taxemes* and *taxeme-varieties, simple primary taxemes* and *taxeme-varieties, simple secondary glosseme* or *glosseme-variety,* and *simple primary glosseme* or *glosseme-variety* are introduced, according to the following Dff:

Df 353 Df 353. SIMPLE SECONDARY TAXEMES and TAXEME-VARIETIES are a Simple Tagma Including Secondary Taxemes and/or secondary taxeme-Varieties. (This term was introduced operatively above, in Rg 149.) -- opp Df 354 SIMPLE PRIMARY TAXEMES and TAXEME-VARIETIES.

Df 354 Df 354. SIMPLE PRIMARY TAXEMES and TAXEME-VARIETIES are a Simple Tagma Including Primary Taxemes and/or Semiprimary taxemes and/or primary taxeme-Varieties and/or semiprimary taxeme-varieties. (This term was introduced operatively above, in Rg 149.) -- opp Df 353 SIMPLE SECONDARY TAXEMES and TAXEME-VARIETIES. -- :: Df 264 PRINCIPALS, Df 265 ACCESSORIES, Df 266 SEMIPRINCIPALS, Df 267 AMBIPRINCIPALS.

Df 355. A SIMPLE SECONDARY GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Simple Secondary Taxeme or, respectively, into a simple secondary taxeme-variety. -- opp Df 356 SIMPLE PRIMARY GLOSSEME or GLOSSEME-VARIETY. Df 355

Df 356. A SIMPLE PRIMARY GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Simple Primary Taxeme or, respectively, into a simple primary taxeme-variety. -- opp Df 355 SIMPLE SECONDARY GLOSSEME or GLOSSEME-VARIETY. -- :: Df 359 PRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 360 ACCESSORY GLOSSEME or GLOSSEME-VARIETY, Df 361 SEMIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 362 AMBIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY. Df 356

Rg 176. If the number of sides is two and only two, the primary, secondary, semiprimary, and ambiprimary glossemes and the simple secondary and simple primary glossemes and glosseme-varieties of the content side are called *primary, secondary, semiprimary,* and *ambiprimary plerematemes,* and *simple secondary* and *simple primary plerematemes* and *pleremateme-varieties* respectively, and those of the expression side are called *primary cenematemes* and so on, according to Dff 273 and 274. Rg 176

$_{*}$<u>gIII2.7</u> $_{*}$<u>gIII2.7</u>

$_{=}\odot$ :: $_{=}{}'\odot$

Rg 177. The tagmata are analyzed into *subtagmata* and the simple tagmata into *simple subtagmata,* according to the following Dff: Rg 177

Df 357 Df 357. A SUBTAGMA is a Member, in a Tagma, that Contracts Contradictory and/or Contrary Correlation. (This term was introduced operatively above, in Rg 150.)

Df 358 Df 358. A SIMPLE SUBTAGMA is a Member, in a Tagma, that Contracts Simple Correlation. (This term was introduced operatively above, in Rg 150.)

Rg 178 Rg 178. The simple primary glossemes and glosseme-varieties are redistributed over the subtagmata, and the terms *principal, accessory, semiprincipal,* and *ambiprincipal glossemes* and *glosseme-varieties,* with *principal variety* (${}_*g_{aI}$), *accessory variety* (${}_*g_{aII}$), and *semiprincipal variety* (${}_*g_{as}$) are introduced, according to Rg 150 and the following Dff:

Df 359 Df 359. A PRINCIPAL GLOSSEME or GLOSSEME-VARIETY (symbol: ${}_*g_{I}$) is a Glosseme or glosseme-Variety that Enters into a Principal Taxeme or, respectively, into a principal taxeme-variety. -- opp Df 360 ACCESSORY GLOSSEME or GLOSSEME-VARIETY, Df 361 SEMIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 362 AMBIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY.

Df 360 Df 360. An ACCESSORY GLOSSEME or GLOSSEME-VARIETY (symbol: ${}_*g_{II}$) is a Glosseme or glosseme-Variety that Enters into an Accessory Taxeme or, respectively, into an accessory taxeme-variety. -- opp Df 359 PRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 361 SEMIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 362 AMBIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY.

Df 361. A SEMIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY (symbol: $_*g_s$) is a Glosseme or glosseme-Variety that Enters into a Semiprincipal Taxeme or, respectively, into a semiprincipal taxeme-variety. -- opp Df 359 PRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 360 ACCESSORY GLOSSEME or GLOSSEME-VARIETY, Df 362 AMBIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY. Df 361

Df 362. An AMBIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY (symbol: $_*g_a$) is a Glosseme or glosseme-Variety that Enters into an Ambiprincipal Taxeme or, respectively, into an ambiprincipal taxeme-variety. -- opp Df 359 PRINCIPAL GLOSSEME or GLOSSEME-VARIETY, Df 360 ACCESSORY GLOSSEME or GLOSSEME-VARIETY, Df 361 SEMIPRINCIPAL GLOSSEME or GLOSSEME-VARIETY. Df 362

Rg 179. The glossemes and glosseme-varieties are redistributed over the simple subtagmata, and the terms *simple accessory taxemes* and *taxeme-varieties, simple principal taxemes* and *taxeme-varieties, simple accessory glosseme* or *glosseme-variety,* and *simple principal glosseme* or *glosseme-variety* are introduced, according to the following Dff: Rg 179

Df 363. SIMPLE ACCESSORY TAXEMES and TAXEME-VARIETIES are a Simple Subtagma Including Accessory Taxemes and/or accessory taxeme-Varieties and/or Simple Secondary taxemes and/or taxeme-varieties. (This term was introduced operatively above, in Rg 150.) -- opp Df 364 SIMPLE PRINCIPAL TAXEMES and TAXEME-VARIETIES. Df 363

Df 364. SIMPLE PRINCIPAL TAXEMES and Df 364

TAXEME-VARIETIES are a Simple Subtagma Including Principal Taxemes and/or taxeme-Varieties and/or Semiprincipal taxemes and/or taxeme-varieties. (This term was introduced operatively above, in Rg 150.) -- opp Df 363 SIMPLE ACCESSORY TAXEMES and TAXEME-VARIETIES.

Df 365 Df 365. A SIMPLE ACCESSORY GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Simple Accessory Taxeme or, respectively, into a simple accessory taxeme-variety. -- opp Df 366 SIMPLE PRINCIPAL GLOSSEME or GLOSSEME-VARIETY.

Df 366 Df 366. A SIMPLE PRINCIPAL GLOSSEME or GLOSSEME-VARIETY is a Glosseme or glosseme-Variety that Enters into a Simple Principal Taxeme or, respectively, into a simple principal taxeme-variety. -- opp Df 365 SIMPLE ACCESSORY GLOSSEME or GLOSSEME-VARIETY.

Rg 180 Rg 180. If the number of sides is two and only two, the principal, accessory, semiprincipal, ambiprincipal, simple accessory, and simple principal glossemes and glosseme-varieties of the content side are called *principal, accessory, semiprincipal, ambiprincipal, simple accessory*, and *simple principal plerematemes* and *plerematemes-varieties* respectively, and those of the expression side are called *principal cenematemes* and so on, according to Dff 273 and 274.

gIII2.8 ff. *gIII2.8 ff.

Rg 181 Rg 181. The procedure is continued in a similar way if *gII has involved further redistributions on the basis of other cell-cohesions; cf. Rg 151.

*gIII3: Third Op: Glosseme-units *gIII3

*gIII3.0 *gIII3.0

Rg 182. On the basis of the preceding deductions (*GI1-*gIII2) the paradigmatic is articulated into categories of glosseme-units, over which the glosseme-units are redistributed. Rg 182

*gIII3.1: *gIII3.1

Articulation of the class of glosseme-units

The articulation-complex includes five articulations, designated in what follows as A, B, C, D, and E. This articulation-complex is not a deduction, but articulation A is a deduction in that it leads to registration of glosseme-unit categories of diminishing size.

A. A

$$\{{}^{n}\} :: \{{}^{\gamma g}\}, \{{}^{*g}\}$$

Rg 183. The class of units is articulated into *signs* and *monoplane units* on the basis of *gIII2.1 and according to the following Dff: Rg 183

Df 367. A PLURIPLANE Derivate is a derivate of more than one Plane. -- opp Df 370 MONOPLANE. -- cf. Df 368 BIPLANE. Df 367

Df 368. A BIPLANE Derivate is a derivate of two Planes. -- cf. Df 367 PLURIPLANE, Df 370 MONOPLANE. Df 368

Df 369. A SIGN (symbol: ${}^{\gamma g}$) is a Pluriplane Unit. Df 369

Df 370 Df 370. A MONOPLANE Derivate is a derivate of one and only one Plane. (Symbol for a monoplane unit: ^{*g}). -- opp Df 367 PLURIPLANE. -- cf. Df 368 BIPLANE.

Rg 184 Rg 184. The class of monoplane units is articulated into *non-intrinsic glossematies*, *intrinsic glossematies*, and *non-glossematies*, according to Df 177 and to

Df 371 Df 371. An INTRINSIC SUM is a Sum that is Established by a Homoplane Function.

Symbols: ⌣ INTRINSIC UNIT; (NON-GLOSSEMATY)
>< INTRINSIC CATEGORY
≍ INTRINSIC GLOSSEMATY

Rg 185 Rg 185. When a single glossematy in one plane has sign-establishing relation to two or more glossematies in another plane, the latter are registered as particular variants (varieties or variations) of one and the same *glossia*, according to Rg 52 and the following Df:

Df 372 Df 372. A GLOSSIA (symbol:)( ) is an Extrinsic Category. -- opp Df 177 GLOSSEMATY. -- :: Df 373 PLERIA, Df 376 CENIA.

Rg 186 Rg 186. If the number of sides is two and only two, the glossematies and glossias of the content side are called *plerematies* and *plerias* respectively, and those of the expression side are called *cenematies* and *cenias* respectively, according to Df 180 and the following Dff:

Df 373. A PLERIA is a PLEREMATIC GLOSSIA. Df 373
-- opp Df 375 CENIA, Df 180 PLEREMATY.

Df 374. A CENEMATY or EXPRESSION (symbols: $g^{\frown}$, $g^{\asymp}$) is a Cenematic Glossematy. A non-intrinsic (Df 371) cenematy is symbolized $g^{\frown}$; an intrinsic cenematy is symbolized $g^{\asymp}$. The cenematy is said to be CENEMATY or EXPRESSION FOR (symbol: E) the plerematy or pleria to which it has relation. -- opp Df 180 PLEREMATY, Df 375 CENIA. -- :: Df 403 ROOT, Df 404 AFFIX, Df 405 STEM, Df 406 FORMANT. Df 374

Df 375. A CENIA is a Cenematic Glossia. Df 375
-- opp Df 374 CENEMATY; Df 373 PLERIA.

Cenia-formation can be called *synonymy* and pleria-formation *homonymy*, according to the following Dff:

Df 376. Between Cenematies that Enter into one and the same Cenia there is said to be SYNONYMY, and the cenematies are said to be SYNONYMOUS or SYNONYMS. -- opp Df 377 HOMONYMY. Df 376

Df 377. Between Pleremațies that Enter into one and the same Pleria there is said to be HOMONYMY, and the plerematies are said to be HOMONYMOUS or HOMONYMS. -- opp Df 376 SYNONOMY. Df 377

$$\{\asymp\}, \{\smile\} :: \{\#\}, \{\#/\}$$

Rg 187. The class of intrinsic glossematies and non-glossematies is articulated into *heterogeneous units* and *successions*, according to Dff 228-229 and to the following Df: Rg 187

Df 378 Df 378. A HETEROGENEOUS SUM (symbols: H. UNIT $^{\#}$, H. CATEGORY $_{\#}$) is a Sum into which Enter Taxemes of both Simple Species in one and the same Plane. -- opp Df 228 HOMOGENEOUS SUM.

$$\left\{ {}^{\#'} \right\} :: \left\{ {}_{*}s \right\}, \left\{ {}^{\#} \right\}$$

Rg 188 Rg 188. The class of successions is articulated into *syntagmata* and *sets*, according to Dff 239-240 and to the following Dff:

Df 379 Df 379. A HETEROSUBGENEOUS SUM (symbols: H. UNIT (see SYNTAGMA) $_{*}s$, H. CATEGORY $_{\#'}$), is a Sum into which Enter Taxemes of both Simple Subspecies under one and the same Simple Species. -- opp Df 238 HOMOSUBGENEOUS SUM. -- :: SYNTAGMA (Df 380), HETEROSUBGENEOUS CATEGORY.

Df 380 Df 380. A SYNTAGMA (symbol: $_{*}s$) is a Heterosubgeneous Unit. -- opp Df 239 SET. -- :: Df 419 NEXUS, Df 420 SYNTAGMATEME; Df 425 NEXIA, Df 426 SYNTAGMATY; Df 447 SUPERJUNCT, Df 448 ADJUNCT, Df 449 SUBJUNCT; Df 451 COMPOSITUM, Df 452 JUXTAPOSITION.

$$\left\{ {}^{\#} \right\} :: \left\{ {}^{\ddagger'} \right\}, \left\{ {}^{\times'} \right\}$$

Rg 189 Rg 189. The class of sets is articulated into *heterotypical* and *homotypical units*, according to the following Dff:

Df 381 Df 381. A HETEROTYPICAL SUM (symbols: H. UNIT $^{\ddagger'}$, H. CATEGORY $_{\ddagger'}$) is a Sum into which Enter Taxemes of both Simple Types under one and the same Simple Subspecies. -- opp Df 382 HOMOTYPICAL SUM.

Df 382. A HOMOTYPICAL SUM (symbols: H. UNIT $^{\times\prime}$, H. CATEGORY $_{\times\prime}$) is a Sum into which Enter Taxemes of one and only one Simple Type under one and the same Simple Subspecies. -- opp Df 381 HETEROTYPICAL SUM. Df 382

$$\{{}^{\times\prime}\} :: \{{}^{*}\}, \{{}^{\times}\}$$

Rg 190. The class of homotypical units is articulated into *sequences* and *groups*, according to the following Dff: Rg 190

Df 383. A HETEROSUBTYPICAL SUM (symbols: H. UNIT (see SEQUENCE) *, H. CATEGORY $_{*}$) is a Sum into which Enter Taxemes of both Simple Subtypes under one and the same Simple Type. -- opp Df 385 HOMOSUBTYPICAL SUM. -- :: SEQUENCE (Df 384), HETEROSUBTYPICAL CATEGORY. Df 383

Df 384. A SEQUENCE (symbol: *) is a Heterosubtypical Unit. -- opp Df 386 GROUP. Df 384

Df 385. A HOMOSUBTYPICAL SUM (symbols: H. UNIT (see GROUP) $^{\times}$, H. CATEGORY $_{\times}$) is a Sum into which Enter Taxemes of one and only one Simple Subtype under one and the same Simple Type. -- opp Df 383 HETEROSUBTYPICAL SUM. -- :: GROUP (Df 386), HOMOSUBTYPICAL CATEGORY. Df 385

Df 386. A GROUP (symbol: $^{\times}$) is a Homosubtypical Unit. -- opp Df 384 SEQUENCE. Df 386

$$\{{}^{\times}\} :: \{{}^{\neq}\}, \{{}^{=}\}$$

Rg 191. The class of groups is articulated into *conglomerates* and *cómplexes*, according to the following Dff: Rg 191

Df 387 Df 387. A HETEROTAGMATIC SUM (symbols: H. UNIT (see CONGLOMERATE) $^{\neq}$, H. CATEGORY $_{\neq}$) is a Sum into which Enter Taxemes of both Simple Tagmata under one and the same Simple Subtype. -- opp Df 389 HOMOTAGMATIC SUM. -- :: CONGLOMERATE (Df 388), HETEROTAGMATIC CATEGORY.

Df 388 Df 388. A CONGLOMERATE (symbol: $^{\neq}$) is a Heterotagmatic Unit. -- opp Df 390 CÓMPLEX.

Df 389 Df 389. A HOMOTAGMATIC SUM (symbols: H. UNIT (see CÓMPLEX) $^{=}$, H. CATEGORY $_{=}$) is a Sum into which Enter Taxemes of one and only one Simple Tagma under one and the same Simple Subtype. -- opp Df 387 HETEROTAGMATIC SUM. -- :: CÓMPLEX (Df 390), HOMOTAGMATIC CATEGORY.

Df 390 Df 390. A CÓMPLEX (symbol: $^{=}$) is a Homotagmatic Unit. -- opp Df 388 CONGLOMERATE.

$$\{^{=}\} :: \{^{\neq\prime}\}, \{^{=\prime}\}$$

Rg 192 Rg 192. The class of cómplexes is articulated into *heterosubtagmatic units* and *homosubtagmatic units*, according to the following Dff:

Df 391 A HETEROSUBTAGMATIC SUM (symbols: H. UNIT $^{\neq\prime}$, H. CATEGORY $_{\neq\prime}$) is a Sum into which Enter Taxemes of both Simple Subtagmata under one and the same Simple Tagma. -- opp Df 392 HOMOSUBTAGMATIC SUM.

Df 392 Df 392. A HOMOSUBTAGMATIC SUM (symbols: H. UNIT $^{=\prime}$, H. CATEGORY $_{=\prime}$) is a Sum into which Enter Taxemes of one and only one Simple Subtagma under one and the same Simple Tagma. -- opp Df 391 HETEROSUBTAGMATIC SUM.

Rg 193. The articulation is continued in like manner if *gIII2.8 ff. have been performed, and to the same extent. Rg 193

B. B

$$\left\{ ^{n} \right\} :: \left\{ ^{\sim} \right\}, \left\{ ^{-} \right\}, \left\{ ^{\rightleftarrows} \right\}$$

Rg 194. The class of units is articulated on the basis of their establishing relation into *solidarity-units*, *combination-units*, and *selection-units*. Rg 194

This articulation is performed according to Rg 28.

Non-intrinsic glossematies will, in the nature of the case, always be registered in {:Γ}.

C. C

$$\left\{ ^{n} \right\} :: \left\{ ^{(n)} \right\}, \left\{ ^{n}\mathrm{II} \right\}, \left\{ ^{n}\mathrm{III} \right\}, \ldots \left\{ ^{n}\mathrm{N} \right\}$$

Rg 195. The class of units is articulated on the basis of power into *minimal units* and *units of ascending power* to the n^{th} power, according to the following Dff: Rg 195

Df 393. A MINIMAL SUM is a Sum into which do not exclusively Enter sums of the same Degree. -- The symbol for a minimal sum is I ; for a minimal unit the symbol $^{(n)}$ may also be used. -- A minimal sum is a sum of the first power. Df 393

Df 394 Df 394. The POWER of a Sum (symbol: I, II, III, ... following the symbol for the sum) refers to the highest number of single Analyses through which the sum can be analyzed exclusively into Minimal Sums of the same Degree. If the number is zero, the sum is said to be of the first power; if the number is one, the sum is said to be of the second power; and so on.

As noted above, a sum of the first power is called a minimal sum.

NB: Sums of different power can, within a given deduction, be derivates of the same degree -- e.g., vowel and vowel-group. In this connexion, it must be remembered that an object can
* be analyzed into *one* object (see ANALYSIS). For example, a nexia is a nexus of the second power, even in the case where the nexia is simplex.

D D.

$$\left\{ {}^{n} \right\} :: \left\{ {}^{1} \right\}, \left\{ {}^{2} \right\}, \ldots$$

Rg 196 Rg 196. The class of units is articulated on the basis of extent into *simplex units* and *complex units of increasing extent* to n-plex.

This general articulation can be transformed into a universal articulation into *least-units* and *units of increasing extent* to *greatest-units*, according to Df 215 and to the following Df:

Df 395 Df 395. A GREATEST-SUM is a Sum of highest possible Extent or Size. -- opp Df 214 LEAST-SUM.

* E E.

$$\left\{ {}^{n} \right\} :: \left\{ {}^{:} \right\}, \left\{ {}^{\ddagger} \right\}$$

Rg 197. The class of units is articulated on the basis of substitution into *identity-units* and *difference-units*, according to the following Dff: Rg 197

Df 396. An IDENTITY-UNIT (symbol: !) is a Unit whose Parts have mutual Substitution. -- opp Df 397 DIFFERENCE-UNIT. Df 396

Df 397. A DIFFERENCE-UNIT (symbol: ≠) is a Unit whose Parts do not have mutual Substitution. -- opp Df 396 IDENTITY-UNIT. Df 397

Df 398. A CONGRUENCE is a Relation that Establishes an Identity-unit. Df 398

*gIII3.2: Redistribution *gIII3.2

Rg 198. The units are redistributed on the basis of the articulations given above (A-E) of the class of units. Rg 198

The units made possible by the semiotic schema can be mechanically deduced from the functions registered in the preceding Opp (*GI1-*gIII3.1). Consequently, the principal aim of the redistribution is the purely practical one of providing a repertory that can serve as index to the preceding components of the procedure, a repertory showing which of the units made possible by the semiotic schema are exemplified in the observed syntagmatic and which are not. Units found in the syntagmatic can, if necessary, be provided with reference to their location. Units not found in the syntagmatic can, if the syntagmatic is of unrestricted extent, be assigned to suspended relations.

The redistribution comprises the following tempi:

Tempo 1: The signs are redistributed in a schema like the following:

$$\begin{array}{llll} \gamma g^{\sim} & (\gamma g) & \gamma g^{2} & \gamma g^{!} \\ \gamma g^{-} & \gamma g_{II} & \gamma g^{3} & \gamma g^{\neq} \\ & \vdots & \vdots & \\ \gamma g^{\rightleftarrows} & \gamma g_{N} & \gamma g^{n} & \end{array}$$

The repertory over (γg) can be called a *glossary*, according to the following Df:

Df 399 Df 399. A GLOSSARY is a repertory over Minimal Signs.

Df 400 Df 400. PERMUTATION (symbol: !) is Mutation between the Parts of a Chain. -- opp Df 54 COMMUTATION.

Df 401 Df 401. WORDS (symbol: $(\gamma g!)$) are Signs of the lowest Power, defined by the Permutation of the Glossematies Entering into them.

The repertory over $(\gamma g!)$ can be called a *lexicon*, according to the following Df:

Df 402 Df 402. A LEXICON is a repertory over Words.

Higher powers of signs with mutual permutation, as well as any other registrable powers of signs, are registered as long as possible.

Tempo 2: The monoplane units are redistributed in arbitrary order -- either so that identity-units are registered first, then those difference-units whose derivates are all of one and the same order, then those difference-units whose derivates are all of one and the same category of next-smallest size, and so on up -- or, on the contrary, so that those difference-units are first registered whose derivates are all of one and the same largest category, then those difference-units whose derivates are all of one and the same next-largest category, and so on down. In the following sample diagram we illustrate the first of these possibilities, according to which the later classes of difference-units are registered in the order indicated by the numbering:

≍.⌣   ⧺/   ⧺   ×/   ×   =   1 =/

2 ≠/

3 ≠

4 ǂ

5 ǂ/

6 *s

7 #

8 ⌒

The intrinsic glossematies (≍) are registered in the simplest way together with the non-glossematies (⌣), with the information given for each registered unit whether it is a glossematy in addition to being a non-glossematy and, if so, with reference made to the register of signs produced in Tempo 1.

Each class of units that is thus taken up for registration is first analyzed into solidarity-units, combination-units, and selection-units; then each of these is analyzed into power-classes; finally, each power-class is analyzed into extent-classes. Thus, the order is as follows:

$!(\sim)2$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
$!(\sim)3$	$!\sim_{II}n$	$!\sim_{N}n$	$=/(\sim)2$	$=/\sim_{II}n$	$=/\sim_{N}n$
$\vdots$	$\vdots$	$!(-)2$	$=/(\sim)3$	$\vdots$	$=/(-)2$
$!(\sim)n$	$!\sim_{N}2$	$\vdots$	$\vdots$	$=/\sim_{N}2$	$\vdots$
$!\sim_{II}2$	$!\sim_{N}3$	$!(\rightleftarrows)2$	$=/(\sim)n$	$=/\sim_{N}3$	$=/(\rightleftarrows)2$
$!\sim_{II}3$	$\vdots$	$\vdots$	$=/\sim_{II}2$	$\vdots$	$\vdots$
$\vdots$			$=/\sim_{II}3$		$\neq/(\sim)2$
			$\vdots$		

Under each class or subclass of units, when appropriate, special terms and symbols can be introduced for further defined units and functions. Among such terms and symbols, the following are anticipated:

Df 403 Df 403. A ROOT (symbol: $\sqrt{\ }$) is a Cenematy for a Radical-Unit. -- opp Df 404 AFFIX, Df 406 FORMANT.

Df 404 Df 404. An AFFIX (symbol: *a*) is a Cenematy for a Derivative-Unit. -- opp Df 403 ROOT, Df 406 FORMANT.

Df 405 Df 405. A STEM (symbol: *t*) is a Cenematy that Includes a Root and any Affixes that it may have. -- opp Df 406 FORMANT.

Df 406 Df 406. A FORMANT (symbol: fm) is a Cenematy for a Plerematic Character-Unit. --

opp Df 405 STEM; Df 403 ROOT, Df 404 AFFIX.

Df 407. An ALTERNATION (symbol: :) is Df 407
a Commutation between Affixes and/or Formants
that each have Relation to a Pleria.

Df 408. SUPPLETIVISM is Synonymy between Df 408
Particular Stem-Varieties within one and same
Semiotic.

Df 409. A TAXIA (symbol: ${}_*G^n$) is a Df 409
Taxeme-Unit.

Df 410. A POLYPHTHONG is a Difference- Df 410
Group of Centripetal Taxemes and/or taxeme-
Varieties. -- :: Df 411 DIPHTHONG, Df 412
TRIPHTHONG, Df 413 TETRAPHTHONG, ...

Df 411. A DIPHTHONG is a Duplex Polyph- Df 411
thong. -- opp Df 412 TRIPHTHONG, Df 413
TETRAPHTHONG.

Df 412. A TRIPHTHONG is a Triplex Polyph- Df 412
thong. -- opp Df 411 DIPHTHONG, Df 413
TETRAPHTHONG.

Df 413. A TETRAPHTHONG is a Quadruplex Df 413
Polyphthong. -- opp Df 411 DIPHTHONG, Df 412
TRIPHTHONG.

Df 414. A CHARACTERISTIC (symbol: ${}_*q^s$) Df 414
is a Minimal Group of Character Glossemes. --
:: Df 415 EXTENSE CHARACTERISTIC, Df 416 INTENSE
CHARACTERISTIC.

Df 415. An EXTENSE CHARACTERISTIC (symbol: Df 415

$_{*}q_{v}^{s}$) is a Characteristic Including Extense Character Glossemes. -- opp Df 416 INTENSE CHARACTERISTIC.

Df 416 Df 416. An INTENSE CHARACTERISTIC (symbol: $_{*}q_{n}^{s}$) is a Characteristic Including Intense Character Glossemes. -- opp Df 415 EXTENSE CHARACTERISTIC.

If the number of planes is two and only two, the following Dff are available:

Df 417 Df 417. A NOMINAL CHARACTERISTIC (symbol: $♀_{n}^{s}$) is a Plerematic Intense Characteristic. -- opp Df 418 VERBAL CHARACTERISTIC.

Df 418 Df 418. A VERBAL CHARACTERISTIC (symbol: $♀_{v}^{s}$) is a Plerematic Extense Characteristic. -- opp Df 417 NOMINAL CHARACTERISTIC.

Df 419 Df 419. A NEXUS (symbol: $_{*}n$) is a Minimal Syntagma into which Enters a Character Sequence. -- opp Df 420 SYNTAGMATEME; Df 425 NEXIA.

Df 420 Df 420. A SYNTAGMATEME (symbol: $_{*}z$) is a Minimal Syntagma into which no Character Sequence Enters. -- opp Df 419 NEXUS; Df 426 SYNTAGMATY. -- :: Df 421 SUBSTANTIVE, Df 422 ADJECTIVE; Df 423 NOUN, Df 424 SYLLABLE.

Df 421 Df 421. A SUBSTANTIVE is a Syntagmateme whose Characteristic is a Least-Conglomerate of Intense Characters. -- opp Df 422 ADJECTIVE.

Df 422 Df 422. An ADJECTIVE is a Syntagmateme whose Characteristic is a Greatest-Conglomerate of Intense Characters. -- opp Df 421 SUBSTANTIVE.

Df 423. A NOUN (symbol: ζ) is a Pleregmatic Df 423
Syntagmateme. -- opp Df 424 SYLLABLE.

Df 424. A SYLLABLE (symbol: z) is a Df 424
Cenematic Syntagmateme. -- opp Df 423 NOUN.

Df 425. A NEXIA (symbol: $_*n\mathrm{II}$) is a non- Df 425
Minimal Syntagma into which Enters a Character
Sequence. -- opp Df 419 NEXUS; Df 426 SYNTAGMATY.

Df 426. A SYNTAGMATY (symbol: $_*S$) is a Df 426
non-Minimal Syntagma into which no Character
Sequence Enters. -- opp Df 420 SYNTAGMATEME;
Df 425 NEXIA.

Df 427. A JUNCTION (symbol: $_*S^{>1}$) is a Df 427
Syntagmaty into which Enter two or more Syntag-
matemes.

Df 428. A THEME (symbol: $_*\text{þ}^{s}$) is a Unit Df 428
that has Syntagma-Establishing Relation to a
Characteristic. -- :: Df 431 INTENSE THEME, Df
434 EXTENSE THEME.

Df 429. A MONOPHTHONG is a Centripetal that Df 429
Enters as the only centripetal into a Theme.

Df 430. A PRONOUN is a Syntagmateme or Df 430
Pseudotheme one or more of whose Entering
Radicals is a Themative.

Df 431. An INTENSE THEME (symbol: $_*\text{þ}_n^{s}$) Df 431
is a Theme that has Syntagma-Establishing Relation
to an Intense Characteristic. -- opp Df 434

EXTENSE THEME. -- :: Df 432 NOMINAL THEME, Df 433 SYLLABIC THEME.

If the number of planes is two and only two, the following Dff are available:

Df 432 Df 432. A NOMINAL THEME (symbol: ϑ_n^s) is a Plerematic Intense Theme. -- opp Df 433 SYLLABIC THEME.

Df 433 Df 433. A SYLLABIC THEME (symbol: þ_n^s) is a Cenematic Intense Theme. -- opp Df 432 NOMINAL THEME.

Df 434 Df 434. An EXTENSE THEME (symbol: $_*\text{þ}_v^s$) is a Theme that has Syntagma-Establishing Relation to an Extense Characteristic. -- opp Df 431 INTENSE THEME.

Df 435 Df 435. A PSEUDOTHEME (symbol: $_*\text{þ}_0$) is a Themate-Set or themate-set-Variant that is not an Intense Theme and that does not Enter into a Minimal intense theme.

Df 436 Df 436. A PSEUDOSYLLABLE (symbol: þ_0) is a Cenematic Pseudotheme.

Df 437 Df 437. A NUMERAL is a Syntagmateme or Pseudotheme whose Entering Radical-Unit is an Identity-unit.

Df 438 Df 438. A PSEUDOCHARACTERISTIC (symbol: $_*q_0$) is a Characteristic or characteristic-Variant that does not Contract Syntagma-Establishing Relation.

Df 439. A PSEUDONEXUS (symbol: ${}_*n_0$) is a Df 439
non-Nexus that Enters into Line and Rank with nexus.

Df 440. An INTERJECTION (symbol: ν_0) is Df 440
a Plerematic Pseudonexus.

Df 441. A PSEUDONEXIA (symbol: ${}_*n\,\mathrm{II}_0$) is Df 441
a non-Nexia that Enters into Line and Rank with nexias.

Df 442. A RELATIVE (symbol: ${}_*zX$) is a Df 442
Syntagmateme that is a Connective.

Df 443. A CONJUNCTION (symbol: ${}_*\text{þ}_0X$) is Df 443
a Pseudotheme that is a Connective. -- opp Df 444 PREPOSITION, Df 445 ADVERB. -- A p^n-CONJUNCTION is a Conjunction that is Connective for p^n: ${}_*\text{þ}_0X(p^n)$.

Df 444. A PREPOSITION is a Pseudotheme that Df 444
is not a Connective and that Includes one or more Converted Taxemes and/or one or more converted Varieties of Ambifundamental taxemes. -- opp Df 443 CONJUNCTION, Df 445 ADVERB.

Df 445. An ADVERB is a Pseudotheme that is Df 445
not a Connective and that does not Include Converted Taxemes or converted Varieties of Ambifundamental taxemes. -- opp Df 443 CONJUNCTION, Df 444 PREPOSITION.

Df 446. A VERB (symbol: ${}_*\text{þ}_0X({}_*n)$) is a Df 446
Nexus-Conjunction.

Df 447. A SUPERJUNCT is a Syntagma or Df 447 syntagma-Variety that Enters into a Junction as Congruence-Selected. -- opp Df 448 ADJUNCT, Df 449 SUBJUNCT.

Df 448 Df 448. An ADJUNCT is a Syntagma or syntagma-Variety that Enters into a Junction as Congruence-Selecting. -- opp Df 447 SUPERJUNCT, Df 449 SUBJUNCT.

Df 449 Df 449. A SUBJUNCT is a Syntagma or syntagma-Variety that Enters into a Junction as Selecting the Adjunct without Contracting Congruence with any of the Parts of the junction. -- opp Df 447 SUPERJUNCT, Df 448 ADJUNCT.

Df 450 Df 450. PROPRIA are Cenematies which Enter into one and the same Cenia and whose Content is a Pseudocharacteristic.

(Propria within one and the same cenia -- e.g., *Hans* and *Peter* -- do not have mutual commutation. For them to have commutation it would be required, according to Df 23 (MUTATION), that the cenematies and plerematies stand in the same rank, but this condition is not fulfilled by propria since their content consists in pleremaxy-individuals. When *Hans* and *Peter* are interchanged, two pleremaxy-individuals are interchanged, but not two plerematies.)

Df 451 Df 451. A COMPOSITUM (symbol: ${}_{*}s^{s}$) is a Syntagma whose Theme Includes one or more syntagmata of the same Degree. -- opp Df 452 JUXTAPOSITION.

Df 452 Df 452. A JUXTAPOSITION (symbol: ${}_{*}s^{b}$) is a Syntagma whose Theme Includes two or more

Themes or Pseudothemes, but no syntagmata of the same Degree. -- opp Df 451 COMPOSITUM.

Df 453. An ELECTION is a Cohesion whose Relates Enter into one and the same Syllabeme. -- opp Df 454 GOVERNMENT. Df 453

Df 454. A GOVERNMENT in a Cohesion whose Relates do not Enter into one and the same Syllabeme. -- opp Df 453 ELECTION. Df 454

*<u>gIV</u>: <u>Fourth subseries</u>: <u>Classes of semiotics and Variants of classes of semiotics</u> *<u>gIV</u>

*<u>gIV0</u>: See Rgg 126-127. *<u>gIV0</u>

*<u>gIV1</u>: <u>First Op</u>: <u>Classes of semiotics and Variations of classes of semiotics</u> *<u>gIV1</u>

*<u>gIV1.0</u>: See Rg 126. *<u>gIV1.0</u>

*<u>gIV1.1</u> *<u>gIV1.1</u>

As a final comprehensive result of the analysis that has been made of the individual semiotic, its paradigmatic is presented in a schema like the following, with the number of glossemes entered in each realized rubric, resolved into prime factors in the rubrics of the orders. (In the following sample schema, we reckon with a semiotic which includes two planes with mutual solidarity and whose orders are subtagmata. The following symbols are introduced:

$$\vdots\Gamma_{\beta} = \sim\text{var. } \vdots\beta_2\ (\vdots\Gamma_2)$$
$$\vdots\Gamma_{B} = \sim\text{var. } \vdots B_2\ (\vdots\Gamma_2)$$
$$\vdots\Gamma_{\gamma} = \sim\text{var. } \vdots\gamma_2\ (\vdots\Gamma_2).)$$

sub-tagmata	tagmata	sub-types	types	sub-species	species	planes	species	sub-species	types	sub-types	tagmata	sub-tagmata
$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\gamma^{o}\sim g^{o}$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$
$\vdots A$	$\vdots A$										$\vdots A$	$\vdots A$
$\vdots\alpha$	$\vdots\alpha$	$\vdots A$	$\vdots A$						$\vdots A$	$\vdots A$	$\vdots\alpha$	$\vdots\alpha$
$\vdots A$	$\vdots A$										$\vdots A$	$\vdots A$
$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots A$	$\vdots A$		$\vdots A$	$\vdots A$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$	$\vdots\alpha$
$\vdots A$	$\vdots A$										$\vdots A$	$\vdots A$
$\vdots\alpha$	$\vdots\alpha$	$\vdots A$	$\vdots A$						$\vdots A$	$\vdots A$	$\vdots\alpha$	$\vdots\alpha$
$\vdots A$	$\vdots A$										$\vdots A$	$\vdots A$
$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$		$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$	$\vdots\beta_2$
$\vdots B_2$	$\vdots B_2$										$\vdots B_2$	$\vdots B_2$
$\vdots\gamma_2$	$\vdots\gamma_2$										$\vdots\gamma_2$	$\vdots\gamma_2$
$\vdots\Gamma_\beta$	$\vdots\Gamma_\beta$										$\vdots\Gamma_\beta$	$\vdots\Gamma_\beta$
$\vdots\Gamma_B$	$\vdots\Gamma_B$										$\vdots\Gamma_B$	$\vdots\Gamma_B$
$\vdots\Gamma_\gamma$	$\vdots\Gamma_\gamma$										$\vdots\Gamma_\gamma$	$\vdots\Gamma_\gamma$
$\vdots\beta_2 \vdots \Gamma_\gamma$	$\vdots\beta_2 \vdots \Gamma_\gamma$	$\vdots B_2$	$\vdots B_2$						$\vdots B_2$	$\vdots B_2$	$\vdots\beta_2 \vdots \Gamma_\gamma$	$\vdots\beta_2 \vdots \Gamma_\gamma$
-	-	-	$\vdots\Gamma_\gamma$						$\vdots\Gamma_\gamma$	-	-	-
-	-	-	-	-	$\vdots\Gamma_\gamma$		$\vdots\Gamma_\gamma$	-	-	-	-	-

*gIV2: Second Op: Varieties of classes of semiotics *gIV2

*gIV2.0: See Rg 127. *gIV2.0

*gIV2.1: Procedure for registration of contacts *gIV2.1

${}_{*}\underline{\underline{GI}}$ - ${}_{*}\underline{\underline{gIV}}$

CALCULUS OF PROCEDURES

*GI - *gIV: CALCULUS OF PROCEDURES

(Cf. Rg 104)

Rg 199. On the basis of the general schema of the procedure, we introduce an articulation of the class of procedures. Rg 199

The articulation-complex includes two articulations, designated as A and B in what follows. This articulation-complex is not a deduction.

A. The class of procedures is articulated, on the basis of the number of registered planes, into *two-plane procedures* and *procedures with rising number of planes* up to n-plane procedures.

B. The class of procedures is articulated on the basis of the number of line-partitions that enter into the partition-complex (*G) of the procedure and according to the basis of analysis in each of these line-partitions. The resulting classes of procedures are (cf. Rg 31) as follows:

1. Procedures including 1 line-partition:
   *GII with R:β as basis of analysis
2. Procedures including 1 line-partition:
   *GII with R:B as basis of analysis
3. Procedures including 1 line-partition:
   *GII with R:γ as basis of analysis

4. Procedures including 2 line-partitions:
   *GII with R:β as basis of analysis and
   *GIII " R:B " " " "

5. Procedures including 2 line-partitions:
   *GII with R:β as basis of analysis and
   *GIII " R:γ " " " "

6. Procedures including 2 line-partitions:
   *GII with R:B as basis of analysis and
   *GIII " R:β " " " "

7. Procedures including 2 line-partitions:
   *GII with R:B as basis of analysis and
   *GIII " R:γ " " " "

8. Procedures including 2 line-partitions:
   *GII with R:γ as basis of analysis and
   *GIII " R:β " " " "

9. Procedures including 2 line-partitions:
   *GII with R:γ as basis of analysis and
   *GIII " R:B " " " "

10. Procedures including 3 line-partitions:
    *GII with R:β as basis of analysis and
    *GIII " R:B " " " " and
    *GIV " R:γ " " " "

11. Procedures including 3 line-partitions:
    *GII with R:β as basis of analysis and
    *GIII " R:B " " " " and
    *GIV " R:β " " " "

and so on.

The calculation can be continued indefinitely with 4, 5, ... n line-partitions with various alternations of R:(β) and R:γ as bases of analysis.

Rg 200. For each of these possible procedures, any Op can be designated by placing before the Op-sign a Roman numeral indicating the number of planes and an Arabic numeral indicating the relationship between the line-partitions according to the numeration given in Rg 199. For example: Operation *GII in a two-plane procedure comprising two line-partitions -- the first with R:β as basis of analysis and the second with R:γ as basis of analysis -- can be designated by the symbol II5 *GII. If it is sufficiently clear in some other way (from the context) which procedure-class an Op belongs to, these additional symbols may be omitted. Rg 200

Rg 201. Linguistic theory has the task of carrying out each of these possible procedures. Since their number under the two articulations prescribed in Rg 199 is unrestricted, this task will never be completed. The appropriate course of action will therefore be to carry out a possible procedure when it is found to be realized. Rg 201

It is impossible to establish any theorem fixing an absolutely or relatively highest number of individual analyses within each of the line-partitions entering into the partition-complex. It follows that -- short of introducing such a highest number into the calculus by axiom or hypothesis -- the highest number will always be indefinitely high. Therefore -- if no axiom or hypothesis is introduced -- the course of action prescribed in Rg 111 must be followed. Certain realizations judged suitable for the purpose are made the basis for a first Op-numbering, which is so organized that it is possible to insert intervening Opp when realizations are registered that require a more extended procedure; this can be done by alternately adding letters and numerals to the numbers first chosen.

In what follows we thus carry out procedure No 5 of Rg 199, which is the one that finds application to all languages so far observed.

PROCEDURE-CLASS II5

Procedure-class IIS

First operation-series

*GI: $?\gamma^{\circ}g^{\circ}R :: ?^{\sim}$

*GI0. See N 53.

According to Rg 31 the relate-possibilities are the following:

$\{\vdots\beta\}$ = appearing only as solidary: ~

$\{\vdots B\}$ = appearing only as combined: -

$\{\vdots\gamma\}$ = appearing as solidary with one relate and as combined with another relate: ~-

$\{\vdots\Gamma\}$ = appearing only as selected: ← and/or as selecting: →, or appearing only as correlate.

Unique operation

*GI1: $?\gamma^{\circ}g^{\circ}R :: ?^{\sim}1 :: \{\vdots\beta\} :: \vdots\alpha' = ?g^{\#}\odot$
$\vdots A' = ?\gamma^{\#}\odot$

*GI1.0. See NN 55-57.

Second operation-series

*GII: $?^{\#}\odot :: ?^{\sim}$

ΓII: $?\gamma^{\#}\odot :: ?\gamma^{\sim}$ GII: $?g^{\#}\odot :: ?g^{\sim}$

*GII0.2. See Rg 137.

L.GII0.2. Inductive experience shows that the choice of basis of analysis will be different for different texts, and that the choice of basis of analysis will, in the case of many texts, be different for the two lines.

LΓII0.2. In a frequently occurring case the basis of analysis R:β will lead, in the first analysis, to the registration of three elements (namely, three chains characterized by style) or, if the text does not distinguish these, a functional category with four elements (namely, four chains characterized by value-style) or, if the text does not distinguish these, a functional category with at most five elements (namely, five chains characterized by stylistic form). The subsequent analyses will generally make it possible to set up functional categories like: media, literary genres and sub-genres; chains characterized by vernacular, tone, national language, local language, physiognomies (authorships); works, books, chapters, paragraphs, subparagraphs, lexias, etc. In principle, R:B and R:γ as bases of analysis can lead to the same functional categories, but with the exception of chains characterized by style, value-style, stylistic form, medium, vernacular, tone, national language, local language and physiognomy; thus, the total number of functional categories will in such a case be considerably lower than for analysis-basis R:β. In this frequently occurring case, therefore, R:β is chosen as basis of analysis in ΓII (after which R:γ is chosen as basis of analysis in ΓIII). In other cases, where the first Opp among those anticipated here give no yield, the choice of R:B or R:γ as basis of analysis in ΓII may be indicated.

If the first operation with yield under all possible bases of analysis is an analysis into lexias, one case that may be anticipated is that the language does not have selection between lexias. In such a case, analysis-basis R⁝β or R⁝B will have priority over R⁝γ since they involve an additional functional category.

LGII0.2. In a frequently occurring case the basis of analysis R⁝β will lead, in the first analyses, to the registration of elements corresponding to those registered in LΓII: three chains characterized by style, four chains characterized by value-style, five chains characterized by stylistic form, then chains characterized by medium and -- possibly after some intermediate analyses -- chains characterized by vernacular, tone, national language, local language, and physiognomy. On the other hand, it will as a rule be impossible to register on the basis of R⁝B or R⁝γ chains characterized by style, value-style, stylistic form, medium, vernacular, tone, national language, local language, and physiognomy. R⁝B, however, like R⁝β, will generally lead to the setting up of functional categories like chapters, paragraphs, sub-paragraphs, lexias, etc. R⁝γ, on the other hand, will most frequently lead to registration of lexias in the very first analysis. In such cases, then, the total number of functional categories will be considerably lower for analysis-bases R⁝B and R⁝γ than for analysis-basis R⁝β. In this frequently occurring case, therefore, R⁝β is chosen as basis of analysis in GII (after which R⁝γ is chosen as basis of analysis in GIII). In other cases, where the first Opp among those anticipated here give no yield, the choice of R⁝B or R⁝γ as basis of analysis in GII may be indicated. In other cases, just as in ΓII0, the absence of lexia-selection may give the priority to R⁝β or R⁝B as basis of analysis.

The individual operations

.GII1-n: $?^{\#}\odot :: ?^{\sim}1 :: ?^{\sim}2 :: \ldots :: ?^{\sim}n$

$\underline{\Gamma III1\text{-}n}$: $?\gamma^{\#}\odot$ :: $?\gamma^{\sim}1$ :: $?\gamma^{\sim}2$ :: ... :: $?\gamma^{\sim}n$

$\underline{GII1\text{-}n}$: $?g^{\#}\odot$ :: $?g^{\sim}1$ :: $?g^{\sim}2$ :: ... :: $?g^{\sim}n$

On application of Rg 43, the relationship between the fixed numerations prescribed in Rg 111 and the unambiguous designations prescribed in the same Rg will vary somewhat, depending on the structure of the hierarchy when Pr 1 is applied to it.

In the order that is prescribed in Rg 43 and that consequently is in part to be fixed independently for each hierarchy, it will be possible to perform the following analyses:

$_*\underline{n'a}$. :: $?^{\sim}x = /^{N}$ characterized by style/
:: $\{\vdots\beta\}$ :: $?_*l\vdots\beta' = /^{N}$ in creative style/
$?_*l\vdots B' = /^{N}$ in normal style/
$?_*l\vdots\gamma' = /^{N}$ in archaizing style/
$?_*l\vdots\beta' \equiv$ var.$?^{N} \sim x\Gamma$ creative style,
$?_*l\vdots B' \equiv$ var.$?^{N} \sim x\Gamma$ normal style,
$?_*l\vdots\gamma' \equiv$ var.$?^{N} \sim x\Gamma$ archaizing style. (Rg 63)

$\underline{\nu'a}$. :: $?\gamma^{\sim}x = /\gamma^{N}$ characterized by style/
:: $\{\vdots\beta\}$ :: $?\lambda\vdots\beta' = /\gamma^{N}$ in creative style/
$?\lambda\vdots B' = /\gamma^{N}$ in normal style/
$?\lambda\vdots\gamma' = /\gamma^{N}$ in archaizing style/
$?\lambda\vdots\beta' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ creative style,
$?\lambda\vdots B' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ normal style,
$?\lambda\vdots\gamma' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ archaizing style.

$\underline{n'a}$. :: $?g^{\sim}x = /g^{N}$ characterized by style/
:: $\{\vdots\beta\}$ :: $?l\vdots\beta' = /g^{N}$ in creative style/
$?l\vdots B' = /g^{N}$ in normal style/
$?l\vdots\gamma' = /g^{N}$ in archaizing style/
$?l\vdots\beta' \equiv$ var.$?g^{N} \sim x\Gamma$ creative style,
$?l\vdots B' \equiv$ var.$?g^{N} \sim x\Gamma$ normal style,
$?l\vdots\gamma' \equiv$ var.$?g^{N} \sim x\Gamma$ archaizing style.

$_{*}$n'b. :: $?\tilde{}x = /^{N}$ characterized by value-style/
:: $\{\vdots\beta\}$ :: $?_{*}l\vdots\beta' = /^{N}$ in higher value-style/
$?_{*}l\vdots B' = /^{N}$ in vulgar value-style/
$?_{*}l\vdots\gamma'$
$?_{*}l\vdots\Gamma' = /^{N}$ in neutral value-style/

$?_{*}l\vdots\beta' \equiv$ var.$?^{N} \sim x\Gamma$ higher value-style,
$?_{*}l\vdots B' \equiv$ var.$?^{N} \sim x\Gamma$ vulgar value-style,
$?_{*}l\vdots\gamma' \equiv$ var.$?^{N} \sim x\Gamma$ value-style $\vdots\gamma'$,
$?_{*}l\vdots\Gamma' \equiv$ var.$?^{N} \sim x\Gamma$ neutral value-style. (Rg 63)

ν'b. :: $?\gamma\tilde{}x = /\gamma^{N}$ characterized by value-style/
:: $\{\vdots\beta\}$ :: $?\lambda\vdots\beta' = /\gamma^{N}$ in higher value-style/
$?\lambda\vdots B' = /\gamma^{N}$ in vulgar value-style/
$?\lambda\vdots\gamma'$
$?\lambda\vdots\Gamma' = /\gamma^{N}$ in neutral value-style/

$?\lambda\vdots\beta' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ higher value-style,
$?\lambda\vdots B' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ vulgar value-style,
$?\lambda\vdots\gamma' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ value style $\vdots\gamma'$,
$?\lambda\vdots\Gamma' \equiv$ var.$?\gamma^{N} \sim x\Gamma$ neutral value-style.

n'b. :: $?g\tilde{}x = /g^{N}$ characterized by value-style/
:: $\{\vdots\beta\}$ :: $?l\vdots\beta' = /g^{N}$ in higher value-style/
$?l\vdots B' = /g^{N}$ in vulgar style/
$?l\vdots\gamma'$
$?l\vdots\Gamma' = /g^{N}$ in neutral value-style/

$?l\vdots\beta' \equiv$ var.$?g^{N} \sim x\Gamma$ higher value-style,
$?l\vdots B' \equiv$ var.$?g^{N} \sim x\Gamma$ vulgar value-style,
$?l\vdots\gamma' \equiv$ var.$?g^{N} \sim x\Gamma$ value-style $\vdots\gamma'$,
$?l\vdots\Gamma' \equiv$ var.$?g^{N} \sim x\Gamma$ neutral value-style.

$_{*}$n'c. :: $?\tilde{}x = /^{N}$ characterized by stylistic form/
:: $\{\vdots\beta\}$ :: $?_{*}l\vdots\alpha' = /^{N}$ in bound stylistic form/
$?_{*}l\vdots A' = /^{N}$ in unbound stylistic form/
$?_{*}l\vdots\beta'$
$?_{*}l\vdots B'$
$?_{*}l\vdots\gamma'$

?$_*l$⁝α' ≡ var.?^{N} ~ $x\Gamma$ bound stylistic form,
?$_*l$⁝A' ≡ var.?^{N} ~ $x\Gamma$ unbound stylistic form,
?$_*l$⁝β' ≡ var.?^{N} ~ $x\Gamma$ stylistic form ⁝β',
?$_*l$⁝B' ≡ var.?^{N} ~ $x\Gamma$ stylistic form ⁝B',
?$_*l$⁝γ' ≡ var.?^{N} ~ $x\Gamma$ stylistic form ⁝γ'. (Rg 63)

<u>ν'c</u>. :: ?$\gamma^{\sim}$x = /γ^N characterized by stylistic form/
:: {⁝β} :: ?λ⁝α' = /stylized γ^N/
?λ⁝A' = /unstylized γ^N/
?λ⁝β' = /predominantly stylized γ^N/
?λ⁝B' = /predominantly unstylized γ^N/
?λ⁝γ' = /mixed stylized and un-stylized γ^N/

?λ⁝α' ≡ var.?γ^N ~ $x\Gamma$ bound stylistic form,
?λ⁝A' ≡ var.?γ^N ~ $x\Gamma$ unbound stylistic form,
?λ⁝β' ≡ var.?γ^N ~ $x\Gamma$ stylistic form ⁝β',
?λ⁝B' ≡ var.?γ^N ~ $x\Gamma$ stylistic form ⁝B',
?λ⁝γ' ≡ var.?γ^N ~ $x\Gamma$ stylistic form ⁝γ'.

<u>n'c</u>. :: ?$g^{\sim}$x = /g^N characterized by stylistic form/
:: {⁝β} :: ?l⁝α' = /rhythmic verse/
?l⁝A' = /non-rhythmic prose/
?l⁝β' = /rhythmic prose/
?l⁝B' = /prose-verse/
?l⁝γ' = /mixtures of verse and prose/

?l⁝α' ≡ var.?g^N ~ $x\Gamma$ bound stylistic form,
?l⁝A' ≡ var.?g^N ~ $x\Gamma$ unbound stylistic form,
?l⁝β' ≡ var.?g^N ~ $x\Gamma$ stylistic form ⁝β',
?l⁝B' ≡ var.?g^N ~ $x\Gamma$ stylistic form ⁝B',
?l⁝γ' ≡ var.?g^N ~ $x\Gamma$ stylistic form ⁝γ'.

<u>$_*$n'd</u>. :: ?$^{\sim}$x = /^{N} characterized by medium/
:: {⁝β} :: n?$_*ll$ = /^{N} in speech/, /^{N} in writing/, /^{N} in gesture/, /^{N} in flag-signals/, /^{N} in attire/, /^{N} in music/, /^{N} in means of payment/, /^{N} in pieces of game-equipment/, ...

$?_{*}ll \equiv$ var.$?^{N} \sim x\Gamma$ spoken language, $x\Gamma$ written language,
$x\Gamma$ gesture language, ... (Rg 63)

ν'd. :: $?\gamma^{\sim}x$ = /γ^{N} characterized by medium/
:: {$\vdots\beta$} :: n$?\lambda\lambda$ = /γ^{N} in speech/, /γ^{N} in writing/, ...

$?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ spoken language, $x\Gamma$ written language, ...

n'd. :: $?g^{\sim}x$ = /g^{N} characterized by medium/
:: {$\vdots\beta$} :: n$?ll$ = /g^{N} in speech/, /g^{N} in writing/, ...

$?ll \equiv$ var.$?g^{N} \sim x\Gamma$ spoken language, $x\Gamma$ written language, ...

*n'el. :: $?^{\sim}\gamma$ = /literary genres/
:: {$\vdots\beta$} :: n$?_{*}ll$

E.g., var.$?^{N} \sim x\Gamma$ bound stylistic form (*n'c) :: $?^{\sim}x$ :: {$\vdots\beta$}
:: $?_{*}l\vdots\alpha'$ = /lyric poetry/
$?_{*}l\vdots A'$ = /epic poetry/

var.$?^{N} \sim x\Gamma$ unbound stylistic form (*n'c) :: $?^{\sim}x$ :: {$\vdots\beta$}
:: $?\lambda\vdots\alpha'$ = /prose fiction/
$?\lambda\vdots A'$ = /scientific prose/.

If possible, $?_{*}ll \equiv$ var.$?^{N} \sim x\Gamma$ vernaculars (genre-style). (Rg 63)

ν'el. :: $?\gamma^{\sim}y$ :: {$\vdots\beta$} :: n$?\lambda\lambda$

If possible, $?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ vernaculars (genre-style).

n'el. :: $?g^{\sim}y$ :: {$\vdots\beta$} :: n$?ll$

If possible, $?ll \equiv$ var.$?g^{N} \sim x\Gamma$ vernaculars (genre-style).

*n'e2. $?^{\sim}y$ :: $?^{\sim}y + 1$ = /literary sub-genres/
:: {$\vdots\beta$} :: n$?_{*}ll$

E.g., /lyric poetry/ (*n'el) :: /odes/, /dithyrambs/, /hymns/, /cantatas/, ...
/epic poetry/ (*n'el) :: /mythological poetry/, /heroic poetry/, ...

/prose fiction/ ($_*$n'el) :: /novels/, /short stories/, /fairy tales/, ...

/scientific prose/ ($_*$n'el) :: /monographs/, /treatises/, ...

If possible, $?_* ll \equiv$ var.$?^N \sim x\Gamma$ vernaculars (genre-style). (Rg 63)

ν'e2. $?\gamma^{\sim}y :: ?\gamma^{\sim}y+1 :: \{\vdots\beta\} :: n?\lambda\lambda$

If possible, $?\lambda\lambda \equiv$ var.$?\gamma^N \sim x\Gamma$ vernaculars (genre-style).

n'e2. $?g^{\sim}y :: ?g^{\sim}y+1 :: \{\vdots\beta\} :: n?ll$

If possible, $?ll \equiv$ var.$?g^N \sim x\Gamma$ vernaculars (genre-style).

$_*$n'f1. $:: ?^{\sim}z :: \{\vdots\beta\} :: n?_*ll$

ν'f1. $:: ?\gamma^{\sim}z :: \{\vdots\beta\} :: n?\lambda\lambda$

n'f1. $:: ?g^{\sim}z :: \{\vdots\beta\} :: n?ll$

E.g., var.$?g^N \sim x\Gamma$ written language (n'd) :: $?g^{\sim}z$ = /libraries/.

$_*$n'f2. $?^{\sim}z :: ?^{\sim}z+1 :: \{\vdots\beta\} :: n?_*ll$

ν'f2. $?\gamma^{\sim}z :: ?\gamma^{\sim}z+1 :: \{\vdots\beta\} :: n?\lambda\lambda$

n'f2. $?g^{\sim}z :: ?g^{\sim}z+1 :: \{\vdots\beta\} :: n?ll$

E.g., $?g^{\sim}z$ = /libraries/ (n'f1) :: $?g^{\sim}z+1$ = /parts of libraries/.

$_*$n'f3. $?^{\sim}z+1 :: ?^{\sim}z+2 :: \{\vdots\beta\} :: n?_*ll$

ν'f3. $?\gamma^{\sim}z+1 :: ?\gamma^{\sim}z+2 :: \{\vdots\beta\} :: n?\lambda\lambda$

n'f3. $?g^{\sim}z+1$ :: $?g^{\sim}z+2$ :: $\{\vdots\beta\}$ :: $n?ll$

E.g., $?g^{\sim}z+1$ /parts of libraries/ (n'f2) :: $?g^{\sim}z+2$ = /formats/.

If the same formats enter into different library-parts, Rg 65 is applied, so that a format $\triangleleft$ one library-part and a format $\triangleleft$ another library-part $\equiv$ $1l$ and a signal is separated out for each of the library-parts.

$_*$n'g. :: $?^{\sim}x$ = $/^{N}$ characterized by vernacular/
:: $\{\vdots\beta\}$ :: $n?_*ll$

$?_*ll \equiv$ var.$?^{N} \sim x\Gamma$ vernaculars. (Rg 63)

ν'g. :: $?\gamma^{\sim}x$ = $/\gamma^{N}$ characterized by vernacular/
:: $\{\vdots\beta\}$ :: $n?\lambda\lambda$

$?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ vernaculars.

n'g. :: $?g^{\sim}x$ = $/g^{N}$ characterized by vernacular/
:: $\{\vdots\beta\}$ :: $n?ll$

$?ll \equiv$ var.$?g^{N} \sim x\Gamma$ vernaculars.

$_*$n'h. :: $?^{\sim}x$ = $/^{N}$ characterized by tone/
:: $\{\vdots\beta\}$ :: $n?_*ll$

$?_*ll \equiv$ var.$?^{N} \sim x\Gamma$ tones. (Rg 63)

ν'h. :: $?\gamma^{\sim}x$ = $/\gamma^{N}$ characterized by tone/
:: $\{\vdots\beta\}$ :: $n?\lambda\lambda$

$?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ tones.

n'h. :: $?g^{\sim}x$ = $/g^{N}$ characterized by tone/
:: $\{\vdots\beta\}$ :: $n?ll$

$?ll \equiv$ var.$?g^{N} \sim x\Gamma$ tones.

${}_{*}\underline{n'i}$. :: $?^{\sim}x$ = /^{N} in national languages/
:: {$\vdots\beta$} :: $n?_{*}ll$
$?_{*}ll \equiv$ var.$?^{N} \sim x\Gamma$ nationalities. (Rg 63)

If the same national languages enter into different ^{N} characterized by style, ^{N} characterized by value-style, ^{N} characterized by stylistic form, ^{N} characterized by medium, literary genres, literary sub-genres, etc., etc., Rg 65 is applied as in $\underline{n'f3}$.

$\underline{\nu'i}$. :: $?\gamma^{\sim}z$ = /γ^{N} in national languages/
:: {$\vdots\beta$} :: $n?\lambda\lambda$
$?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ nationalities.

$\underline{n'i}$. :: $?g^{\sim}x$ = /g^{N} in national languages/
:: {$\vdots\beta$} :: $n?ll$
$?ll \equiv$ var.$?g^{N} \sim x\Gamma$ nationalities.

${}_{*}\underline{n'j}$. :: $?^{\sim}x$ = /^{N} in local languages/
:: {$\vdots\beta$} :: $n?_{*}ll$
$?_{*}ll \equiv$ var.$?^{N} \sim x\Gamma$ localities. (Rg 63)

Rg 65 is applied as in ${}_{*}\underline{n'i}$.

$\underline{\nu'j}$. :: $?\gamma^{\sim}x$ = /γ^{N} in local languages/
:: {$\vdots\beta$} :: $n?\lambda\lambda$
$?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ localities.

$\underline{n'j}$. :: $?g^{\sim}x$ = /g^{N} in local languages/
:: {$\vdots\beta$} :: $n?ll$
$?ll \equiv$ var.$?g^{N} \sim x\Gamma$ localities.

${}_{*}\underline{n'k}$. :: $?^{\sim}x$ = /^{N} in physiognomies/
:: {$\vdots\beta$} :: $n?_{*}ll$
$?_{*}ll \equiv$ var.$?^{N} \sim x\Gamma$ physiognomies. (Rg 63)

Rg 65 is applied as in ${}_{*}\underline{n'i}$.

<u>ν'k</u>. :: $?\gamma^{\sim}x$ = /γ^{N} in physiognomies/
:: {$\vdots\beta$} :: $n?\lambda\lambda$

$?\lambda\lambda \equiv$ var.$?\gamma^{N} \sim x\Gamma$ physiognomies.

In compliance with Rg 136, <u>ν'k</u> can only be applied to languages that do not have plerematic physiognomy-selection; cf. <u>ν2</u>.

<u>n'k</u>. :: $?g^{\sim}x$ = /g^{N} in physiognomies/
:: {$\vdots\beta$} :: $n?ll$

$?ll \equiv$ var.$?g^{N} \sim x\Gamma$ physiognomies.

<u>$_*$n'11</u>. :: $?^{\sim}v$ :: {$\vdots\beta$} :: $n?_*ll$

<u>ν'11</u>. :: $?\gamma^{\sim}v$ :: {$\vdots\beta$}

Usually does not apply. Cf. Rg 136, and see <u>ν3</u>.

<u>n'11</u>. :: $?g^{\sim}v$ :: {$\vdots\beta$} :: $n?ll$

E.g., var.$?g^{N} \sim x\Gamma$ written language :: $?g^{\sim}x$ = /series/; var.$?g^{N} \sim x\Gamma$ spoken language :: $?g^{\sim}x$ = /phonograph record series/.

Among the $x\Gamma$ to be registered will be different typographical and artistic features of one and the same series, and the like.

<u>$_*$n'12</u>. $?^{\sim}v$ :: $?^{\sim}v+1$ :: {$\vdots\beta$} :: $n?_*ll$

<u>ν'12</u>. $?\gamma^{\sim}v$ :: $?\gamma^{\sim}v+1$ :: {$\vdots\beta$}

Usually does not apply. Cf. Rg 136, and see <u>ν4</u>.

<u>n'12</u>. $?g^{\sim}v$ :: $?g^{\sim}v+1$ :: {$\vdots\beta$} :: $n?ll$

E.g., var.$?g^{N} \sim x\Gamma$ written language :: $?g^{\sim}x$ = /volumes/; var.$?g^{N} \sim x\Gamma$ spoken language :: $?g^{\sim}x$ = /phonograph records/.

Among the $x\Gamma$ to be registered will be different typographical and artistic features of one and the same volume; rough draft and fair copy, manuscript and print are to be reduced to particular varieties and the $x\Gamma$ separated out.

Rg 65 is applied as in $_{*}$n'i; for example, a bookplate will be a signal for a library.

$_{*}$n'13. $?^{\sim}v + 1 :: ?^{\sim}v + 2 :: \{\vdots\beta\} :: n?_{*}ll$

v'13. $?\gamma^{\sim}v + 1 :: ?\gamma^{\sim}v + 2 :: \{\vdots\beta\}$
Usually does not apply. Cf. Rg 136, and see v5.

n'13. $?g^{\sim}v + 1 :: ?g^{\sim}v + 2$ = /cenematic chapters/
$:: \{\vdots\beta\} :: n?ll$

In bound stylistic form, the chapters will be poems; in speech, they will be sides of phonograph records; and so on.

n'13.0. At this point, the choice of analysis comes to play a practical role. Volumes could be further analyzed into sheets (with the signature as volume-signal), these into pages, and these into lines. But such an analysis is less extensive, for one reason because it does not lead to the taxeme-directions that depend on the registration of nexias.

$_{*}$n'14. $?^{\sim}v + 2 :: ?^{\sim}v + 3 :: \{\vdots\beta\} :: n?_{*}ll$

v'14. $?\gamma^{\sim}v + 2 :: ?\gamma^{\sim}v + 3 :: \{\vdots\beta\}$
Usually does not apply. Cf. Rg 136, and see v6.

n'14. $?g^{\sim}v + 2 :: ?g^{\sim}v + 3$ = /cenematic paragraphs/
$:: \{\vdots\beta\} :: n?ll$

In bound stylistic form, the paragraphs will be strophes.

$_{*}$<u>n'15</u>. $?^{\sim}v + 3 :: ?^{\sim}v + 4 :: \{\vdots\beta\} :: n?_{*}ll$

<u>ν'15</u>. $?\gamma^{\sim}v + 3 :: ?\gamma^{\sim}v + 4 :: \{\vdots\beta\}$

Usually does not apply. Cf. Rg 136, and see <u>ν7</u>.

<u>n'15</u>. $?g^{\sim}v + 3 :: ?g^{\sim}v + 4$ = /cenematic sub-paragraphs/ $:: \{\vdots\beta\} :: n?ll$

In bound stylistic form, the sub-paragraphs will be, for example, hemistrophes.

$_{*}$<u>n'16</u>. $?^{\sim}v + 4 :: ?^{\sim}v + 5 = /_{*}nII/, /_{*}nII_{0}/$ nexias and pseudonexias

$$:: \{\vdots\beta\} = /_{*}nII/^{\sim},\ /_{*}nII_{0}/^{\sim} :: n?_{*}ll$$
$$\{\vdots B\} = /_{*}nII/^{-},\ /_{*}nII_{0}/^{-} :: n?_{*}ll$$
$$\{\vdots\gamma\} = /_{*}nII/^{\sim-},\ /_{*}nII_{0}/^{\sim-} :: n?_{*}ll$$

Since there can be nexias of different degrees, this is an Op in which insertion of further analyses may be foreseen, according to Rg 201.

<u>ν'16</u>. $?\gamma^{\sim}v + 4 :: ?\gamma^{\sim}v + 5 = /\nu II/, /\nu II_{0}/$

$$:: \{\vdots\beta\} = /\nu II/^{\sim},\ /\nu II_{0}/^{\sim} :: n?\lambda\lambda$$
$$\{\vdots B\} = /\nu II/^{-},\ /\nu II_{0}/^{-} :: n?\lambda\lambda$$
$$\{\vdots\gamma\} = /\nu II/^{\sim-},/\nu II_{0}/^{\sim-} :: n?\lambda\lambda$$

In compliance with Rg 136, <u>ν'16</u> can only be applied to languages that do not have plerematic nexia-selection; cf. <u>ν8</u>.

<u>n'16</u>. $?g^{\sim}v + 4 :: ?g^{\sim}v + 5 = /nII/, /nII_{0}/$

$$:: \{\vdots\beta\} = /nII/^{\sim},\ /nII_{0}/^{\sim} :: n?ll$$
$$\{\vdots B\} = /nII/^{-},\ /nII_{0}/^{-} :: n?ll$$
$$\{\vdots\gamma\} = /nII/^{\sim-},\ /nII_{0}/^{\sim-} :: n?ll$$

In bound stylistic form, $?g^{\sim}v + 5$ will be verses.

*<u>n'17</u>. ?$^{\sim}$v + 5 :: ?$^{\sim}$v + 6 :: {⁝β} :: n?$_{*}$*ll*
{⁝B} :: n?$_{*}$*ll*
{⁝γ} :: n?$_{*}$*ll*

In compliance with Rg 108, ?$^{\sim}$v + 5 are registered as *lexias*, and ?$^{\sim}$v + 6 as *lexemes*.

<u>ν'17</u>. ?γ$^{\sim}$v + 5 :: ?γ$^{\sim}$v + 6 :: {⁝β}
{⁝B}
{⁝γ}

Usually does not apply. Cf. Rg 136.

<u>η'17</u>. ?*g*$^{\sim}$v + 5 :: ?*g*$^{\sim}$v + 6 = /*S*1/ syntagmaties of first degree
:: {⁝β} = /*S*1/$^{\sim}$ :: n?*ll*
{⁝B} = /*S*1/$^{-}$ :: n?*ll*
{⁝γ} = /*S*1/$^{\sim-}$ :: n?*ll*

In this Op (possibly, in part, in earlier Opp) are registered titles, captions, etc. with special type face, underlining, etc., as signals for series, volumes, chapters. paragraphs, and sub-paragraphs; dividing line, elaborated initial, etc., as signals for chapters; spaces and pauses of different length as connectives between chapters, paragraphs, and nexias. It will also be possible to register as signals for nexias the full stop (unless this also appears as signal of abbreviation -- i.e., as signal for uncatalyzed entities), the semicolon, and the capital letter (unless this also appears as signal for proper names or for substantives).

*<u>ς'1</u>. ?$^{\sim}$v + 6 :: ?$^{\sim}$v + 7 :: {⁝β} :: n?$_{*}$*ll*
{⁝B} :: n?$_{*}$*ll*
{⁝γ} :: n?$_{*}$*ll*

<u>σ'1</u>. ?γ$^{\sim}$v + 6 :: ?γ$^{\sim}$v + 7 :: {⁝β}
{⁝B}
{⁝γ}

Usually does not apply. Cf. Rg 136.

s'1. $?g^{\sim}v + 6 :: ?g^{\sim}v + 7 = /S2/$ "members of cenematic compounds"

$$:: \{\dot{:}\beta\} = /S2/^{\sim} :: n?ll$$
$$\{\dot{:}B\} = /S2/^{-} :: n?ll$$
$$\{\dot{:}\gamma\} = /S2/^{\sim -} :: n?ll$$

In speech, for example, *S*2 is an *S* ⊳ two or more "strong accents", like Danish 'ar'baide ('work'): *S*1 mit 'ar'baide ('my work') :: *S*2 mit 'ar ~ *S*2 'baide; in writing, examples of *S*2 are compounds with hyphens between their parts.

*s'2. $?^{\sim}v + 7 :: ?^{\sim}v + 8 :: \{\dot{:}\beta\} :: n?_{*}ll$

$$\{\dot{:}B\} :: n?_{*}ll$$
$$\{\dot{:}\gamma\} :: n?_{*}ll$$

In accordance with Rg 109 (after tentative performance of the following Op) $?^{\sim}v + 8$ are registered as *syllabemes*, and $?^{\sim}v + 7$ as *syllabias*.

σ'2. $?\gamma^{\sim}v + 7 :: ?\gamma^{\sim}v + 8 :: \{\dot{:}\beta\}$

$$\{\dot{:}B\}$$
$$\{\dot{:}\gamma\}$$

Usually does not apply. Cf. Rg 136.

s'2. $?g^{\sim}v + 7 :: ?g^{\sim}v + 8 = /S3/$ word-expressions

$$:: \{\dot{:}\beta\} = /S3/^{\sim} :: n?ll$$
$$\{\dot{:}B\} = /S3/^{-} :: n?ll$$
$$\{\dot{:}\gamma\} = /S3/^{\sim -} :: n?ll$$

*S*3 will often be = word-expressions. In most languages these have existence only in writing, not in speech. The hyphen in compounds will be registered as connective; cf. s'1.

*t'l. $?^{\sim}v + 8 :: ?^{\sim}v + 9 :: \{\vdots\beta\} :: n?_{*}ll$
$\{\vdots B\} :: n?_{*}ll$
$\{\vdots\gamma\} :: n?_{*}ll$

τ'l. $?\gamma^{\sim}v + 8 :: ?\gamma^{\sim}v + 9 :: \{\vdots\beta\}$
$\{\vdots B\}$
$\{\vdots\gamma\}$

Usually does not apply. Cf. Rg 136.

t'l. $?g^{\sim}v + 8 :: ?g^{\sim}v + 9 = /S4/$ parts of words
$:: \{\vdots\beta\} = /S4/^{\sim} :: n?ll$
$\{\vdots B\} = /S4/^{-} :: n?ll$
$\{\vdots\gamma\} = /S4/^{\sim -} :: n?ll$

*S*4 usually has no existence in everyday languages. If it does, it will only be in writing: *S*4 will be parts of word-expressions separated by a different hyphen from the one used in compounds.

If t'l gives yield, it may be possible, in compliance with Rg 65, to register the spaces between written words as connectives. It will usually happen, however, even if t'l does give yield, that these connectives cannot be registered until a higher Op.

Third operation-series

*GIII: $?^{\#}\odot :: ?^{\rightleftarrows}$

ΓIII: $?\gamma^{\#}\odot :: ?\gamma^{\rightleftarrows}$ GIII: $?g^{\#}\odot :: ?g^{\rightleftarrows}$

*GIII0. According to Rg 31, the relate-possibilities are the following:

$\{\vdots\beta\}$ = appearing only as selected: $\leftarrow$

$\{\vdots B\}$ = appearing only as selecting: $\rightarrow$

$\{\vdots\gamma\}$ = appearing as selected by one relate and as selecting another relate: $\leftrightarrow$

$\{\vdots\Gamma\}$ = appearing only as solidary: ~ and/or as combined: -, or appearing only as correlate.

$_{*}n$ *First operation-chain*

First operation

$_{*}n1$: $?^{\#}\odot$ :: $?\overset{\rightarrow}{\leftarrow}1$

$\nu 1$: $?\gamma^{\#}\odot$ :: $?\gamma\overset{\rightarrow}{\leftarrow}1$ $\qquad$ $n1$: $?g^{\#}\odot$ :: $?g\overset{\rightarrow}{\leftarrow}1$

$\nu 1$. $?\gamma^{\#}\odot$ :: $?\gamma\overset{\rightarrow}{\leftarrow}1$ :: $\{\vdots\beta\}$ = /selected parts of literature/ :: n

$\{\vdots B\}$ = /selecting parts of literature/ :: n

$\{\vdots\gamma\}$ :: n

$\{\vdots\Gamma\}$ :: n

$\{\vdots\beta\}$ will often include selected sciences, $\{\vdots B\}$ selecting sciences, $\{\vdots\gamma\}$ sciences at once selected and selecting, and $\{\vdots\Gamma\}$ non-scientific literature.

This is an Op in which insertion of further analyses may be foreseen, according to Rg 201.

$n1$. Usually gives no yield.

Second operation

$_{*}n2$: $?\overset{\rightarrow}{\leftarrow}1$ :: $?\overset{\rightarrow}{\leftarrow}2$

$\nu 2$: $?\gamma\overset{\rightarrow}{\leftarrow}1$ :: $?\gamma\overset{\rightarrow}{\leftarrow}2$ $\qquad$ $n2$: $?g\overset{\rightarrow}{\leftarrow}1$ :: $?g\overset{\rightarrow}{\leftarrow}2$

$\nu 2$. $?\gamma\overset{\rightarrow}{\leftarrow}1$ :: $?\gamma\overset{\rightarrow}{\leftarrow}2$ = /authorships/

An authorship is a limited chain characterized by physiognomy; authorships can have mutual selection; cf. $\nu' k$.

$n2$. Usually gives no yield.

Third operation

$_{*}n3$: $?\overset{\rightarrow}{\leftarrow}2$ :: $?\overset{\rightarrow}{\leftarrow}3$

$\nu 3$: $?\gamma\overset{\rightarrow}{\leftarrow}2$ :: $?\gamma\overset{\rightarrow}{\leftarrow}3$ $\qquad$ $n3$: $?g\overset{\rightarrow}{\leftarrow}2$ :: $?g\overset{\rightarrow}{\leftarrow}3$

ν3. $?\gamma \rightleftarrows 2 :: ?\gamma \rightleftarrows 3$ = /works/; cf. ν'11.

n3. Usually gives no yield; cf. n'11.

Fourth operation

$_*$n4: $? \rightleftarrows 3 :: ? \rightleftarrows 4$

ν4: $?\gamma \rightleftarrows 3 :: ?\gamma \rightleftarrows 4$ n4: $?g \rightleftarrows 3 :: ?g \rightleftarrows 4$

ν4. $?\gamma \rightleftarrows 3 :: ?\gamma \rightleftarrows 4$ = /books/

n4. Usually gives no yield; cf. n'12.

Fifth operation

$_*$n5: $? \rightleftarrows 4 :: ? \rightleftarrows 5$

ν5: $?\gamma \rightleftarrows 4 :: ?\gamma \rightleftarrows 5$ n5: $?g \rightleftarrows 4 :: ?g \rightleftarrows 5$

$_*$n5. This is an Op in which insertion of further analyses may be foreseen, according to Rg 201.

ν5. $?\gamma \rightleftarrows 4 :: ?\gamma \rightleftarrows 5$ = /plerematic chapters/

n5. Usually gives no yield; cf. n'13.

Sixth operation

$_*$n6: $? \rightleftarrows 5 :: ? \rightleftarrows 6$

ν6: $?\gamma \rightleftarrows 5 :: ?\gamma \rightleftarrows 6$ n6: $?g \rightleftarrows 5 :: ?g \rightleftarrows 6$

ν6. $?\gamma \rightleftarrows 5 :: ?\gamma \rightleftarrows 6$ = /plerematic paragraphs/

n6. Usually gives no yield; cf. n'14.

Seventh operation

$_*\underline{n7}$: $?\rightleftarrows 6 :: ?\rightleftarrows 7$

$\underline{\nu 7}$: $?\gamma\rightleftarrows 6 :: ?\gamma\rightleftarrows 7$ $\underline{n7}$: $?g\rightleftarrows 6 :: ?g\rightleftarrows 7$

$\underline{\nu 7}$. $?\gamma\rightleftarrows 6 :: ?\gamma\rightleftarrows 7$ = /plerematic sub-paragraphs/

$\underline{n7}$. Usually gives no yield; cf. $\underline{n'15}$.

Eighth operation

$_*\underline{n8}$: $?\rightleftarrows 7 :: ?\rightleftarrows 8 = /_*n\mathrm{II}/, /_*n\mathrm{II}_0/$ nexias, pseudonexias *

$\underline{\nu 8}$: $?\gamma\rightleftarrows 7 :: ?\gamma\rightleftarrows 8 = /\nu\mathrm{II}/, /\nu\mathrm{II}_0/$

$\underline{n8}$: $?g\rightleftarrows 7 :: ?g\rightleftarrows 8 = /n\mathrm{II}/, /n\mathrm{II}_0/$

$_*\underline{n8}$. Since there can be nexias of different degrees and also composita, this is an Op in which insertion of further analyses may be foreseen, according to Rg 201.

$\underline{\nu 8}$. In a frequently occurring case, $\underline{\nu 8}$ will give no yield, since it will be possible to carry out Rg 54 in its entirety, so that all $\nu\mathrm{II}$ or $\nu\mathrm{II}_0$ can immediately be analyzed into ν or ν_0.

Only a constantly encatalyzable category of conjunctions that join nexias can be separated out as ⌶ ; such conjunctions are rare.

Rg 35 is of particular practical importance here for the assignment of a conjunction to the one or the other of two nexias.

$\underline{n8}$. Usually gives no yield; cf. $\underline{n'16}$.

Ninth operation

$_*\underline{n9}$: $?\rightleftarrows 8 :: ?\rightleftarrows 9 = /_*n/, /_*n_0/$ nexus, pseudonexus *

$\underline{\nu 9}$: $?\gamma\rightleftarrows 8 :: ?\gamma\rightleftarrows 9 = /\nu/, /\nu_0/$

$\underline{n9}$: $?g\rightleftarrows 8 :: ?g\rightleftarrows 9 = /n/, /n_0/$

<u>ν9</u>. $?\gamma\overset{\rightarrow}{\leftarrow}8 :: ?\gamma\overset{+}{\leftarrow}9$ = /ν/, /ν_0/

:: {⁝β} = /main clauses/

{⁝B} = /subordinate clauses/

{⁝γ}

{⁝Γ}

As ⩧ are to be registered "clause-joining conjunctions" (this classical concept here finds its relative justification as an intermediate link) in so far as they are constantly encatalyzable (and this is frequently true of paratactic conjuctions between ν^{+} ["subordinate clauses"]). Such will be

1°, entities which will be analyzed in higher Opp into parts that can be identified, by means of the commutation test, with entities lacking connective function that have been registered in other ways (e.g., Da. 'hvorvidt' ['whether', 'to what extent', 'how far'], 'eftersom' ['since', 'inasmuch as']);

2°, nexus-connectives that can be identified in higher Opp with other *x*Γ (e.g., Da. 'og' ['and'], 'eller' ['or']) or with non-connectives (e.g., Da. 'for' ['for'], 'at' ['that']);

3°, entities whose only φ is to be *x*Γ(ν) (e.g., Da. 'thi' ['for'], 'fordi' ['because'], 'men' ['but'], 'end' ['than']);

4°, the connective factor in ζ*X*.

In this Op it will usually be possible to reduce "main clause" and "subordinate clause", two by two, to 1λ through the mapping of Rg 57, with any *x*Γ being separated out. (The *x*Γ will then be a connective between varieties; a specific word order in certain "subordinate clauses" will be a connective-signal (Rg 61 3°) or a variety-signal.) In these cases the classical concepts "main clause" and "subordinate clause" have their relative justification as intermediate links before the mapping and as varieties.

If "main clause" and "subordinate clause" are not so identified with each other, then, according to Rg 108, $?\gamma\rightleftarrows 8$ are registered as *lexias*, and $?\gamma\rightleftarrows 9$ as *lexemes*.

"Nexal infinita" *

a) If a "nexal infinitum" can be identified through catalysis with a "proper clause", that is, of course, done and the "nexal infinitum" is registered as nexus. This will generally be true of the absolute constructions in Western European languages, since they can be identified through catalysis with "proper clauses"; 'this done' $\underline{>}$ 'when this was done'.

b) If such a catalysis cannot be performed, the possibility must be investigated of registering the entities concerned as distinct entities at some later stage of the procedure. *

1° If they cannot be registered at any later stage of the procedure, they are registered in $\underline{\underline{\nu 9}}$ as {:B}. This will be true of all chains including a part that can be univocally identified as an extense characteristic. This will be the case, for example, when an "infinitive" indisputably includes fundamental extense morphemes. But experience indicates that such a case occurs very rarely.

2° If they can be registered at a later stage of the procedure, the place where they shall be registered is decided by the principles on which the procedure rests.

*2°*a. If their registration in $\underline{\underline{\nu 9}}$ as {:B} does not involve the registration of a higher number of elements in a higher operation than would otherwise occur, they are to be registered in $\underline{\nu 9}$ as {:B}.

*2°*b. If their registration in $\underline{\underline{\nu 9}}$ as {:B} would involve the registration of a higher number of elements in a higher operation than would otherwise occur, they are not to be registered as distinct entities in $\underline{\underline{\nu 9}}$. Experience indicates that this will be true for most hitherto observed "nexal infinita". If, for example, the ablative absolute in Latin were registered in v9 as {⁝B}, distinct extense characteristics including participle would have to be registered; if the ablative absolute is not so registered, this can be avoided.

n9. $?g\rightleftarrows 8 :: ?g\rightleftarrows 9 = /n/, /n_0/$

$:: \{⁝\beta\} =$ /apodosis/

$\{⁝B\} =$ /protasis/

$\{⁝\gamma\}$

$\{⁝\Gamma\}$

In accordance with Rg 108, if {⁝B} is realized, $?g\rightleftarrows 8$ are registered as *lexias*, and $?g\rightleftarrows 9$ as *lexemes*.

Tenth operation

*n10: $?\rightleftarrows 9 :: ?\rightleftarrows 10$

extense theme and extense characteristic

v10: $?\gamma\rightleftarrows 9 :: ?\gamma\rightleftarrows 10$ n10: $?g\rightleftarrows 9 :: ?g\rightleftarrows 10$

*n10. The analysis of $?\rightleftarrows 9$ can only be assigned to this Op if the $?\rightleftarrows 9$ have not been registered as lexemes in *n9; see v9 and n9. Otherwise *n10 gives no yield, and the analysis is carried out in *s1.

If *n10 gives yield, then, in accordance with Rg 108, the $?\rightleftarrows 9$ are registered as *lexias*, and the $?\rightleftarrows 10$ as *lexemes*.

The analysis concerned is:

$${}_*n :: {}_*q_v^{\,s},\ {}_*p_v^{\,s},$$

while the n_0 are transferred to {⁝Γ} according to Rg 34.

The ${}_*q_v^{\,s}$ and ${}_*p_v^{\,s}$ can be registered either as {⁝β} and {⁝B} or as {⁝B} and {⁝β} respectively, or (if they are mutually solidary) as {⁝Γ}. In the last case, Rg 66 is of particular practical interest.

Because of the possible existence of juxtapositions, insertion of further analyses can be theoretically anticipated, so far as the themes are concerned; however, juxtapositions that are nexus are rare.

v10. The practical prerequisite for registration of ϱ_v^s and ϑ_v^s as {⁝β} and {⁝B} respectively is the presence, in the language, of "interjections" that can also appear as (catalyzed) extense themes.

The prerequisite for registration of ϱ_v^s and ϑ_v^s as {⁝B} and {⁝β} respectively is the presence of plerematic extense pseudocharacteristics in the language.

The registration of ϱ_v^s and ϑ_v^s in {⁝Γ} will be a frequent occurrence.

n10. The registration of q_v^s and p_v^s as {⁝B} and {⁝β} respectively will be a frequent occurrence, since many languages have cenematic extense pseudocharacteristics (e.g., a *hm* accompanied by a modulation).

$_*$s *Second operation-chain: Lexematics*

First operation

$_*$s1: $?\rightleftarrows 10 :: ?\rightleftarrows 11$

extense theme and extense characteristic

σ1: $?\gamma\rightleftarrows 10 :: ?\gamma\rightleftarrows 11$ s1: $?g\rightleftarrows 10 :: ?g\rightleftarrows 11$

$_*$s1. Here is where the analysis $_*n :: {}_*q_v^s, {}_*p_v^s$ is carried out if it could not be carried out in $_*$n10 (*q.v.*).

Second operation

$_*$s2: $?\rightleftarrows 11 :: ?\rightleftarrows 12$

σ2: $?\gamma\rightleftarrows 11 :: ?\gamma\rightleftarrows 12$ s2: $?g\rightleftarrows 11 :: ?g\rightleftarrows 12$

σ2. ν_0 are transferred unanalyzed, in accordance with Rg 34.

ϱ_v^s :: selecting (dispensable) and selected (indispensable) parts, or are transferred unanalyzed, in accordance with Rg 34.

ϑ_v^s :: $\{\vdots\beta\}$, $\{\vdots B\}$; $\{\vdots B\} = \vartheta_0 X$ = conjunctions.

s2. Usually does not apply. Cf. Rg 136.

Third operation

$_*$s3: $?\rightleftarrows 12$ :: $?\rightleftarrows 13$

σ3: $?\gamma\rightleftarrows 12$ :: $?\gamma\rightleftarrows 13$ s3: $?g\rightleftarrows 12$ :: $?g\rightleftarrows 13$

σ3. ν_0 are transferred unanalyzed, in accordance with Rg 34.

The parts of ϱ_v^s registered in σ2 are subjected to further analysis or are transferred unanalyzed, in accordance with Rg 34.

$\vartheta_0 X$ are transferred unanalyzed, in accordance with Rg 34.

ϑ_v^s minus $\vartheta_0 X$ :: $\{\vdots\beta\}$, $\{\vdots B\}$; $\{\vdots B\}$ = *nexal infinita.*

s3. Usually does not apply. Cf. Rg 136.

Fourth operation

$_*$s4: $?\rightleftarrows 13$ :: $?\rightleftarrows 14$

σ4: $?\gamma\rightleftarrows 13$ :: $?\gamma\rightleftarrows 14$ s4: $?g\rightleftarrows 13$ :: $?g\rightleftarrows 14$

σ4. ν_0 are transferred unanalyzed, in accordance with Rg 34.

The derivates of ϱ_v^s registered in σ3 are subjected to further analysis or are transferred unanalyzed, in accordance with Rg 34.

$\vartheta_0 X$ are transferred unanalyzed, in accordance with Rg 34.

The part of ϑ_v^s registered in σ3 are further analyzed into selecting (dispensable) and selected (indispensable) parts.

For a good number of languages, this is an Op in which insertion of further analyses may be foreseen, according to Rg 201.

The analysis or analyses concerned will be a partition into a kind of *"parts of the sentence"*, which gives to that classical concept its relative justification.

Some of the possible foreseeable analyses are the following:

a. $\{\vdots B\}$ = "adverbial part".

b. The $\{\vdots B\}$ registered in *a* are transferred;
the $\{\vdots \beta\}$ registered in *a* are subjected to analysis; $\{\vdots B\}$ = "indirect object".

c. The $\{\vdots B\}$ registered in *a* are transferred, as are also the $\{\vdots B\}$ registered in *b*;
the $\{\vdots \beta\}$ registered in *b* are subjected to analysis; $\{\vdots B\}$ = "direct object" and "predicate complement".

d. The $\{\vdots B\}$ registered in *a*, the $\{\vdots B\}$ registered in *b*, and the $\{\vdots B\}$ registered in *c* are transferred;
the $\{\vdots \beta\}$ registered in *c* :: $\{\vdots \beta\}$ = "finite verb" ($\vartheta_0 X(\nu)$), $\{\vdots B\}$ = "subject".

If these or similar "parts of the sentence" can be mutually identified by mapping (if, for example, they do not differ in case) they are registered in $\{\vdots \gamma\}$, in accordance with Rg 57. When this is possible, the classical "parts of the sentence" again find their relative justification, this time as intermediate links before the mapping and as varieties.

s4. Usually does not apply. Cf. Rg 136.

Fifth operation

•*g5*: $?\rightleftarrows 14$ :: $?\rightleftarrows 15$

σ5: $?\gamma\rightleftarrows 14$ :: $?\gamma\rightleftarrows 15$ *s5*: $?g\rightleftarrows 14$ :: $?g\rightleftarrows 15$

σ5. All previously registered derivates are usually transferred unanalyzed, in accordance with Rg 34, except for prepositional phrases, which are partitioned into *preposition* and object. (In some instances, however, some $\vartheta_0 X$ can be subjected to the same analysis without conflicting with Rg 34.)

s5. Usually does not apply. Cf. Rg 136.

Sixth operation

$*$s6: $?\rightleftarrows 15$ :: $?\rightleftarrows 16$

σ6: $?\gamma\rightleftarrows 15$ :: $?\gamma\rightleftarrows 16$ s6: $?g\rightleftarrows 15$ :: $?g\rightleftarrows 16$

σ6. ν_0, the parts of ϱ_{ν}^{θ}, $\vartheta_0 X$ (conjunctions, including verbs) and prepositions are usually transferred unanalyzed, in accordance with Rg 34. The other previously registered derivates will be Σ (syntagmaties) and/or ζ (syntagmatemes) and/or ϑ_0 (pseudothemes). The Σ that are $\Sigma^{>1}$ (junctions) will be analyzed in the present Op, while the other derivates are transferred, in accordance with Rg 34. $\Sigma^{>1}$ :: $\{\vdots\beta\}$ = superjuncts, $\{\vdots B\}$ = subjuncts, $\{\vdots\gamma\}$ = adjuncts.

For a good number of languages, this is an Op in which insertion of further analyses may be foreseen, according to Rg 201. (Cf., for example, 'a new radical paper' :: 'a' → 'new radical paper' :: 'new' → 'radical paper' :: 'radical' → 'paper'; cf. also the possible existence of composita.)

If the parts so resulting can be mutually identified by mapping (if they do not have different morphemes and can all occupy all "positions" in a catalyzed $\Sigma^{>1}$), they are registered in $\{\vdots\gamma\}$, in accordance with Rg 57.

The highest-degree derivates resulting from this analysis are = ζ.

In accordance with Rg 109 (after tentative performance of the following Op) the $?\gamma\overset{\rightarrow}{+}15$ (of highest degree, = ζ) are registered as *syllabemes*, and the units of next lower degree as *syllabias*.

s6. *S*1, *S*2, *S*3, and *S*4 will have already been registered in n'17, s'1, s'2, and t'1, Thus, the analysis that would be possible at the present stage would have to be an analysis into *S*5 or into *z*, i.e., into derivates of syllabemes. It follows that such an analysis cannot be assigned to s6; this Op gives no yield, and the analysis is performed in t1.

$_*$t *Third operation-chain: Syllabematics*

First operation

$_*$t1: $?\overset{\rightarrow}{+}16$ :: $?\overset{\rightarrow}{+}17$

τ1: $?\gamma\overset{\rightarrow}{+}16$ :: $?\gamma\overset{\rightarrow}{+}17$ t1: $?g\overset{\rightarrow}{+}16$ :: $?g\overset{\rightarrow}{+}17$

τ1. Usually does not apply. Cf. Rg 136 and σ6.

t1. Here the analysis into *z* (syllables) is performed (cf. s6).

Insertion of further analyses, however, may be foreseen in the case of bound stylistic form, where it is possible first to analyze into verse feet and then to analyze the feet into syllables.

{⁝β} can, for example, be *z* ▷ "strong stress", and {⁝B} can be *z* ▷ "weak stress".

Second operation

$_*$t2: $?\overset{\rightarrow}{+}17$ :: $?\overset{\rightarrow}{+}18$

τ2: $?\gamma\overset{\rightarrow}{+}17$ :: $?\gamma\overset{\rightarrow}{+}18$ t2: $?g\overset{\rightarrow}{+}17$ :: $?g\overset{\rightarrow}{+}18$

$_*$t2. The analysis concerned is:

$$_*z :: {}_*q_n{}^s,\ {}_*p_n{}^s$$

while the other previously registered derivates are transferred unanalyzed, in accordance with Rg 34.

$*q_n^s$ and $*ƥ_n^s$ can be registered either as {⁝β} and {⁝B} or as {⁝B} and {⁝β} respectively, or (if they are mutually solidary) as {⁝Γ}. In the last case, Rg 66 is of particular practical interest.

Because of the possible existence of juxtapositions, insertion of further analyses can be anticipated, so far as the themes are concerned.

t2. The practical prerequisite for registration of $ʔ_n^s$ and ϑ_n^s as {⁝β} and {⁝B} respectively is the presence, in the language, of ϑ_0 that can also appear as (catalyzed) ϑ_n^s.

The prerequisite for registration of $ʔ_n^s$ and ϑ_n^s as {⁝B} and {⁝β} respectively is the presence of intense $ʔ_0$ in the language.

t2. The registration of q_n^s and $ƥ_n^s$ as {⁝B} and {⁝β} respectively will be a frequent occurrence, since many languages have intense q_0(e.g., the *hmhm!* that means 'indeed!').

* [Concluding operations (*t3 - *t6)

Cenematic Op-parts (t3 - t6)

t3. Here the syllabic theme is partitioned into a final and an initial part. The concrete results will differ according to the structure of the language. If we have a language with syllable-types *tat* and *ta*, but no others (e.g., *at*), we obtain

{⁝β} initial syllable-part

{⁝B} final syllable-part.

If all three types *tat*, *ta*, and *at* are found, we have the category {⁝γ} realized, and then have two combined categories. If one syllable-type *tat* is found, we have the category {⁝Γ} realized, not as combined, but as mutually solidary categories.

t4. Here we analyze into a *central* (or vocalic) part, {⁝β}, and a *marginal* (or consonantal) part, {⁝B}. According to Rg 54, we shall usually arrive at the individual "speech-sounds": if the elements *ai*, *a*, and *i* are registered, the inventory is reduced to *a* and *i*.

t5 and t6. If vowels can enter into diphthongs, they can be analyzed according to the place they can occupy in the diphthong (first place, second place, both places). Correspondingly, the marginal parts (the consonant groups) are partitioned into vowel-near (selected) and vowel-distant (selecting) parts.

Plerematic Op-parts (τ3 - τ6)

These correspond to the cenematic analyses, but usually give less ample yield. In τ4, the analysis will be into plerematic central and marginal parts: into radicals, {⁝β} (plerematic vowels), and derivatives, {⁝B} (plerematic consonants). In τ5, the derivatives are analyzed into primary (indispensable) and secondary (dispensable) derivatives. In the word 'un-think-able' there is a radical 'think' with two derivatives, of which '-able' (the primary, indispensable one) is selected by 'un-' (the secondary, dispensable one). The primary derivative corresponds to the vowel-near consonant, while the secondary derivative corresponds to the vowel-distant consonant. In an example like 'displace-able', on the other hand, '-able' will be secondary, and 'dis-' will be primary.

The analysis on the basis of selection, which is exhausted with the analysis into taxemes, is followed by the concluding Op-series $_{*}\underline{g}$ (taxematics), in which the taxeme categories are redistributed and the taxemes further analyzed into glossemes. A detailed exposition of taxematics has already been given above.]

TEXTUAL NOTES

As basis for the text through Rg 61 2° I have used pages 4-84 of the typescript referred to in my introduction to this edition, since that part of the typescript was (as I have learnt from Professor Fischer-Jørgensen) prepared by Hjelmslev himself. It corresponds to the beginning of the manuscript, through the eighth line of page 87. At that point the manuscript -- as noted therein -- was given out for typing, together with Hjelmslev's file of definition-slips, to which the manuscript frequently makes implicit reference, and I have therefore used both the manuscript and the file as basis for the following text through the 'Calculus of Procedures'. As already mentioned in my introduction, the original of 'Procedure-class II5' is a manuscript that I found among Hjelmslev's papers in the summer of 1967. I am indebted to the Institut for Fonetik of the University of Copenhagen, and to Eli Fischer-Jørgensen, Hans Basbøll, Niels Ege, and Una Canger for their help in providing me with copies of these materials.

I have not, as a rule, recorded alterations and annotations that were evidently made in the manuscript after the typescript had been prepared. The most significant of these involved the definition of the term *establishment,* which is discussed in my footnote to Df 97a (*functional field*) in this edition, but even here the full consequences of the change were not carried out in the rest of the manuscript. Similar inconsistencies appear in various experimental changes in the terminology, which I have everywhere brought into conformity with that approved by Hjelmslev for the *Prolegomena*, and in the system of symbols, where I have followed the usage prescribed by the definition-slips. A few annotations in the manuscript are dated from the winter of 1951, when Hjelmslev and Uldall were reviewing glossematic theory together in Copenhagen. Among these I should mention a marginal note (dated November 4, 1951) on the final clause of the first paragraph of Rg 1 2^{o}: "But this is superfluous according to the simplicity principle", with an arrow indicating the reference to that principle in the second paragraph below. One other example of special interest is a laconic note of December 2, 1951, on the concluding paragraph of Rg 22, concerning *inextensives* and *exintensives*: "Cannot occur". Apart from these, the notes of this period consist mainly of indications that certain changes in terminology were contemplated, as well as the deletion of some definitions and the replacement of others by "new definitions" that are not, however, given. The attempt at joint revision would appear to have broken off early: I have found no dated annotations after the one of December 2 that I have quoted above.

In making the present edition, I have supplied and added symbols and numerous cross-references, particularly in the analyses that follow the individual definitions. Alterations in the manuscript itself clearly show that Hjelmslev wished to replace, throughout, the "metaphysical" term *erkende* with *registrere*, and I have consequently rendered both as 'register'. For similar reasons, I have used the translation 'the (given) object', not only for *emnet* and *det foreliggende emne*, but also for *undersøgelsesgenstanden*. Other, individual, deviations from the manuscript and the file of definitions are recorded in the notes below, to which reference is made in the text by asterisks placed in the margin.

p. 3 *GgA0A

The ms. reads (in translation): "The component (like all later components of *Gg) consists in a chain ...", but this appears to be an oversight, reflecting an earlier analysis of Glossematics. *Gg has only two components (cf. *Gg0C).

p. 3 N 2

The card file of definitions includes a second card on ANALYSIS, adding the following information: "An object can be analyzed into one other object (*Man kan inddele et emne i eet andet emne ad gangen*): either  or  , in as much as this also satisfies the condition of uniform dependence and of the dependence of other objects on each other. This is important, for example, for simplex units and for the derivation of a functional category from a functional category." Cf., below, the remarks following Df 394.

p. 12 N 17

In the ms., a marginal note beside the diagram reads: "The hierarchies in the diagram are rather to be made non-uniform."

p. 19 Rg 1 1°

In the ms., the clause here set between dashes has been bracketed, and "[ ]?" appears in the margin. I suggest emending to read: "1°. It is possible to register *varieties* of any functive that is not itself the final resultant of an exhausted articulation into varieties. A chain including n relates will yield n·(n - 1) varieties."

p. 85 Df 157

The word here rendered as *optional* is *fakultativ*, the same term that is used in Df 158 for a functive contracting facultativity. This ambiguous usage also appears in *OSG* but was eliminated, as here, in *PTL*.

p. 85 Dff 158-159

In the ms., a FACULTATIVITY is defined as a Facultative Overlapping with zero, and a LATENCY is defined as an Obligatory Overlapping with zero. These definitions reflect the fact that -- as the ms. itself shows -- Dff 156 and 157 were originally so worded as to apply to *overlappings* but then changed to apply to *dominances*. When the change was made, however, the required corresponding changes in Dff 158-159 were not, clearly through oversight; the corrected versions of these definitions, which are given here, are to be found already in *OSG* (page 83).

p. 96 Dff 167-168

Planes were originally symbolized with a superscript infinity-sign, later replaced by a degree-sign. In the ms., in Dff 163-166, the symbols have been changed accordingly. In Df 167, however, the older symbol has been crossed out with no replacement, while in Df 168 the older symbol has remained untouched. Quite conceivably, the intention had been to eliminate both symbols, since "expression plane" does not enter into the formal definition of a denotative plane, nor "content plane" into the formal definition of a connotative plane.

p. 113 Rg 107 Paragraph 3 Line 10

"*GII ff." -- In the ms., which originally read "*GII og *GIII", "og *GIII" was allowed to remain after "ff." was added to "*GII". In the following paragraph, however, the clearly intended replacement of "*GII og *GIII" by "*GII ff." alone was correctly carried out.

p. 133 NN 53-54

In the ms., as here, heavy brackets enclose the text from the second sentence of the penultimate paragraph of N 53 through all of N 54, and it is evident from the terminology alone that appears here ("endoplane", "endosemiology", "endosemiological test") that this material has not been adapted to the rest of the text. In the translation, I have preserved the terms mentioned, but have rendered "semiologi" and "ikke-semiologi" as "semiotic" and "non-semiotic" respectively. At the end of the penultimate paragraph of N 53, the reference to Prr 6-7 and Rg 39 replaces a reference in the ms. to "the rules on p. 22 ff.", and at the end of N 54, the reference to Df 276 replaces a ms. reference to "page 30". In N 54, at the end of the third sentence, the ms. refers to "$_*\underline{x}$".

p. 136 Df 214

The ms. presents, in succession, two versions of this definition, with no essential difference between them. Apparently the author neglected, through oversight, to delete the first one.

p. 140 $_*\underline{g}$

In the ms., this was originally called the fourth Op-series. When the possibility of $_*\underline{GIV}$ was allowed for, "fourth" was deleted and replaced by "fifth"; but when the possibility of more than four preceding series was allowed for, the necessity of changing "fifth" to "final" was overlooked.

p. 143 Rg 143 *a) Tempo 3*

In the card-file definitions of directive, constitutive, flexive, and themative, the word "units" appears where I have rendered "maximal lexias".

p. 147 Rg 145 *a) Tempo 3*

The card file defines fundamental, converted, semi-fundamental, and ambifundamental taxemes without including taxeme-varieties. I have added the latter on the analogy of corresponding definitions in *gII2.2 and *gII3.2.

p. 149 Df 237

In the ms., *converted variety* is presented before *semifundamental variety*.

p. 150 Rg 145 *b*)

The ms. does not include semifundamental varieties among the characters -- presumably through an oversight.

p. 151 *gII2

The two lines of symbols at the beginning of this section do not appear in the ms., but have been added by me to conform to the presentation in *gII1.

p. 156 Df 248

In the descriptions of *central variety, semicentral variety,* and *marginal variety,* the ms. states that the ambicentral "enters into" (*indgaar i*) the intracohesion. This is obviously a slip for "contracts" (*indgaar*), and I have emended accordingly. A similar slip, occurring four times in the description of Tempo 1 of *gII3.1 (see Rg 149), was corrected in the ms. itself.

p. 160 *gII3

The two lines of symbols at the beginning of this section do not appear in the ms., but have been added by me to conform to the presentation in *gII1.

p. 163 Df 263

In the ms., *secondary variety* is presented before *semiprimary variety*.

p. 163 Rg 149a

The last word of the penultimate paragraph -- "tagmata"

-- represents an emendation. In the ms., the subtypes concerned are said to be transferred unanalyzed as *types*.

p. 177 Rg 163

"The glossemes and glosseme-varieties are redistributed ..." -- In the ms., only glossemes are mentioned here; I have added "and glosseme-varieties" on the analogy of Rgg 159, 167, 171, 175, and 179.

p. 177 Df 308

The definition as it appears in the card file does not include mention of semifundamental taxeme-varieties.

p. 177 Dff 309-310

I have added "or GLOSSEME-VARIETY" to both definienda, on the analogy of Dff 323-4, 333-4, 355-6, and 365-6. The cards from which the two definitions are taken show that the references to glosseme-varieties were inserted in the definientia at some time after their original formulation, and apparently the need to make corresponding changes in the definienda was overlooked.

p. 200 Df 394

Concerning the reference to ANALYSIS, see the textual note on N 2, above.

p. 200 $_*$gIII3.1 E

I have supplied the line of symbols representing articulation E.

p. 241 $_*$n8

In the ms., only "Nexier" appears in the margin after the general formula for this operation. I have added "pseudonexias" to correspond to /$_*n\mathrm{II}_0$/.

p. 241 $_{*}\underline{n}9$

In the ms., only "Nexus" appears in the margin after the general formula for this operation. I have added "pseudonexus" to correspond to $/_{*}n_{\circ}/$.

p. 242 $\underline{v}9$

In the margin of the ms., beside the paragraph-sentence beginning "If 'main clause' and 'subordinate clause' are not so identified with each other", is written: "Nej" ("No").

p. 243 *"Nexal infinita"*

The note on nexal infinita, which occupies two type-written pages -- evidently from an earlier version -- placed in the ms. at this point, contains two passages that have been put within brackets. The first passage is complete, appearing between the title of the note and section *a*:

> In the preceding section we have dealt only with "main clause" and "subordinate clause" in the traditional sense of those terms. It remains to be considered how far it is possible to register "nexal infinita" as distinct nexus in the present operation. By "nexal infinita" are to be understood absolute and objective constructions equivalent to "clauses". On this subject the following *discussion* can be proposed:

The second passage consists of an uncompleted parenthetical sentence closing the last paragraph of the note as given in our text, together with the beginning of a new paragraph, which is broken off by the end of the second page:

> (It is another matter that the Latin historical infinitive leads to the registration as distinct nexus, in $\underline{v}2$, of the clauses in which they appear, whence it

further follows that infinitive in such clauses must be registered in vn as extense characteristic; on the Latin infinitive see also [no reference supplied]

It is to be noted that the solution would not [Det bemærkes, at den udvej ikke vilde staa]

Other references to v2 on both the typewritten pages have been changed to v9. Observe that, in the present version, plerematic extense characteristic is registered in v10 or σ1.

p. 243 *"Nexal infinita" b)*

In the ms., the opening clause of this section reads: "If such a catalysis and mapping of type Ia cannot be performed", but this is evidently an oversight. The opening clause of section *a*, which originally read "If a 'nexal infinitum' can be identified through a mapping of type Ia (p. 26 bis) with a 'proper clause'", has been corrected in the ms. to read as given in this translation.

p. 250 Concluding operations (*t3 - *t6)

I have used as basis for this section material from an unpublished typescript of Hjelmslev's 1942-3 University lectures on linguistic theory, transcribed from stenographic notes by Harry Wett Frederiksen.

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